

# **DRAFT CURRICULUM-2026**

**(C-26)**



## **DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE**

**STATE BOARD OF TECHNICAL EDUCATION AND TRAINING,  
ANDHRA PRADESH**

**DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE (C-26)**  
**SCHEME OF INSTRUCTIONS AND EXAMINATIONS**

**I YEAR**

Course Code	Name of the Course	Instruction period / week		Practicum (Y/N)	Total Periods / year	Scheme of Examination				
		Theory	Lab/ Tutorial			Duration (hours)	Sessional Marks	End Exam Marks	Total Marks	Credits
26CP101T	English-I	5	-	N	150	3	30	70	100	6
26CP102T	Accountancy-I	5	-	Y	150	3	30	70	100	6
26CP103T	English Shorthand	6	-	Y	180	3	0	100	100	8
26CP104T	Business Organisation	3	-	N	90	3	30	70	100	4
26CP105T	Information Technology	2	-	Y	60	3	30	70	100	3
26CP106A	Basic AI Tools	2	-		60	-	-	-	-	-
26CP107L	English Typewriting – I	-	4	Y	120	10 minutes.	0	100	100	3
26CP108L	English Typewriting – II	-	4	Y	120	45 minutes.	0	100	100	3
26CP109L	Information Technology and Digital Skills Lab	-	4	Y	120	3	40	60	100	3
26CP110L	Computer Packages	-	4	Y	120	3	40	60	100	3
ACTIVITIES (Library, Physical and Personality Development)		-	3		90	-	-	-	-	1
<b>TOTAL</b>		<b>23</b>	<b>19</b>		<b>690+570</b>	<b>-</b>	<b>230</b>	<b>670</b>	<b>900</b>	<b>40</b>

**NOTE:**

- I) For 26CP101T English-I, the text book prescribed by Board of Intermediate Education (BIE), AP, Vijayawada shall be followed. As and when the Board of Intermediate Education changes its text book, the same new text book shall be followed for 26CP101T too.
- II) The passing minimum for 26CP103T English Shorthand is 45% marks in the end examination.
- III) A pass in 26CP107L English Typewriting–I and 26CP108L English Typewriting – II with 45% in the end examination shall be treated as equivalent to English Typewriting Lower Grade of Technical Examinations conducted by State Board of Technical Education and Training, Andhra Pradesh. The question paper is to be issued by the SBTET.
- IV) As per the orders of the Government, as and when Typewriting English Lower Grade is replaced by any certificate course, the pass in 26CP107L ENGLISH TYPEWRITING – I AND 26CP108L ENGLISH TYPEWRITING – II is to be considered as equivalent to that certificate course.

**DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE (C-26)**  
**SCHEME OF INSTRUCTIONS AND EXAMINATIONS**

**III SEMESTER**

Course Code	Name of the Course	Instruction period / week		Practicum (Y/N)	Total Periods / year	Scheme of Examination				
		Theory	Lab /Tutorial			Duration (hours)	Sessional Marks	End Exam Marks	Total Marks	Credits
26CP301T	English – II	5	-	N	75	3	30	70	100	4
26CP302T	Accountancy – II	6	-	Y	90	3	30	70	100	4
26CP303T	Business Communication	4	-	Y	60	3	30	70	100	2
26CP304E	Business Laws	3	-	N	45	3	30	70	100	2
26CP305E	Business Management	3	-	N	45	3	30	70	100	2
26CP306A	Fundamentals of Quantum Computing	2	-		30	-	-	-	-	-
26CP307L	English Typewriting – I (45 WPM)	-	7*	Y	105	10 minutes.	0	100	100	3
26CP308L	English Typewriting – II (45 WPM)	-	6	Y	90	1 hour	0	100	100	3
26CP309L	English Shorthand 60 WPM	-	6	Y	90	3	40	60	100	1.5
ACTIVITIES (Library, Physical and Personality Development)		-	3		45	-	-	-	-	0.5
<b>TOTAL</b>		20	22		300+330	-	190	610	800	20

\*Includes one hour practice on computers

**NOTE:**

1. For 26CP301T ENGLISH – II, the English Text Book prescribed by Board of Intermediate, AP Vijayawada for Inter 2<sup>nd</sup> year from time to time shall be followed.
2. A pass in 26CP307L ENGLISH TYPEWRITING-I and 26CP308L ENGLISH TYPEWRITING-II with 45% marks in the end examination shall be considered as equivalent to Typewriting English Higher Grade of Technical Examinations conducted by State Board of Technical Education and Training, Andhra Pradesh. Question paper is to be issued by the SBTET.
3. As per the orders of the Government, as and when Typewriting English Higher Grade is replaced by any certificate course, the pass in 26CP307L ENGLISH TYPEWRITING – I AND 26CP308L ENGLISH TYPEWRITING – II is to be considered as equivalent to that certificate course.
4. 26CP309L ENGLISH SHORTHAND 60 WPM is a practical examination and the question paper is to be set at the Institution level.

**DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE (C-26)**  
**SCHEME OF INSTRUCTIONS AND EXAMINATIONS**

**IV SEMESTER**

Course Code	Name of the Course	Instruction period / week		Practicum (Y/N)	Total Periods / year	Scheme of Examination				
		Theory	Lab/ Tutorial			Duration (hours)	Sessional Marks	End Exam Marks	Total Marks	Credits
26CP401T	English – III	5	-	N	75	3	30	70	100	3
26CP402T	Accountancy – III	5	-	Y	75	3	30	70	100	4
26CP403T	Principles of Marketing	5	-	N	75	3	30	70	100	3
26CP404E	C Programming	3	-	Y	45	3	30	70	100	2
26CP405E	Python Programming	3	-	Y	45	3	30	70	100	2
26CP406A	Fundamentals of Machine Learning	2	-		30	-	-	-	-	-
26CP407L	English Shorthand 80 WPM	-	8	Y	120	7 minutes	0	100	100	3
26CP408L	Communication and Employability Skills	-	4	Y	60	3	40	60	100	2
26CP409L	Programming Lab (C/Python)	-	7	Y	105	3	40	60	100	2.5
ACTIVITIES (Library, Physical and Personality Development)		-	3		45	-	-	-	-	0.5
TOTAL:		20	22		300+330	-	200	500	700	20

**NOTE:**

- For 26CP401T ENGLISH -III, the English Text Book prescribed for Intermediate 2<sup>nd</sup> year from time to time shall be followed.
- The pass mark for 26CP407L ENGLISH SHORTHAND 80 WPM is 45%. Passing in 26CP407L ENGLISH SHORTHAND 80 WPM and 26CP103T ENGLISH SHORTHAND is considered as equivalent to Shorthand English Lower Grade (80 WPM) of Technical Examinations, conducted by State Board of Technical Education and Training, Andhra Pradesh. Question paper is to be issued by the SBTET.

**DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE (C-26)**  
**SCHEME OF INSTRUCTIONS AND EXAMINATIONS**

**V SEMESTER**

Course Code	Name of the Course	Instruction period / week		Practicum (Y/N)	Total Periods / year	Scheme of Examination				
		Theory	Lab/ Tutorial			Duration (hours)	Sessional Marks	End Exam Marks	Total Marks	Credits
26CP501T	Banking	5	-	N	75	3	30	70	100	3
26CP502T	Business Economics	6	-	N	90	3	30	70	100	4
26CP503T	Business Statistics	6	-	Y	90	3	30	70	100	4
26CP504E	Digital Marketing	3	-	Y	45	3	30	70	100	2
26CP505E	Human Resource Management	3	-	N	45	3	30	70	100	2
26CP506A	Basic Computer Trouble shooting	2	-		30	-	-	-	-	-
26CP507L	Desktop Publishing	-	6	Y	90	3	40	60	100	2
26CP508L	Tally with GST	-	5	Y	75	3	40	60	100	2
26CP509L	Web Designing		6	Y	90	3	40	60	100	2.5
ACTIVITIES (Library, Physical and Personality Development)		-	3		45	-	-	-	-	0.5
<b>TOTAL:</b>		<b>22</b>	<b>20</b>		<b>330+300</b>	<b>-</b>	<b>240</b>	<b>440</b>	<b>700</b>	<b>20</b>

**DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE (C-26)**  
**SCHEME OF INSTRUCTIONS AND EXAMINATIONS**

VI SEMESTER

**INDUSTRIAL TRAINING**

Course Code	Course title	No of periods/week	Duration	Marks for FA	Marks for SA
26CP601I	INDUSTRIAL TRAINING (In Industry only)	--	6 months	240	60

S. No	Subject	Duration	Scheme of Evaluation		
			Item	Nature	Max. Marks
1	Industrial training	6 months	1.First Assessment at Industry (After 12 Weeks)	Assessment of learning outcomes by both the faculty and training mentor of the industry	120
			2.Second Assessment at the Industry (After 20 weeks))	Assessment of learning outcomes by both the faculty and training mentor of the industry	120
			Final Summative assessment at institution level	Training Report	20
				Demonstration of any one of the skills listed in learning outcomes	30
				Viva Voce	10
TOTAL MARKS				300	

## ENGLISH – I

Course Code	Course Title	No. of Periods/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP101T	English – I	5	150	30	70	6

### TIME SCHEDULE

**Note:** The syllabus has been divided into Four Segments in the course English-1 : Poetry, Prose, Non-Detailed text & Grammar which are given in separate tables of weightage. The textbook (Course Material) has been prepared by the Board of Intermediate, A.P. Hence the weightage and Question paper pattern vary with other courses.

Sl. No.	Segment : 1 <b>POETRY</b>	No. of Periods	Weightage of Marks (Marks X No. of Questions)	No. of Short Questions @ 3 Marks	No. of Essay Questions @ 8 Marks	COs Mapped
		<b>25</b>				
			3 x 1 = 3 8 x 2 = 16 Total = 19 Marks	1 Annotation	2 Essay Questions	CO1, CO2, CO3, CO4, CO5
1.	The Lamb & The Tyger	<b>9</b>				
2.	Invictus	<b>8</b>				
3.	Refugees	<b>8</b>				

Sl. No.	Segment : 2 <b>PROSE</b>	No. of Periods	Weightage of Marks (Marks X No. of Questions)	No. of Short Questions @ 3 Marks	No. of Essay Questions @ 8 Marks	COs Mapped
		<b>30</b>				
			3 x 2 = 6 M 8 x 2 = 16 M Total = 22 Marks	2 Short Questions	2 Essay Questions	CO1, CO2, CO3, CO4, CO5
1.	The Malady of Overthinking	<b>10</b>				
2.	Chief Seattle's Letter	<b>10</b>				
3	You've Got to Find What You Love	<b>10</b>				

Sl. No.	Segment : 3 NON-DETAILED TEXT	No. of Periods	Weightage of Marks (Marks X No. of Questions)	No. of Short Questions @3Marks	No. of Essay Questions @8marks	COs Mapped
		15				
1	The Blind Dog	5	8 x 2 = 16 Marks	NIL	2 Essay Questions	CO1, CO2, CO3, CO4, CO5
2	A Retrieved Reformation	5				
3	A Sound of Thunder	5				

Sl. No.	Segment : 4 Grammar Galaxy  (Study of Language)	No. of Periods	Weightage of Marks (Marks x No. of Questions)	No. of Short Answer Questions @3Marks	No. of Essay Questions @8Marks	COs Mapped
		110	3 x 7 = 21 8 x 4 = 32 Total = 53 M	7 short questions	4 Essay Questions	CO2, CO3, CO4, CO5
1	Reading Comprehension	10	8		1	
2	Non-Verbal Information	8	8		1	
3	Parts of Speech	4	3	1		
4	Articles & Prepositions	4				
5	Synonyms & Antonyms	4	3	1		
6	Tenses	10	3	1		
7	Voice	8	3	1		
8	Reported Speech	8	3	1		
9	Degrees of Comparison	8	3	1		
10	Clause Analysis & Synthesis of Sentences	8				
11	Question Tags	4				

12	Common Errors	10	3	1		
13	Phonetics	8	8		1	
14	Odd Sounds & Silent Letters	6				
15	Dialogue Writing Skills	10	8		1	

	<b>TOTAL</b>	<b>180</b>	<b>110</b>	<b>10</b>	<b>10</b>	
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<b>Course Objectives</b>	
(i)	- To sensitize the students about self, society and Nature to inculcate the traits of empathy, sustainability and universal brotherhood through various literary texts.
(ii)	- To inculcate knowledge of functional English, Phonetics and enrich vocabulary.
(iii)	- To develop effective reading, and written communication skills.

<b><u>COURSE OUTCOMES:</u></b>		
<b>CO1</b>	26CP101T.1	Develop a holistic personality, displaying self-belief, universal human values, empathy and sustainability rendered through various literary texts.
<b>CO2</b>	26CP101T.2	Learn and apply various English grammatical concepts to communicate in personal and professional contexts.
<b>CO3</b>	26CP101T.3	Use appropriate vocabulary in academic, professional, in business correspondences and overcome the challenges in spelling and pronunciation.
<b>CO4</b>	26CP101T.4	Read and appreciate various aspects of literary pieces and comprehend the information from academic, professional and non-verbal materials.
<b>CO5</b>	26CP101T.5	Communicate effectively through writing in personal and professional contexts.

## LEARNING OUTCOMES

### **1. Poetry**

- 1.1 To appreciate the theme and distinct expressions of poems.
- 1.2 To inculcate human values and sensitivity.
- 1.3 To paraphrase the poems / summarizing.

### **2. Prose**

- 2.1 To develop English Language Skills.
- 2.2 To enrich vocabulary
- 2.3 To answer long and short questions based on the lessons.
- 2.4 To use words of & phrases in sentences
- 2.5 To comprehend passages from the lesson.

### **3. Non-Detailed Text:**

- 3.1 To get sensitized about human values and sustainability of nature
- 3.2 To summarize the stories
- 3.3 To develop narrative skills

### **4. The Study of Language: Grammar Galaxy**

**The following grammatical topics facilitate the proper usage of English language.**

- 4.1 Reading Comprehension
- 4.2 Non-Verbal Information
- 4.3 Parts of Speech-
- 4.4 Articles& Prepositions
- 4.5 Synonyms & Antonyms
  
- 4.6 Tenses
- 4.7 Voice
- 4.8 Reported Speech
- 4.9 Degrees of comparison
- 4.10 Clause Analysis & Synthesis of Sentences
- 4.11 Question Tags
- 4.12 Common Errors
- 4.13 Phonetics
- 4.14 Odd Sounds & Silent Letters
- 4.15 Dialogue Writing Skills

**Course Contents:**

The same Text book prescribed for the Intermediate First year – **ODYSSEY-1**

Prepared by BOARD OF INTERMEDIATE EDUCATION, ANDHRA PRADESH in 2025:  
(published by Telugu & Sanskrit Academy)

<b>Bifurcation of Syllabus/ Topics for Unit Tests (I, II, III)</b>				
Unit Test	Poetry	Prose	Non-Detailed	Language Study/ Grammar
U.T-1	The Lamb & The Tyger	The Malady of Overthinking	The Blind Dog	Parts of Speech- , Articles& Prepositions, Tenses, Voice, Reading Comprehension,
U.T-2	Invictus	Chief Seattle's Letter	A Retrieved Reformation	Reported Speech, Degrees of comparison, Clause Analysis& Synthesis of Sentences, Question Tags, Non-Verbal Information
U.T-3	Refugees	You've Got to Find What You Love	A Sound of Thunder	Common Errors, Synonyms & Antonyms, Phonetics, Odd Sounds & Silent Letters, Dialogue Writing Skills

**Note:** The Part-B in the End Exam Question paper of English-1 differs from other courses. The Four Segments in the Syllabus has been made into FIVE sections (Poetry, Prose, Non-Detailed, Comprehension skills& Language Skills) with internal choice giving the equal weightage to all the segments. Students shall answer total FIVE questions choosing at least one from each section.

<b>The End Exam Question Paper contains 2 Parts as follows for 70 Marks</b>				
PART-A	10 short questions	@3 Marks	30 Marks	No Choice
PART-B	5 Essay questions+ 5 internal choice	@ 8 marks	80 Marks including internal choice. But the student actually answers for 40 Marks.	<b>Internal Choice in Part B</b> Section A: Poetry (a or b) Section B: Prose (a or b) Section C : Non-detailed Text(a or b) Section D: Comprehension skills ( a or b) Section E: Language skills: (a or b)

Course Code	Course Title	No. of periods per week	Total periods / year	Marks for FA	Marks for SA	No. of Credits
26CCP102T	ACCOUNTANCY - I	05	150	30	70	6

**TIME SCHEDULE**

S. No.	Chapter/Unit Title	No. of Periods	Weightage of Marks	No. of Short Answer Questions	No. of Essay Questions	CO's Mapped
1	Accounting Concepts, Journal and Ledger	35	21	3	2	CO1
2	Subsidiary Books	15	9	1	1	CO2
3	Cash Book and Petty Cash Book	30	18	2	2	CO3
4	Bank Reconciliation Statement	15	9	1	1	CO4
5	Trial Balance and Final Accounts of Sole Trading concerns	40	22	2	1*	CO5
6	Rectification of Errors	15	9	1	1	CO6
	Total	150	88	10	8	

**\*Note: In Part-B Question No. 11 is compulsory which carries 16 Marks should be from FINAL ACCOUNTS and other questions carry 6 marks each.**

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	Understand the framework of accounting systems and the Generally Accepted Accounting Principles.
(ii)	Understand and provide working knowledge of accounting concepts, procedures and documentation involved in financial accounting system.
iii)	Familiarize with the preparation of Final Accounts of Sole Trading Concerns.

### COURSE OUTCOMES

The student shall be able to		
CO1	26CP102T.1	Understand different Accounting Concepts, Conventions, Standards and Prepare Journal Entries and Ledger Accounts
CO2	26CP102T.2	Prepare various Subsidiary Books.
CO3	26CP102T.3	Prepare Cash Book and Petty Cash Book
CO4	26CP102T.4	Reconcile the differences between Cash Book and Pass Book balances
CO5	26CP102T.5	Prepare the Trial Balance and Final Accounts of Sole Trading Concerns
CO6	26CP102T.6	Identify the errors in Trial balance and their rectification.

### LEARNING OUTCOMES

#### **1.0 Accounting Concepts, Journal and Ledger**

- 1.1 Define Book-Keeping and state the objectives, merits and demerits of Book Keeping.
- 1.2 Differentiate between Single Entry and Double Entry systems of Book-keeping.  
Define Accounting and list different branches of accounting.
- 1.3 Explain various Accounting Concepts, Conventions, Standards and terminology.
- 1.4 State the meaning of Account, types of accounts and rules of Debit and Credit for each type of account.
- 1.5 Define Journal, state its importance and draw the proforma of Journal.
- 1.6 Prepare Journal Entries for cash and credit transactions.
- 1.7 Pass Journal Entries involving Personal, Real and Nominal Accounts.

- 1.8 State the meaning of Cash Discount and its accounting treatment.
- 1.9 Illustrate Compound Journal Entry and prepare Journal entries when the discount allowed and received
- 1.10 Define Ledger and state its importance
- 1.11 Give the proforma of Account and explain the columns in Account.
- 1.12 Prepare Ledger Accounts using Journal entries.
- 1.13 Explain the need and procedure for balancing of Accounts.
- 1.14 Balance the ledger accounts (when transactions occur only on one side i. e, Debit / Credit side of an account and when transactions appear on both sides).
- 1.15 Prepare the personal ledgers and know the position or status of the account.
- 1.16 Distinguish between the Purchase of Goods, Purchase of Fixed Assets and Sale of Goods and Sale of Fixed Assets.

## **2.0 Subsidiary Books**

- 2.1 List the different types of Subsidiary Books and state their purpose.
- 2.2 State the meaning of Inward/Outward Invoices with format.
- 2.3 State the meaning of Trade Discount and its accounting treatment.
- 2.4 Explain Purchases Book and Sales Book with their formats.
- 2.5 Prepare Purchases Book and Sales Book using source documents like invoices.
- 2.6 State the meaning of Debit and Credit Notes with formats.
- 2.7 Prepare Purchase Returns Book and Sales Returns Book in proper formats
- 2.8 Prepare Purchases, Sales, Purchase Returns and Sales Returns Books.
- 2.9 List the items appearing in Journal Proper

## **3.0 Cash Book and Petty Cash Book**

- 3.1 State the need for preparing Cash Book.
- 3.2 Prepare Simple and Two Column Cash Books
- 3.3 State the importance of Three Column Cash Book and give the proforma.
- 3.4 Explain the terms Cheque, Discount allowed / received, CONTRA entry
- 3.5 Prepare Three Column Cash Book with cash and bank transactions
- 3.6 State the need for petty cash book and methods of maintaining petty cash book.
- 3.7 Prepare Simple and Imprest system of Petty Cash Book.

## **4.0 Bank Reconciliation Statement**

- 4.1 State the meaning of Bank Reconciliation Statement
- 4.2 List the reasons for preparation of Bank Reconciliation Statement
- 4.3 Prepare Bank Reconciliation Statement with ordinary balance.
- 4.4 Prepare Bank Reconciliation Statement with overdraft balance.
- 4.5 Examine the bank pass book with reference to cheque deposits and cheque issues. (Give a pass book to the students and ask them to observe whether Cheques issued by you are accounted for or not).

## **5.0 Trial Balance and Final Accounts of Sole Trading Concerns**

- 5.1 Define 'Trial Balance'.
- 5.2 Draw the proforma and state the need for Trial Balance.
- 5.3 State the various methods of preparing Trial Balance (1. Totals Method and 2. Balances Method) and prepare Trial Balance using the two methods.
- 5.4 State the need for preparation of Final Accounts
- 5.5 State the importance of Trading account, Profit and Loss account and Balance Sheet
- 5.6 Explain the contents of Trading account, Profit and Loss account and Balance Sheet and methods of preparing Balance Sheet.
- 5.7 Distinguish between direct expenses and indirect expenses
- 5.8 Distinguish between direct incomes and indirect incomes
- 5.9 Prepare final accounts without adjustments.
- 5.10 Explain the different types of adjustments to be made while preparing Final Accounts and passing the Opening, Closing and Adjusting Journal Entries after preparing Trial Balance.
- 5.11 Prepare final accounts with adjustments on Outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation on assets, bad debts and provision for bad and doubtful debts.

## **6.0 Rectification Of Errors**

- 6.1 List the errors disclosed and not disclosed by the Trial Balance.
- 6.2 Explain the significance of Suspense account.
- 6.3 Identify the errors and Pass journal entries to rectify errors without Suspense account.
- 6.4 Identify the errors and Pass journal entries to rectify errors using suspense account.

## **COURSE CONTENTS**

1. Accounting Concepts, Journal and Ledger - Book-keeping – Meaning, merits and demerits – Double entry Book-Keeping- Meaning, merits and demerits - Accounting concepts, conventions, standards and terminology - JOURNAL – LEDGER - Balancing the ledger accounts.
2. Subsidiary Books - Preparation of Purchases Book, Sales Book, Purchases Returns Book and Sales Returns Book – use of Journal Proper.
3. Cash Book and Petty Cash Book - Simple Cash Book - Double Column Cash Book - Triple Column Cash Book - Analytical Petty Cash Book.
4. Bank Reconciliation Statement - Bank Transactions - Pass Book - Bank Reconciliation Statement (with ordinary Balance and Overdraft balance).
5. Trial Balance and Final accounts of Sole Trading Concerns – Trial Balance - Methods of preparation - Preparation of Final Accounts of Sole Trading concerns with Adjustments.
6. Rectification of Errors - Errors disclosed by Trial Balance and not disclosed by Trial Balance - significance of Suspense account. - Journal entries to rectify errors without Suspense account. - Journal entries to rectify errors with suspense account.

REFERENCE BOOKS:

1. Grewal T S and S.C. Gupta, Introduction of Accountancy
2. Grewal T S, Double Entry Book-Keeping, 'Volume-II, 2019 Edition, Sultan Chand and Sons
3. Maheswari S.N., Introduction to Accountancy
4. Gupta and Gupta Principles and Practice of Accountancy,
5. Jain and Narang, Accounting –Volumes I & II
6. Telugu Academy Text books prescribed by Board of Intermediate
7. Shukla, M. C., Grewal, T. S., & Gupta, S. C. (2008), Advanced Accountancy (Vol. I & II): S Chand & Co New Delhi
8. Financial Accounting -1 by NCERT

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 2.9
Unit Test-II	From 3.1 to 5.3
Unit Test-III	From 5.4 to 6.4

Course Code	Course title	No. of periods/ week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP103T	English Shorthand	06	180	-	100	8

#### TIME SCHEDULE

S. No.	Major Topics	No. of Periods	Short Qns.	CO's Mapped
1	Introduction	02	2	CO1
2	Consonants, Vowels, Intervening vowels	13		CO2
3	Alternative forms for R & H	07		
4	Diphthongs, Phraseography	10		
5	Circle S or Z, Stroke S/Z, Large Circles	10	1	CO3
6	Loops ST & STR	10	1	
7	Initial Hooks, Alternative Forms	10		
8	Final Hooks	07		
9	Circles & Loops to Initial & Final Hooks	10	2	CO4
10	Shun Hook	05	2	CO5
11	Aspirate, R, L & SH	10		
12	Compound Consonants, Vowel Indication	07		
13	Halving Principle	15	1	CO6
14	Doubling Principle	10		
15	Diphones, Medial Semicircle	05	2	CO7
16	Prefixes, Suffixes & Terminations	10		
17	Contractions, Essential Vowels and Figures	10	1	CO8
18	Special Contractions	20		
19	Précis Writing	09	1	
Total		180	12+1+1	

The Question Paper consists of 12 Theory Questions up to S.No.18 having 5 marks each. 10 outlines of 1 mark each and the Précis Writing question shall have 30 marks.

**Note:-** Examination will be conducted for 100 marks in Summative Assessment. Pass mark is 45.

#### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

(i)	familiarize with the rules of writing English Shorthand
(ii)	enhance the précis writing skills in English

### COURSE OUTCOMES

The student will be able to		
CO1	26CP103T.1	State the need for Shorthand in Modern Business organizations and Government Offices.
CO2	26CP103T.2	Write Consonants, Vowels, Grammalogues, Punctuation Marks, alternative forms for Consonants R and H, Diphthongs, Phrases.
CO3	26CP103T.3	Use of circle S or Z, Stroke S/Z, Large Circles, Loops ST & STR, Initial Hooks, Alternative forms and Final Hooks
CO4	26CP103T.4	Apply Circles and Loops to hooked strokes and use Large Hook.
CO5	26CP103T.5	State rules for writing Aspirate, R, L and SH, Compound Consonants and Vowel Indication
CO6	26CP103T.6	Apply Halving Principle and Doubling Principle
CO7	26CP103T.7	Use Diphones, Medial Semi-circle, Prefixes, Suffixes and terminations
CO8	26CP103T.8	Use Essential Vowels to outlines, write figures and special monetary symbols, write Contractions, Special Contractions and make Précis of a passage.

### LEARNING OUTCOMES

#### **1.0 Phonography System.**

1.1 State the need for shorthand in Modern business organizations and Government Offices.

1.2 State the importance and advantages of Phonography.

#### **2.0 Consonants and Vowels**

2.1 Define the term consonant – general and scientific.

2.2 Categorize consonants as per articulation.

2.3 Identify the signs to the consonants.

2.4 Practice the Exercises on consonant signs.

2.5 Explain the principles of joined strokes and practice joined strokes.

2.6 Define the term Vowel.

2.7 List out the 6 dot vowels and 6 dash vowels.

2.8 Locate the placing of 12 vowel sounds.

2.9 Practice the exercises in vowels chapter.

2.10 Categorize three positions.

- 2.11 Practice writing of words under 3 position-writing rules.
- 2.12 Define the term grammalogues and logograms.
- 2.13 Identify the punctuation marks used in Shorthand.
- 2.14 Practice the use of punctuation marks.

### **3.0 Alternative forms of R and H**

- 3.1 State the principles of using the two forms of R & H.
- 3.2 Practice the exercises covering R & H.

### **4.0 Diphthongs**

- 4.1 Define the terms - Diphthong and Triphone.
- 4.2 List the four Diphthongs and their places.
- 4.3 Practice words with Diphthongs, Joined Diphthongs and Triphones
- 4.4 State the principle for use of Initial 'W' sound.
- 4.5 Practice the exercises covering Initial 'W' Sound.
- 4.6 Define the term Phraseography.
- 4.7 State the qualities of a good Phraseogram.
- 4.8 Practice the exercises covering Phraseography.

### **5.0 Circle S and Z, Stroke S and Z and Large Circles**

- 5.1 State the use of small circle as abbreviated form for S and Z.
- 5.2 Identify the words with circles initially, medially and finally.
- 5.3 State the use of circles in Phraseography.
- 5.4 Practice the words covering circles S and Z.
- 5.5 Explain the principles of using stroke S or Z.
- 5.6 Practice the words covering Stroke S and Z.
- 5.7 Explain the principles for using large circle initially, medially and finally.
- 5.8 Practice the exercises covering large circles.

### **6.0 Loops ST and STR**

- 6.1 State the use of loops as abbreviated forms initially, medially and finally.
- 6.2 Identify ST and STR in words.
- 6.3 Practice the exercises covering the loops ST and STR.

### **7.0 Initial hooks and Alternative forms**

- 7.1 State the meaning of double consonant.
- 7.2 Categorize R and L hooks to straight strokes and curves.
- 7.3 State the advantages of using alternative forms.
- 7.4 Explain the principles of using alternative forms.
- 7.5 Practice the exercises covering Initial hooks and Alternative forms.

### **8.0 Final Hooks**

- 8.1 Categorize N and F/ V hooks to straight and curved strokes.
- 8.2 Explain how N hook is indicated to Straight Strokes & Curves.
- 8.3 Explain how F/ V hook is indicated to Straight Strokes & Curves.

8.4 Practice the exercise covering Final hooks

### **9.0 Circles & Loops to Straight Strokes and hooked strokes**

9.1 Identify the words with circles and loops to straight strokes hooked for R

9.2 Identify the words with circles and loops to straight strokes hooked for L

9.3 State how the Circles are added to Curve strokes with initial hooks.

9.4 State how Circles are added to curve strokes with final hooks.

9.5 Practice the exercises covering Circles and Loops to Straight Strokes and Hooked Strokes.

### **10.0 SHUN hook**

10.1 Explain the principles for using SHUN hook.

10.2 Practice the exercises covering SHUN hook.

### **11.0 Aspirate, Upward and Downward R and L and SH**

11.1 Define the term Aspirate.

11.2 List the four types of aspirate.

11.3 State the principles of using aspirate.

11.4 Practice exercises covering aspirate.

11.5 Explain the principles of writing 'R' upward and downward.

11.6 Practice the exercises covering 'R'.

11.7 Explain the principles of writing 'L' and 'SH' upward and downward.

11.8 Practice exercise covering 'L' and 'SH'.

### **12.0 Compound Consonants and Vowel Indication**

12.1 Define the term Compound Consonant.

12.2 Categorize the various types of Compound Consonants.

12.3 Explain the principles of Compound Consonants.

12.4 Practice the exercises covering Compound Consonants.

12.5 Identify the implications of consonants and vowels initially and finally.

12.6 Practice the exercises covering vowel indication.

### **13.0 Halving Principle**

13.1 Explain the principles of halving.

13.2 State the limitations of halving.

13.3 State the use of halving principle in Phraseography.

13.4 Practice the exercises covering halving principle.

### **14.0 Doubling principle.**

14.1 Explain the doubling principle.

14.2 State the limitations of doubling principle.

14.3 State the use of doubling principle in Phraseography.

14.4 Practice exercises covering doubling principle.

## **15.0 Diphones and Medial Semicircle**

- 15.1 Define the term diphone.
- 15.2 Categorize various diphonic signs and the placing.
- 15.3 Explain the principles of Diphones.
- 15.4 Practice the exercises covering Diphones.
- 15.5 Define the term medial semi-circle 'w'.
- 15.6 Explain the rules to use medial semi-circle.
- 15.7 Practice the exercise covering medial 'w'.

## **16.0 Prefixes, suffixes and terminations**

- 16.1 State the meaning of prefix.
- 16.2 Explain the principles in writing various prefixes.
- 16.3 Practice exercises covering prefixes.
- 16.4 State the meaning of suffix.
- 16.5 Explain the principles in writing various suffixes.
- 16.6 Practice exercises covering suffixes.

## **17.0 Essential vowels, Figures and contractions.**

- 17.1 Categorize the insertion of initial, medial and final vowels
- 17.2 Practice the exercises covering essential vowels.
- 17.3 Categorize the various principles in writing figures and special monetary symbols.
- 17.4 Practice exercises covering figures and special symbols.
- 17.5 Explain the Contractions.
- 17.6 Categorize the use of general contractions.
- 17.7 Practice the exercises covering the contractions.

## **18.0 Special Contractions**

- 18.1 Explain the use of special contractions.
- 18.2 Practice the special contractions.
- 18.3 Practice the exercises in special contractions.

## **19.0 Practice Précis Writing**

- 19.1 Explain the rules of Précis writing
- 19.2 Practice Precis Writing

## **COURSE CONTENTS**

1. Introduction of phonographic system – Consonants - joined strokes – vowel sounds - places – Intervening vowels – Position writing – Grammalogues – Punctuation.
2. Alternative forms of R and H – diphthongs - joined diphthongs – triphones - abbreviated W -Phraseography.
3. Circle S,Z – stroke S, Z – large circles, loops, initial hooks, alternative forms, circles and loops to initial hooks – Final hooks N and F/V.
4. Circles and loops to Final hooks – Shun hook – Aspirate - upward and down ward

- R - L & SH - Compound Consonants and vowel indication.
5. Halving principle – Doubling principle – Diphones - Medial Semi-circle – Prefixes - Suffixes and terminations – Contractions – General & Special contractions – Figures and Essential Vowels
  6. Precis writing

REFERENCE BOOKS:

1. Shorthand Instructor and Key (Sir Isaac Pitman's).
2. Shorthand Theory Guide, by late Sri G.V.R. Kameswararao, C/o Sri P. Raghunath, Flat No.A103, Sri Gayathri Thota Residency Apartments, Besides SRL Colony Arch, Vaishnavi Nagar, Kothapet, Hyderabad – 500 035
3. Pitman Shorthand Dictionary
4. New course in Pitman's Shorthand

**BUSINESS ORGANISATION**

Course Code	Course title	No. of periods/week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP104T	Business Organisation	3	90	30	70	4

**TIME SCHEDULE**

S. No.	Chapter/ Unit title	No. of Periods	Weightage of Marks	No. of Short answer questions	No. of Essay type questions	CO's Mapped
1.	Nature and Scope of Business & Business Activities	05	6	2	-	CO1
2.	Forms of Business Organisations	20	22	2	2	CO2
3.	Formation & Financing of a Joint Stock Company	20	19	1	2	CO3
4.	Domestic & International Trade	15	19	1	2	CO4
5.	Insurance, Warehousing & Transport	15	14	2	1	CO5
6.	MSMEs & MNCs, Emerging Trends in Business	15	14	2	1	CO6
	TOTAL	90	94	10	8	

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	Understand the various forms of business organisations and their functioning.
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**COURSE OUTCOMES**

The student shall be able to		
CO1	26CP104T.1	understand the various terms related to business, trade and industry
CO2	26CP104T.2	understand various forms of Business Organisations

CO3	26CP104T.3	understand the procedure for formation and financing of Joint Stock Company
CO4	26CP104T.4	understand the components in Domestic and International trade
CO5	26CP104T.5	understand the various types of Insurance, Warehousing & Transport
CO6	26CP104T.6	understand the importance of MSMEs, MNCs and understand emerging trends in Business

### LEARNING OUTCOMES

#### **1.0 Nature and Scope of Business & Business activities**

- 1.1 State the different types of activities and occupations – Economic Activities – Business, Profession, Employment and Non-economic Activities.
- 1.2 State the meaning and importance of business and its components
- 1.3 Define Commerce, Trade and Industry
- 1.4 State the meaning of Business Services (Aids to Trade) and list its components.
- 1.5 List and explain the different types of industries with examples
- 1.6 Differentiate between Commerce and Industry, Trade and Commerce

#### **2.0 Forms of Business Organisations**

- 2.1 List various forms of Business Organisations
- 2.2 Define sole trader and list its characteristics
- 2.3 Explain the merits and demerits of sole trading business
- 2.4 Define Partnership and list its characteristics
- 2.5 List different types of Partnership firms
- 2.6 Explain the merits and demerits of partnership firm
- 2.6 Distinguish between sole trading and partnership firm
- 2.7 State the meaning of partnership deed and list out its contents
- 2.9 List and explain the different types of partners
- 2.10 Explain the rights, duties and liabilities of the partners
- 2.11 Define a Joint Stock Company
- 2.12 State the classification of Joint Stock Companies
- 2.13 Explain the merits and demerits of joint stock companies
- 2.14 Distinguish between Private Limited company and Public Limited Company
- 2.15 State the meaning of Joint Hindu Family business and Co-operative Society

#### **3.0 Formation and Financing of a Joint Stock Company**

- 3.1 Explain the procedure for incorporation of Joint Stock Company
- 3.2 State the meaning of Memorandum of Association and explain its clauses
- 3.3 State the Meaning of Articles of Association and explain its contents
- 3.4 Explain the capital structure of a joint stock company – Long, Medium and Short term.
- 3.6 State the various forms of capital rising – Shares, Debentures and Public Deposits by showing examples.
- 3.7 Define Prospectus and list its contents
- 3.8 Define Share - List and explain the various types of shares – Preference and Equity Shares.
- 3.9 Define Debenture - List and explain the various types of debentures

#### **4.0 Domestic & International Trade**

- 4.1 State the meaning and components of Domestic Trade – Wholesale trade & Retail trade
- 4.2 Explain the services of Wholesaler to the Manufacturer and Retailer
- 4.3 Explain the services of Retailer to the Wholesaler and Consumers
- 4.4 Define Foreign Trade and the components of Foreign Trade – Import, Export and Entrepot Trade
- 4.5 Explain the procedure for Import Trade
- 4.6 Explain the procedure for Export Trade
- 4.7 State the meaning of Entrepot trade.

#### **5.0 Insurance, Warehousing and Transport**

- 5.1 Define the term insurance
- 5.2 Explain various Principles of Insurance
- 5.3 List out different types of insurance - Fire, Marine, Life and General.
- 5.4 Explain various types of Fire Insurance policies.
- 5.5 Explain various types of Marine insurance policies
- 5.6 Explain various types of Life insurance policies
- 5.7 State the meaning of different types of General Insurance Policies - Motor Vehicle Insurance, Medical Insurance, Consequential Loss Policy, Unit Linked Insurance Policy (ULIP)
- 5.8 State the meaning of Warehousing and list various types of Warehouses.
- 5.9 List various modes of Transport available for distributing goods.
- 5.10 State the meaning and importance of 'Logistics'

#### **6.0 MSMEs & MNCs, Emerging Trends in Business**

- 6.1 State the meaning and definition of Enterprise and MSMEs
- 6.2 State the objectives of promotion of MSMEs
- 6.3 Explain the privileges and promotional measures offered to Micro, Small and Medium Enterprises
- 6.4 State the meaning and definition of a Multi-National Company (MNC)
- 6.5 List the Features of MNCs
- 6.6 Explain the Advantages and Disadvantages of MNCs
- 6.7 State the meaning and definition of E - Business
- 6.8 List the classification of E-business
- 6.9 Explain the benefits of E-business to Consumer, Organisation and Society
- 6.10 List the Opportunities and Challenges of Business in 21st Century

#### **COURSE CONTENTS:**

1. Nature and Scope of Business and its activities
2. Various forms of Business Organizations – Sole Trading Concerns, Partnership Firms, Joint Stock Companies, JHF business and Cooperative Societies.
3. Procedure for Formation of a Joint Stock Company – Financing of Joint Stock Companies
4. Components of Domestic Trade – Services of Wholesaler and Retailer – Components of Foreign trade - Procedure for Foreign Trade.
5. Insurance – Principles – Types of Insurance – Types of Warehousing and Transport
6. MSMEs – MNCs – Emerging Trends in Business

REFERENCE BOOKS:

1. Intermediate 1<sup>st</sup> Year Commerce Textbook, Telugu and Sanskrit Academy, Andhra Pradesh
2. Intermediate 2<sup>nd</sup> Year Commerce Textbook, Telugu and Sanskrit Academy, Andhra Pradesh
3. Business Studies Text Book for Class XI by NCERT.
4. Y.K. Bhushan & Others, Fundamentals of Commerce, Sultan Chand & Co.
5. M.C. Shukla, Business Organisation, S Chand & Co.
6. S. Davar, Elements of Commerce
7. M Malpani, Elements of Commerce.
8. Companies Act, 2013 and Rules and Forms Published by CCH India Ltd., Gurgaon.

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 3.3
Unit Test-II	From 3.4 to 4.7
Unit Test-III	From 5.1 to 6.10

## **INFORMATION TECHNOLOGY**

Course code	Course Title	No. of periods/week	Total no. of periods	Marks for FA	Marks for SA	Credits
26CP105T	Information Technology	2	60	30	70	3

### **TIME SCHEDULE**

Sl. No.	Major Topic	No. of periods	Weightage of Marks	Short Questions	Essay Questions	CO's Mapped
1	History and importance of Computers.	15	25	3	2	CO1
2	Structure and organisation of Computers.	20	33	3	3	CO2
3	Operating System	15	22	2	2	CO3
4	Different types of Networks	10	14	2	1	CO4
	<b>Total</b>	60	94	10	8	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	Understand the history and importance of computers
(ii)	Understand the structure and organization of Computers
(iii)	Know the Operating system and types of networks

## COURSE OUTCOMES

At the end of the course the student will be able to:		
CO1	26CP105T.1	understand the history and importance of computers
CO2	26CP105T.2	familiarize with structure and organization of computers
CO3	26CP105T.3	understand the Operating System
CO4	26CP105T.4	familiarize with types of networks

## LEARNING OUTCOMES

### **1.0 History and importance of computers.**

- 1.1 Define the term computer.
- 1.2 Explain the advantages and disadvantages of computers.
- 1.3 List and explain the different generations of computers.
- 1.4 List the classification of computers based on functionality and based on size and capability.
- 1.5 Explain the usage of Digital computers with examples.
- 1.6 Explain the usage of Analog computers with examples.
- 1.7 Explain the usage of Hybrid computers with examples.
- 1.8 Explain the methods of representation of data in digital computers.
- 1.9 State the meaning of Data processing.
- 1.10 Explain the different methods of data processing.
- 1.11 Define data and information.
- 1.12 Describe the history of spreadsheet software.
- 1.13 List and explain the features of spreadsheet software.
- 1.14 List the applications used with MS-EXCEL.
- 1.15 Define entity, attribute, relationship.
- 1.16 State the significance of E-R diagram.
- 1.17 Prepare a model E-R diagram.

### **2.0 Structure and organisation of a computer.**

- 2.1 Draw the block diagram of a computer and label the important components.
- 2.2 Explain the functions of each component of a computer
- 2.3 Define hardware.
- 2.4 List the various Hardware components of a computer.
- 2.5 Explain the functions of mother board.

- 2.6 List different types of input units.
- 2.7 List different types of output units.
- 2.8 Draw the layout and functions of a keyboard.
- 2.9 State the functions of Mouse.
- 2.10 List the different types of Monitors.
- 2.11 State the need of Scanner.
- 2.12 List the different types of Printers.
- 2.13 Discuss OCR, OMR and MICR.
- 2.14 Explain different types of memories- primary memory, secondary memory.
- 2.15 Define software and list the different types of software.
- 2.16 State the meaning of Application software.
- 2.17 List the different types of Application software with examples.
- 2.18 State the meaning of system software.
- 2.19 List the types of system software with examples.
- 2.20 State the components of configuration of computers - Processor speed, Hard Disk capacity, RAM size etc.

### **3.0 Operating System**

- 3.1 Define Operating System.
- 3.2 State the need for O.S.
- 3.3 List and explain the functions of O.S.
- 3.4 State the booting process.
- 3.5 List the types of operating systems with examples
- 3.6 Differentiate between the character based O.S. and graphic based O.S.
- 3.7 State the commands of Disk Operating System.
- 3.8 List the various Desktop icons of Windows Operating System.
- 3.9 State the significance of My Computer, Control Panel, Recycle bin.
- 3.10 Define file, folder,
- 3.11 State the significance of management of files and folder.
- 3.12 Write the procedure to create shortcut of a file and folder.
- 3.13 Write the procedure of various file operations.
- 3.14 Explain the different methods of data storage – based on location and method of data storage.

### **4.0 Different types of Networks**

- 4.1 Explain the Computer Network and list the various types of networks.
- 4.2 Distinguish between LAN and WAN.
- 4.3 Explain the uses of internet.
- 4.4 State the meaning of Internet Service Provider. Give examples.
- 4.5 State the meaning of World Wide Web (WWW), website, URL.
- 4.6 State the meaning of browsing, downloading, Zip/ Unzip, E-mail and creation of emails.
- 4.7 State the meaning of browser software and explain its importance.
- 4.8 List the various types of browser softwares.

## COURSE CONTENTS

1. History and importance of computers.  
Definition of Computer – Advantages – Different generations of computers - Classification of Computers – Methods of Data Processing – History of Spreadsheet software – Applications of MS Excel – Definition of Entity, Attribute, Relationship - Significance of E-R Diagram
2. Structure and organisation of a computer.  
Important components of a computer – Functions of each component – Hardware components of a computer – Different types of Memories – Different types of software – components of configuration of Computers
3. Operating System and Data Storage Methods.  
Definition of Operating System – Need for OS – Functions of OS – Booting Process – Types of Operating System – Importance of Desktop Icons - Management of Files and Folders.
4. Different Types of Networking  
Uses of Internet – Different types of Networks – LAN, WAN and MAN – Meaning of WWW, Website, URL – Browsing, Downloading, ZIP or UNZIP, creation of emails - Different types of Storage methods.

## REFERENCE BOOKS:

1. Fundamentals of Information Technology – S.K. Bansal, APH Publishing
2. Computer Fundamentals – Pradeep Sinha & Preethi Sinha, BPB Publications.
3. DOS Manual.
4. Teach Yourself Windows – A L Stevens, BPB Publications.
5. The ABCs of the Internet --- Christian Coumblish, BPB Publications.

### Table specifying the scope of syllabus to be covered for unit tests

Unit Test	Learning outcomes to be covered
Unit Test - I	From 1.1 to 2.5
Unit Test - II	From 2.6 to 3.5
Unit Test - III	From 3.6 to 4.8

## **BASIC AI TOOLS**

Course Code	Course Title	No. of periods/week	Total No. of periods	Credits
26CP106A	Basic AI Tools	2	60	-

### **TIME SCHEDULE**

S.NO	MAJOR TOPICS	NO. OF PERIODS	CO's mapped
1	Artificial Intelligence – Meaning and Importance	30	CO1
2	Impact of AI on Jobs, Industries and society	15	CO2
3	Working with AI Tools	15	CO3
	TOTAL	60	

### **COURSE OBJECTIVES**

**Upon completion of the Course, the student will be able to**

- |  |
|--|
| (i) understand meaning and importance of AI<br>(ii) describe the impact of AI on jobs, industries and society<br>(iii) work with AI Tools in MS Word and MS Power Point Presentation |
|--|

### **COURSE OUTCOMES**

**The student will be able to**

CO1	26CP106A.1	Understand the concept of Artificial Intelligence
CO2	26CP106A.2	Understand the impact of AI tools on jobs, industries and society
CO3	26CP106A.3	Work with AI tools in MS Word and MS Power Point presentation for typing document and creating presentation respectively

### **LEARNING OUTCOMES:**

- 1.0 Artificial Intelligence – Meaning and importance**
- 1.1 State the meaning of Artificial Intelligence
  - 1.2 Differentiate between AI and Non- AI
  - 1.3 Explain the history of AI
  - 1.4 Explain the working of AI

- 1.5 Explain the meaning of data and its importance
- 1.6 Explain the data learning procedure by AI - Machine Learning Vs. Deep Learning
- 1.7 List the types of Artificial Intelligence- Narrow Vs. General AI
- 1.8 List the functions of AI - Generative AI
- 1.9 Explain process of interacting with AI tools- base prompt, follow up prompt, Good prompt, Bad prompt.
- 1.10 Identify the languages used to develop AI code
- 1.11 Explain the procedure for developing AI code

## **2.0 Impact of AI on Jobs, Industries and society**

- 2.1 Examine the impact of AI on jobs, industries and Society
- 2.2 State the Advantages and disadvantages of AI at work
- 2.3 List the career opportunities with AI
- 2.4 Explain the usage of AI with responsibility
- 2.5 Explain the importance of using AI responsibly
- 2.6 Explain the usage of AI ethically.
- 2.7 Describe the ethical challenges in AI

## **3.0 Working with AI tools**

- 3.1 List the areas of usage of AI - in general and in education
- 3.2 Illustrate the usage of AI can for better learning
- 3.3 List some free AI tools.
- 3.4 Practice with using free AI tools
- 3.5 Explain the usage of AI tools for preparing notes on any topic, letters, documents using AI tools
- 3.6 Practice to use AI for using AI tools for typing document
- 3.7 Practice to use AI for creating PowerPoint presentation

## **COURSE CONTENTS**

1. Artificial Intelligence – Meaning and Importance  
Meaning and importance of AI – Differences between AI and Non-AI – History of AI – Working of AI – Meaning of Data and its importance – Data learning procedure – Types of Artificial Intelligence – Functions of Artificial Intelligence – Process of interacting with AI tools – Languages used to develop AI code – Procedure for developing AI Code.
2. Impact of Artificial Intelligence on jobs, industries and society.  
Advantages and disadvantages of AI at work – Career opportunities with AI – Usage of AI responsibly and ethically and its importance – Ethical challenges in Artificial Intelligence.
3. Working with AI tools  
Areas of usage of AI – Free AI tools – usage of AI tools in MS Word and MS Power Point Presentation.

#### REFERENCE BOOKS:

1. AI tools for everyone – by Jayanth Deshmukh
2. The AI Workshop - The complete Beginner's Guide to AI-by Milo Foster
3. A Guide to AI tools- by Mignon Goosen

### ENGLISH TYPEWRITING - I

Course Code	Course Title	No. of periods/week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP107L	English Typewriting –I	4	120	-	100	3

### TIME SCHEDULE

S. No.	Major Topics	No. of Periods	CO's Mapped
1	Introduction to Typewriting and Mastery of Key Board	30	CO1
2	Shift Key operation, Use of Punctuation Marks and Centering	10	
3	Speed Development Practice	80	CO2, CO3, CO4 and CO5
	Total	120	

**NOTE: Summative Assessment will be for 10 minutes @ 30 wpm for 100 marks and End Examination Paper shall be issued by SBTET, AP. Minimum Pass Mark is 45%.**

**\*(FIVE DEPRESSIONS OF KEY (STROKES) IS TO BE TAKEN AS ONE WORD).**

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- |     |  |
|-----|--|
| (i) | Use the typewriter as a means of business machine for communication. |
| (i) | Reproduce the printed matter @ 30 WPM                                |

### COURSE OUTCOMES

The student shall be able to		
CO1	26CP107L.1	Master the key board with blind touch and accuracy and understand the method of centering
CO2	26CP107L.2	Practise the speed at 15 WPM
CO3	26CP107L.3	Practise the speed at 20 WPM
CO4	26CP107L.4	Practise the speed at 25 WPM
CO5	26CP107L.5	Practise the speed at 30 WPM

## LEARNING OUTCOMES

### **1.0 Introduction to Typewriting and Mastery of Key Board**

- 1.1 Define the term typewriter and state the use of Typewriter as a means of business communication.
- 1.2 Identify the important parts of the typewriter like keyboard, space bar, typeset, type bars etc.
- 1.3 Demonstrate the functions of the important parts of the Typewriter
- 1.4 Distinguish between touch and sight methods of typewriting.
- 1.5 Insert the paper with a backing sheet in the typewriter.
- 1.6 Describe the arrangement of alphabets in the keyboard.
- 1.7 Point out the 'guide keys' in the keyboard.
- 1.8 Practice 'home keys'
- 1.9 Repeat 'letters and words' for accurate typing of home keys.
- 1.10 Practice 'second fingering'.
- 1.11 Repeat 'letters and words' of the second fingering.
- 1.12 Practice 'third fingering'.
- 1.13 Repeat 'letters and words' of third fingering.
- 1.14 Repeat typing 1, 2 and 3 fingering letters and words.
- 1.15 Practice typing numbers 0 to 9.
- 1.16 Repeat typing numbers 0 to 9.
- 1.17 Practice typing words and sentences.
- 1.18 Repeat typing of sentences

### **2.0 Shift Key operation, Use of Punctuation Marks and Centering**

- 2.1 Identify the Shift Keys and practice using Shift Keys for typing Capital Letters.
- 2.2 Identify the different punctuation marks and practice using punctuation marks
- 2.3 Adhere to the spacing after punctuation marks.
- 2.4 Explain the procedure for Centering of a word / sentence.
- 2.5 Design the given sentence in a beautiful way using centering rules.
- 2.6 State the procedure for typing running matter.
- 2.7 Set the LEFT and RIGHT margins of 10 degrees.
- 2.8 Set the margin stop 5 degrees from the left margin for starting fresh paragraph.
- 2.9 Practice typing paragraphs/ running matter.

### **3.0 Speed Development Practice**

- 3.1 Practice speeds with accuracy @ 15 WPM.
- 3.2 Practice speeds with accuracy @ 20 WPM.
- 3.3 Practice speeds with accuracy @ 25 WPM.
- 3.4 Practice speeds with accuracy @ 30 WPM.
- 3.5 Demonstrate Speed and Accuracy in typing a given printed matter.

#### COURSE CONTENTS

1. Master key board with emphasis on rhythm – Blind touch – Accuracy development.
2. Shift key operation – Words – Sentences – Spacing after punctuation –Typing of Running matter - Paragraphing – Two lines and three lines paragraphing.
3. Regular practice of speed passages at 15, 20, 25, 30 w.p.m. –Speed Tests at various rates.

#### REFERENCE BOOKS:

1. Text book to beginners published National Shorthand School, Visakhapatnam.
2. English Typewriting 3-in-1 Speed Books published by National Shorthand School, Visakhapatnam.

## ENGLISH TYPEWRITING - II

Course Code	Course title	No. of periods/week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP108L	English Typewriting -II	04	120	-	100	3

### TIME SCHEDULE

S. No	Major Topics	No. of Periods	No. of Words	No. of strokes	No. of Questions	Marks	CO's Mapped
1	Statement, Invoice, Debit Note, Credit Note and Account Sales	40	60	300	1	25	CO1
2	Business Letter / Professional Letter / Application	40	100	500	1	35	CO2
3	Government Order / Memorandum	40	140	700	1	40	CO3
	Total	120			3	100	

**Note: Summative Assessment is for 100 Marks for 45 minutes and End Examination Paper will be issued by SBTET, AP. Minimum pass percentage is 45%.**

***\*(FIVE DEPRESSIONS OF KEY (STROKES) IS TO BE TAKEN AS ONE WORD).***

### COURSE OBJECTIVES

Upon completion of this course the student shall be able to

- |      |  |
|------|--|
| i.   | To familiarize with various types of correspondence used in Business and Government Organizations. |
| ii.  | To familiarize with the manuscripts and to amplify the abbreviations                               |
| iii. | To transform various manuscripts into neatly typed formats with accuracy and neatness.             |

### COURSE OUTCOMES

The student shall be able to		
CO1	26CP108L.1	Type the Statement, Invoice, Debit Note, Credit Note and Account Sales with accuracy and neatness from Manuscripts.
CO2	26CP108L.2	Type the Business Letters, Professional Letters and Application from manuscripts
CO3	26CP108L.3	Type the Government Correspondence from manuscripts.

## LEARNING OUTCOMES

### **1.0 Statement, Invoice, Debit Note, Credit Note, Account Sales.**

- 1.1 Explain the procedure for tabulation in typewriting.
- 1.2 List and explain the various symbols and abbreviations used in manuscript and their amplification.
- 1.3 Interpret the abbreviations in a given script.
- 1.4 Practice reading of manuscript and amplify the abbreviations.
- 1.5 Practice correction of mistakes in a given script.
- 1.6 Display the typed Statement.
- 1.7 Practice typing of Statements from manuscripts neatly and accurately.
- 1.8 Outline the format of Invoice
- 1.9 Practice typing Invoice from manuscript neatly and accurately.
- 1.10 Outline the formats of a Debit Note and Credit Note.
- 1.11 Practice typing Debit and Credit Note from manuscript
- 1.12 Outline the format of Account Sales.
- 1.13 Practice typing Account Sales from manuscript neatly and accurately.

Statement, Invoice, Debit Note, Credit Note, Account Sales shall not exceed 4 Columns.

### **2.0 Business Letters, Professional Letters and Applications**

- 2.1 Explain the terms Business Letter, Professional Letter and Application.
- 2.2 Outline the format of a Business Letter.
- 2.3 Identify the abbreviations in a script letter.
- 2.4 Amplify the abbreviations while typing the matter.
- 2.5 Practice Business Letter from manuscript with neatness and good display.
- 2.6 Outline the format of a Professional Letter.
- 2.7 Practice the Professional Letter from manuscript with neatness and good display.
- 2.8 Outline the format of an Application.
- 2.9 Practice the Application from manuscript with neatness and good display.

### **3.0 Government Order and Memorandum.**

- 3.1 State the meaning of Government Order (G.O.) and Government Memorandum (Memo)
- 3.2 Distinguish between G.O. and Memo.
- 3.3 Outline the format of a Government Order.
- 3.4 Practice Government Order from manuscript.
- 3.5 Outline the format of a Government Memorandum.
- 3.6 Practice Government Memorandum from manuscript.
- 3.7 Prepare typed Government Order and Memorandum.
- 3.8 Demonstrate Accuracy in Typing Manuscripts according to the Layout.

## COURSE CONTENTS

1. Statement, Debit and Credit Notes Account Sales - Practice typing from manuscripts with simple abbreviations.
2. Business Letters, Professional Letters and Applications - Practice typing from manuscripts with simple abbreviations.
3. Government Order and Memorandum - Practice typing from manuscripts with simple abbreviations.

## REFERENCE BOOKS:

1. Abbreviations by National Shorthand School (Books).
2. Typewriting English Lower Manuscripts published by National Shorthand School, Visakhapatnam.

## **INFORMATION TECHNOLOGY AND DIGITAL SKILLS LAB**

Course code	Course Title	No. of periods/week	Total no. of periods	Marks for FA	Marks for SA	Credits
26CP109L	Information Technology and Digital Skills Lab	4	120	40	60	3

### **TIME SCHEDULE**

S. No.	Chapter/unit title	No. of periods	CO's Mapped
1	Fundamentals of Information Technology	22	CO1
2	MS-Word	44	CO2
3	MS- Power Point	27	CO3
4	Working with AI, ML and Quantum Computing Tools	27	CO4
	Total periods	120	

### **COURSE OBJECTIVES**

Upon completion of this course the student shall be able to

- |       |   |
|-------|---|
| (i)   | To use computer for day-to-day activities in any office     |
| (ii)  | To work with MS Word  |
| (iii) | To work with MS-Power Point applications of MS-Office Suit. |
| (iv)  | To know about AI, ML and Quantum computing tools            |

### **COURSE OUTCOMES**

The student will be able to:		
C01	26CP109L.1	Operate the computer for creating files and retrieve for future use
C02	26CP109L.2	Create, edit, format and print documents
C03	26CP109L.3	Develop Power point presentations
C04	26CP109L.4	Know about AI, ML and Quantum computing tools

## LEARNING OUTCOMES:

### 1. Fundamentals of I.T

- 1.2 Identify the various hardware components of a computer system.
- 1.3 Identify the various peripherals.
- 1.4 State the configuration of a computer system.
- 1.5 Exercise on options of start menu.
- 1.6 Exercise on changing background and screen saver.
- 1.7 Exercise on understanding the use of Taskbar.
- 1.8 Exercise on creation of shortcut to files and folders on Desktop.
- 1.9 Exercise on use of Recycle Bin.
- 1.10 Exercise on use of My Computer.
- 1.11 Scanning virus of CD/DVD/Pen drive using anti-virus software.
- 1.12 Exercise on use of My Documents.
- 1.13 Exercise on Windows Explorer.
- 1.14 Exercise on arranging of icons – name wise, size, type, Modified.
- 1.15 Exercise on creation of folders and organizing files in different folders using copy/paste.
- 1.16 Exercise on searching of files and folders.
- 1.17 Exercise on Paint.
- 1.18 Exercise on Calculator.
- 1.19 Exercise on using Notepad.
- 1.20 Exercise on using WordPad.
- 1.21 Exercise on using Control Panel.
- 1.22 Change the appearance and other settings of display screen.
- 1.23 Configure mouse, change mouse pointers and other settings.
- 1.24 Change the date and time.
- 1.25 Install and uninstall a hardware device.
- 1.26 Add and remove programs using control panel.
- 1.27 Exercise on shutdown of computer system.
- 1.28 Demonstrate connecting and disconnect with Net.
- 1.29 Browse the Net using Browser software (Internet Explorer, Mozilla Firefox, Google Chrome etc.)
- 1.30 Search the Web using Search Engines.
- 1.31 Demonstrate Zip/Unzip files/folders.
- 1.32 Create an E-mail account.
- 1.33 Send and receive E-mail

### 2. MS-Word

- 2.1 Create and save a document using MS WORD.
- 2.2 Deletion of Character, Word, line and block of text.
- 2.3 Work with Undo and redo.
- 2.4 Moving, Copying and renaming.
- 2.5 Perform Character formatting.
- 2.6 Perform Paragraph formatting.
- 2.7 Perform Page formatting.
- 2.8 Finding and Replacing of text.

- 2.9 Create Bookmark and go to Bookmark.
- 2.10 Checking Spelling and Grammar automatically.
- 2.11 Checking Spelling and Grammar using Dictionary.
- 2.12 Working with Print Preview.
- 2.13 Print a document using page setup and Print Dialog box.
- 2.14 Demonstrate mail merge.
- 2.15 Create a table in the document
- 2.16 Add row, column to a table
- 2.17 Changing column width and row height.
- 2.18 Merge, split cells of table.
- 2.19 Use formulae in tables.
- 2.20 Sorting data in a table.
- 2.21 Formatting a table.
- 2.22 Manipulating Borders and Shading,
- 2.23 Insertion of Drop Cap,
- 2.24 Insertion of Water mark
- 2.25 Creation and editing of Word Art
- 2.26 Use of Drawing Tool Bar

### **3. MS-Power Point**

- 3.1 Create and save a new presentation using MS Power Point.
- 3.2 Layout of opening screen in Power Point.
- 3.3 The ribbon tabs in MS Power Point.
- 3.4 Choose Auto Layout for a new slide.
- 3.5 Insert text and pictures into a blank slide.
- 3.6 Insert new slides into the presentation.
- 3.7 Apply slide transition effects.
- 3.8 Demonstrate a slide show.
- 3.9 Set animation to text and pictures in a slide
- 3.10 Set the sounds, order and timing for animation.

### **4. AI, ML & Quantum Computing Tools**

- 4.1 To get familiarized with AI Tools
- 4.2 To get familiarized with working of ChatGPT
- 4.3 Identify Objects using AI Tools based on CNN, YOLO, SSD, R-CNN
- 4.4 To paraphrase text using AI Tools (PEGASUS, GPT, T5)
- 4.5 To use text-to-Image Generation AI Tools (DALL-E, MIDJOURNEY)
- 4.6 To use voice command simulation AI Tools (SPEECH-TO-TEXT)
- 4.7 To get familiarized with ML Tools
- 4.8 To get familiarized with Quantum Computing Tools
- 4.9 To familiarize with quantum bits (qubits) using Dirac notation
- 4.10 To familiarize the behavior of single and multiple qubit gates.
- 4.11 To familiarize with Qubit as a Coin / Spin Analogy

### Objectives and Key Competencies

Exp. No.	Name of Experiment	Objectives	Key Competencies
1	Identify the various components of a computer	Identify various Components of a computer.	Check whether components are identified correctly.
2	State the functions of each component of a computer.	To study the functions of all components of a computer.	Identify all components inside computer. Observe the functionality of all components like CPU, RAM, HDD , CD/DVD Drive, Motherboard.
3	State the configuration of a computer.	Able to observe configuration of given computer.	Use System icon in control panel
4	Exercise on understanding the Start Menu items on Taskbar.	Able to understand the use of Start Menu items by opening some applications.	Use 'Start Menu' items on Taskbar by opening some applications.
5	Exercise on creation of folders and organizing files in different folders on desktop.	Able to create folder. Able to organize file in different folders.	Create folder on desktop. Organize files in different folders.
6	Exercise on using Recycle Bin	Able to Use Recycle Bin.	Check Recycle bin whether able to store deleted files. Observe whether files were properly restored.
7	Exercise on use of My Computer.	Able to Access files and folders in C: Drive.  Able to Access files and folders in other drives.	Check whether able to access files in C: Drive using My Computer correctly or not. Check whether able to access files in other drives using My Computer correctly or not. Check whether able to use CD/DVD drive using My Computer.
8	Exercise on use of My Documents.	Able to use My documents so that organize and access files and folders in it.	Check whether able to organize files and folders in My Documents.
9	Exercise on creation of shortcut to files and folders (in other folders) on Desktop.	Able to create shortcut of files and folders on desktop.	Check whether able to create shortcut for any files/folder on desktop

10	Exercise using Paint	Able to create .jpeg, .bmp Files using MS Paint.	Check whether able to create .jpeg, .bmp Files using MS Paint.
11	Exercise using Calculator.	Able to use calculator in Standard as well as scientific mode.	Check calculator in Standard mode Check calculator in scientific mode.
12	Exercise using Notepad/WordPad.	i)Able to use Notepad ii)Able to use Word pad	Observe creation, formatting and printing of file using Notepad, WordPad.
13	Exercise on using Control Panel.	Able to Installation / Uninstallation of Software using control panel. Able to Install Hardware using control panel. Able to Change the Date and Time using control panel.	Check Installation / Uninstallation of Software using control panel. Check Installation of Hardware using control panel. Check Changing Date and Time using control panel.
14	Exercise on using of explorer for accessing of files and folders.	Able to use of explorer for accessing of files and folders.	Check use of explorer for accessing of files and folders.
15	Exercise on arranging of icons – name wise, size, type, Modified.	Able to arrange the icons – name wise, size, type, Modified on desktop.	Observe whether able to arrange the icons – name wise, size, type, Modified.
16	Exercise on searching of files and folders.	Able to search the files and folders.	Check searching of files and folders.
17	Exercise on organizing files / folders using copy and paste of files and folders.	i) Able to organize files / folders using copy and paste of files and folders using explorer. ii) Able to organize files / folders using copy and paste of files and folders using My Computer.	Check organizing files / folders using copy and paste of files and folders. Check organizing files / folders using copy and paste of files and folders using my computer.
18	Exercise on installation of Anti-Virus software.	Able to install Anti-Virus software.	Check installation of Anti-Virus software. Check the CD/DVD/Pen Drive using Anti-Virus Software like Kaspersky etc.,
19	Exercise on shutdown of computer system.	Able to shutdown computer system.	Check shutdown of computer system.
20	Exercise on using of Internet Explorer or any other browser.	Able to use Internet Explorer, Mozilla Firefox, Google Chrome and Opera.	Check use of Internet Explorer. Check use of Mozilla Firefox.

			Check use of Google Chrome/Opera.
21	Exercise on E-mail.	Able to Create E-mail id. Able to send and receive messages using E-mail.	Create E-mail id. Send and Receive messages using E-mail.
22	Exercise on Zip/unzip files/folders.	Able to Zip/Unzip Files/Folders.	Use Win-Rar software to Zip/Unzip Files/Folders.
23	Open MS-word and Identify the components on the screen.	Able to Open MS-Word and Identify the components on the screen.	Check whether able to Identify the components on the screen. Check whether able to Identify all components on the screen of MSWORD are identified and learnt thoroughly.
24	Create a document using MS-word and save it in .docx or .doc format.	Able to create document using MS-word. Able to save document in .docx or .doc format.	Observe whether created document using MS-word. Observe whether saved document is in .docx or .doc format.
25	Create a table using MS-Word and save it.	Able to Create a table using MS -Word and save it. Able to Create a table using Insert table method. Able to Create a table using draw table method. Able to Create a table using quick table method.	Verify a table is created using MS-Word and save it. Verify a table is created using Insert table method. Verify a table is created using draw table method. Verify a table is created using quick table method.
26	Insertion of new rows and columns in the existing table.	Able to Insert new rows and columns in the existing table.	Check whether able to Insert new rows and columns in the existing table.

			Check whether able to Insert new rows and columns as per requirement.
27	Changing the background color of the table.	Able to Change the background color of the table.	Check whether able to change the background color of the table.
28	Merging and splitting of cells in a Table.	Able to Merge and split cells in a Table using different methods.	Check whether able to Merge and split cells in a Table using different methods.
29	Changing the formatting of font.	Able to Change the formatting of font using right click menu. Able to Change the formatting of font using menu options.	Check whether able to change the formatting of font using right click menu. Check whether able to change the formatting of font using menu options.
30	Exercise with Headers and Footers.	Able to change Headers and Footers using menu option. Able to change Headers and Footers by clicking top and bottom document.	Check whether able to change Headers and Footers using menu option. Check whether able to change Headers and Footers by clicking top and bottom document.
31	Create mailing letters using mail merge tool of MS-Word.	Able to use mail merge tool of MS-Word using start mail merge option in mail menu.	Check whether able to use mail merge tool of MS-Word in creating letter using mail merge option in mail menu.
32	Miscellaneous and advanced concepts: Boarder and Shading, Drop Cap, Water marking, Word Art, Drawing Tool Bar	Able to use Boarder and Shading to a particular word a word / Line / paragraph / page etc., able to use Word art, Water marking, by using Drawing Tool bar to creating	Check whether able to use Drawing tool bar / water making / Boarder shading / Word art etc.

		different shapes like Rectangle/ Square etc.	
33	Inserting a new slide in the existing Power Point file.	Able to Insert a new slide in the existing Power Point file using new slide option in home menu. Able to Insert a new slide in the existing Power Point file using slide layout option in home menu.	Check whether able to Insert a new slide in the existing Power Point file using new slide option in home menu. Check whether able to Insert a new slide in the existing Power Point file using slide layout option in home menu.
34	Create a simple Power Point presentation for a small topic and saving in .ppt or pptx format.	Able to create a simple Power point presentation for a given topic. Able to Save the presentation in both .ppt and .pptx formats.	Check able to create a simple Power point presentation for a given topic. Check able to Save the presentation in both .ppt and .pptx formats.
35	Inserting chart or image in a Power Point slide.	Able to Insert chart in a power point slide using Insert menu option. Able to Insert image in a power point slide using insert menu option.	Check able to Insert chart in a power point slide. Check able to Insert image in a power point slide.
36	Exercise with animation and sound features in Power Point.	Able to work with animation and sound features in power point using custom animation option in Animations menu. Able to work with Media clip options in insert menu.	Check able to work with animation and sound features in power point using custom animation option in Animations menu. Check able to work with Media clip options in insert menu.
37	Exercise with Rehearse Timings feature in Power Point.	Able to work with Rehearse Timings feature in Power Point using slide show menu rehearse option.	Work with rehearse timings features.

38	Exercise with Rehearse Timings feature in Power Point.	Able to work with Rehearse Timings feature in Power Point using slide show menu rehearse option.	able to rehearse slide-transition timing features.
39	Exercise in printing the PowerPoint file in (a) Slides (b) Handout.	Able to print the PowerPoint file in Slides using File menu Print option. Able to print the PowerPoint file in Handout using file menu print option.	Check able to print the PowerPoint file in Slides using File menu Print option.  Check able to print the Power Point file in Handout using file menu print option.
40	AI, ML and Quantum Computing tools	Able to understand AI, ML and Quantum Computing tools	Able to know about AI, ML and Quantum computing tools

## **COMPUTER PACKAGES**

Course code	Course Title	No. of periods/ week	Total no. of periods	Marks for FA	Marks for SA	Credits
26CP110L	Computer Packages	4	120	40	60	3

### **TIME SCHEDULE**

S. No	Chapter/unit title	No. of periods	CO's Mapped
1	MS-Excel	60	C01
2	MS-Access	60	C02
	Total periods	120	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	use MS EXCEL for various purposes.
(ii)	use MS ACCESS for data base applications.

### **COURSE OUTCOMES**

The student will be able to:		
C01	26CP110L.1	use workbooks to make simple calculations, to create charts and to perform database operations like sort, filter
C02	26CP110L.2	create tables and work with tables, forms, queries and reports

### **LEARNING OUTCOMES**

1. **MS- Excel**
  - 1.1 Create and save a new work book in Excel
  - 1.2 Entering Data into Worksheet
  - 1.3 Editing data of Worksheet
  - 1.4 Formatting the text in the cells
  - 1.5 Formatting the numbers in the cells.
  - 1.6 Formatting cells.
  - 1.7 Copying format of cell along with data format.
  - 1.8 Changing the height and width of cells.
  - 1.9 Freezing Titles, splitting screen.
  - 1.10 Working with cell borders.
  - 1.11 Enter formulae for calculation in the cells.
  - 1.12 Copying the formula over a range of cells.

- 1.13 Inserting built-in functions into the cells.
- 1.14 Working with if .. function, and function.
- 1.15 Practice conditional formatting.
- 1.16 Working Data Base Management features in Excel- Sort, filter, data validation.
- 1.17 Create graphs for the data using Chart Wizard.
- 1.18 Format graphs in Excel.
- 1.19 Create pivot table.
- 1.20 Practicing of VLOOKUP and HLOOKUP
- 1.21 Enabling and Disabling of Macros
- 1.22 Printing of worksheet.

**2. MS ACCESS**

- 2.1 Creating database in Access.
- 2.2 Creating Tables using data sheet view.
- 2.3 Creating Tables using Design View in Access.
- 2.4 Entering Data into tables.
- 2.5 Viewing the data in table.
- 2.6 Creating a new query using wizard.
- 2.7 Creating a new query using design view.
- 2.8 Viewing the data using a Select Query.
- 2.9 Updating the data in table using Update Query.
- 2.10 Linking two Tables on Relational Aspect.
- 2.11 Create forms using auto form/custom form/Form Wizard.
- 2.12 Create reports using auto report/custom report/Report Wizard.
- 2.13 Printing the tables, forms and reports.

Objectives and Key Competencies

Exp. No.	Name of Experiment	Objectives	Key Competencies
1	Create and save a new work book in Excel	Know the features of spreadsheet software.	Observe the number of rows, number of columns, number of worksheets
2	Entering data into workbook	Understand entering column headings and data into cells	Observe row address, column address, cells.
3	Editing data of Worksheet	Modifying, deleting, copying, moving data in worksheet	Observe fill handle for filling series
4	Formatting the text in the cells	Applying font formatting, alignments to text	Use text orientation
5	Formatting number in cells	Formatting number in different styles.	To use different

			number formats
6	Formatting cells	Formatting cell borders	Know to apply border for required side for cell
7	Copying format of cell along with data format.	Use format menu	Use format painter tool
8	Changing the height and width of cells.	Use format menu	Use mouse pointer to drag the cell.
9	Freezing Titles, splitting screen	Use view menu	Observe freezing both top row and first column
10	Enter formulae for calculation in the cells.	Know to create various formulae according to need.	Make totals by different ways.
11	Copying the formula over a range of cells.	Know different cell references- relative, absolute, mixed	using paste special, Copy the formula
12	Inserting built-in functions in to the cells.	Use formulae menu	Learn frequently used functions in various categories.

13	Create graphs for the data using Chart Wizard.	Use insert menu	Select appropriate chart depending on data
14	Format graphs in Excel.	Format graphs	Learn how to change type of chart
15	Printing of worksheet, chart	Know various options of printing	Learn how to print a specific selection of worksheet. Learn how to print a chart
16	V Look-up	Use of V Look up	Learn how to use V-lookup
17	Group & Ungroup, Subtotal of data	Data grouping, subtotal of the group	Group data, Un group data, sub total data of a group
18	Create a pivot table.	Know to create a pivot table	Learn how to create a pivot table
19	Creating database in Access	Create and save database in MS-Access.	Learn how to create a table.
20	Creating Tables using data sheet view.	Create Tables using data sheet view.	Using different data types
21	Creating Tables using Design View in Access.	Create Tables using Design View in Access.	Using different data types and Primary Key
22	Entering Data into tables.	Enter data in corresponding fields	Different methods of data entry in tables.
23	Viewing the data in table.	View data in the table	
24	Viewing the data using select Query	Select required fields from table	Create calculated field
25	Creating a new query using design view.	Enter criteria for required fields.	
26	Creating a new query using wizard.	Create a new query using wizard.	
27	Updating the data in table using Update Query	Use Update query	Learn about Append query - Delete query
28	Linking two Tables on Relational Aspect.	Link up two or more tables.	Use primary key
		Use select query to take data from more than one table.	
29	Create forms using	Create auto form	Different types of forms
		Form in design view	

	auto form/custom form/Form Wizard.	Using form wizard	
30	Create reports using auto report/custom report/Report Wizard.	Create auto report	Different types of reports
		Report in design view	
		Using report wizard	
31	Printing the tables, forms and reports.	Observe options of print menu	Use page setup

### ENGLISH – II

Course Code	Course Title	No. of Periods/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP301T	English – II	5	75	30	70	4

For 26CP301T ENGLISH – II, the English Text Book prescribed by Board of Intermediate, AP Vijayawada for Inter 2<sup>nd</sup> year shall be followed.

**ACCOUNTANCY – II**

Course Code	Course Title	No. Of Period/Week	Total No. Of Periods	Marks for FA	Marks for SA	Credits
26CP302T	Accountancy – II	6	90	30	70	4

**TIME SCHEDULE**

Sl. No.	Chapter/Unit Title	No. of periods	Weightage of Marks	No. of Short Answer Question	No. of Essay Type Questions	CO's Mapped
1	Joint Venture	15	18	2	2	CO1
2	Partnership Accounts – Admission of A Partner	30	28	1+1*	1* (16 Marks) + 1 (6 Marks)	CO2
3	Partnership Accounts - Retirement / Death of A Partner & Dissolution of Firm	15	12	2	1	CO3
4	Single Entry System (Accounts from Incomplete Records)	15	12	2	1	CO4
5	Company Accounts	15	18	2	2	CO5
	Total	90	88	10	8	

NOTE 1: In Part-A, (\*) indicates problem question.

Note 2: In Part-B Question No. 11 is compulsory which carries 16 Marks and should be from ADMISSION OF A PARTNER and other questions carry 6 marks each.

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

i)	understand the concept Joint Venture prepare the Joint Venture Accounts
ii)	understand and prepare the Partnership Accounts – Admission
iii)	understand and prepare the partnership Accounts – Retirement/Death of a partner and Dissolution of the firm.
iv)	understand the Single-Entry system of accounting – and preparation of Statement of Affairs.
v)	understand the basics of Company Accounts.

### **COURSE OUTCOMES**

The student will be able to		
CO1	26CP302T.1	prepare the Joint Venture Accounts using different methods.
CO2	26CP302T.2	Prepare the accounts in case of Admission of a Partner
CO3	26CP302T.3	Prepare accounts in case of Retirement or Death of Partner and understand the methods of Dissolution of Partnership Firm.
CO4	26CP302T.4	Understand the Single-entry system and prepare the Ledgers from Incomplete records
CO5	26CP302T.5	Prepare the Journal Entries for issue of Shares at par, at Premium and at Discount.

### **LEARNING OUTCOMES:**

#### **1.0 JOINT VENTURE**

- 1.1 State the meaning of Joint Venture.
- 1.2 Distinguish between Joint Venture and Partnership.
- 1.3 List the different methods of maintaining Joint Venture accounts.
- 1.4 Explain the maintenance of Joint Venture accounts by any one of the parties and.  
by all the parties.
- 1.5 Explain the method of maintaining accounts in a separate set of books.
- 1.6 Prepare Joint Venture Accounts using different methods.

## **2.0 PARTNERSHIP ACCOUNTS – ADMISSION OF A PARTNER**

- 2.1 Explain the method of sharing of Profit or Loss among Partners.
- 2.2 Distinguish between profit and loss account and profit and loss appropriation / adjustment account.
- 2.3 Prepare Profit and Loss Adjustment / Appropriation Account considering Interest on Partner's Loan, Interest on Capital, Interest on drawings and outstanding expenses.
- 2.4 Prepare Capital Accounts of Partners in Fixed and Floating Capital methods.
- 2.5 Define goodwill.
- 2.6 Explain the methods of calculating goodwill.
- 2.7 Explain the factors influencing goodwill.
- 2.8 List the circumstances when the goodwill is valued.
- 2.9 Calculate the new profit-sharing ratio on Admission of a Partner.
- 2.10 Explain and prepare Revaluation Account of Assets and Liabilities.
- 2.11 Calculate the distribution of reserves and accumulated / undistributed profits or losses.
- 2.12 Explain the various methods of treatment of goodwill on Admission of a New Partner.
- 2.13 Prepare Accounts on Admission of a New Partner – (Profit and Loss Adjustment Account or Revaluation Account, Capital Accounts and New Balance Sheet. )

## **3.0 PARTNERSHIP ACCOUNTS – RETIREMENT / DEATH OF A PARTNER & DISSOLUTION OF FIRM**

- 3.1 Calculate the new profit-sharing (sacrificing) ratio on Retirement of Partner.
- 3.2 Explain the various methods of treatment of goodwill on Retirement of Partner
- 3.3 Prepare accounts on Retirement of a Partner (Profit and Loss Adjustment Account, Capital Accounts and New Balance Sheet)
- 3.4 State the issues arising on Death of a Partner.
- 3.5 Explain the amounts payable to the executor of a deceased partner.
- 3.6 List the various accounts to be prepared on Death of a Partner (Profit and Loss Adjustment Account, Capital Accounts, Executor's Account and New Balance Sheet).
- 3.7 List the circumstances leading to Dissolution of Partnership
- 3.8 State the need for preparing Realisation Account and contents of Realisation Account.
- 3.9 Distinguish between Realisation Account and Revaluation Account.
- 3.10 Explain the ruling in Garner Vs. Murray case

## **4.0 SINGLE ENTRY SYSTEM (ACCOUNTS FROM INCOMPLETE RECORDS)**

- 4.1 State the meaning of Single-Entry System
- 4.2 Features and Limitations of Single-Entry System
- 4.3 Distinguish between single entry and double entry system
- 4.4 Explain Statement of Affairs and its Preparation
- 4.5 Difference between Statement of Affairs and Balance sheet
- 4.6 Prepare Statement of Affairs
- 4.6 Compute Ascertainment of Profit or Loss of Business
- 4.7 Apply the single-entry system to prepare accounts of Sole Proprietor and Partnership firms.

## 5.0 COMPANY ACCOUNTS

- 5.0 Explain the meaning of Share Capital and types of shares offered by Companies
- 5.1 Describe the various methods of Issue of Shares
- 5.2 Prepare Journal Entries for Issue of Shares at Par
- 5.3 Prepare Journal Entries for Issue of Shares at Premium
- 5.4 Prepare Journal Entries for Issue of Shares at Discount

## COURSE CONTENTS

1. Joint venture - Different methods of maintaining Joint Venture accounts - Maintenance of Joint Venture accounts by only one party or all the parties - Maintaining accounts in a separate set of books.

2.. Partnership accounts- Admission of a Partner: Distribution of Profit and Loss among Partners - - Preparation of Profit and Loss Appropriation Account – Capital Accounts of Partners in different methods - Goodwill - Methods of calculating Goodwill - Admission of a Partner - Calculation of New Profit-Sharing Ratio – Preparation of Revaluation Account - Distribution of Reserves and Accumulated Profits or Losses - Various methods of treatment of goodwill - Accounting treatment on admission of a new partner.

3. Partnership accounts - Retirement / death or dissolution of a partnership firm - New profit-sharing ratio - Various methods of treatment of goodwill - Accounting treatment in case of retirement of partner. Dissolution of partnership firm - Need for Realisation Account - Ruling in Garner Vs. Murray case.

4. Single entry system (Accounts from Incomplete Records) – Difference between single entry system and double entry system – Ascertainment Profit or Loss of Business – Preparation of Accounts for Sole Proprietor and Partnership Firms..

5. Company Accounts – Types of shares – Journal Entries for issue of Shares at Par, Premium and Discount

### BOOKS RECOMMENDED:

- 1. Grewal T S 'Introduction to Accountancy'
- 2. Maheswari S.N. 'Introduction to Accountancy'
- 3. Gupta and Gupta 'Principles and Practice of Accountancy'
- 4. Jain and Narang 'Advanced Accounts'
- 5. Shukla and Grewal 'Advanced Accounts'
- 6. Gupta and Radha Swamy 'Advanced Accounts'
- 7. Telugu Academy publications for Intermediate course.
- 8. Basu & Das - Advanced Accountancy Vol I and Vol. II
- 9. Basu & Das – Problems in Advanced Accountancy, Vol.1 & Vol. II

### Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
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Unit Test-I	From 1.1 to 2.13
Unit Test-II	From 3.1 to 5.4

## **BUSINESS COMMUNICATION**

<b>Course Code</b>	<b>Course title</b>	<b>No. of Periods/Week</b>	<b>Total No. of periods</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP303T	Business Communication	04	60	30	70	2

### **TIME SCHEDULE**

<b>S. No.</b>	<b>Chapter/ Unit title</b>	<b>No. of Periods</b>	<b>Weightage of Marks</b>	<b>Short Questions</b>	<b>Essay Questions</b>	<b>CO's Mapped</b>
1.	Principles of Business Communication	05	11	1	1	CO1
2.	Letters of Enquiry, Offers/Quotations, Acceptance and Orders	16	25	3	2	CO2
3.	Letters of Claims, Complaints, Adjustments, Collection and Circular letters	15	22	2	2	CO3
4.	Communication in Corporate Meetings	8	11	1	1	CO4
5.	Other Business Communication	16	25	3	2	CO5
	<b>TOTAL</b>	<b>60</b>	<b>94</b>	<b>10</b>	<b>8</b>	

**Note : In the end examination letter writing / meeting notice / tender notice / application / advertisement essay type questions should be given in Part B from CO2, CO3, CO4 and CO5 topics.**

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |       |  |
|-------|--|
| (i)   | use the communication skills in improving business   |
| (ii)  | familiarize with business correspondence             |
| (iii) | familiarize with the corporate meeting communication |
| (iv)  | get acquaintance with other business communication   |

## COURSE OUTCOMES

The student will be able to		
CO1	26CP303T.1	explain the importance of business communication in modern business
CO2	26CP303T.2	draft letters of Enquiries, Quotations / Offers, Orders and Cancellation of orders.
CO3	26CP303T.3	Draft letters for claims, complaints, adjustments, collection and circular letters
CO4	26CP303T.4	Draft Corporate Meeting Notice, Agenda and Minutes of Meeting
CO5	26CP303T.5	Draft job notification, application for a situation, tender notice, create emails and Google forms

## LEARNING OUTCOMES

### **1.0 Principles of Business Communication**

- 1.1 Define the term communication and meaning of Business communication.
- 1.2 State the meaning of the term Correspondence and name the various kinds of Correspondence
- 1.2 Explain the various parts of Business letters
- 1.3 Draw the layout of a business letter.
- 1.4 Distinguish between Block form and Indented form of address.
- 1.5 Describe the essential qualities of a good Business letter
- 1.6 State the advantages of Business correspondence.

### **2.0 Letters of Enquiry, Quotation/Offer, Acceptance and Orders**

- 2.1 State the meaning of an Enquiry and distinguish between solicited and unsolicited enquiry
- 2.2 Draft letters of Enquiry
- 2.3 State the meaning of Offer and Quotation and difference between Offer and Quotation
- 2.4 List out the important points in letter of Offer and Quotation
- 2.5 Explain the various terms used in Quotations.
- 2.6 Draft letters of Offer and letters of Quotation
- 2.7 State the meaning of Order and list the points to be kept in mind while placing Order
- 2.8 Draft letters of Order.
- 2.9 Give the meaning of Confirmation, Execution and Cancellation of Orders
- 2.10 Write the points in letter of Confirmation, Execution and Cancellation of Orders
- 2.11 Name the situations when Orders are cancelled
- 2.12 Draft letters of Confirmation, Execution and Cancellation of Orders

### **3.0 Letters of Claims, Complaints, Adjustments and Collection and Circular letters**

- 3.1 List the characteristics of a letter of claim and complaint
- 3.2 Mention the circumstances when a complaint is made

- 3.3 Draft letters of complaint on delay in delivery of goods, defective or poor quality of goods, damage during transit & Invoice errors
- 3.4 Mention the meaning of an adjustment letter
- 3.5 Draft letters of adjustments
- 3.6 Explain the circumstances of writing collection letters
- 3.7 List the different stages of collection letters
- 3.8 Draft Collection Letters
- 3.9 Define a Circular Letter
- 3.10 Explain the circumstances in which a Circular letter is written
- 3.11 Draft Circular letter informing the shifting of business/ admission/ retirement of partners and Introduction of new product

#### **4.0 Communication in Corporate Meetings**

- 4.1 List the types of corporate meetings
- 4.2 Define Meeting Notice and Agenda
- 4.3 Draft a Meeting Notice
- 4.4 Draft agenda of a meeting
- 4.5 Define minutes of a meeting
- 4.6 Draft minutes of a meeting

#### **5.0 Other Business Communication**

- 5.1 State the meaning of Notification
- 5.2 Draft a job notification
- 5.3 State various elements of an application for a situation
- 5.4 Distinguish between solicited and unsolicited application
- 5.5 Distinguish between narrative application and formatted application
- 5.6 Draft applications for the posts of Office Assistants, Stenographers, Accountants, Data Entry Operators, Computer Programmers etc.
- 5.7 Define Tender Notice
- 5.8 Prepare Tender Notices for construction of a building and procurement of equipment / material
- 5.9 State the meaning of an E-mail and a Google form
- 5.10 Send business communication through E-mails
- 5.11 Create Google forms for collection of data or feedback

#### **COURSE CONTENTS**

1. Correspondence – Various types of correspondence – Parts of a letter – Layout of a business letter – Qualities of a good business letter – Importance of business correspondence
2. Letters of Enquiry – Quotations – Offers – Orders – Placing of orders - Confirmation, execution and cancellation of orders - Circumstances under which order is cancelled
3. Claims – Complaints – Reasons for complaint — Adjustment letters — Collection letters – Stages of collection letters - Drafting of Collection letters - Circumstances of writing circular letters – Drafting of circular letters
4. Types of corporate meetings – Drafting Meeting Notice, Agenda and Minutes of Meeting

- Drafting job Notification, Application for a situation – Solicited and unsolicited application – narrative and formatted applications – Drafting Tender Notice – Creating emails and Google forms

#### REFERENCES BOOKS

- Rajendrapal and Korlahalli, Essentials of Business Communication, Sultan Chand & Sons
- R. Mohan, Commercial Correspondence, Vijaya Publications
- C.B.Gupta, Essentials of Business Communication, 2019, Cengage Learning India Pvt. Ltd.
- Milind Kasodekar; Shilpa Dixit; Amogh Diwan (Author), Meetings – Notices, Resolutions and Minutes Under the Companies Act, 2013, Bloomsbury Professional India
- Standard bidding documents and other resources from the Central Public Procurement Portal (CPPP)

UNIT TEST SYLLABUS DIVISION TABLE FOR 26CP303T BUSINESS COMMUNICATION

UNIT TEST	Learning Outcomes to be covered
UNIT TEST – 1	1.0 to 3.5
UNIT TEST – 2	3.6 to 5.11

### BUSINESS LAWS

Course Code	Course title	No. of Periods/ Week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP304E	Business Laws	03	45	30	70	2

### TIME SCHEDULE

S. No	Chapter/ Unit title	No. of Periods	Weightage of Marks	Short Questions	Essay Questions	CO's mapped
1.	Indian Contract Act, 1872	11	25	3	2	CO1
2.	Sale of Goods Act, 1930	10	25	3	2	CO2
3.	Indian Partnership Act, 1932	8	19	1	2	CO3
4.	Consumer Protection Act, 2019	8	14	2	1	CO4
5.	Cyber Law	8	11	1	1	CO5
	<b>Total</b>	<b>45</b>	<b>94</b>	<b>10</b>	<b>8</b>	

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- |       |  |
|-------|--|
| (i)   | To familiarize with the law related to Indian Contract     |
| (ii)  | To familiarize with Law related to Sale of Goods Act       |
| (iii) | To familiarize with law related to Indian Partnership Act. |

(iv)	To familiarize with law related to the Consumer Protection Act.
(v)	To familiarize with the law related to Cyber Laws.

**COURSE OUTCOMES**

The student will be able to		
CO1	26CP304E.1	Understand the essential features of Indian Contract Act, 1872
CO2	26CP304E.2	Understand the law relating to Sale of Goods Act, 1930
CO3	26CP304E.3	Observe the law relating to Indian Partnership Act, 1932
CO4	26CP304E.4	Understand the Rights and Responsibilities of Consumers.
CO5	26CP304E.5	Know the law relating to Cyber Crimes

**LEARNING OUTCOMES**

**1.0 Indian Contracts Act, 1872**

- 1.1 Define an Agreement and a Contract
- 1.2 List essential elements of a valid Contract
- 1.3 List and explain different types of Contracts
- 1.4 Define Offer and Acceptance
- 1.5 State the essential features of a valid Offer and Acceptance
- 1.6 List the circumstances when an offer is revoked
- 1.7 Define Consideration
- 1.8 List and explain the essentials of a valid Consideration
- 1.9 Explain the terms – Free consent, Coercion, Undue influence, Fraud, Misrepresentation, Mistake.
- 1.10 List the different modes of discharging a contract
- 1.11 Explain Breach of Contract and list the remedies

**2.0 Sale of Goods Act, 1930**

- 2.1 Define contract of sale
- 2.2 List various types of goods
- 2.3 Explain different features of contract of sale
- 2.4 List out differences between sale and agreement to sell
- 2.5 State the rights of an unpaid seller against goods
- 2.6 State the rights of an unpaid seller against buyer
- 2.7 Explain the meaning of the meaning of Condition and list various types of Conditions
- 2.8 Explain the meaning of Warranty and list the various types of Warranty
- 2.9 List and explain the rules of Delivery

### **3.0 INDIAN PARTNERSHIP ACT, 1932**

- 3.1 Define Partnership.
- 3.2 Explain partners' liability for wrongful acts.
- 3.3 Explain the disadvantages of an unregistered partnership firm.
- 3.4 State the meaning of Dissolution of partnership firm.
- 3.5 State the various types of dissolution of the partnership firm.
- 3.6 State the consequences of dissolution of the partnership firm.
- 3.7 Explain how the accounts are settled after dissolution of the partnership firm.

### **4.0 CONSUMER PROTECTION ACT, 2019**

- 4.1 Define Consumer.
- 4.2 List and explain rights of Consumers.
- 4.3 List and explain the ways and means of consumer protection.
- 4.4 State and explain the meaning of Consumer Dispute.
- 4.5 Explain the Consumer Dispute Redressal Mechanism.

### **5.0 CYBER LAW**

- 5.1 State and explain the need for Cyber Law.
- 5.2 Explain the key objectives of Information Technology (IT) Act, 2000.
- 5.3 List and explain the types of Cyber Crimes recognised under law.
- 5.4 State the meaning of Digital Signature.
- 5.5 Name and explain various authorities handling Cyber Crime.
- 5.6 Explain the safety mechanism of Cyber Crime.

### **COURSE CONTENTS:**

- 1. The Indian Contract Act, 1872** - Agreement and Contract- Essentials of a valid contract – Types of Contracts - Offer and Acceptance – Consideration – Discharge of a contract - Breach of a contract.
- 2. Sale of Goods Act, 1930** - Types of goods – Contract of Sale - Differences between Sale and Agreement to Sell - Rights of an unpaid seller - Rights of Unpaid Seller against goods and against buyer – Condition and Warranty - Rules of Delivery.
- 3. The Indian Partnership Act, 1932** – Definition of Partnership - Partners' liability for wrongful acts - Disadvantages of an unregistered firm - Dissolution of partnership firm - Various types of dissolution - Consequences of dissolution - Procedure for settlement of accounts after dissolution.
- 4. The Consumer Protection Act, 2019** – Definition of Consumer – Rights of Consumer – Objectives of Central Consumer Protection Authority (CCPA) – Consumer Dispute and its Redressal Mechanism
- 5. Cyber Law** – Need for Cyber Law – Key objectives of Information Technology (IT) Act, 2000 – Types of cyber crimes recognised under law – Digital Signature – Authorities handling cyber crime – Safety mechanism of cyber crime.

### **Reference Books:**

1. Kapoor ND, Mercantile Law, Sultan Chand & Sons

2. SN Maheswari& SK Maheswari, Business Laws, Himalaya
3. Balachandran V, Business Law, TMH publications
4. Tulsian, Mercantile Law, TMH publications
5. Tulsian, Business Law, TMH publications
6. Pillai Bhagavathi, Business Law, Sultan Chand & Sons
7. Gogna, A Text book of Mercantile Law, Sultan Chand & Sons
8. S.S. Gulshan, Business Law, Excel Books.
9. Maheswari & Maheswari, Mercantile Law, Sultan Chand& Sons
- 10.Chandra Bose, Business Law, PHI
- 11.P.K. Majumdar and R.P. Kataria, Law of Consumer Protection in India, EBC Webstore
- 12.Dr J N Barowalia & Abhishek Barowalia, Commentary on the Consumer Protection Act, LexisNexis
- 13.J.P. Mishra, An introduction to Cyber Law, EBC Webstore
- 14.Bhagyashree A Deshpande, Textbook on Cyber Law, EBC Webstore

Note: The question paper should contain only (a) short answer, and (b) essay type questions WITHOUT ANY CASE LAWS / REFERENCES TO RELEVANT SECTIONS OF THE ACTS.

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 2.9
Unit Test-II	From 3.1 to 5.6

## **BUSINESS MANAGEMENT**

Course Code	Course Title	No. of periods per week	Total periods / semester	Marks for FA	Marks for SA	Credits
C26CP305E	Business Management	3	45	30	70	2

### **TIME SCHEDULE**

S. No.	Chapter/Unit Title	No. of Periods	Weightage of Marks	No. of Short answer questions	No. of Essay type questions	CO's Mapped
1	Management & Entrepreneurship	9	22	2	2	CO1
2	Business Environment	9	14	2	1	CO2
3	Organisation Structure and Departmentation	9	22	2	2	CO3
4	Office Management, Layout, filing and Indexing	9	22	2	2	CO4
5	Stationery, Inward and Outward Mail.	9	14	2	1	CO5
	Total	45	94	10	8	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |       |  |
|-------|--|
| (i)   | familiarize with concepts of Management, Entrepreneurship.                     |
| (ii)  | familiarize with the concepts of Business Environment                          |
| (iii) | Familiarize with the departmentation, centralisation and decentralisation      |
| (iv)  | familiarize with the concept of Office Management, layout, filing and indexing |
| (v)   | familiarize with the stationery, inward and outward mail.                      |

## COURSE OUTCOMES

The student will be able to	
CO1	understand the meaning and functions of Management and Role of Entrepreneurship
CO2	understand the elements in Business Environment
CO3	Familiarize with the departmentation
CO4	familiarise with the office management, filing and indexing
CO5	Familiarise with the Stationery, inward and outward mail.

## LEARNING OUTCOMES

### **1.0 Management & Entrepreneurship**

- 1.1 Define Management
- 1.2 State the meaning of various levels of Management
- 1.3 Explain the functions of Management
- 1.4 Define Entrepreneurship
- 1.5 State the meaning of Entrepreneur
- 1.6 Explain the functions of Entrepreneur
- 1.7 List the different types of Entrepreneurs
- 1.8 Outline the Entrepreneurial opportunities in Andhra Pradesh
- 1.9 Apprehend the role of Entrepreneurship in economic development

### **2.0 Business Environment**

- 2.1 State the meaning of Business Environment
- 2.2 State the importance of Business Environment
- 2.3 List and explain various elements of Business Environment
- 2.4 Explain the role of Economic Environment on Business and Industry in India

### **3.0 Organisation Structure and Departmentation**

- 3.1 State the meaning of Structure of an Organisation
- 3.2 State the meaning of Centralisation and Decentralisation of office services
- 3.3 Explain the centralisation of Office functions.
- 3.4 Explain Decentralisation of Office Functions.
- 3.5 State the meaning of Departmentation.
- 3.6 List and explain functions of various departments – Purchases Department, Sales Department, Accounts Department, Human Resources Department, Dispatch/Mailing Department.

- 3.7 List the consequences of poor organisation.
- 3.8 State the meaning of e-Office
- 3.9 Explain the benefits of e-office

#### **4.0 Office Management, Layout, filing and Indexing**

- 4.1 State the meaning and importance of office to an organisation
- 4.2 Explain the basic and administrative functions of a modern office
- 4.3 State the meaning and objectives of office layout
- 4.4 Design the Layout of an Office
- 4.5 State the meaning and objectives of filing
- 4.6 List and explain various methods of old and modern methods of filing.
- 4.7 State the meaning of Indexing
- 4.8 List and explain various methods of Indexing

#### **5.0 Stationery, Inward and Outward Mail.**

- 5.1 List the various items of stationery used in modern office
- 5.2 List and explain the various methods of procurement of stationery
- 5.3 State the meaning of Inward mail and Outward mail
- 5.4 Give the proforma of Inward Mail Register and its Preparation with imaginary data.
- 5.5 Give the proforma of outward Register and its Preparation with imaginary data.

### **COURSE CONTENTS**

1. Management – Functions of Management –Entrepreneurship – Entrepreneur Functions – Role in economic Development – Opportunities for Entrepreneurs in Andhra Pradesh
2. Business Environment – Elements – Role of Economic Environment on Business and Industry.
3. Organisation Structure – Centralisation – Decentralisation - Departmentation – Functions of Departments – Consequences of poor organisation – e-Office – Meaning and benefits.
4. Office Management - Functions of Office – Layout of an office - Objectives and methods of filing – indexing –
5. Stationery – Methods of procurement - Inward Mail and Outward Mail.

### **REFERENCES:**

1. Intermediate 2<sup>nd</sup> Year Commerce Textbook, Telugu and Sanskrit Academy, Andhra Pradesh
2. NCERT Class 12 Business Studies Text Book
3. RSN Pillai Bhagavathi, Office Management, S Chand Publications
4. V. Balachandran, V. Chandrasekharan, Office Management, Mc Graw Hill Companies
5. Dr. R.K. Chopra Ankita Bhatia, Office Organization, Himalaya Publishing House.
6. Dr. R.K. Chopra, Priyanka Gouri, Office Organization, 17<sup>th</sup> Revised and Updated Edition, Himalaya Publishing House.

7. S.P. Arora, Office Organization and Management, Second Revised Edition.
8. Dr.T. S. Deva Narayanan, N.S. Raghunathan, Office Management, Margham Publications
9. J.N. Jain, P.P. Singh, Modern Office Management
10. E-office manual.

**Table specifying the scope of syllabus to be covered for Unit Tests**

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 3.4
Unit Test-II	From 3.5 to 5.5

### **FUNDAMENTALS OF QUANTUM COMPUTING**

Course code	Course Title	No. of Periods /Weeks	Total No. of periods	Credits
26CP306A	Fundamentals of Quantum Computing	2	30	-

### **TIME SCHEDULE**

S.No.	Chapter/Unit Title	No. of Periods	CO's Mapped
1.	Introduction to Quantum Computing	6	CO1
2.	Qubits and Superposition	6	CO2
3.	Quantum Gates and Circuits	6	CO3
4.	Entanglement and Quantum Teleportation	6	CO3, CO4
5.	Quantum Computing in AI & ML	6	CO3, CO5
Total Periods		30	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- i) Understand the basic concepts of Quantum Computing
- ii) Identify and explain potential applications of Quantum Computing

### **COURSE OUTCOMES**

The student will be able to:		
CO1	26CP306A.1	Describe the basic principles and evolution of quantum computing, distinguishing it from classical computing systems.
CO2	26CP306A.2	Explain the concept of qubits, superposition, and quantum states, and understand their role in quantum computation.
CO3	26CP306A.3	Construct and interpret simple quantum circuits using quantum logic gates, and simulate quantum operations using basic tools or visualizations.

CO4	26CP306A.4	Understand and apply the principles of entanglement and quantum teleportation, and discuss their implications in secure data transmission.
CO5	26CP306A.5	Identify and explain potential applications of quantum computing in AI and ML, and evaluate how quantum algorithms may accelerate machine learning tasks.

## **LEARNING OUTCOMES**

### **1.0 Introduction to Quantum Computing**

- 1.1 Introduction to classical vs quantum computing
- 1.2 History and evolution of quantum computing
- 1.3 Bits vs qubits – conceptual view
- 1.4 Limitations of classical computing & quantum advantages
- 1.5 Key terminology and glossary
- 1.6 Real-world applications and milestones
- 1.7 Overview of quantum hardware (IBM, Google, etc.) and future trends

### **2.0 Qubits and Superposition**

- 2.1 Concept and physical forms of qubits
- 2.2 Superposition using analogies and simple examples
- 2.3 Measurement and its effect on quantum states
- 2.4 Decoherence and practical implications
- 2.5 Role of superposition in quantum speed-up

### **3.0 Quantum Gates and Circuits**

- 3.1 Quantum logic gates: X, Y, Z, H (single-qubit)
- 3.2 CNOT and SWAP gates (multi-qubit)
- 3.3 Quantum circuits: structure and representation
- 3.4 Classical vs quantum logic gates
- 3.5 Quantum parallelism (introductory idea)
- 3.6 Practical circuit examples without equations

### **4.0 Entanglement and Quantum Teleportation**

- 4.1 Entanglement concepts and real-world analogies
- 4.2 Applications in secure communication and networks
- 4.3 Quantum teleportation and key distribution
- 4.4 Experimental insights and challenges

### **5.0 Quantum Computing in AI & ML**

- 5.1 Introduction to AI & ML and relevance of quantum computing
- 5.2 Quantum-enhanced ML: pattern recognition & clustering (conceptual)

- 5.3 Quantum data encoding – basics
- 5.4 Case studies and industrial applications
- 5.5 Challenges and future research directions

## **Course Contents:**

### **Introduction to Quantum Computing:**

Classical vs quantum computing, history, bits vs qubits, limitations of classical systems, quantum advantages, terminology, applications, milestones, hardware platforms, future trends.

### **Qubits and Superposition:**

Concept and physical forms of qubits, superposition with analogies, measurement effect, quantum states, decoherence, examples, computational speed-up.

### **Quantum Gates and Circuits:**

Quantum logic gates (X, Y, Z, H, CNOT, SWAP), gate operations, quantum circuits, comparison with classical logic, circuit diagrams, quantum parallelism, practical usage.

### **Entanglement and Quantum Teleportation:**

Entanglement concept, real-world analogies, applications in communication, secure quantum communication, teleportation demonstrations, key distribution, challenges.

### **Quantum Computing in AI & ML:**

AI & ML basics, quantum-enhanced ML, quantum data encoding, pattern recognition, clustering, industry use cases, case studies, future scope.

## **REFERENCE BOOKS**

1. Quantum Computation and Quantum Information, Michael A. Nielsen & Isaac L. Chuang, Cambridge University Press
2. Dancing with Qubits: How quantum computing works and how it can change the world, Robert S. Sutor, Packt Publishing / IBM Press
3. Quantum Computing: An Applied Approach, Author: Jack D. Hidary, Springer
4. Learn Quantum Computing with Python and Q#, Sarah Kaiser, Christopher Granade, Nathan Wiebe, and Brian C. Beckman, Manning Publications.
5. Quantum Machine Learning: What Quantum Computing Means to Data Mining, Peter Wittek, Academic Press
6. Suggested Approach for Teaching
  - Chapters 1–4: Use *Nielsen & Chuang* or *Dancing with Qubits* for foundational theory.
  - Chapter 5 (AI & ML): Supplement with *Jack Hidary* or *Peter Wittek* for applications in data science and AI.

Reference Websites:  
Introduction to Quantum Computing

<https://quantum-computing.ibm.com/docs/learn/what-is-quantum-computing>

<https://learn.microsoft.com/en-us/azure/quantum/overview-quantum-computing>

### ENGLISH TYPEWRITING – I (45 WPM)

Course Code	Course title	No. of periods/ week	Total No. of periods	Marks for FA	Marks for SA	Credits
<b>26CP307L</b>	English Typewriting – I (45 WPM)	07	105	-	100	3

#### TIME SCHEDULE

S. No	Major Topics	No of Periods	CO's Mapped
1	Practice of Speed @ 30 wpm	20	CO1
2	Practice of Speed @ 35 wpm	35	CO2
3	Practice of Speed @ 45 wpm	50	CO3
	Total	105	

**NOTE: Summative Assessment will be for 10 minutes @ 45 wpm for 100 marks and End Examination Paper will be issued by SBTET, AP. Minimum Pass Mark is 45%.**

***(Five Depressions of key are treated as one word).***

#### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

(i)	reproduce the printed matter on Manual Typewriter at 30 WPM with accuracy.
(ii)	reproduce the printed matter on Manual Typewriter at 35 WPM with accuracy.
(iii)	reproduce the printed matter on Manual Typewriter at 45 WPM with accuracy.

#### COURSE OUTCOMES

The student shall be able to		
CO1	26CP307L.1	Practice the speed at 30 WPM with accuracy
CO2	26CP307L.2	Practice the speed at 35 WPM with accuracy
CO3	26CP307L.3	Practice the speed at 45 WPM with accuracy

## LEARNING OUTCOMES

### **1.0 Practice of Speed @ 30 wpm**

- 1.1 Drill the speed passages at varying speeds.
- 1.2 Drill the difficult words.
- 1.3 Reproduce the printed matter and previous examination papers into typed matter with accuracy
- 1.4 Repeat the typing of printed matter and previous examination papers with accuracy at 30 wpm.

### **2.0 Practice of Speed @ 35 wpm**

- 2.1 Drill the difficult and lengthy words.
- 2.2 Reproduce the previous examination papers at 35 wpm with accuracy
- 2.3 Repeat the typing of previous examination papers with accuracy at 35 wpm.

### **3.0 Practice of Speed @ 45 wpm**

- 3.1 Practice of Higher-Grade Speed Papers @ 45 wpm and more
- 3.2 Drill the lengthy and difficult words.
- 3.3 Reproduce the Higher Grade Speed papers at 45 wpm with accuracy.

## COURSE CONTENTS

1. Practice of speed @ 30 wpm - Practice of running matter at 30wpm.
2. Practice of running matter and previous examination Papers @ 35, 45 words per minute.
3. Speed Tests at 45 wpm ad more.

## BOOKS RECOMMENDED

1. Typewriting Higher Speed Papers of S.B.T.E.T. Published by National Shorthand School (Books), Visakhapatnam
2. Speed Practice books published by Laxmi Prasuram, 20-A Nandhikoil Street, Tiruchirappalli
3. Speed Practice books published by R.K. Books, Guntur

\*In view of the emphasis of the Government to switch over from the Manual Typewriting, it is recommended that the student practise the same syllabus of Typewriting English Higher for at least one hour/week on Computer.

As per the orders of the Government, as and when Typewriting English Higher Grade is replaced by any certificate course, the pass in 26CP307L ENGLISH TYPEWRITING – I AND 26CP308L ENGLISH TYPEWRITING – II is to be considered as equivalent to that certificate course.

**ENGLISH TYPEWRITING-II (45WPM)**

Course Code	Course title	No. of periods/ week	Total No. of periods	Marks for FA	Marks for SA	Credits
<b>26CP308L</b>	English Typewriting - II (45 WPM)	06	90	-	100	3

**TIME SCHEDULE**

Sl. No	Major Topics	No of Periods	No. of words	No. of strokes	No. of Questions	Marks	COs mapped
1	Balance Sheet / Receipts and Payments / Trading and Profit and Loss account / Income and Expenditure account	40	140	700	1	40	CO1
2	Official Letter, Business Letter	20	120	600	1	20	CO2
3	Government Order /Government Memorandum /Notification/Judge ment	30	140	700	1	40	CO3
	Total	90			3	100	

**Note: Summative Assessment is for 100 Marks for ONE HOUR and End Examination Paper shall be issued by SBTET, AP. Minimum pass percentage is 45%**

***(Five Depressions of key are treated as one word).***

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	understand and practice various types of correspondence used in Professional, Business and Government Organizations.
(ii)	familiarize with the manuscript and to amplify the abbreviations
(iii)	transform various manuscripts into neatly typed formats with accuracy and neatness.

**COURSE OUTCOMES**

The student will be able to		
CO1	26CP308L.1	Type the Balance Sheet / Receipts and Payments Account / Trading and Profit and Loss Account / Income and Expenditure account from Manuscript on a single sheet.
CO2	26CP308L.2	Type the Official Letters and Business Letters from Manuscript.
CO3	26CP308L.3	Type the Government Order /Government Memorandum/Notification/ Judgement from Manuscript.

**LEARNING OUTCOMES**

**1.0 Balance Sheet / Receipts and Payments Account / Trading and Profit and Loss Account / Income and Expenditure Account on a single sheet.**

- 1.1 Demonstrate Balance Sheet, Receipts and Payments Account, Income & Expenditure Account and Trading & Profit & Loss Account.
- 1.2 Explain the format of a balance sheet.
- 1.3 Identify the items that appear in a balance sheet covering two sides.
- 1.4 Calculate the spaces for tabulation on both sides of the Balance Sheet for each column.
- 1.5 Type the Balance Sheet on a single sheet from manuscript.
- 1.6 Explain the formats of Trading & Profit and Loss Account, Income & Expenditure Account and Receipts & Payments Account.
- 1.7 Identify the items that appear in different accounts.
- 1.8 Type the Trading and Profit & Loss Account, Income & Expenditure Account, and Receipts & Payments Account on a single Sheet from manuscript

**2.0 Official Letters and Business Letters**

- 2.1 Demonstrate official letter and Business letter and outline the use of Official Letter in Government Offices.
- 2.2 Give the format of Official Letter and Business Letter.
- 2.3 Amplify the abbreviations in Official Letter and Business Letter.
- 2.4 Type Official Letter and Business Letter from manuscript.

**3.0 G.O./Memorandum/Notification/Judgement**

- 3.1 Demonstrate Government Order, Memorandum, Notification and Judgement and their use in Government correspondence
- 3.2 Type Government Order from manuscript in proper format.
- 3.3 Type Memorandum in proper format from manuscript.
- 3.4 Type Notification in proper format from manuscript
- 3.5 Type Judgement in proper format from manuscript

#### COURSE CONTENTS

1. Balance Sheet/Receipts and Payments Account/ Income and Expenditure Account/Trading and Profit and Loss account.
2. Official Letter and Business Letter
3. Government Order/Memorandum/Notification/Judgement.

#### BOOKS RECOMMENDED

- a) Books published by National Shorthand School, Visakhapatnam.
- b) Books published by R.K. Publishers, Guntur.

\*In view of the emphasis of the Government to switch over from the Manual Typewriting, it is recommended that the student practise the same syllabus of Typewriting English Higher for at least one hour/week on Computer.

As per the orders of the Government, as and when Typewriting English Higher Grade is replaced by any certificate course, the pass in 26CP307L ENGLISH TYPEWRITING – I AND 26CP308L ENGLISH TYPEWRITING – II is to be considered as equivalent to that certificate course.

#### **ENGLISH SHORTHAND (60 WPM)**

Course Code	Course title	No. of periods/week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP309L	English Shorthand (60 WPM)	06	90	40	60	1.5

#### TIME SCHEDULE

S. No.	Major Topics	No of Periods	CO's Mapped
1	Practice of Special Contractions & Exercises	15	CO1
2	Practice of speed @ 40 and 50 WPM	35	CO2
3	Practice of speed @ 60 WPM	40	CO3
	Total	90	

Note 1: The examination will be conducted at the end of third semester at the rate of 60 wpm and it is a practical examination i.e., 40 marks for Formative Assessment and 60 marks for Summative Assessment. The Question paper will be set at the institution level. The duration of speed is for 7 minutes @ 60 wpm and the time for transcription is 1 hour.

#### COURSE OBJECTIVES

Upon completion of this course the student shall be able to

(i)	practice and familiarize with the special contractions and exercises
(ii)	write the speed @40 wpm and 50wpm and transcribe with accuracy
(iii)	write the speed @60 wpm and transcribe with accuracy.

#### COURSE OUTCOMES

The student shall be able to		
CO1	26CP309L.1	write contractions with emphasis on speed
CO2	26CP309L.2	take the dictations at varied speeds.
C03	26CP309L.3	transcribe the shorthand notes in long hand in the given time.

#### LEARNING OUTCOMES

### 1.0 Practice of Special Contractions & Exercises

- 1.1 Practice of Special Contractions – Section I and exercises
- 1.2 Practice of Special Contractions – Section II and exercises
- 1.3 Practice of Special Contractions – Section III and exercises
- 1.4 Practice of Special Contractions – Section IV and exercises
- 1.5 Practice of Special Contractions – Section V and exercises
- 1.6 Revision of Contractions and Grammalogues.

## **2.0 Practice of speed @ 40 and 50 WPM**

- 2.1 Practice of taking down dictation @ 40 wpm
- 2.2 Practice transcribing the dictated passage
- 2.3 Practice of taking down dictation @ 50 wpm
- 2.4 Practice transcribing the dictated passage
- 2.5 Take down dictations at varied speeds on Grammalogues and Contractions

## **3.0 Practice of speed @ 60 WPM**

- 3.1 Practice of taking down dictation from prepared passages @ 60 wpm
- 3.2 Practice transcribing the dictated passage
- 3.3 Rectify the mistakes in outlines and spellings.
- 3.4 Take down dictation of examination question papers at 60 wpm in a given time.
- 3.5 Practice transcribing the dictated matter in the given time.
- 3.6 Rectify the mistakes. Practice corrected spellings and outlines.

## **COURSE CONTENTS**

- 1. Practice of Special Contractions and Exercises – Revision of Grammalogues and Contractions.
- 2. Practice of Speed passages @ 40 wpm and 50 wpm - Transcription of shorthand script into English.
- 3. Practice of speed @ 60wpm - Practice of passages and taking down dictations - Transcription of dictated passages into English.

## **BOOK RECOMMENDED**

- 1. Pitman Shorthand Instructor with key.
- 2. 700 common words book.
- 3. Books published by National Shorthand School

Course Code	Course Title	No. of Periods/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP401T	English – III	5	75	30	70	3

For 26CP401T ENGLISH – III, the English Text Book prescribed by Board of Intermediate, AP Vijayawada for Inter 2<sup>nd</sup> year shall be followed.

### ACCOUNTANCY – III

Course Code	Course Title	No. Of Period/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP402T	Accountancy - III	5	75	30	70	4

#### TIME SCHEDULE

S. No.	Chapter/ Unit title	No. of Periods	Weightage of Marks	Short Questions	Essay Questions	CO's Mapped
1	Depreciation	13	18	2	2	C01
2	Bills of Exchange	12	12	2	1	C02
3	Accounts of Non-Trading Concerns	20	28	2	1* (16 Marks) + 1 (6 Marks)	C03
4	Consignment	15	18	1+1*	2	C04
5	Hire Purchase System	15	12	2	1	C05
	Total	75	88	10	8	

NOTE 1: In Part-A, (\*) indicates problem questions.

Note 2: In Part-B Question No. 11 is compulsory which carries 16 Marks should be from ACCOUNTS OF NON-TRADING CONCERNS and other questions carry 6 marks each.

#### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- (i) know the accounting methods in different kinds of organisations
- (ii) Prepare accounts of different Organisations

#### COURSE OUTCOMES

At the end of the course the Student will be able to

CO1	26CP402T.1	Calculate the Depreciation on various assets by using different methods
CO2	26CP402T.2	Prepare Journal entries in different situations when bills are drawn by business concerns for allowing credit
CO3	26CP402T.3	Prepare the accounts of Non-Trading Concerns
CO4	26CP402T.4	Prepare Consignment Accounts
CO5	26CP402T.5	Prepare Hire Purchase Accounts

## **LEARNING OUTCOMES**

### **1.0 Depreciation**

- 1.1 Define “Depreciation”
- 1.2 State the causes of depreciation
- 1.3 List different methods of calculating depreciation.
- 1.4 State the meaning of Straight Line Method
- 1.5 Compute depreciation under Straight Line Method
- 1.6 State the meaning of Diminishing Balance Method
- 1.7 Compute depreciation using Diminishing Balance Method
- 1.8 Compute depreciation when there is change in the method of depreciation during the life of an asset.
- 1.9 State the meaning of Provisions and Reserves in Depreciation
- 1.10 List different types of Provisions and Reserves.

### **2.0 Bills Of Exchange**

- 2.1 Define a bill of exchange. Give its proforma.
- 2.2 State the meaning of – Drawer, Drawee, Payee, Endorser, Endorsee, Noting charges
- 2.3 Prepare journal entries for (a) honour of bill (b) dishonour of bill (c) endorsement of bill (d) discounting of bill (e) sending bill for collection, in the books of drawer and drawee
- 2.4 State the meaning of Retirement of a bill and show the journal entries in the books of drawer and drawee
- 2.5 List the circumstances under which Renewal of a bill takes place
- 2.6 State the meaning and significance of Accommodation Bills in Business
- 2.7 Distinguish between Trade and Accommodation Bills

### **3.0 Accounts Of Non-Trading Concerns**

- 3.1 Distinguish between Trading and Non-Trading concerns
- 3.2 State the meaning of Capital and Revenue Expenditures / Receipts with examples
- 3.3 Differentiate between Capital and Revenue Receipts and Capital and Revenue Expenditure
- 3.4 Explain ‘deferred revenue expenditure’ with examples
- 3.5 State the meaning of different terms used in non-trading concern’s final accounts
- 3.6 Draw the proforma of Receipts and Payments Account
- 3.7 List the features of Receipts and Payments Account
- 3.8 Draw the proforma of Income and Expenditure Account

- 3.9 List the features of Income and Expenditure Account
- 3.10 Prepare Receipts and Payments Account from the list of balances
- 3.11 Prepare Income and expenditure account from the Receipts and Payments account or list of balances
- 3.12 Prepare previous year's Balance Sheet to calculate Capital fund
- 3.13 Prepare current year's Balance Sheet

#### **4.0 Consignment**

- 4.1 State the meaning and list features of Consignment
- 4.2 State the meaning of Consignor, Consignee and Account Sales
- 4.3 Distinguish between Consignment and Sale
- 4.4 Distinguish between Consignment and Joint Venture
- 4.5 State the meaning of different types of Commissions – 1) Ordinary 2) Del Credere 3) Over-riding and their accounting treatment
- 4.6 Prepare journal entries and ledger accounts in the books of Consignor and Consignee
- 4.7 Describe the method of valuation of unsold stock
- 4.8 Prepare journal entries and ledger accounts for a consignment when the goods are valued at invoice price
- 4.9 State the meaning of Normal Loss and Abnormal Loss in Consignment and their accounting treatment
- 4.10 Explain how normal and abnormal losses are treated in the books of consignor

#### **5.0 Hire Purchase System**

- 5.1 Define Hire Purchase System
- 5.2 List the features of Hire Purchase System
- 5.3 Prepare accounts in the books of Hire Purchaser and Hire Vendor
- 5.4 State the meaning of the terms Default and Repossession
- 5.5 State the meaning of Instalment Purchase system
- 5.6 Distinguish between Hire Purchase and Instalment Purchase systems
- 5.7 Prepare accounts in the books of Purchaser and Vendor

#### **COURSE CONTENTS**

1. Depreciation - Methods of calculation of depreciation – Straight Line Method and Diminishing Balance Method – Provisions and Reserves
2. Bills of Exchange – Accounting treatment for all bill transactions – Meaning of Retirement, Renewal and Accommodation Bills.
3. Accounts of a Non-Trading Organisations -- Preparation of Receipts and Payments Account, Income & Expenditure Account and Balance Sheet of a Non-Trading Organisation
4. Consignment - Meaning and features – Difference between Consignment and Sale — Normal, Del credere and Over-riding commission – Accounting treatment in the books of consignor and consignee – valuation of Unsold stock –Preparation of Accounts when the goods are valued at Invoice Price - normal/abnormal loss evaluation.
5. Hire Purchase – Definition of Hire Purchase - features of Hire Purchase system - Accounting Treatment in the books of Hire Purchaser and Hire Vendor - Default and Repossession. - Instalment Purchase system. – Difference between Hire Purchase and Instalment Purchase systems- Accounting Treatment in the books of Purchaser and Vendor.

BOOKS RECOMMENDED:

1. Grewal T S 'Introduction to Accountancy'
2. Maheswari S.N. 'Introduction to Accountancy'
3. Gupta and Gupta 'Principles and Practice of Accountancy'
4. Jain and Narang 'Advanced Accounts'
5. Shukla and Grewal 'Advanced Accounts'
6. Gupta and Radha Swamy 'Advanced Accounts'
7. Telugu Academy publications of Intermediate course.
8. Basu & Das - Advanced Accountancy Vol I and Vol. II
9. Basu & Das – Problems in Advanced Accountancy, Vol.1& Vol. II

Unit test syllabus division table for Accountancy-III

UNIT TEST	Learning Outcomes to be covered
UNIT TEST - 1	1.1 to 3.10
UNIT TEST - 2	3.11 to 5.7

PRINCIPLES OF MARKETING

Course Code	Course title	No. of Periods/Week	Total no. of periods	Marks for Formative Assessment	Marks for Summative Assessment	Credits
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26CP403T	Principles of Marketing	05	75	30	70	3
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**TIME SCHEDULE**

S. No.	Chapter/ Unit title	No. of Periods	Weightage of Marks	Short Questions	Essay Questions	CO's Mapped
1.	Marketing – Importance and Functions	15	22	2	2	CO1
2.	Market Segmentation and Consumer Behaviour	15	22	2	2	CO2
3.	Product Planning and Development	15	14	2	1	CO3
4.	Pricing Methods and Strategies	10	14	2	1	CO4
5.	Distribution and Promotional Strategies	20	22	2	2	CO5
	TOTAL	75	94	10	8	

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |  |
|--|
| <ol style="list-style-type: none"> <li>1. To understand the importance of Marketing in modern business.</li> <li>2. To familiarize with the process of Marketing.</li> </ol> |
|--|

**COURSE OUTCOMES**

At the end of the course the student will be able to		
CO1	26CP403T.1	Understand the meaning, importance and functions of Marketing.

CO2	26CP403T.2	Understand the concepts of Market Segmentation, Targeting and Positioning, Consumer Behaviour and Marketing Mix.
CO3	26CP403T.3	Know the different stages of product life cycle, new product development, product mix and branding.
CO4	26CP403T.4	Know the Pricing methods and Strategies.
CO5	26CP403T.5	Understand the importance of Distribution and Promotional strategies.

### **LEARNING OUTCOMES**

#### **1.0 Introduction to Marketing**

- 1.1 Define the term Marketing
- 1.2 Explain the importance of Marketing
- 1.3 Explain the benefits of Marketing to Organisation and Consumer
- 1.4 Explain the evolution of Marketing
- 1.5 Distinguish between Marketing and Selling
- 1.6 List the various types of marketing functions
- 1.7 Explain the functions of Physical Supply – Transportation and Storage
- 1.8 Explain the functions of Exchange –Buying, Selling, Pricing, Advertising, Sales Promotion
- 1.9 Explain the Facilitating functions – Financing, Risk taking, Marketing Information, Marketing Research, Standardisation, Grading, Packaging and Branding

#### **2.0 Market Segmentation and Consumer Behaviour**

- 2.1 State the meaning of Market Segmentation.
- 2.2 Explain the factors determining the Marketing Segmentation – Geographical, Demographical, Psychographic and Behavioural.
- 2.3 Explain Market Targeting and Product Positioning.
- 2.4 Define the term Consumer Behaviour.
- 2.5 Explain the factors determining the Consumer’s behaviour - Social, Cultural, Personal, and Psychological with relevant examples.
- 2.6 Describe Marketing Mix.

#### **3.0 Product Planning and Development**

- 3.1 State the meaning of product planning and outline the importance of product planning.
- 3.2 Explain the stages of Product Life Cycle – Introduction, Growth, Maturity and Decline in a given situation.
- 3.3 Illustrate the stages of Product Development with an example – Idea, Concept and Strategy, development, market testing and commercialisation
- 3.4 Describe Product Mix and its importance.
- 3.5 Define the term ‘Brand’
- 3.6 Explain the factors influencing the Branding of a product.

#### **4.0 Pricing Methods and Strategies**

- 4.1 State the meaning of Pricing and list its objectives.
- 4.2 Explain the factors influencing pricing – Demand, Costs, Competitor's Price.
- 4.3 List the different Pricing Methods with examples.
- 4.4 Explain the Skimming and Penetration Pricing methods with suitable examples.
- 4.5 Explain the different types of Pricing Strategies - Promotional Pricing, Discriminatory Pricing, Product-Mix Pricing

## **5.0 Distribution and Promotional Strategies**

- 5.1 State the meaning and the need for distribution.
- 5.2 Explain the factors influencing selection of distribution channel.
- 5.3 Explain the Promotional Techniques – Advertising, Personal Selling, and Direct Marketing.
- 5.4 Analyse and explain the terms Advertising Objectives, Advertising Budgets, Advertisement Copy, Evaluation of the Advertisement
- 5.5 Explain the factors affecting the Sales Force – Size, Compensation, Training, Supervising, and Evaluation.
- 5.6 State the benefits of Direct Marketing.
- 5.7 Mention the features of Face-to-Face Selling, Direct Mail, Catalogue Marketing, Tele-Marketing, Kiosk Marketing
- 5.8 Elucidate the advantages and disadvantages of On-line marketing with examples.

## **COURSE CONTENT:**

1. Introduction to Marketing - Importance of Marketing – How Marketing helps the industry and the society – Evolution of Marketing – Distinction between Marketing and Selling – Functions of Marketing.
2. Market Segmentation and Consumer Behaviour – Market Segmentation, Targeting and Product Positioning – Consumer Behaviour – Factors determining the consumer's behaviour – Marketing Mix.
3. Product Planning and Development – Meaning and importance of Product planning - Product Life Cycle and its stages – Stages in product development – Product Mix and its importance – Branding of product – Factors influencing the Branding.
4. Pricing methods and strategies – Pricing Objectives – Factors influencing pricing – Various Pricing Methods – Pricing Strategies.
5. Distribution and Promotion – Importance of distribution – Factors influence selection of Distribution channel - Various promotional techniques – Personal Selling – Direct Marketing – Online Marketing.

## **Reference Books:**

1. Philip Kotler: Marketing – Prentice Hall.
2. William M Pride and O.C.Ferrell :Marketing : Houghton – Maffilin Boston
3. Stanton W.J., Etzel Michale, J. Walker Bruce J; Fundamentals of Marketing, McGraw Hill, New York.
4. Lamb Charless W, Hair Joseph E, and Mc Daniala Carl: Principles of Marketing; South Western Publishing, Cincinnati, Onio.

5. Cravens David W, Hills Genrald E., Woodruff Rober B: Marketing Management: Richard D Irwin, Homewood, Illinois.
6. Kotler Philip and Armstrong Gary: Principles of Marketing: Prentice Hall of India, New Delhi.
7. Fulmer RM: The New Marketing, McMillan, New York.
8. McCarthy J.E. Basic Marketing – a Managerial Approach: McGraw Hill, New York.
9. Cundiff, Edward W, and StiuRR : Basic Marketing – Concepts, Decisions and Strategies, Prentice Hall, New Delhi.
10. Bushkirk, Richard H; Principles of Marketing: Dryden Pren, Illinois.

Table specifying the scope of syllabus to be covered for unit tests

UNIT TEST	Learning Outcomes to be covered
UNIT TEST - 1	1.1 to 3.3
UNIT TEST - 2	3.4 to 5.8

### **C PROGRAMMING**

<b>Course code</b>	<b>Course Title</b>	<b>No. of Periods/ Week</b>	<b>Total No. of periods</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP404E	C Programming	3	45	30	70	2

### **TIME SCHEDULE**

<b>S. No.</b>	<b>Chapter/ Unit Title</b>	<b>No. of Periods</b>	<b>Weightage of Marks</b>	<b>Short Questions</b>	<b>Essay Questions</b>	<b>CO's Mapped</b>
1	Programming methodology	5	17	3	1	CO1
2	Data types, variables and operators	5	9	3	-	CO2
3	Input/ Output statements	5	11	1	1	CO3
4	Decision making & looping statements	20	35	1	4	CO4
5	Arrays, functions, strings	10	22	2	2	CO5
	<b>Total</b>	<b>45</b>	<b>94</b>	<b>10</b>	<b>8</b>	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |   |
|---|
| (i) To know basics of 'C Programming'       |
| (ii) Write and execute simple programs in C |

### **COURSE OUTCOMES**

<b>Up on completion of the course the student will be able to</b>		
CO1	26CP404E.1	Familiarize with the knowledge of algorithm, flowchart and structure of 'C' program.
CO2	26CP404E.2	Understand data types, variable declaration and operators
CO3	26CP404E.3	Know about input/output statements
CO4	26CP404E.4	Make use of decision making and looping statements
CO5	26CP404E.5	Make use of arrays, functions and strings

### **LEARNING OUTCOMES**

#### **1. Programming Methodology and structure of C**

- 1.0 State the different steps involved in Problem solving.
- 1.1 Define Algorithm and Flowchart.
- 1.2 Develop algorithms for simple problems.
- 1.3 Draw the symbols used in Flowcharts.
- 1.4 Draw flowcharts for simple problems.
- 1.5 Differentiate between algorithm and flowchart.
- 1.6 Explain origin of 'C'.
- 1.7 List the features of C language.
- 1.8 Explain compilers, interpreters and linkers.
- 1.9 Draw the structure of 'C' program.
- 1.10 Mention the types of statements in C.
- 1.11 Write about comments in C.
- 1.12 List and explain tokens in C.
- 1.13 Know what is identifier.
- 1.14 Specify the rules for naming identifiers.

#### **2. Variables, data types, operators and expressions**

- 2.1 Understand what is data type.
- 2.2 List and explain various data types in 'C'.
- 2.3 Define variable, constant.
- 2.4 Write the format for declaring variables, constants with examples.

- 2.5 Explain the method of type conversion in 'C'.
- 2.6 List the unary operators.
- 2.7 List the arithmetic operators.
- 2.8 List the relational operators.
- 2.9 List the logical operators.
- 2.10 Mention the assignment and compound assignment operators.
- 2.11 List and explain the increment and decrement operators.
- 2.12 Know about conditional operator.
- 2.13 Explain the precedence of operators.

### **3. Input/ Output Statements**

- 3.1 Explain the output functions in C- formatted and unformatted.
- 3.2 List out escape sequences in C.
- 3.3 Describe the format specifiers along with modifiers in C.
- 3.4 Understand format string or control string in C
- 3.5 Explain the input functions in C – formatted and unformatted.
- 3.6 List out the header files in C.

### **4. Decision making and Looping statements**

- 4.1 Explain the decision-making statements in C.
- 4.2 Write the format for simple if
- 4.3 Write a program using simple if.
- 4.4 Write the format for if-else
- 4.5 Write simple programs on if-else
- 4.6 Write the format for if-else-if ladder.
- 4.7 Write simple programs on if-else-if ladder.
- 4.8 Write the format for switch-case, break
- 4.9 Write simple programs on switch-case
- 4.10 Write the format for While, Do-While and For loops
- 4.11 Write simple programs on for loop
- 4.12 Write simple programs on while loop
- 4.13 Write simple programs on do-while loop.
- 4.14 State the use of continue statement with example.
- 4.15 Explain the break statement with example.
- 4.16 Write about Goto statement. Give example.

### **5 Arrays and functions**

- 5.1 Define the term 'Array'.
- 5.2 List the types of arrays.
- 5.3 Write the format for single dimensional array.
- 5.4 Explain the format for initialization of single dimensional array.
- 5.5 Write simple programs on single dimensional arrays.
- 5.6 Explain multi-dimensional arrays – Matrix reading & writing operations.
- 5.7 Explain the format for initialization of two-dimensional

- array.
- 5.8 Write simple programs on multi-dimensional arrays.
- 5.9 Define function.
- 5.10 List types of functions.
- 5.11 List any three built-in functions in C.
- 5.12 Understand the methods of passing arguments to function.
- 5.13 Describe scope of variables
- 5.14 Write simple programs using functions.
- 5.15 Define string.
- 5.16 Know the format for declaring a string.
- 5.17 Give the format for initialization of a string.
- 5.18 Explain the reading and writing of string with and without built-in functions.
- 5.19 Write simple programs on strings.
- 5.20 Explain the string functions in C.

## COURSE CONTENTS

- 1) Problem Solving - Different steps involved in Problem solving, Algorithm and Flowchart - Symbols used in Flowcharts- Developing simple algorithms and flow charts- Features of 'C' Language - Origin of 'C'- Compilers, Interpreters & Linkers, Structure of 'C' Program -Type of statements - Tokens in C - identifier- naming rules of identifiers.
- 2) Data types in C- Constants and variables- Format for declaring variables, constants- Type conversion in 'C'- Arithmetic operators- Unary operators- Relational operators- Logical operators- Increment and Decrement operators- Conditional operator -Precedence of operators.
- 3) I/O functions viz., printf, scanf, getchar, putchar, gets, puts,getc, putc-Method of format specification for input and output operations- Escape sequence & format specifiers- format string- terminator-statement terminator, string terminator-Header files in 'C' language
- 4) Decision making & Looping statements in 'C' - if-else, switch-case, break, While & Do-While loops, Continue-break-go to label.
- 5) Arrays and Functions - Term 'Array'-Single and Multi-dimensional arrays-Matrix operations- Reading and Writing-addition, trace, transpose -functions- Types of functions-Library Functions- User defined functions-Scope of variables-String- String functions.

## References

- 1) Sri E. Balagurusamy, Programming in ANSI C –McGraw Hill Education (India) Pvt. Ltd.
- 2) Sri Venugopal & Sri Prasad, Mastering C –McGraw Hill Education (India) Pvt. Ltd.

- 3) Let Us C by Yashvant Kanetkar.
- 4) C in depth by S.K. Srivastava, Deepali Srivastava.
- 5) C Programming Language by Brain W. Kernighan, Dennis M Ritchie

**Table specifying the scope of syllabus to be covered for unit tests**

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 4.7
Unit test-2	From 4.8 to 5.17

## PYTHON PROGRAMMING

Course Code	Course Title	No. of Periods/ Week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP405E	Python Programming	3	45	30	70	2

### TIME SCHEDULE

S. No.	Chapter/ Unit Title	No. of Periods	Weightage of Marks	Short Questions	Essay Questions	CO's Mapped
1	Programming methodology	5	17	3	1	CO1
2	Data types, variables and operators	5	9	3	-	CO2
3	Input/ Output statements	5	8	-	1	CO3
4	Decision making & looping statements	20	38	2	4	CO4
5	Arrays, functions, strings	10	22	2	2	CO5
	<b>Total</b>	<b>45</b>	<b>94</b>	<b>10</b>	<b>8</b>	

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- (i) To know basics of 'Python Programming'
- (ii) Write and execute simple programs in Python

### COURSE OUTCOMES

Up on completion of the course the student will be able to		
CO1	26CP405E.1	Familiarize with the programming methodology of Python
CO2	26CP405E.2	Understand data types, variable declaration and operators
CO3	26CP405E.3	Make use of input/output statements

CO4	26CP405E.4	Make use of decision making and looping statements
CO5	26CP405E.5	Make use of arrays, functions and strings

## **LEARNING OUTCOMES**

### **1.0 Programming methodology**

- 1.1. Recall the history of Python.
- 1.2. List Python features.
- 1.3. Identify and explain applications of Python.
- 1.4. Describe Python Integrated Development and Learning Environment (IDLE).
- 1.5. Distinguish between integrated mode and script mode.
- 1.6. State various Python statements.
- 1.7. Recall the purpose of Python comments.
- 1.8. Explain indentation and discuss its importance.
- 1.9. Outline the steps in developing and executing a simple Python program.
- 1.10. Differentiate among compiler, interpreter, and linker.

### **2.0 Data types, variables, operators**

- 2.10. Recall the concept of identifiers.
- 2.11. Recall Python keywords.
- 2.12. List and explain various data types.
- 2.13. Understand boolean values.
- 2.14. Describe variables in Python.
- 2.15. Explain variable naming rules.
- 2.16. Explain declaration and initialization of variables.
- 2.17. Explain the scope of variables.
- 2.18. List various operators.
- 2.19. Describe and use arithmetic operators.
- 2.20. Describe and use relational or comparison operators.
- 2.21. Describe and use logical operators.
- 2.22. Understand operator precedence rules.

### **3.0 Input / Output functions**

- 3.1. List and explain input functions.
- 3.2. Describe formatted input.
- 3.3. List and explain output functions.
- 3.4. Describe formatted output.

### **4.0 Control flow statements**

- 4.1. List various control flow constructs.
- 4.2. List and explain various decision-making statements.
- 4.3. Implement if statements.
- 4.4. Implement if-else statements.
- 4.5. Implement if-elseif-elseif statements.
- 4.6. List and explain various looping statements.

- 4.7. Implement for loops.
- 4.8. Implement while loops.
- 4.9. Demonstrate the use of break statement.
- 4.10. Demonstrate the use of continue statement.
- 4.11. Understand the use of pass statement.

## **5.0 Arrays, functions and strings**

- 5.1. Define arrays.
- 5.2. Explain accessing elements in an array.
- 5.3. Explain array methods.
- 5.4. State the purpose of modules.
- 5.5. Explain the creation of modules.
- 5.6. Describe how to import modules.
- 5.7. Define function.
- 5.8. List types of functions.
- 5.9. List and explain built-in functions.
- 5.10. Describe function arguments: default arguments, variable-length arguments.
- 5.11. Describe anonymous functions.
- 5.12. Explain the use of return statement.
- 5.13. Understand Python packages.
- 5.14. List and explain strings, string slices, and immutability.
- 5.15. List and explain string functions and methods.
- 5.16. Explain string modules.

### **Course Contents:**

**Programming methodology:** - History of Python- Python features- Applications of Python- Python Integrated Development and Learning Environment (IDLE)- integrated mode and script mode- various Python statements- Python comments-indentation and its importance- Steps in Developing a simple python program and execution.

**Data types, variables, operators:** - Identifiers- Keywords-Data types- boolean values- Variables- Variable naming rules- declaration, initialization of variables- scope of variables- Arithmetic operators- Relational or comparison operators- Logical operators- operator precedence rules.

**Input/ output functions:** - input functions- formatted input- output functions- formatted output.

**Control flow statements:** - **Control** Flow constructs- Decision making statements -If, If-Else - elseif ladder - various Looping Statements- for Loop- while loop- break- continue - Pass

**Arrays, functions and strings:** - arrays- accessing of elements in an array- array methods. purpose of modules- creation of modules- importing of modules- functions- types of functions- Built-in Functions- Function Arguments: Default arguments, Variable Length arguments- Anonymous Functions- Return Statement- Python Packages- Strings- String slices- immutability- String functions and methods- String modules.

**Reference books:**

1. Python Programming by K. Nageswara Rao, Shaikh Akbar - Scitech Publications (India) Pvt. Ltd.
2. Python Programming: A Modern Approach, Vamsi Kurama, Pearson
3. Learning Python, Mark Lutz, Orielly
4. Think Python, Allen Downey, Green Tea Press
5. Core Python Programming, W.Chun, Pearson.
6. Introduction to Python, Kenneth A. Lambert, Cengage

**Table specifying the scope of syllabus to be covered for unit tests**

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 4.5
Unit test-2	From 4.6 to 5.16

## **FUNDAMENTALS OF MACHINE LEARNING**

<b>Course code</b>	<b>Course Title</b>	<b>No. of Periods/Week</b>	<b>Total No. of periods</b>	<b>Credits</b>
26CP406A	Fundamentals of Machine Learning	2	30	-

### **TIME SCHEDULE**

<b>S. No.</b>	<b>Chapter/Unit Title</b>	<b>No. of Periods</b>	<b>CO's Mapped</b>
1.	Introduction to Machine Learning	3	CO1
2.	Machine Learning Workflow & Data Handling	4	CO2
3.	Probability and Bayesian Learning	3	CO3
4.	Supervised learning	12	CO4
5.	Unsupervised Learning and Applications	8	CO5
<b>Total Periods</b>		<b>30</b>	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- i) To know about the basics of machine learning
- ii) To analyse various supervised and unsupervised machine learning

### **COURSE OUTCOMES**

The student shall be able to		
CO1	26CP406A.1	Explain basic concepts of Machine learning
CO2	26CP406A.2	Describe the machine learning work flow and data modelling
CO3	26CP406A.3	Explain the basic mathematics for machine learning
CO4	26CP406A.4	Analyse various supervised machine learning algorithms
CO5	26CP406A.5	Analyse various unsupervised machine learning algorithms and ML applications

## **LEARNING OUTCOMES**

### **1.0 Introduction to Machine Learning**

- 1.1 Define Machine Learning
- 1.2 State the need for Machine Learning
- 1.3 Explain types of Machine Learning
  - 1.3.1 Supervised Learning
  - 1.3.2 Unsupervised Learning
  - 1.3.3 Reinforcement Learning
- 1.4 Applications of Machine Learning in real life

### **2.0 Machine Learning Workflow & Data Handling**

- 2.1 Overview of Machine Learning process
- 2.2 Types and structure of data
- 2.3 Basic data pre-processing techniques
  - 2.3.1 Normalization and scaling
  - 2.3.2 Feature selection (overview only)
- 2.4 Train/Test split and model evaluation basics
- 2.5 Overfitting and under fitting (basic idea)

### **3.0 Probability and Bayesian Learning**

- 3.1 Basic concepts of probability (no distributions)
- 3.2 Explain Bayes' Theorem (conceptual only)
- 3.3 Naïve Bayes Classifier
  - 3.3.1 Working of Naïve Bayes
  - 3.3.2 Applications of Naïve Bayes

### **4.0 Supervised Learning**

#### **4.1 Classification**

- 4.1.1 Introduction to classification
- 4.1.2 k-Nearest Neighbor (k-NN)
  - 4.1.2.1 Working of k-NN
  - 4.1.2.2 Applications
- 4.1.3 Decision Tree
  - 4.1.3.1 Concept and working
  - 4.1.3.2 Use cases
- 4.1.4 Support Vector Machine (brief)
  - 4.1.4.1 Concept of hyperplane
  - 4.1.4.2 Applications

#### **4.2 Regression**

- 4.2.1 Concept of regression
- 4.2.2 Simple Linear Regression
  - 4.2.2.1 Model equation and working
- 4.2.3 Real-life applications of regression

## **5.0 Unsupervised Learning**

### **5.1 Clustering**

5.1.1 Concept and need for clustering

5.1.2 K-Means Algorithm

5.1.2.1 Elbow method (overview)

5.1.3 Hierarchical Clustering (agglomerative only)

### **5.2 Association Rule Mining**

5.2.1 Concepts: itemset, support, confidence

5.2.2 Apriori Algorithm (basic working)

5.2.3 Applications of association rule mining

**5.3.** Real-life applications of ML in different fields (healthcare, finance, etc.)

## **COURSE CONTENT**

### **1. Introduction to Machine Learning**

Basics of machine learning – Human Learning – Define machine learning – Types of machine learning – Compare supervised, unsupervised and reinforcement learning – Applications of machine learning – Tools used for machine learning – Advantages and disadvantages of machine learning

### **2. Process of Machine Learning**

Overview of machine learning process – Types of data – Basic Data Preprocessing – Feature selection (overview) – Training and Testing the model – Overfitting and underfitting – Basic model evaluation techniques

### **3. Probability and Bayesian Learning**

Basic probability concepts – Baye's theorem – Naïve Bayes Classifier – Applications of Naïve Bayes

### **4. Supervised Learning**

Classification Model – Classification Algorithms: k-NN, Decision Tree, SVM (overview) – Introduction to Regression – Simple Linear Regression – Applications of supervised learning

### **5. Unsupervised Learning**

Compare supervised vs Unsupervised learning – Clustering techniques – Clustering Algorithms: K-Means, Hierarchical clustering – Association Rule Mining – Apriori Algorithm (concept only) – Applications of Unsupervised learning

## **REFERENCE BOOKS**

1. Machine learning, pearson -- Saikat Dutt, Subramanian chandramouli, Amitkumar Das

2. Introduction to Machine Learning with Python: A Guide for Data Scientists – Oreily -Andreas, Muller

3. Mathematics for Machine Learning Marc Peter Deisenroth , -- A. Aldo Faisal, Cheng Soon Ong
4. Understanding Machine Learning: From Theory to Algorithms -- Shai Shalev Shwartz, Shai Ben-David
5. Machine Learning: The New AI (The MIT Press Essential Knowledge series) -- Ethem Alpaydin

### ENGLISH SHORTHAND (80WPM)

Course Code	Course title	No. of periods /week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP407L	English Shorthand (80 WPM)	08	120	-	100	3

### TIME SCHEDULE

S. No	Major Topics	No of Periods	CO's Mapped
1	Practice of Speed @ 60wpm	30	CO1
2	Practice of speed @ 70 WPM	30	CO2
3	Practice of speed @ 75 & 80 WPM	60	CO3
	Total	120	

Note:

Summative Assessment will be for 100 marks. Question Paper will be issued by SBTET, AP. For 7 minutes @ 80 wpm. Minimum Pass Mark is 45%

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

1.To take the dictation @ 80 WPM and transcription with accuracy.

### COURSE OUTCOMES

The student will be able to		
CO1	26CP407L.1	Take down the dictation @ 60 WPM
CO2	26CP407L.2	Take down the dictation @ 70 WPM
CO3	26CP407L.3	Take down the dictation @ 80 WPM

### LEARNING OUTCOMES

#### **1.0 Practice of Speed @ 60 wpm**

- 1.1 Practise passages from 700 common words.
- 1.2 Practice of taking down dictation @ 60 wpm
- 1.3 Practise transcribing the dictated passages

- 1.4 Rectify the mistakes in outlines and spellings.
- 1.5 Practise the corrected spellings and outlines.
- 1.6 Take down dictation from passages covering Grammalogues, Contractions and Phrases

## **2.0 Practice of speed @70 WPM**

- 2.1 Practice exercises from magazines/ old examinations papers.
- 2.2 Practice of taking down dictation from passages @ 70 wpm
- 2.2 Practice transcribing the dictated passages
- 2.3 Rectify the mistakes in outlines and spellings.
- 2.4 Practice taking dictation of old examination papers / magazines at 70 wpm in a given time.
- 2.5 Practice transcribing the dictated matter in the given time

## **3.0 Practice of Speed @ 75 and 80 wpm**

- 3.1 Practice passages from shorthand Journals, prepared passages and previous examination papers.
- 3.2 Practice taking down dictations @ 75 wpm and transcription of dictated passages
- 3.3 Rectify the wrong outlines and spellings.
- 3.4 Practice taking down dictation of passages / examination question papers @ 80wpm
- 3.5 Practice transcribing the dictated matter in the given time.
- 3.6 Rectify the mistakes. Practice corrected spellings and outlines.
- 3.7 Take speed tests @ 80 wpm and above and transcribe the same in the given time.

## **COURSE CONTENTS**

1. Practice and drills on the passages covering grammalogues, contractions and phrases - Practice and taking down dictations at 60, 70, 75 and 80 wpm from Journals, previous examination papers etc. - Practice of transcription from Shorthand to English.

## **REFERENCES**

1. 700 Common Words
2. Speed books published by National Shorthand School.
3. Progressive Shorthand Monthly Magazine
4. Karnataka, and Kerala GTE Speed Papers published by Bhagawan Associates, L-19,Thayappa Block, J.C.Road, Bangalore – 560 002.
5. Audio Dictations by Sri.T.Sankararao, Hyderabad.  
[www.youtube.com/user/sankarharita/](http://www.youtube.com/user/sankarharita/)
6. Audio Dictations by Dr. K.V.Subbarao, [www.twinarts.webs.com](http://www.twinarts.webs.com)

Course Code	Course title	No. of periods/ week	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP408L	Communication and Employability Skills	4	60	40	60	2

### TIME SCHEDULE

Sl. No.	Unit	Teaching Hours
1	<i>ABC of Communication</i>	6
2	<i>Let's Learn to Listen</i>	6
3	<i>I am...</i>	4
4	<i>Let's Talk About...</i>	4
5	<i>JAM</i>	6
6	<i>Interpreting Data</i>	6
7	<i>Your Perfect Profile</i>	4
8	<i>Group Discussion</i>	8
9	<i>Interview Skills</i>	8
10	<i>Making Presentations</i>	8
<i>Total</i>		<i>60</i>

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

i)	impart verbal and non-verbal communication skills
ii)	foster employability skills among the students for career building

### COURSE OUTCOMES

The student will be able to		
<b>CO1</b>	26CP408L.1	Practice appropriate body language and etiquette
<b>CO2</b>	26CP408L.2	Listen and comprehend the listening inputs related to different genres effectively
<b>CO3</b>	26CP408L.3	Interpret data and give oral and written presentations in academic and professional contexts
<b>CO4</b>	26CP408L.4	Communicate effectively in interpersonal interactions, interviews, and group discussions

<b>CO5</b>	26CP408L.5	Exhibit employability skills: job hunting, resume writing, attending interviews
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**Course Delivery:** Textbook: **“Communication and Employability Skills”**  
by State Board of Technical Education and Training, AP

**UNIT 1: ABC of Communication**

1. Identify and practice the process of communication.
2. Demonstrate befitting body language traits to enhance communication.
3. Apply appropriate strategies to minimize various barriers of communication.
4. Communicate effectively in a given situation with a purpose.

**UNIT 2: Let's Learn to Listen**

1. Identify and distinguish different phonic sounds in English language.
2. Practice active listening in the process of communication.
3. Comprehend diverse listening inputs in academic, professional and everyday situation using appropriate strategies.

**UNIT 3: I am...**

1. Prepare an organized self-introduction for formal and informal situations.
2. Introduce yourself in job interviews effectively.
3. Use appropriate body language while introducing yourself.

**UNIT 4: Let's Talk About...**

1. Describe objects, places, events and people using appropriate adjectives.
2. Use appropriate sentences and expressions while describing anything.
3. Use suitable adjectives to convey mood or tone.

**UNIT 5: JAM**

1. Generate ideas on a given topic.
2. Organize the ideas sequentially for an effective JAM speech.
3. Speak spontaneously and fluently on a given topic within the stipulated time.

**UNIT 6: Data Interpretation**

1. Identify different forms of graphs, charts, diagrams and tables.
2. Analyse and interpret data.
3. Present the inferences and findings in spoken and written communication.

**UNIT 7: Your Perfect Profile**

1. Draft a customised professional resume.
2. Create a professional Applicant Tracking System (ATS) compliant Resume.
3. Draft a cover letter to communicate with prospective employers.

**UNIT 8: Group Discussion**

1. Identify the significance of group discussion and differentiate the various stages involved.
2. Practice various roles and skills involved in group discussion.
3. Demonstrate appropriate body language for effective participation in group discussion.

**UNIT 9: Interview Skills**

1. Practice proper interview demeanour.
2. Respond effectively to frequently asked interview questions (FAQs).
3. Demonstrate readiness to job opportunities.

**UNIT 10: Making Presentations**

1. Demonstrate the features of a good presentation.
2. Use appropriate presentational aids.
3. Prepare and give presentations on various topics effectively.

Source: Textbook "***Communication and Employability Skills***" prepared by the SBTET, AP

**Reference Books:**

*A Textbook of English Phonetics for Indian Students* by T. Balasubramaian

*Better English Pronunciation* by J.D. O'Connor

*Group Discussion for Admissions and Jobs* by Anand. S. Ganguly

*Communicative English* by E. Suresh Kumar and P. Sreehari

Course code	Course Title	No. of Periods/ Weeks	Total No. of periods	Marks for FA	Marks for SA	Credits
26CP409L	Programming Lab	7	105	40	60	2.5

**Note: Based on the elective chosen, Programming Lab will be conducted either in C or Python Language.**

### **C Programming Lab:**

#### **TIME SCHEDULE**

S. No	Chapter / Unit Title	No. of Periods	CO's Mapped
1	Input/ Output Statements, Variables, Data Types, Operators and expressions	15	CO1
2	Decision making statements	15	CO2
3	Looping Statements	45	CO3
4	Arrays	15	CO4
5	Functions and Strings	15	CO5
	<b>Total Periods</b>	<b>105</b>	

#### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |  |
|--|
| <ul style="list-style-type: none"> <li>i) know the fundamentals of C programming</li> <li>ii) familiarize with syntax of C language</li> <li>iii) develop simple C programs</li> </ul> |
|--|

#### **COURSE OUTCOMES**

The student shall be able to		
CO1	26CP409L.1	Execute simple C programs using input/output statements, variables, data types, operators and expressions
CO2	26CP409L.2	Execute C programs using decision-making statements
CO3	26CP409L.3	Execute C programs using looping statements
CO4	26CP409L.4	Execute C programs using arrays
CO5	26CP409L.5	Execute C programs using functions and strings

### **LEARNING OUTCOMES**

#### **List of Experiments**

1. Output area and circumference of a circle for a given radius.  
( $Area = \pi r^2$ ,  $Circumference = 2\pi r$ )
2. Write a program to print area and perimeter of a rectangle.
3. Write a program to print area and perimeter of a square.
4. Write a program to print area and perimeter of a triangle.
5. Accept Gross Salary and output Gross, Tax (at 25%), and Net (Gross – Tax) on separate lines with headings.
6. Write a C program to find the cube of a given number using different escape characters with proper data types and output format.
7. Write a C program to accept Principal, Rate of Interest, and Number of Years, then output the Amount of Interest and Total Amount on separate lines.
8. Accept temperature in centigrade and convert it to Fahrenheit.
9. Accept asset value and percentage of depreciation, then output the depreciation amount and value of asset for one year using the straight-line method.
10. Write a program to swap two numbers.
11. Write a program using if statement to find whether a given number is odd or even.
12. Write a C program to check whether a given year is a leap year.
13. Accept three numbers and output the biggest and smallest numbers.

14. Write a C program to accept percentage and print grade:

- If result is Pass ('P') and percentage  $\geq 75 \rightarrow$  Grade = 'A'
- Percentage  $\geq 60$  &  $\leq 74 \rightarrow$  Grade = 'B'
- Percentage  $\geq 50$  &  $\leq 59 \rightarrow$  Grade = 'C'

15. Write a switch statement to examine the value of an integer variable flag and print:

- GOOD if flag = 1
- BETTER if flag = 2
- BEST if flag = 3
- WORST if flag = 4
- BAD if flag = 5
- OUT OF RANGE if flag = 0

16. Write a program to print "red", "green", "blue" for characters 'r', 'g', 'b' using switch..case.

17. Write a program to find whether a given character is a vowel or not.

18. Write a program to perform five types of arithmetic operations based on the choice of character operator using switch statement.

19. Write a C program to check whether an integer is a prime number with appropriate message.

20. Write a program to find the factorial of a given number.

21. Write a C program to generate Fibonacci series for a given number.

22. Write a C program to print the multiplication table for a given number.

23. Write a C program to print the reverse of a given number.

24. Write a C program to check whether a given number is a palindrome.

25. Write a C program to print even numbers between 100 and 1 using for loop with a single statement.

26. Write a C program to print the sum of the first ten numbers using while loop.

27. Write a C program to print the square of given numbers, taking input and choice (Y/N) until the user enters 'N'.

28. Write a program to print the sum and average of an array.
29. Write a C program to search for a given element in an array.
30. Write a C program to find the biggest element in an array.
31. Write a C program to accept 'n' integers into a one-dimensional array and display them in ascending order.
32. Write a program to add two 2-dimensional arrays of the same size and print the resultant matrix.
33. Write a C program to find the trace of a matrix.
34. Write a C program to find the transpose of a given matrix.
35. Write a program to find the sum of two numbers using a function.
36. Write a program to find the square of a given number using a function.
37. Write a C program to find the length of a string (using string function and without using string function).
38. Write a C program using for loop to accept a line of characters in a name, store it backward in an array, and output both the original and reversed string.
39. Write a C program to accept the name of a country and output its capital using two arrays (Country & Capital).
40. Write a C program to find the length of a string with and without using built-in function.
41. Write a C program to reverse a string using built-in function.
42. Write a C program to accept an uppercase character and convert it into lowercase using a user-defined function.
43. Write a C program to accept a line of text in lowercase and output it in uppercase using gets() and puts() functions.

**Objectives and Key Competencies:**

<b>S. No.</b>	<b>Name of the Experiment</b>	<b>Objectives</b>	<b>Key Competencies</b>
1	Exercise on Structure of C Program	For a given C program, identify the different building blocks	<ul style="list-style-type: none"> <li>• Identify different building blocks in a C program</li> </ul>
2	Execution of Simple C Program	Execute a simple C program	<ul style="list-style-type: none"> <li>• Acquaint with C program editing</li> <li>• Compile the program</li> <li>• Rectify syntactical errors</li> <li>• Execute the program</li> </ul>
3	Exercise on data types, operators and expressions	Write C programs using different data types, operators	<ul style="list-style-type: none"> <li>• Identify different arithmetic operators</li> <li>• Build arithmetic expressions</li> <li>• Identify priorities of operators</li> <li>• Evaluate arithmetic expression</li> <li>• Compile the program</li> <li>• Rectify syntactical errors</li> <li>• Execute the program</li> <li>• Check output for correctness</li> </ul>
4	Exercise on Input and Output of Characters	Write a C program for reading and writing characters	<ul style="list-style-type: none"> <li>• Know the use of getchar() function</li> <li>• Know the use of putchar() function</li> <li>• Compile the program</li> <li>• Rectify syntactical errors</li> <li>• Execute the program</li> <li>• Verify output for correctness</li> </ul>
5	Exercise on Formatted Input and Output	Write C programs using formatted input and output	<ul style="list-style-type: none"> <li>• Use format strings for different data types in scanf()</li> <li>• Use format strings for different data types in printf()</li> <li>• Verify that data is read and printed in correct format</li> </ul>
6	Exercise on Simple if Statement	Write C programs using simple if statement	<ul style="list-style-type: none"> <li>• Build a relational expression</li> <li>• Use if statement for decision-making</li> <li>• Rectify syntax errors</li> <li>• Verify correctness of output</li> </ul>
7	Exercise on if..else Statement	Write C programs using if..else statement	<ul style="list-style-type: none"> <li>• Build a relational expression</li> <li>• Use if..else statement for decision-making</li> <li>• Rectify syntax errors</li> <li>• Verify correctness of output</li> </ul>
8	Exercise on if..else..if Ladder Statement	Write C programs using else..if ladder statement	<ul style="list-style-type: none"> <li>• Use else..if ladder statement with correct syntax</li> <li>• Rectify syntax errors</li> </ul>

			Debug logical errors • Verify correctness of output
9	Exercise on Switch Statement	Write C programs using switch statement	• Use switch statement with correct syntax • Differentiate between switch and else..if ladder • Rectify syntax errors • Debug logical errors • Verify correctness of output
10	Exercise on Conditional Operator	Write C programs using conditional operator ( ? : )	• Build expressions for conditional operator • Use conditional operator with correct syntax • Rectify syntax errors • Debug logical errors • Differentiate conditional operator and if..else
11	Exercise on while Statement	Write C programs using while statement	• Build termination condition for looping • Use while statement with correct syntax • Verify correct number of iterations • Rectify syntax errors • Debug logical errors
12	Exercise on for Statement	Write C program using for statement	• Build initialization, increment, and termination conditions • Use for statement with correct syntax • Rectify syntax errors • Debug logical errors • Verify correct number of iterations • Differentiate for and while statements
13	Exercise on do Statement	Write C programs using do statement	• Build termination condition for looping • Use do statement with correct syntax • Rectify syntax errors • Debug logical errors • Verify correct number of iterations • Differentiate do, while, and for statements
14	Exercise on One-Dimensional Array	Write C programs to create and access one-dimensional array	• Create array with correct syntax • Store elements in array • Read elements from array • Validate boundary conditions • Rectify syntax errors • Debug logical errors • Verify correctness of output
15	Exercise on Two-Dimensional Arrays	Write C programs to create and access two-	• Create 2D array with correct syntax • Store elements in array • Read elements from array • Validate boundary conditions • Rectify syntax errors •

		dimensional arrays	Debug logical errors • Verify correctness of output
16	Exercise on Functions	Write C programs using functions	• Declare and develop simple functions using call by value
17	Exercise on Strings	Write C programs for reading, writing, and using string functions	• Declare and initialize string variables • Read strings from keyboard • Print strings to screen • Use string functions

### **Python Programming:**

#### **TIME SCHEDULE**

<b>Sl. No.</b>	<b>Chapter/Unit Title</b>	<b>No. of Periods</b>	<b>CO's Mapped</b>
1.	Exercises on Input/Output statements, operators and expressions	10	CO1
2.	Exercises on decision making statements	25	CO2
3.	Exercises on looping statements	45	CO3
4.	Exercises on arrays and functions	25	CO4
5.	Exercises on Object-oriented Programming	10	CO5
Total Periods		105	

#### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |   |
|---|
| <ul style="list-style-type: none"> <li>i) know the fundamentals of Python programming</li> <li>ii) familiarize with syntax of Python language</li> <li>iii) develop simple Python programs</li> </ul> |
|---|

#### **COURSE OUTCOMES**

<b>The student will be able to</b>		
CO1	26CP409L.1	Execution of simple Python programs using input/output statements, operators and expressions
CO2	26CP409L.2	Execution of Python programs using decision-making statements
CO3	26CP409L.3	Execution of Python programs using looping statements
CO4	26CP409L.4	Execution of Python programs using arrays and functions
CO5	26CP409L.5	Execution of Object-Oriented Programming concepts in python

### **LEARNING OUTCOMES**

#### **List of Experiments:**

1. Write and execute simple Python programs using input/ output statements.
2. Develop programs using different data types (numbers, string, tuple, list, dictionary).
3. Develop programs using arithmetic operators and demonstrate data type conversion.
4. Write a program to convert centigrade temperature into Fahrenheit temperature.
5. Write a program to convert U.S. dollars to Indian rupees.
6. Write a program to calculate area and circumference of a circle.
7. Write program to calculate area and perimeter of a square
8. Write a program to find volume and perimeter of a cone.
9. Write a program to check if a number is odd or even.
10. Write a program to find the greatest of three numbers using conditional statements.
11. Write a program to find factorial of a number.
12. Write a program to print all factors of a number.
13. Write a program to generate a multiplication table up to 10 for a given number.
14. Write a program to determine if a number is prime.
15. Write a program to generate Fibonacci sequence up to 100.
16. Write a program to create and print an array.

17. Write a program to add two arrays.
18. Write a program to sort an array.
19. Write a program to search an element in an array.
20. Write a program to reverse an array.
21. Write a program to count elements in an array.
22. Write a program to calculate mean, median, and standard deviation of elements in an array.
23. Develop programs on strings using string methods
24. Add two complex numbers using classes and objects.
25. Subtract two complex numbers using classes and objects.

**Objectives and Key Competencies:**

<b>Exp. No.</b>	<b>Name of the Experiment</b>	<b>Objective</b>	<b>Key Competencies</b>
1	Write and execute simple Python programs using Input/ Output statements	Write a simple Python program to print "Hello World!" and execute it	- Observe Python IDLE- Edit and save programs- Debug syntax errors- Run and verify output
2	Develop Python programs using different data types (number, string, tuple, list, dictionary)	Write Python programs using different data types	- Identify data types- Write basic programs- Debug and run programs
3	Use arithmetic operators and demonstrate type conversion	Write a Python program to use arithmetic operators and data type conversion	- Identify arithmetic operators- Build expressions- Understand operator precedence- Debug and execute
4	Convert centigrade temperature into Fahrenheit temperature	Write a Python program to convert centigrade temperature to Fahrenheit	- Use arithmetic expressions- Debug and execute- Verify output
4	Convert U.S. dollars to Indian rupees	Write a Python program to perform currency conversion	- Use arithmetic expressions- Debug and execute- Verify output

5	Calculate area & perimeter of square and volume & surface area of cone	Write a Python program using formulas for geometry	- Build expressions- Use correct syntax- Debug and verify
6	(i) Determine odd or even (ii) Find greatest of three numbers	Use conditional statements in Python	- Use if, elif, else statements- Build logical conditions- Check output correctness
7	(i) Find factorial (ii) Generate multiplication tables	Use loops (while, for)	- Use proper loop structure- Set correct termination- Debug logical errors
8	Print all factors of a given number	Use loops and logic for factor generation	- Apply loops effectively- Debug and check results
9	Find factorial of a number	Use loops for iterative computation	- Build loop logic- Handle edge cases- Debug
10	Generate Fibonacci sequence up to 50	Use loops for iterative computation	- Use looping statements- Trace logic flow- Debug
11	Create an array, add two arrays.	Practice arrays in Python	- Use list methods (append, remove)- Debug syntax- Check input/output
12	Sort, reverse, and count elements in an array	Practice arrays in Python	- Use arrays-sort, reverse, length- Debug and verify
13	Calculate average, mean, median, standard deviation	Use statistical functions	- Store data in lists- Apply basic statistics- Use Python libraries (statistics)
14	Use strings in Python	Practice with strings in Python	-Declare string- work with strings and string methods.
15	Add two complex numbers using classes & objects	Create class and perform addition	- Define class- Create objects- Implement <code>__add__()</code> method
16	Subtract two complex numbers using classes & objects	Create class and perform subtraction	- Define class- Create objects- Implement <code>__sub__()</code> method

### BANKING

Course Code	Course Title	No. of Period/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
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26CP501T	Banking	5	75	30	70	3
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**TIME SCHEDULE**

S. No.	Chapter/Unit Title	No. of Periods	Weightage of Marks	Short Answer Questions	Essay Type answer Questions	CO'S Mapped
1	Banking Concepts and Different Types of Banks	10	22	2	2	CO1
2	Nationalization of Banks and Central Bank	15	14	2	1	CO2
3	Banker and Customer Relationship	10	11	1	1	CO3
4	Negotiable Instruments Act, 1881	15	14	2	1	CO4
5	Lending Policies of a Bank	10	11	1	1	CO5
6	Modern Banking and Ombudsman Scheme	15	22	2	2	CO6
	Total	75	94	10	8	

**COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

(i)	understand about the Indian Banking Industry and various services offered by banks.
(ii)	familiarize with the trends in modern banking after Globalization and Privatisation.

**COURSE OUTCOMES**

The student shall be able to		
CO1	26CP501T.1	Explain the origin and growth of Indian Banking System, Meaning, Types and Functions of Different Types of Banks

CO2	26CP501T.2	Nationalization of Banks and Role of Nationalized Banks in Economic Development, Importance of Central Bank, its functions and Monetary Policy
CO3	26CP501T.3	Analyse the Types of Customers, precautions to be taken by the bankers while dealing with them; Understand the use of pass book, statement of transactions.
CO4	26CP501T.4	Evaluate the Different Types of Negotiable Instruments, Features; Endorsement and Crossing of Cheques
CO5	26CP501T.5	Analyse the Principles of Lending, Understand the Procedure for Appraisal of Loans, Kinds of Charges and Measures to Control NPAs
CO6	26CP501T.6	Appraise Modern Banking Facilities and Ombudsman Scheme

### **LEARNING OUTCOMES**

#### **1.0 Banking Concepts and Different Types of Banks**

- 1.1 Introduction to Banking - Origin and Growth of Indian Banking System
- 1.2 Define Banking and state the features of Banking
- 1.3 Classify banks based on Ownership, Origin, Functions and Statute
- 1.4 Distinguish between Scheduled and Non-scheduled Banks
- 1.5 Explain the functions of Commercial Banks, Regional Rural Banks and Cooperative Banks
- 1.6 Explain the different kinds of deposits offered by Commercial Banks
- 1.7 Differentiate between Savings Bank Account and Current Account
- 1.8 Identify the conditions that lead to a Dormant Account and the Process for reactivation
- 1.9 State the procedure for searching Unclaimed Dormant Account – Claiming through UDGAM PORTAL

#### **2.0 Nationalization of Banks and Central Bank**

- 2.1 Define nationalization of banks
- 2.2 Explain the objectives of Nationalization of Banks
- 2.3 Evaluate the Role of Commercial Banks in Economic Development after Nationalization
- 2.4 Define Central Bank and Explain the Evolution of Central Bank
- 2.5 Analyze the functions of Central Bank
- 2.6 Define Monetary Policy
- 2.7 Describe the objectives of Monetary Policy
- 2.8 Illustrate the quantitative and qualitative tools used by Central Bank to control the credit
- 2.9 Identify the key obligations of scheduled banks to the Central Bank

#### **3.0 Banker and Customer Relationship**

- 3.1 Define the term "Customer" in a banking context

- 3.2 Appreciate the General and Special Relationship between a Banker and a Customer
- 3.3 Explain the Process for Terminating a banker-customer relationship
- 3.4 Categorize Different Types of Bank Customers
- 3.5 Outline Banker's Duties when opening accounts for Minors, Partnership Firms and Joint Stock Companies
- 3.6 State the meaning of Pass Book and give the proforma of Pass Book
- 3.7 State the meaning of Statement of Transactions / e-statement and its use
- 3.8 Examine the entries in Pass Book/e-statement and observe the correctness
- 3.9 Examine the legal provisions related to passbook entries

#### **4.0 Negotiable Instruments Act, 1881**

- 4.1 Define Negotiable Instrument and Explain its key features
- 4.2 List the various Negotiable Instruments
- 4.3 Define Promissory Note, Bills of Exchange and Cheque
- 4.4 Identify the parties involved and features of each type of negotiable instrument
- 4.5 Distinguish between Promissory Note and Bills of Exchange
- 4.6 Differentiate between Bills of Exchange and Cheque
- 4.7 State the Meaning of Crossing of Cheques and types of Crossing of Cheques and Show How the Crossing is made on Cheques in each type of Crossing
- 4.8 Explain the Importance of different types of Crossing
- 4.9 Describe the Circumstances under which a Cheque can be Dishonored
- 4.10 State the meaning of Endorsement and Explain Different Kinds of Endorsement of Cheques with Examples

#### **5.0 Lending Policies of a Bank**

- 5.1 Understand the Principles of Sound Lending
- 5.2 Classify Loans based on Tenure (Long-Term, Medium-Term, Short-Term) and Security (Secured, Unsecured)
- 5.3 Describe Different Types of Loans and Advances Based on Tenure such as Overdrafts, Cash Credit, Bill Discounting, Credit Cards and Term Loans
- 5.4 Analyse the Procedure for Appraising a Loan Application
- 5.5 Define 'Charge' and List out various types of charges
- 5.6 Define Lien, Pledge, Hypothecation and Mortgage and state their features
- 5.7 Explain the term Non-Performing Asset and the measures used by banks to control Non-Performing Assets

#### **6.0 Modern Banking and Ombudsman Scheme**

- 6.1 List the various Modern Banking Facilities available to customers after Globalisation and Privatisation
- 6.2 Explain the features of ATMs, Debit Cards, and Credit Cards
- 6.3 Describe the Importance of Internet Banking and its key features
- 6.4 Illustrate the Mobile Banking Features and Differentiate between Mobile Banking and Internet Banking
- 6.5 Compare and Contrast Electronic Fund Transfer Systems like NEFT, RTGS and IMPS
- 6.6 Summarize the Essential Precautions for Safe Digital Transactions

- 6.7 State the Meaning of Banking Ombudsman Scheme
- 6.8 Outline the Purpose and Duties of Banking Ombudsman
- 6.9 Describe the Procedure to make a complaint to Ombudsman
- 6.10 List out the steps in Grievance Redressal by Banking Ombudsman

**COURSE CONTENTS:**

1. Introduction to Banking - Definition of Banking – Classification of Banks – Commercial Banks, Regional Rural Banks and Cooperative Banks - Functions of each type of bank
2. Nationalization of Banks – Objectives — Role of Nationalized Banks in Economic Development – Central Bank – Functions of Central Bank – Objectives of Monetary Policy - Different types of Credit Controls used by Central Bank
3. Bank and Customer – Special types of Bank Customers – Pass Book and Statement of Transactions – Legal Provisions of entries in Pass Book
4. Negotiable Instruments – Features of Cheque, Promissory Note and Bills of Exchange — Endorsement and Crossing of Cheque - Dishonour of Cheque
5. Lending Policy of a Bank – Loans – Procedure for Appraisal of a Loan – Various types of Charges – Non-performing Assets
6. Customer Facilities offered by a Bank – ATMs – Debit and Credit Cards – Internet Banking – Transfer of funds using NEFT/RTGS/IMPS - Ombudsman Scheme

**REFERENCES:**

1. Sundaram and Varshney Modern Banking
2. Bank Quest – Journal of Indian Institute of Bankers, Mumbai
3. RBI Year Book
4. Negotiable Instruments Act, 1881
5. P. Saravanavel Modern Banking in India and abroad, Margham Publications, 8, Janaki Avenue,
6. Abhirampuram, Madras.
7. Commercial Banking by Indian Institute of Bankers- Vora & Co., Publishers Pvt. Ltd., Bombay-02
8. Prof. P. Saravanavel, Law and Practice of Banking, Margham Publications, 8 Janaki Avenue, Abhirampuram, Madras.

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 3.9
Unit Test-II	From 4.1 to 6.10

**BUSINESS ECONOMICS**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of Periods / Week</b>	<b>Total Periods/ Semester</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP502T	Business Economics	6	90	30	70	4

**TIME SCHEDULE**

<b>S. No.</b>	<b>Chapter/Unit Title</b>	<b>No. of Periods</b>	<b>Weightage of Marks</b>	<b>Short Questions</b>	<b>Essay Questions</b>	<b>CO's Mapped</b>
1	Introduction to Economics, Consumer Behaviour and Demand	24	22	2	2	CO1
2	Indifference Curve Analysis and Production Theories	20	22	2	2	CO2
3	Markets, Cost and Revenue Analysis	20	22	2	2	CO3
4	Trade Cycles and National Income	14	19	1	2	CO4
5	Environmental Pollution and Measures to control Pollution	12	9	3	-	CO5
	<b>Total</b>	<b>90</b>	<b>94</b>	<b>10</b>	<b>8</b>	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |   |
|---|
| <ul style="list-style-type: none"> <li>i) familiarize with different Economic Concepts</li> <li>ii) To know the different Economic Laws</li> <li>iii) To know the trends in Economy at Micro and Macro levels</li> <li>iv) To know the causes of pollution and its control for Sustainable Development</li> </ul> |
|---|

### **LEARNING OUTCOMES**

## COURSE OUTCOMES

The student shall be able to

CO1	26CP502T.1	Understand the meaning of Economics and different Economic Concepts, Analyse the behaviour of consumer by using various theories of Consumption
CO2	26CP502T.2	Explain Indifference Curve Analysis & Production Theories
CO3	26CP502T.3	Explain the different Market Conditions and analyse the relationship between Costs and Revenues
CO4	26CP502T.4	Understand the causes of Trade Cycles and its theories, explain the components and estimation of National Income
CO5	26CP502T.5	Understand causes of Environment pollution and the measures to control pollution for sustainable development

### **1.0 Introduction to Economics, Consumer behaviour and Demand**

- 1.1 State the meaning of Economic Activity and Non-Economic Activity with examples
- 1.2 Define Modern Economics and State the Meaning of Micro and Macro Economics, Positive and Normative Economics
- 1.3 Different Definitions of the term Economics - Wealth Definition, Welfare Definition, Scarcity Definition
- 1.4 List the Branches of Economics – Production, Exchange, Distribution and Consumption
- 1.5 State the various types of goods like Free Goods, Economic Goods, Consumer Goods, Producer Goods with examples
- 1.6 List the Basic Problems of an Economy
- 1.7 State the Meaning of Utility, Total Utility and Marginal Utility
- 1.8 Explain the Law of Diminishing Marginal Utility and its exceptions
- 1.9 Explain the Law of Equi-Marginal Utility
- 1.10 Explain the concept of Consumers' Surplus
- 1.11 State the Meaning and Definition of Demand and Demand Function
- 1.12 List and Explain the Types of Demand – Individual and Market Demand, Company and Industry Demand, Derived and Autonomous Demand, Short run and Long run Demand
- 1.13 Illustrate the Law of Demand graphically with a suitable example and its Exceptions
- 1.14 Distinguish between Extension and Contraction of Demand and Increase and Decrease in Demand
- 1.15 Analyse a given situation by using 1) Law of Diminishing Marginal Utility  
2) consumers' surplus and 3) Law of Equi-Marginal Utility 4) Law of Demand

### **2.0 Indifference Curve Analysis and Production Theories**

- 2.1 State the Meaning of Indifference Curves
- 2.2 Describe the Properties of Indifference Curves
- 2.3 State the Meaning of Marginal Rate of Substitution, Price Line or Budget Line
- 2.4 Apply the Indifference Curve Analysis to attain Consumer's Equilibrium
- 2.5 List the four Factors of Production
- 2.6 Explain the Law of Variable Proportions
- 2.7 Explain the Law of Returns to Scale
- 2.8 Explain the Law of Supply and its Exceptions
- 2.9 State the Exceptions of Law of Supply

### **3.0 Markets, Cost and Revenue Analysis**

- 3.1 State Meaning and different types of Markets – Perfect and Imperfect Competitions – Monopoly, Duopoly, Oligopoly and Monopolistic Competitions
- 3.2 List and Explain the features of Perfect Competition
- 3.3 Explain the Price Determination under Perfect Competition
- 3.4 Explain the features of Monopoly
- 3.5 List and explain different types of Costs – Fixed, Variable, Implicit, Explicit, Average, Marginal, Total and Opportunity Costs
- 3.6 Illustrate how a firm attains equilibrium with a suitable example.
- 3.7 List and Describe the three types of Revenues – Total, Average and Marginal Revenue
- 3.8 Analyse the Break-Even of a business with a suitable example and state the importance of Break -Even analysis in business decisions

### **4.0 Trade Cycles and National Income**

- 4.1 Define the term Trade Cycle
- 4.2 List any four characteristics of Trade Cycle
- 4.3 Compare the different Phases of Trade Cycles- Expansion, Recession, Depression and Recovery with examples
- 4.4 Explain the Innovation Theory and Monetary Theory of Trade Cycles
- 4.5 State the various Stabilization Policies
- 4.6 Define the term National Income
- 4.7 Explain the components of National Income – GNP, NNP, Per Capita Income and Personal Income
- 4.8 Explain the Methods of estimation of National Income
- 4.9 List the Difficulties in the Measurement of National Income

### **5.0 Environmental Pollution and measures to Control Pollution**

- 5.0 State the Meaning of Pollution
- 5.1 List the various types of Pollution – Water, Air, Soil and Noise
- 5.2 State the causes of each type of pollution - Water, Soil, Air and Noise
- 5.3 List the various measures to control Environmental Pollution - Water, Soil, Air and Noise
- 5.4 State the Global Environmental issues – Ozone Layer Depletion, Acid rain, Global Warming
- 5.5 State the Importance of Natural Resources
- 5.6 List the Renewable and Non-renewable Resources
- 5.7 Explain the need for Sustainable Development and Initiatives necessary for Sustainable Development

## COURSE CONTENTS

1. Introduction to Economics – Definitions of Economics– Branches of Economics – Theories of consumption - Law of Diminishing Marginal Utility – Law of Equi-marginal Utility - Consumer Surplus - Law of Demand
2. Indifference Curves – Properties of Indifference Curves – Consumer Equilibrium – Production – Factors of Production - Laws of Production - Law of Variable Proportions – Law of Returns to Scale – Law of Supply
3. Markets – Competitions – Costs - Types of Costs – Equilibrium of the Firm – Types of Revenue – Break Even Analysis
4. Trade Cycles – Phases of Trade Cycles – Theories of Trade Cycles – Stabilisation policies – National Income – Importance of National Income – Methods of Estimation of National Income – Difficulties in measurement of National Income
5. Environmental Pollution - Types of pollution - Causes of pollution – Measures to Control Environmental Pollution - Global Environmental Issues — Importance of Natural Resources – Renewable and Non-renewable Resources – Need for Sustainable Development and Initiatives for Sustainable Development

## BOOKS RECOMMENDED

1. Dr. H.L. Ahuja, Business Economics, 13 Edition, S Chand Publications
2. P.N. Chopra, Seema Ghosh, Business Economics, Kalyani Publications
3. Dr. J.P. Mishra, Sahitya, Business Economics, Bhawan Publications
4. SK. Agarwal, Business Economics, S Chand Publications
5. Dr. S. Sankaran, Business Economics, Margham Publications
6. Dr. P.K. Mehta, Business Economics, Taxmann's Publications
7. Sundaram & Sundaram, Business Economics
8. Karpagam M, (1991), Environmental Economics, Sterling Publishers, Pvt. Ltd., New Delhi
9. Ayila Subrahmanyam, Environmental Studies, Radiant Publishers

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 2.9
Unit Test-II	From 3.1 to 5.8

## BUSINESS STATISTICS

Course Code	Course Title	No. of Periods / Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP503T	Business Statistics	06	90	30	70	4

### TIME SCHEDULE

S. No.	Chapter/Unit Title	No. of Periods	Weight age of Marks	Short Questions	Essay Questions	CO's mapped
1	Introduction to Statistics	15	17	2+1* (Graph)	1	CO1
2	Measures of Central Tendency	25	27	1*	3*	CO2
3	Measures of Dispersion	25	22	2*	2*	CO3
4	Skewness	6	6	1+1*	-	CO4
5	Measures of Relation	19	22	1+1*	2*	CO5
	Total	90	94	10	8	

Note: In PART – A & PART – B (\*) indicates problems from that Unit/Chapter

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |    |  |
|----|--|
| i) | To know the various statistical tools and their uses across different fields |
|----|--|

### **COURSE OUTCOMES**

The student will be able to		
CO1	26CP503T.1	Understand the concepts of Statistics
CO2	26CP503T.2	Understand and calculate Measures of Central Tendency
CO3	26CP503T.3	Understand and calculate Measures of Dispersion
CO4	26CP503T.4	Understand the concept of Skewness
CO5	26CP503T.5	Understand and calculate Measures of Relation

### **LEARNING OUTCOMES:**

## **1.0 Introduction to Statistics**

- 1.1. Define Statistics
- 1.2. State the Functions of Statistics
- 1.3. Explain the Importance of Statistics
- 1.4. List out the Limitations of Statistics
- 1.5. State the Methods of collection of data
- 1.6. Explain the Sources of primary data
- 1.7. Explain the Preparation of a Questionnaire
- 1.8. List out the Sources of secondary data
- 1.9. Mention the Limitations of secondary data
- 1.10. State the guidelines for Data Tabulation and types of Tables
- 1.11. Prepare a Frequency Distribution Table with Class Interval for a given data
- 1.12. State the various types of presentation of data and its importance
- 1.13. List the various types of Diagrams to present the data
- 1.14. Present the data using Bar Diagram or Pie Diagram neatly

## **2.0 Measures of Central Tendency**

- 2.1. List out the various Measures of Central Tendency
- 2.2. List the uses of Averages
- 2.3. State the meaning, merits and demerits of Arithmetic Mean
- 2.4. Calculate Arithmetic Mean for Individual Observations
- 2.5. Calculate Arithmetic Mean for Discrete Series of data under Direct Method and Shortcut Method
- 2.6. Calculate Arithmetic Mean for Continuous Series of data under Direct Method, Shortcut Method and Step Deviation Method
- 2.7. State the meaning and merits of Geometric Mean
- 2.8. Calculate Geometric Mean for Individual Observations
- 2.9. Calculate Geometric Mean for Discrete Series and Continuous Series
- 2.10. State the meaning and merits of Harmonic Mean
- 2.11. Calculate Harmonic Mean for Individual Observations and Discrete Series
- 2.12. Calculate Harmonic Mean for Continuous Series of data
- 2.13. State the meaning and uses of Median
- 2.14. Calculate Median for Individual Series of data
- 2.15. Calculate Median for Discrete Series
- 2.16. Calculate Median for Continuous Series
- 2.17. Calculate Quartiles
- 2.18. Calculate Deciles
- 2.19. Calculate Percentiles
- 2.20. State the meaning and advantages of Mode
- 2.21. Calculate Mode for Individual Series
- 2.22. Calculate Mode for Discrete Series using Direct / Grouping Method
- 2.23. Calculate Mode for Continuous Series using Direct / Grouping Method

## **3.0 Measures of Dispersion**

- 3.1. State the Meaning of Dispersion
- 3.2. Mention the Importance of Measures of Dispersion
- 3.3. List out the various Measures of Dispersion

- 3.4. Calculate Range & Coefficient of Range for different types of data
- 3.5. Calculate Quartile Deviation for different types of data
- 3.6. Calculate Mean Deviation using Arithmetic Mean, Median and Mode for different types of data
- 3.7. State the Importance of Standard Deviation as a measure of Dispersion
- 3.8. Calculate Standard Deviation using Direct Method for Individual Series and Discrete Series
- 3.9. Calculate Standard Deviation for Continuous Series under Actual Mean Method / Assumed Mean Method / Step Deviation Method
- 3.10. Calculate Variance / Coefficient of Variation for a given data
- 3.11. Calculate the combined Standard Deviation for a given data

#### **4.0 Skewness**

- 4.1. Define Skewness
- 4.2. State the various methods of calculating Skewness
- 4.3. Explain the Karl Pearson's measure of Skewness
- 4.4. Calculate Karl Pearson's Measure of Skewness for Individual Series
- 4.5. Calculate Karl Pearson's Measure of Skewness for Discrete Series
- 4.6. Calculate Karl Pearson's Measure of Skewness for Continuous Series

#### **5.0 Measures of Relation**

- 5.1. State the meaning and definition of Correlation
- 5.2. List the advantages and disadvantages of Correlation
- 5.3. Explain the types of Correlation
- 5.4. Explain Karl Pearson's Coefficient of Correlation
- 5.5. Calculate the KP's Correlation Coefficient for a given data and interpret the 'r' value using Degrees of Comparison
- 5.6. State the Meaning of Probable Error
- 5.7. Calculate the Probable Error and Check the reliability of r value
- 5.8. Explain briefly Spearman's Rank Correlation
- 5.9. Calculate Spearman's Rank Correlation when ranks are not given
- 5.10. Calculate Spearman's Rank Correlation when ranks are given
- 5.11. Calculate Spearman's Rank Correlation when ranks are equal
- 5.12. Apply Spearman's Rank Correlation to determine which pair of judges have the nearest approach to common taste in qualitative aspects.

### **COURSE CONTENTS**

1. INTRODUCTION TO STATISTICS - Definition – Functions - Importance and limitations of Statistics – Collection of Data – Primary and Secondary data – Classification of Data - Tabulation – Presentation of Data through Diagrams – Bar Diagrams and Pie Diagrams.
2. MEASURES OF CENTRAL TENDENCY– Meaning and merits of Measures of Central Tendency - Calculation of Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Quartiles, Deciles, Percentiles and Mode

3. MEASURES OF DISPERSION – Meaning and Importance of Dispersion - Range and Co-efficient of Range – Quartile Deviation, Mean Deviation, Standard Deviation and Co-efficient of Variation
4. CONCEPTS OF SKEWNESS – Definition of Skewness – Methods of calculation of Skewness – Explanation and Calculation of Karl Pearson’s Measure of Skewness
5. MEASURES OF RELATION – Meaning and Definition of Correlation – Advantages and Disadvantages of Correlation –Karl Pearson’s Correlation Co-efficient – Probable Error – Calculation of Spearman’s Rank Correlation

**REFERENCE BOOKS:**

1. S.L. Agarwal and Bharadwaj, Quantitative Techniques, Kalyani Publications
2. Reddy, C.R., Business Statistics, Deep publications, New Delhi
3. V.K. Kapoor, Statistics - Problems and solutions, S. Chand & Sons
4. Gupta S.P. - Statistical Methods, S. Chand & Sons
5. S.C. Gupta, Fundamentals of Statistics, S. Chand & Sons
6. D.C Sanchetia& V.K. Kapoor, Statistics – Theory, Methods and Applications, S. Chand & Sons
7. Business Statistics – Schaum series

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning Outcomes to be covered
Unit Test-I	From 1.1 to 3.4
Unit Test-II	From 3.5 to 5.12

### DIGITAL MARKETING

Course Code	Course Title	No. of Periods/Week	Total No. of Periods	Marks for FA	Marks for SA	Credits
26CP504E	Digital Marketing	03	45	30	70	2

### TIME SCHEDULE

S. No.	Chapter/ Unit title	No. of Periods	Weightage of Marks	Short Questions	Essay Questions	CO's Mapped
1.	Fundamentals of Digital Marketing	8	22	2	2	CO1
2.	Digital Content Marketing Strategy	7	14	2	1	CO2
3.	Social Media Marketing	10	22	2	2	CO3
4.	E-Mail Marketing	10	22	2	2	CO4
5.	SEO & Web Analytics	10	14	2	1	CO5
	TOTAL	45	94	10	8	

### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- i) To understand the fundamentals of Digital Marketing
- ii) To understand the principles of Social Media Marketing, E-Mail Marketing, etc.
- iii) To understand the basics of Search Engine Optimization
- iv) To know the basics of Web Analytics

## **COURSE OUTCOMES**

The student will be able to		
<b>CO1</b>	26CP504T.1	Understand the concepts, evolution, scope, and significance of digital marketing
<b>CO2</b>	26CP504T.2	Develop and integrate content marketing strategies across blogs, videos, and newsletters
<b>CO3</b>	26CP504T.3	Implement and manage marketing campaigns using Social Media Platforms like Facebook, LinkedIn, Twitter, YouTube, Instagram and WhatsApp
<b>CO4</b>	26CP504T.4	Design effective e-mail marketing strategies including list building, segmentation, and automation
<b>CO5</b>	26CP504T.5	Understand the basics of SEO, Web Analytics

## **LEARNING OUTCOMES:**

### **1.0 Fundamentals of Digital Marketing**

- 1.1 Define the term Digital Marketing
- 1.2 Explain the scope and importance of Digital Marketing
- 1.3 Explain the evolution and history of Digital Marketing
- 1.4 Explain the role of Digital Marketing in Global Economy
- 1.5 List out the stages of Consumer Journey
- 1.6 Explain the various stages of Circular Model Consumer Journey by McKinsey
- 1.7 Know the meaning of Zero Moment of Truth
- 1.8 List the types of ZMOT
- 1.9 Define Journey Mapping

### **2.0 Digital Content Marketing Strategy**

- 2.1 Define Content Marketing
- 2.2 Prepare a Content Marketing Strategy
- 2.3 Know the meaning of Inbound and Outbound Marketing
- 2.4 List the features of Inbound Marketing
- 2.5 List the features of Outbound Marketing
- 2.6 Know the usage of Blogs and Vlogs for Content Marketing
- 2.7 List the types of Online Media
- 2.8 Differentiate between Paid Media, Owned Media and Earned Media
- 2.9 List the various KPIs for a company's website
- 2.10 Write the Key Performance Indicator examples

### **3.0 Social Media Marketing**

- 3.1 Identify the importance of Social Media
- 3.2 List the various types of Social Media Platforms
- 3.3 Explain the purposes of each type of Social Media
- 3.4 List the four stages of Social Success Cycle

- 3.5 Explain the process of Social Listening on Face Book, Twitter, Instagram, YouTube, etc.
- 3.6 Explain the process of Social Influencing using Social Media Platforms
- 3.7 Explain the process of Social Networking
- 3.8 Explain the process of Social Selling
- 3.9 Know the meaning of Social Media Bouncing
- 3.10 List the DO's and DONT's of Social Media

#### **4.0 E-Mail Marketing**

- 4.1 Write the importance of E-Mail Marketing
- 4.2 List the popular E-Mail Marketing Tools
- 4.3 Know the History about E-Mail Marketing
- 4.4 List the goals of E-Mail Marketing
- 4.5 List and explain the advantages of E-Mail Marketing
- 4.6 List and explain the disadvantages of E-Mail Marketing
- 4.7 Explain the process of effective content and subject line writing for E-Mail Marketing
- 4.8 List and explain the types of E-Mails used in E-Mail Marketing
- 4.9 Explain the process of creating Transactional E-Mails
- 4.10 Explain the process of creating Relational E-Mails
- 4.11 Explain how to create effective Promotional E-Mails
- 4.12 Explain the process of tracking E-Mail Marketing Reports

#### **5.0 Search Engine Optimisation & Web Analytics**

- 5.1 Define SEO
- 5.2 List the various Search Engines available on internet
- 5.3 List the types of searches
- 5.4 Know the meaning of Key Word Strategy
- 5.5 Identify the RACE framework
- 5.6 Write about the process of analysis using RACE
- 5.7 Define Web Analytics
- 5.8 Explain how to use Google Analytics for Website Reports and Traffic Analysis
- 5.9 List the Types of Digital Media
- 5.10 Explain the process of navigating in Google Analytics
- 5.11 Explain the process of collecting and interpreting data in Google Analytics

#### **COURSE CONTENT:**

1. Introduction to Digital Marketing (DM)-Meaning, Definition, Need of DM, Scope of DM, History of DM, Concept and approaches to DM, Examples of good practices in DM
2. Content Marketing Ecosystem, Content for Blogs and videos, Using contents for storytelling, Blogs for content marketing - Content marketing for staying relevant- Newsletters for content marketing. Integrated Content Marketing, Google Ads
3. Introduction to digital and social media marketing – meaning – definition - types of social media websites - mobile apps - social media - various social media websites; Blogging-types, platforms, Social Media Management-Social Media and Target Audience-Sharing content on Social Media- Book marking websites; DO's and Don'ts of Social media. Social Media for Marketing - Facebook, LinkedIn, Twitter, YouTube, Instagram, WhatsApp. Establishing Relationship with customers on Social Media

4. Importance of Email Marketing – Popular Email Marketing Tools – Email Marketing Goals – History of Email Marketing – Advantages and Disadvantages of Email Marketing. How to Write Effective Content and Subject Line – Why Email Automation is Required – Designing an Effective Email Campaign – Tracking Email Marketing Reports
5. Basics of Search Engine Optimisation – Google and Bing – Searching the Key Words – Types of searches – Navigational Searches – Informational searches – Commercial Investigation – Looking for a purchase – Long Tail Key Words and Conversion Rate – Key Word Strategy – RACE framework – Reach, Act, Convert, Engage – RACE for Competitive Analysis

Applying Website Analytics to Digital Marketing – Google Analytics for Web Site Reports and Traffic Analysis. Overview of Digital Media: Owned, Earned, Paid – Web Analytics Platforms – Key Performance Indicators: Sessions, Visitors, Time on Site/Page, Bounce Rate – Navigating Google Analytics – Understanding Conversion Reports – Collecting and Interpreting Actionable Data

**Reference Books:**

1. Digital Marketing: Seema Gupta - Mcgraw hill
2. Digital Marketing Strategy : *PIERRE-YANN DOLBEC, Montreal*
3. Social Media Marketing: Tracy L. Tuten (2021)
4. Social Media Marketing: A Strategic Approach. Debra Zahay, Mary Lou Roberts
5. ChatGPT & Social Media Marketing. Ryan Turner
6. Tom Corson-Knowles. *Email Marketing Mastery*. TCK Publishing
7. Susan Gunelius. *Ultimate Guide to Email Marketing for Business*. Entrepreneur Press, 2018
8. Dykes, B. (2010). *Web analytics action hero: Using analysis to gain insight and optimize your business*. Adobe Press
9. *The Ultimate Guide to Digital Marketing: Digital Marketer*

**UNIT TEST SYLLABUS DIVISION TABLE FOR  
DIGITAL MARKETING**

UNIT TEST	Learning Outcomes to be covered
UNIT TEST - 1	1.1 to 3.3
UNIT TEST - 2	3.4 to 5.11

Course Code	Course Title	No. of periods / week	Total periods/ semester	Marks for FA	Marks for SA	Credits
26CP504E	Human Resource Management	3	45	30	70	2

#### **TIME SCHEDULE**

S. No	Chapter/Unit Title	No. of Periods	Weightage of Marks	Short Answer Questions	Essay Questions	CO's Mapped
1	Human Resource Management and Human Resource Planning	9	14	2	1	CO1
2	Recruitment and Selection	10	22	2	2	CO2
3	Training and Development	10	22	2	2	CO3
4	Performance Appraisal and Promotions	10	22	2	2	CO4
5	Employee Separation	6	14	2	1	CO5
	Total	45	94	10	8	

#### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |   |
|---|
| <ul style="list-style-type: none"> <li>i) Understand the concept of Human Resource Management &amp; HR Planning</li> <li>ii) Understand the different methods of Recruitment and Selection</li> <li>iii) Understand the purpose of Performance Appraisal procedures and need for Promotions</li> <li>iv) Understand the process of employee separation</li> </ul> |
|---|

The student shall be able to
------------------------------

CO1	26CP504E.1	Explain the functions of HRM, Role of HR Manager and HR Planning Process
CO2	26CP504E.2	Explain the Recruitment & Selection Process
CO3	26CP504E.3	Explain the need for Training & Development and Methods of Training and Development
CO4	26CP504E.4	Explain the Process of Performance Appraisal and Promotions
CO5	26CP504E.5	Explain the process of Employee Separation

## **COURSE OUTCOMES**

### **LEARNING OUTCOMES:**

#### **1.0 Human Resource Management (HRM) and Human Resource (HR) Planning**

- 1.1. Define Human Resource Management
- 1.2. Explain the functions of HRM
- 1.3. Explain the role of HR Manager
- 1.4. State the meaning of HR Planning
- 1.5. List the objectives of HR Planning
- 1.6. Explain the process of HR Planning
- 1.7. Explain the problems of HR Planning process

#### **2. Recruitment and Selection Process**

- 2.1. Explain the meaning of Recruitment
- 2.2. Describe the Recruitment Policy
- 2.3. List and explain the sources of Recruitment
- 2.4. List and explain the methods of Recruitment
- 2.5. Explain the Selection Process
- 2.6. List the different methods used in Selection Process
- 2.7. Explain various types of Tests in Selection Process
- 2.8. Explain various types of Interviews in Selection Process
- 2.9. Explain the uses of Group Discussion method
- 2.10. Explain the purpose of Physical Examination

#### **3. Training and Development**

- 3.1. Define Training and Development
- 3.2. Explain the objectives of Training and Development
- 3.3. List the methods of Training
- 3.4. Explain the On-the-job training methods
- 3.5. Explain the Off-the-job training methods
- 3.6. State the merits and demerits of various methods of training

#### **4. Performance Appraisal & Promotions**

- 4.1. Define Performance Appraisal
- 4.2. Explain the methods of Performance Appraisal
- 4.3. Explain the importance of performance appraisal in promotion / transfer of an employee

- 4.4. Explain the concept of merit rating
- 4.5. Explain the need for promotions and transfers
- 4.6. Explain the concepts of Job Description and Job Evaluation, Job Enlargement, Job Enrichment and Job Rotation

**5. Employee Separation**

- 5.1. Explain the meaning of Employee Separation
- 5.2. List the forms of Employee Separation
- 5.3. Write the meaning of Retirement and Resignation
- 5.4. Describe the Retrenchment Process
- 5.5. State the meaning of Dismissal, Discharge of an Employee
- 5.6. List out the various voluntary retirement schemes

**COURSE CONTENTS:**

- 1. Definition of HRM – Functions of HRM – Role of HR Manager - Human Resource Planning – Meaning – Objectives of HRP – Process of HRP – Problems
- 2. Recruitment – Meaning – Sources – Methods of recruitment – Selection Process – Methods used – Types of Tests, Interviews – Physical Examination – Group Discussion
- 3. Training and Development – Definition – Concept of Training – Importance – Objectives of training – Methods of training – On-the-job and Off-the-job training – Merits and demerits of Training Methods
- 4. Performance Appraisal – Definition – Methods of Performance Appraisal – Promotions – Purpose – Job description – Job Evaluation – Job Enlargement – Job Enrichment – Job Rotation
- 5. Employee Separation – Meaning – Forms of Separation – Resignation – Retirement – Retrenchment – Dismissal – Discharge – Death – Voluntary Retirement Schemes

**REFERENCE BOOKS:**

- 1. Human Resource Management - V.S.P.Rao, Excel Books, New Delhi
- 2. Human Resources Management - Venkataratnam C.S., - Tata McGrawhill Co., Ltd., New Delhi
- 3. Essentials of Human Resources Management and Industrial Relations - P. Subba Rao - Himalaya Publishing House, Mumbai
- 4. Personnel Management - Edwin B. Flippo, - Mc Graw Hill Company Ltd., New Delhi

Table specifying the scope of syllabus to be covered for Unit Tests

Unit Test	Learning outcomes to be covered
Unit Test-I	From 1.1 to 3.3
Unit Test-II	From 3.4 to 5.6

<b>Course Code</b>	<b>Course title</b>	<b>No. of Periods/Week</b>	<b>Total No. of Periods</b>	<b>Credits</b>
26CP505A	Basic Computer Trouble Shooting	2	30	-

#### TIME SCHEDULE

<b>S. No.</b>	<b>Chapter/ Unit Title</b>	<b>No. of Periods</b>	<b>CO's Mapped</b>
1.	Computer Hardware BASICS	6	CO1
2.	Mother Board Basics	6	CO2
3.	Hard Disk Basics	6	CO3
4	Operating System Basics	6	CO4
5	Troubleshooting Basics	6	CO5
	Total	30	

#### COURSE OBJECTIVES

Upon completion of the course the student shall be able to

- i) Identify all the components of Computer
- ii) Identify all the components of Motherboard
- iii) Identify Different Types of Connectors & Pins in Motherboard
- iv) Various options in CMOS setup
- v) Assembling & De-Assembling of a Computer
- vi) Installation of RAM, CPU, HDD
- vii) Partition & Formatting of Hard Drive
- viii) Installation of System Softwares & Printers
- ix) Identify all the settings of Control Panel
- x) Identify the voltages in SMPS with color coding
- xi) Troubleshooting hardware issues

#### COURSE OUTCOMES

The student shall be able to		
CO1	26CP506A.1	Identify and Assemble the PC with suitable components
CO2	26CP506A.2	Identify the components, connectors with Pins of a Motherboard
CO3	26CP506A.3	Installation and partition of Hard Disk
CO4	26CP506A.4	Installation of Operating System and Printer
CO5	26CP506A.5	Troubleshooting Hardware Devices

### **LEARNING OUTCOMES:**

#### **1.0 Computer Hardware Basics**

- 1.1 Identification of various Hardware components of Computer using various options of CMOS setup
- 1.2 Installing and removing of Motherboard from Computer
- 1.3 Print the summary of your system Hardware and verify for correctness
- 1.4 Assembling of a PC
- 1.5 De-Assembling of a PC

#### **2.0 Motherboard Basics**

- 2.1 Identification of various components of Motherboard
- 2.2 Identification of various Back Panel Connectors of Motherboard
- 2.3 Identification of various Pins of Connectors in Motherboard
- 2.4 Installing and Removing RAM, CPU, HARD DISK in Motherboard
- 2.5 Identify various Motherboards based on the form factor such as AT, ATX, Micro ATX, Mini ATX, Baby AT, etc.
- 2.6 Identify voltage levels of each wire in SMPS based on the Standard Color of the wire

#### **3.0 Hard Disk Basics**

- 3.1. Familiarize with Hard Disk interfacing standards like IDE/SCSI /SATA / PATA
- 3.2. Practice on Partition of Hard Disk
- 3.3. Practice on Formatting a Hard Disk FAT/NTFS Format
- 3.4. Calculating Hard Disk Storage Capacity
- 3.5. How to recover lost data on Hard Drive using Recovery Tools
- 3.6. Defragmenting the Hard Disk

#### **4.0 Operating System Basics**

- 4.1 Installation of Operating System Software (Windows 2010)
- 4.2 Installation of Device Driver Software
- 4.3 Installation of Application Software (MS-Office 2007/ 2010)
- 4.4 Practice on various options of Control Panel
- 4.5 Installation of Printer using Control Panel
- 4.6 Installation of any Anti-virus Software for Protecting PC
- 4.7 Practice on Changing Resolution, Color, Appearance, screen Saver Options of the Display Setting in PC

4.8 Know the Precautions to be taken while Troubleshooting the Hardware

## **5.0 Troubleshooting Basics**

5.1 Identify the systematic steps in Troubleshooting: Visual inspection, Layman checks, measurement of voltage levels, Beep sounds, Error codes and Use of Advanced Diagnostic Tools

5.2 Trouble shooting Keyboard, Printer Problems

5.3 Trouble shooting no display on monitor Problem

5.4 Trouble shooting RAM Issues

## **DESKTOP PUBLISHING**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of Periods/Week</b>	<b>Total No. of Periods</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP507L	Desktop Publishing	06	90	40	60	2

### **TIME SCHEDULE**

<b>S No.</b>	<b>Chapter/ Unit Title</b>	<b>No. of Periods</b>	<b>COs Mapped</b>
1.	Page Maker	35	CO1
2.	Anu Script Manager	15	CO2
3.	Photoshop	40	CO3
	Total	90	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |  |
|--|
| <ul style="list-style-type: none"><li>i) Create Publications using Page Maker</li><li>ii) Use the Anu Script Manager to create publications in Telugu</li><li>iii) Edit the Photos using Photoshop</li></ul> |
|--|

### **COURSE OUTCOMES**

The student will be able to		
CO1	26CP507L.1	Create Publications like Visiting Cards, Wedding Cards, Pamphlets, News Paper Clippings, Booklets in English with Page Maker
CO2	26CP507L.2	Create Publications like Visiting Cards, Wedding Cards, Pamphlets, News Paper Clippings, Booklets in Telugu with Anu-Script Manager
CO3	26CP507L.3	Create and edit photos in Photoshop

## **LEARNING OUTCOMES:**

### **1.0 ADOBE PAGEMAKER**

- 1.1 Create a New Publication
- 1.2 Understand Document Setup
- 1.3 Adjust the Size of a Document using Document Setup
- 1.4 Observe the Parts of the Opening Screen
- 1.5 Know the Importance of Guidelines
- 1.6 Set up Horizontal and Vertical Rulers using Guidelines
- 1.7 Understand Different Tools in the Toolbox
- 1.8 Practice Inserting, Formatting and Repositioning Text
- 1.9 Learn about Auto Flow of Text
- 1.10 Create a Drop Cap
- 1.11 Apply Tint to Text
- 1.12 Specify Multiple Columns
- 1.13 Vary the Number of Columns on a Page
- 1.14 Insert Graphic Elements
- 1.15 Arrange Graphic Elements - Send Backward, Send to Back, Send Forward, Send to Front
- 1.16 Insert Bullets and Numbering
- 1.17 Insert Symbols using Webdings and Wingdings
- 1.18 Draw shapes using tools — circles, rectangles, and lines
- 1.19 Practice Drawing with the Polygon Tool — Polygons, Other Shapes, Star Symbols
- 1.20 Learn the use of Frame Objects
- 1.21 Apply Stroke to Shapes
- 1.22 Work with the Colour Palette — Apply Colour to Text, Objects and Strokes
- 1.23 Create Spot Colours and Apply Tint to Text
- 1.24 Adjust Stacking Order of Elements on a Page
- 1.25 Work with Masking
- 1.26 Group and Ungroup Objects
- 1.27 Create and Save Publications using Pre-defined Templates
- 1.28 Create, Save and Open a Custom Template
- 1.29 Create Master Pages
- 1.30 Show and Hide Master Page Elements
- 1.31 Specify Automatic Page Numbering
- 1.32 Use Page Icons to Turn Pages
- 1.33 Create a Border for a Page
- 1.34 Print the Document
- 1.35 Create Visiting Cards, Wedding Cards, Pamphlets, Booklets, Newsletters, etc.

### **2.0 ANU SCRIPT MANAGER**

- 2.1 Install Anu Script Manager
- 2.2 Select Telugu fonts for typing in Page Maker
- 2.3 Practice Telugu typing in Page Maker
- 2.4 Create Telugu Visiting Cards, Invitation Cards
- 2.5 Create News Paper Clipping, Pamphlet etc. in Telugu

### **3.0 ADOBE PHOTOSHOP**

- 3.1 Create a new file and open an existing file
- 3.2 Observe the parts of Photoshop's opening screen
- 3.3 Learn about marquee tool and lasso tool
- 3.4 Understand the use of magic wand tool
- 3.5 Select parts of an image using marquee, lasso, and magic wand tools
- 3.6 Rotate, Scale and Transform a Selection
- 3.7 Use the Basic Painting Tools
- 3.8 Use Burn Tool, Sponge Tool, Dodge Tool and Sharpen Tool
- 3.9 Make a copy of an image
- 3.10 Know the purpose of Layers
- 3.11 Create a New Layer
- 3.12 View and Hide Layers
- 3.13 Apply Gradients and add text to a Layer
- 3.14 Apply special effects to text
- 3.15 Save a copy of the file with Flattened Layers
- 3.16 Work with Colours, Gradients or Patterns in a Layer
- 3.17 Set the Blending Mode and Opacity of a Layer to adjust colour
- 3.18 Use the History Palette to make corrections
- 3.19 Create Custom Brushes in the Tool Options Bar
- 3.20 Refine a selection using a Quick Mask
- 3.21 Save a selection as a Channel Mask
- 3.22 Create and use a Gradient Mask
- 3.23 Practice using Filters
- 3.24 Convert a Colour Image to Monochrome and improve its quality
- 3.25 Sharpen the Image
- 3.26 Convert a Colour image to Grayscale and vice versa

**Objectives and Key Competencies:**

<b>Exp. No.</b>	<b>Name of the Experiment</b>	<b>Objectives</b>	<b>Key Competencies</b>
1	Creating new Publication	Create a New Publication observing opening screen of Page Maker	➤ Acquaint with creating a publication using basic tools
2	Working with text blocks	Inserting and working with text blocks	➤ Acquaint with ➤ inserting text in a publication ➤ Resize, reselect, and restate text blocks
3	Working with graphics	Inserting graphics in a publication	➤ Acquaint with ➤ Inserting picture in publication

4	Drawing Circles, Rectangles, and Lines using shape tools	Create a publication using different shapes	➤ Understand usage of different shapes
5	Applying stroke and Colour	Applying stroke and colour to shapes and text	➤ Acquaint with ➤ Using colour schemes and applying colours to text and shapes
6	Grouping, Ungrouping, Page Numbering, and Columns	grouping/ungrouping objects and using columns	➤ Acquaint with grouping/ungrouping objects ➤ Usage of column usage
7	Creating and Applying Styles	Create a publication and apply styles (create, edit, and apply styles)	➤ Acquaint with style creation and application
8	Typing with Telugu Fonts in PageMaker	Use Telugu fonts to create visiting cards, invitation cards, banners, etc.	➤ Create Telugu visiting cards, invitation cards, banners, etc.
9	Using Marquee Tool	Select the photo using marquee tool	➤ Acquaint with using marquee tool
10	Using Lasso Tool	Select the photo using lasso tool	➤ Acquaint with using lasso tool
11	Using Magic Wand Tool	Edit the photo using magic wand tool	➤ Acquaint with using magic wand tool
12	Working with Layers	Create a new layer, apply gradient, and add text to a layer	➤ Acquaint with creating new layers ➤ Apply gradient and add text
13	Using Painting Tools, Colours, and Patterns	Use basic painting tools, colours, gradients, or patterns in a layer to create photos	➤ Acquaint with painting tools, colours, and layers to create photos
14	Using History Palette	Use the history palette to make corrections	➤ Acquaint with using history palette for corrections

**TALLY WITH GST**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of Periods/Week</b>	<b>Total No. of Periods</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP507L	Tally With GST	5	75	40	60	2

**TIME SCHEDULE**

<b>S. No.</b>	<b>Unit/Chapter Title</b>	<b>No. of Periods</b>	<b>CO's Mapped</b>
1	Introduction to Accounting Packages	06	
2	Financial Functions of Tally	22	CO1
3	Accounts with Inventory	22	CO2
4	Manufacturing Company Entries by using Bills of Materials option	13	CO3
5	Pay Bill Preparation	12	CO4
	TOTAL	75	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

- |  |
|--|
| <ul style="list-style-type: none"> <li>(i) familiarise with the Accounting features of Tally</li> <li>(ii) familiarise with the Inventory concepts of Tally</li> <li>(iii) familiarise with the Pay Bill preparation in Tally</li> </ul> |
|--|

### **COURSE OUTCOMES**

The student will be able to		
CO1	26CP508L.1	Record all the financial transactions of a business using Tally
CO2	26CP508L.2	Prepare and display financial reports periodically
CO3	26CP508L.3	Record all accounting with inventory transactions using Tally
CO4	26CP508L.4	Record manufacturing company's transactions using Tally
CO5	26CP508L.5	Prepare Pay bills using Tally

### **LEARNING OUTCOMES**

#### **1.0 Introduction to Accounting Packages**

- 1.1 List out various Accounting Packages
- 1.2 Explain the Advantages of Computerized Accounting

#### **2.0 Financial Functions of Tally**

- 2.1 Create a Company
- 2.2 Alter/Modify a Company using F11: Features

- 2.3 Create Groups
- 2.4 Create Single Ledger
- 2.5 Create Multiple Ledgers
- 2.6 Group the Ledgers under appropriate category
- 2.7 Configure Voucher Entries
- 2.8 List out various types of Voucher categories
- 2.9 Record financial transactions using Voucher Entry screen
- 2.10 Enter the narration for the vouchers
- 2.11 Create new ledgers at the time of Voucher entry
- 2.12 Save the vouchers entered
- 2.13 Enter Purchase/Sale vouchers
- 2.14 Enter Receipt/Payment vouchers
- 2.15 Enter Contra vouchers for Bank/Cash transactions
- 2.16 Enter Journal entries
- 2.17 Enter Depreciation entries
- 2.18 Enter Provision entries
- 2.19 Enter Adjustment entries
- 2.20 Generate Reports

### **3.0 Accounts with Inventory and GST**

- 4.1 Prepare Accounts with Inventory and GST
- 4.2 Create Inventory masters
- 4.3 Create Units of measure
- 4.4 Create a Stock Item
- 4.5 Create a Stock group
- 4.6 Group the stock items under appropriate stock group
- 4.7 Create Multiple Stock Items
- 4.8 Create a Location/Godown
- 4.9 Enter Purchase/Sale vouchers with stock details
- 4.10 Enter Purchase Returns/Sales Returns with stock details
- 4.11 Enter Stock Journal voucher
- 4.12 Enter Transfer Journal voucher
- 4.13 Generate Reports

### **4.0 Manufacturing Company Entries by using Bills of Materials option**

- 4.1 Create Bill of Materials for a stock item
- 4.2 Create a Manufacture Journal Voucher Type
- 4.3 Pass manufacturing stock journal entries
- 4.4 Create Stock Journal Voucher Class
- 4.5 Activate Batch-wise details for a stock item
- 4.6 Enter Manufacturing Date and Expiry Date for stock items
- 4.7 Generate Reports

### **5.0 Pay Bill Preparation**

- 5.1 Enable Pay Roll features in Tally
- 5.2 Create Pay Roll Masters
- 5.3 Create Attendance/Production Voucher
- 5.4 Enter Pay Roll Vouchers for Salary Payment
- 5.5 Enter Pay Roll Vouchers for GPF/EPF payment

- 5.6 Enter Pay Roll Vouchers for Profession Tax/Income Tax payment
- 5.7 Prepare Pay Bills using all the allowances and deductions applicable
- 5.8 Generate Reports

**REFERENCE BOOKS**

- 1. Tally Manual by Tally Solutions Pvt. Ltd.
- 2. Tally by Dr. K. Kiran Kumar, Sri Laasya Publications, Hyderabad
- 3. Tally 9 published by BPB Publications
- 4. Tally 9 by Vishnu Priya Singh, Computech Publishers, New Delhi.

**WEB DESIGNING**

<b>Course Code</b>	<b>Course Title</b>	<b>No. of Periods/ Week</b>	<b>Total No. of Periods</b>	<b>Marks for FA</b>	<b>Marks for SA</b>	<b>Credits</b>
26CP508L	Web Designing	6	90	40	60	2.5

**TIME SCHEDULE**

	<b>Major Topics</b>	<b>NO. of Periods</b>	
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<b>S. No.</b>			<b>CO's Mapped</b>
1	Introduction to Web Design	6	CO1, CO2, CO3
2	Editors	6	CO4, CO5
3	HTML Basics	20	CO6
4	Cascading Style Sheets (CSS) and XML	20	CO7, CO8, CO9
5	CSS Framework	8	CO10
6	JavaScript and Angular Js	15	CO11, CO12
7	Photo Editor	9	CO13
8	Web Publishing and Browsing	6	CO14
	TOTAL	90	

### **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

After completing the course, the student will be able to:

- i. Design and create effective web pages
- ii. Integrate graphics in web pages
- iii. Integrate various tools and techniques like HTML, CSS, XML, JavaScript, etc.
- iv. Design and edit images using tools
- v. Embed the images in web pages

## **COURSE OUTCOMES**

The student will be able to		
CO1	26CP508L.1	Know the types of web site.
CO2	26CP508L.2	Know the role of frontend and back end application.
CO3	26CP508L.3	Understand the concept of client side scripting and server side scripting
CO4	26CP508L.4	Use different editors available for writing code.
CO5	26CP508L.5	Understand working of editors.
CO6	26CP508L.6	Develop static website using different HTML Controls.
CO7	26CP508L.7	Know the purpose of CSS.
CO8	26CP508L.8	Understand the role of CSS in web sites.
CO9	26CP508L.9	Create simple XML documents.
CO10	26CP508L.10	Use CSS Framework to develop web site effectively.
CO11	26CP508L.11	Apply client side scripting.
CO12	26CP508L.12	Add validations and checks on forms (web pages).
CO13	26CP508L.13	Edit and embed the images in web pages.
CO14	26CP508L.14	Publish the web sites.

## **LEARNING OUTCOMES**

1. Create a Simple Web Page with Basic Tags using <html>, <head>, <title>, <body>, and text formatting tags
2. Design a Web Page Using Lists and Character Entities using ordered, unordered, and definition lists along with character entities
3. Create a Web Page Using Tables by using <table>, <thead>, <tbody>, <tfoot>, <th>, <td>, rowspan, colspan
4. Build a Web Page with Links and Images using <a> and <img> with various attributes (target, href, src, alt, etc.)
5. Create a Web Form for User Registration using <form>, <input>, <textarea>, <select>, <option>, <fieldset>, <legend>

6. Apply Inline, Internal, and External CSS to a Web Page to demonstrate styling using different CSS levels
7. Use CSS Selectors and Box Model Properties  
Style elements using class, ID selectors; apply padding, margin, border
8. Design a Responsive Layout Using Flexbox and Grid  
Use display: flex and display: grid to build two-column layouts
9. Create a Simple XML Document - Define a custom XML structure (e.g., student list) and ensure it follows rules
10. Use basic JavaScript validation for required fields and pattern matching
11. Create a calculator or age calculator using functions and on click
12. Display student details using arrays and manipulate them dynamically
13. Show current date and time using Date, perform calculations using Math
14. Build simple, interactive web pages using core AngularJS directives
15. Edit the images using a Photo Editor like Adobe Photoshop
16. Use the Photo Editing Tools like marquee tool, lasso tool, magic wand tool, etc.
17. Apply various effects to Text and Images
18. Rotate, Scale and Transform a selected object
19. Embed the edited images into web pages
20. Publish the completed web pages into the website and host the website

## **COURSE CONTENT:**

### **1. Introduction to Web Design**

Introduction of Internet, WWW, Website, Working of Websites, Web pages, Front End, Back End, Client and Server Scripting Languages, Responsive Web Designing, Types of Websites (Static and Dynamic Websites).

### **2. Editors**

Downloading free Editors like Notepad++, Sublime Text Editor, making use of Editors, File creation and editing, saving.

### **3. HTML Basics**

HTML: Introduction, Basic Structure of HTML, Head Section and Elements of Head Section, Formatting Tags: Bold, Italic, Underline, Strikethrough, Div, Pre Tag Anchor links and Named Anchors Image Tag, Paragraphs, Comments, Tables: Attributes –(Border, Cell padding, Cell spacing , height , width), TR, TH, TD, Rowspan, Colspan Lists : Ordered List , Unordered List , Definition List, Forms, Form Elements, Input types, Input Attributes, Text Input Text Area, Dropdown, Radio buttons , Check boxes, Submit and Reset Buttons Frames: Frameset, nested Frames.

HTML 5 Introduction, HTML5 New Elements: Section, Nav, Article, Aside, Audio Tag, Video Tag, HTML5 Form Validations: Require Attribute, Pattern Attribute, Autofocus Attribute, email, number type, date type , Range type, HTML embed multimedia, HTML Layout, HTML Iframe

### **4. CSS**

Introduction to CSS, Types of CSS, CSS Selectors: Universal Selector, ID selector, Tag Selector, Class Selector, Sub Selector, Attribute Selector, Group Selector, CSS Properties: Back Ground properties, Block Properties, Box properties, List properties, Border Properties, Positioning Properties, CSS Lists, CSS Tables, CSS Menu Design CSS Image Gallery.

#### **5. CSS Framework**

Web Site Development using W3.CSS Framework, W3.CSS Intro, W3.CSS Colors, W3.CSS Containers, W3.CSS Panels, W3 CSS Borders, W3 CSS Fonts, W3.CSS Text, W3.CSS Tables, W3.CSS List, W3.CSS Images, W3.CSS Grid.

#### **6. JavaScript and AngularJS**

Introduction to Client Side Scripting Language, Variables in Java Script, Operators in JS, Conditions Statements, JS Pop up Boxes, JS Events, Basic Form Validations in JavaScript. Introduction to Angular JS: Expressions, Modules and Directives.

#### **7. Photo Editor**

Features of Photo Editing: Tools: Selection Tools, Paint Tools, Transform Tools, Text Tool, Layers, Brightness/ Contrast, Improve Colors and tone, Filters.

#### **8. Web Publishing and Browsing**

Overview, SGML (Standard Generalized Markup Language), Web hosting Basics, Documents Interchange Standards, Components of Web Publishing, Document management, Web Page Design Considerations and Principles, Search and Meta Search Engines, WWW, Browser, HTTP, Publishing Tools.

Recommended Books:

1. HTML5, Black Book, Kagent Learning Solution Inc,2014
2. Mastering HTML, CSS & JavaScript Web Publishing by Lemay Laura, BPB publications
3. HTML & CSS: The Complete Reference by Thomas Powell
4. Web Design, McGraw-Hill.

### **INDUSTRIAL TRAINING**

Course Code	Course title	No of periods/ week	Duration	Marks for FA	Marks for SA	Credits
26CP601I	Industrial Training	-	6 months	240	60	20

### **TIME SCHEDULE**

<b>S. No</b>	<b>Unit Title</b>	<b>Duration</b>	<b>COs Mapped</b>
1	Appraise the nature, structure, organisation culture and functions of the organization	½ month	CO1 & CO5
2	Familiarize with the assigned Department and acquire secretarial or other required skills to handle the work.	2 months	CO2
3	Acquire and apply the computer skills for data entry and data processing using MS office / Tally / DTP / Computer Software.	1½ months	CO3
4	Acquire and exhibit skills required to handle the functions like Accounting / Billing / Maintaining Registers / Filing / Copying / Scanning of Documents etc. in different departments.	2 months	CO4
	Total	6 months	

Note: After successful completion of industrial training, the student should present the skills acquired during the industrial training in VIVA-VOCE examination.

## **COURSE OBJECTIVES**

Upon completion of the course the student shall be able to

1. Appraise the organizational structure and the objectives of the organization.
2. Familiarize with the assigned department and acquire the required skills to handle the work.
3. Apply the computer skills for data entry or processing using computer packages or software.
4. Acquire skills required to handle the functions like Accounting / Billing / Maintaining Registers / Filing / Copying / Scanning of Documents etc. in different departments.
5. Instil the good qualities of integrity, responsibility and self-confidence.

## **COURSE OUTCOMES**

The student shall be able to

Gain hands-on experience in office functions, data entry and data processing in a real-world environment.

## **LEARNING OUTCOMES:**

- 1.1 Appraise the nature, structure, organisation culture and functions of the organization
- 1.2 Acquaint with the staff and functions of the assigned Department. Acquire skills required to handle the work.
- 1.3 Apply the computer skills for data entry and data processing using MS office / Tally / DTP / Computer Software.
- 1.4 Acquire and exhibit skills required to handle the functions like Accounting / Billing / Maintaining Registers / Filing / Copying / Scanning of Documents etc. in various departments.

**Scheme of evaluation**

<i>Sl. No</i>	<i>Subject</i>	<i>Duration</i>	<i>Scheme of evaluation</i>		
			<i>Item</i>	<i>Nature</i>	<i>Max. Marks</i>
<i>1</i>	<i>Industrial training</i>	<i>6 months</i>	<i>1.First Assessment at Industry (After 12 Weeks)</i>	<i>Assessment of learning outcomes by both the faculty and training mentor of the industry</i>	<i>120</i>
			<i>2.Second Assessment at the Industry (After 20 weeks))</i>	<i>Assessment of learning outcomes by both the faculty and training mentor of the industry</i>	<i>120</i>
			<i>Final Summative assessment at institution level</i>	<i>Training Report</i>	<i>20</i>
				<i>Demonstration of any one of the skills listed in learning outcomes</i>	<i>30</i>
			<i>Viva Voce</i>	<i>10</i>	
<i>TOTAL MARKS</i>					<i>300</i>

## GUIDELINES FOR INDUSTRIAL TRAINING OF DIPLOMA IN COMMERCIAL AND COMPUTER PRACTICE

- Duration of the training: 6 months.
- Eligibility: As per SBTET norms
- Training Area: Students can be trained either in Industry / Government offices / Private Offices / Institutions as the area of training is related to office work.
- The Industrial Training shall carry maximum 300 marks
- Pass mark is 50% in assessment at industry (first and second assessment put together) and also 50% in final summative assessment at the institution level
- Formative assessment at industry level shall be carried out by the representative of the industry, where the student is undergoing training and the faculty from the concerned section in the institution.
- If the student fails to secure 50% marks in assessment at industry (first and second assessment put together), the student should reappear for 6 months industrial training at his/her own expenses.
- If the student fails to secure 50% marks in final summative assessment at institution level, the student should reappear for final summative assessment in the subsequent Board Examination.
- Final summative assessment at institution level is done by both internal, external examiners and faculty members who assessed the students during industrial training.
- During industrial training the candidate should maintain a minimum of 90% attendance.
- If the student fails to secure 90% attendance during industrial training, the student should reappear for 6 months industrial training at his/her own expenses.