CBCS CURRICULAR FRAMEWORK (2022-23)

TABLE 1: B.Sc. Computer Science with Cognitive Systems SEMESTER - I

S.NO	Name of the Course	Course Code	Part No	Type of the Paper	Total Marks	IA TEST	Sem End Exam	Teaching Hours	Credits
1	Business English -I	22ENGT15	I	First Language	100	30	70	4	3
2	Telugu-I	22TELT11	I	Second Language	100	30	70	4	3
3	Hindi-I	22HINT11							
4	Personality Development & Leadership	22LSCT11	III	Life Skill	50	15	35	2	2
5	Elementary Mathematics	22MATT14	II	Core	100	30	70	6	5
6	Problem Solving in C	22CGST11	II	Core	100	30	70	4	4
7	Problem Solving in C Lab	22CGSL11	II	Core Lab	50	15	35	2	1
8	Operating System	22CGST12	II	Core	100	30	70	4	4
9	Operating System Lab	22CGSL12	II	Core Lab	50	15	35	2	1
		TOTAL(Maximum)			650	195	455	28	23

TABLE 2: B.Sc. Computer Science with Cognitive Systems SEMESTER - II

S.NO	Name of the Course	Course Code	Part No	Type of the Paper	Total Marks	IA TEST	Sem End Exam	Teaching Hours	Credits
1	Business English -II	22ENGT25	I	First Language	100	30	75	4	3
2	Telugu-II	22TELT21	I	Second Language	100	30	75	4	3
3	Hindi-II	22HINT21							
4	Environmental Studies	22LSCT01	III	Life Skill	50	15	35	2	2
5	Introduction to Work Sheet Lab (Excel and VBA)	22CSCSDCP04	III	Skill Development	50	15	35	2	2
6	Data Structures	22CGST21	II	Core	100	30	70	4	4

CBCS CURRICULAR FRAMEWORK (2022-23)									
7	Data Structures Lab	22CGSL21	II	Core Lab	50	15	35	2	1
8	Computer Networks	22CGST22	II	Core	100	30	70	4	4
9	Computer Networks Lab	22CGSL22	II	Core Lab	50	15	35	2	1
10	Statistical Methods for Cognitive Systems	22STAT26	II	Core	100	30	70	4	4
11	Statistical Methods for Cognitive Systems Lab	22STAL22	II	Core Lab	50	15	35	2	1
12	Community Service Project	22CAIP2	II	CSP	100	100	0		4
		TOTAL(Maximum)			**850**	**325**	**535**	**30**	**29**
TABLE 3: B.Sc. Computer Science with Cognitive Systems SEMESTER - III									
S.NO	**Name of the Course**	**Course Code**	**Part No**	**Type of the Paper**	**Total Marks**	**IA TEST**	**Sem End Exam**	**Teaching Hours**	**Credits**
1	Business English -III	22ENGT02	I	First Language	100	30	70	4	3
2	Web Designing Lab	22CSCSDCP06	III	Skill Development	50	15	35	2	2
3	Quantitative Aptitue	LSCT14	III	Life Skill	50	15	35	2	2
4	Reasoning	LSCT15	III	Life Skill	50	15	35	2	2
5	Probability Distributions and Testing of Hypothesis	22STAT36	II	Core	100	30	70	4	4
6	IT Infrastructure Management	22CGST31	II	Core	100	30	70	4	4
7	IT Infrastructure Management Lab	22CGSP31	II	Core Lab	50	15	35	2	1
8	Data Base Mangement System	22CGST32	II	Core	100	30	70	4	4
9	Data Base Mangement System Lab	22CGSP32	II	Core Lab	50	15	35	2	1
10	Object Oriented Programming Using Java	22CGST33	II	Core	100	30	70	4	4
11	Object Oriented Programming Using Java Lab	22CGSP33	II	Core Lab	50	15	35	2	1
12	Yoga	22CEXP01	IV	Extension Activity	50	15	35	2	2
13	Statistical Data Analysis using SPSS Lab	22STAVAL01		ADD-ON	50	15	35	2	2
		TOTAL(Maximum)			900	270	630	36	32

CBCS CURRICULAR FRAMEWORK (2022-23)

TABLE 4: B.Sc. Computer Science with Cognitive Systems SEMESTER - IV

S.NO	Name of the Course	Course Code	Part No	Type of the Paper	Total Marks	IA TEST	Sem End Exam	Teaching Hours	Credits
1	Telugu -III	22TELT01	I	Second Language	100	30	70	4	3
2	Hindi-III	22HINT01	I						
3	Virtualization and Cloud Computing	22CGST41	II	Core	100	30	70	4	4
4	Virtualization and Cloud Computing Lab	22CGSL41	II	Core Lab	50	15	35	2	1
5	Process Management	22CGST42	II	Core	100	30	70	5	5
6	Python Programming	22CGST43	II	Core	100	30	70	4	4
7	Python Programming Lab	22CGSL43	II	Core Lab	50	15	35	2	1
8	Advanced Java	22CGST44	II	Core	100	30	70	4	4
9	Advanced Java Lab	22CGSL44	II	Core Lab	50	15	35	2	1
10	Data Mining and Warehousing	22CGST45	II	Core	100	30	70	4	4
11	Data Mining Lab	22CGSL45	II	Core Lab	50	15	35	2	1
12	In-House Project	22CAIP4	II	IHP	100	100	0		4
13	Communication Skills for Employability-I	22ENGSDCT04	III	Skill Development	50	15	35	2	2
14	Communication Skills for Employability-II	22ENGSDCT05	III	Skill Development	50	15	35	2	2
15	NCC/NSS/Sports/Extra Curricular	22CEXP02	IV	Extension Activity	50	15	35	2	2
		TOTAL(Maximum)			1050	385	665	39	38

CBCS CURRICULAR FRAMEWORK (2022-23)

TABLE 5: B.Sc. Computer Science with Cognitive Systems SEMESTER - V

S.NO	Name of the Course	Course Code	Part No	Type of the Paper	Total Marks	IA TEST	Sem End Exam	Teaching Hours	Credits
1	IT Infrastructure Library	22CGSSET01	II	CORE	100	30	70	5	5
2	Client Relationship Management	22CGSSET02	II	CORE	100	30	70	3	3
3	Client Relationship Management Lab	22CGSSEL02	II	CORE LAB	50	15	35	3	2
4	Mobile application development	22CGSSET03	II	CORE	100	30	70	3	3
5	Mobile application development Lab	22CGSSEL03	II	CORE LAB	50	15	35	3	2
6	Cyber security and malware analysis	22CGSSET04	II	CORE	100	30	70	3	3
7	Cyber security and malware analysis Lab	22CGSSEL04	II	CORE LAB	50	15	35	3	2
8	Data science	22CGSSET05	II	CORE	100	30	70	3	3
9	Data science Lab	22CGSSEL05	II	CORE LAB	50	15	35	3	2
10	Python for Datascience	22CGSSET06	II	CORE	100	30	70	3	3
11	Python for Datascience Lab	22CGSSEL06	II	CORE LAB	50	15	35	3	2
12	Web Interface Designing Technologies	22CGSSET07	II	CORE	100	30	70	3	3
13	Web Interface Designing Technologies Lab	22CGSSEL07	II	CORE LAB	50	15	35	3	2
14	Web Applications Development using PHP&MYSQL	22CGSSET08	II	CORE	100	30	70	3	3
15	Web Applications Development using PHP&MYSQL Lab	22CGSSEL08	II	CORE LAB	50	15	35	3	2
16	Introduction to Digital Technology	22CGSSET09	II	CORE	100	30	70	3	3
17	Introduction to Digital Technology Lab	22CGSSEL09	II	CORE LAB	50	15	35	3	2
18	Software Engineering and Testing	22CGSSET10	II	CORE	100	30	70	3	3
19	Software Engineering and Testing Lab	22CGSSEL10	II	CORE LAB	50	15	35	3	2

CBCS CURRICULAR FRAMEWORK (2022-23)									
20	Multimedia Tools and Applications	22CGSSET11	II	CORE	100	30	70	3	3
21	Multimedia Tools and Applications Lab	22CGSSEL11	II	CORE LAB	50	15	35	3	2
22	Digital Imaging	22CGSSET12	II	CORE	100	30	70	3	3
23	Digital Imaging Lab	22CGSSEL12	II	CORE LAB	50	15	35	3	2
24	Bigdata Analytics using R	22CGSSET13	II	CORE	100	30	70	3	3
25	Bigdata Analytics using R Lab	22CGSSEL13	II	CORE LAB	50	15	35	3	2
26	Data Science using Python	22CGSSET14	II	CORE	100	30	70	3	3
27	Data Science using Python Lab	22CGSSEL14	II	CORE LAB	50	15	35	3	2
28	Internet of Things	22CGSSET15	II	CORE	100	30	70	3	3
29	Internet of Things Lab	22CGSSEL15	II	CORE LAB	50	15	35	3	2
30	Application Development using Python	22CGSSET16	II	CORE	100	30	70	3	3
31	Application Development using Python Lab	22CGSSEL16	II	CORE LAB	50	15	35	3	2
32	IT Cognition and problem Solving	22CGSSET17	II	CORE	100	30	70	5	5
33	Camps to Corporate	22ENGSET01	II	CORE	100	30	70	5	5
		TOTAL(Maximum)			**750**	**225**	**475**	**33**	**30**

TABLE 6: B.Sc.(Computer Science) with Cognitive Systems Programme SEMESTER-VI									
S.NO	**Name of the Course**	**Course Code**	**Part No**	**Type of the Paper**	**Total Marks**	**Internal Assessment**	**External Assessment Component**	**Monitoring Hours**	**Credits**
1	Internship in Computer Science	22CGSIAP6	II	Core Project	200	60	140	6	12

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Semester I	Course Code	Course Title	Credits	Prds.
B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS)	**CSCP11B/ CGSP11**	**Problem Solving in C Lab**	**1**	**30**

Course Outcome No	Upon successful completion of this course, students should have the knowledge and skills to:	Program Outcome No
CO1	Apply logical skills to analyze a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO2	Design an algorithmic solution for a given problem	PO1, PO7, PSO1, PSO4, PSO2
CO3	Write a maintainable C program according to coding standards for a given algorithm	PO1, PO7, PSO1, PSO4, PSO2
CO4	Debug a given program	PO1, PO7, PSO1, PSO4, PSO2
CO5	Execute the C program	PO1, PO7, PSO1, PSO4, PSO2

Course Code: CSCP11A	Title of the Course: Programming using C Lab	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
		CO1					L	M	L
		CO2					M	L	M
		CO3					L	M	L
		CO4					M	L	H
		CO5					L	M	L

Experiments List
Cycle-I

Week 1:
Write a C program to check whether the given two numbers are equal, bigger or smaller?
Week 2:
Write a C program to perform arithmetic operations using Switch...case?
Week 3:

- Write a program to find the sum of individual digits of a positive integer.

- Write a program to check whether the given number is Armstrong or not.

Week 4:
Write a program to generate the first N terms of the Fibonacci sequence.
Week 5:
Write a program to find both the largest and smallest number in a list of integer values
Week 6:

- Write a program that uses functions to add two matrices.
- Write a program for multiplication of two n X n matrices.

Week 7:
Write a program to demonstrate refection of parameters in swapping of two integer values using Call by Value& Call by Address.
Week 8:
Write a program to calculate factorial of given integer value using recursive functions.

Cycle-II

Week 9:
Write a program to search an element in a given list of values.
Week 10:
Write a program to illustrate pointer arithmetic.
Week 11:
Write a program to sort a given list of integers in ascending order.
Week 12:
Write a program to calculate the salaries of all employees using Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary) structure.

a. DA is 30 % of Basic Pay
b. HRA is 15% of Basic Pay
c. Deduction is 10% of (Basic Pay + DA)
d. Gross Salary = Basic Pay + DA+ HRA
e. Net Salary = Gross Salary - Deduction

Week 13:
Write a program to perform various string operations.
Week 14:
Write a program to read the data character by character from a file.
Week 15:
Write a program to create Book (ISBN, Title, Author, Price, Pages, Publisher) structure and store book details in a file and perform the following operations

a. Add book details
b. Search a book details for a given ISBN and display book details, if available
c. Update a book details using ISBN
d. Delete book details for a given ISBN and display list of remaining Books.

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Semester I	Course Code	Course Title	Credits	Prds.
B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS)	CSCT11B/ CGST11	Problem Solving In C	4	60

Course Objectives:

This course aims to provide exposure to problem-solving through programming and introduce the concepts of the C Programming language.

Course Learning Outcomes:

Course Outcome No	Upon successful completion of the course, a student will be able to:	Program Outcome No.
CO1	Understand the evolution & functionality of Digital Computers and develop an algorithm for solving a given problem.	PO1, PO7, PSO1, PSO4
CO2	Understand tokens and control structures in C.	PO1, PO7, PSO1, PSO4
CO3	Understand arrays and strings and implement them.	PO1, PO7, PSO1, PSO4
CO4	Understand the right way of using functions, pointers, structures and unions in C	PO1, PO7, PSO1, PSO4
CO5	Develop and test programs written in C files	PO1, PO7, PSO1, PSO4

Course Code: CSCT11A	Title of the Course: Programming in C	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
		CO1						L	M
		CO2						M	L
		CO3						M	L
		CO4						L	M
		CO5						M	L

UNIT I **12 periods**

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, Programming Languages – Generations of Programming Languages – Structured Programming Language- Design and Implementation of Correct, Efficient and Maintainable Programs.

UNIT II **12 periods**

Introduction to C: Introduction – Structure of C Program – Writing the first C Program –File used in C Program – Compiling and Executing C Programs – Using Comments –
Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements in C- Operators in C- Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements– Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – goto Statement.

UNIT III **10 periods**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array– Operations on Arrays – one dimensional, two dimensional and multi-dimensional arrays,

character handling and strings.

UNIT IV **14 periods**

Functions: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions– Union – Arrays of Unions Variables – Unions inside Structures – Enumerated Data Types.

UNIT V **12 periods**

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic – Null Pointers - Passing Arguments to Functions using Pointer – Pointer and Arrays – Memory Allocation in C Programs – Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments.

BOOKS

1. E Balagurusamy – Programming in ANSIC – Tata McGraw-Hill publications.
2. Brain W Kernighan and Dennis M Ritchie - The 'C' Programming language" - Pearson publications.
3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
4. Yashavant Kanetkar - Let Us 'C' – BPB Publications.

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups as teams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity

B. General

1. Group Discussion
2. Try to solve MCQ's available online.
3. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Problem-solving exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports like "Creating Text Editor in C".
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work

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MODEL Question Paper: 2020-2021

TITLE: Problem solving in C **COURSE CODE: CSCP11B/CGSP11**
SECTIONS: B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS)
SEMESTER: I
TIME: 3 Hrs. **MAX: 75M**

SECTION –A

ANSWER ANY FIVE QUESTIONS **5 X 5 =25 M.**

1. What is a flowchart? Utilize flowchart symbols and draw a flowchart to find biggest of two numbers. **(CO1, L3)**
2. Write a short note on block diagram of computers. **(CO1, L2)**
3. Explain do…while loop with an example program. **(CO2 , L2)**
4. Develop a C program to find largest number in a given integer list. **(CO3 ,L3)**
5. Classify data types in C. Write a short note on any two data types. **(CO2 , L2)**
6. How to declare and initialize 1D arrays. **(CO3, L1)**
7. Construct a student structure to accept student details and write a C program to calculate grade of a student. (**CO4 , L3)**
8. Illustrate command line arguments with an example program. **(CO5, L2)**

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9 A) Define Algorithm. Demonstrate Key features of algorithm with examples. **(CO1, L2)**

(or)

B) List out the characteristics and limitations of computers. **(CO1, L1)**

10 A) Give Classification of Control statements in C. Explain multi-way decision making statements in C with examples. **(CO2, L2)**

(or)

B) Write a program to check whether the given number is Armstrong or not. **(CO2, L3)**

11 A) Develop a program in C for matrix multiplication. **(CO3, L3)**

(or)

B) Demonstrate various String handling functions in C with examples. **(CO3, L2)**

12 A) Compare and contrast structures with unions. **(CO4, L4)**

(or)

B) Explain the types of functions in C. **(CO4, L2)**

13 A) List different file handling functions in C. Explain with examples. **(CO5, L2)**

(or)

B) Explain call by value and call by reference with example. **(CO4, L2)**

*****

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BLUE PRINT

TITLE : Problem solving in C **COURSE CODE : CSCT11B/CGST11**
SECTIONS: B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS)
SEMESTER: I
TIME: 3 Hrs. **MAX: 75M**

SECTION-A

ANSWER ANY FIVE QUESTIONS **5X5=25M**

1. Unit 1
2. Unit 1
3. Unit 2
4. Unit 3
5. Unit 2
6. Unit 3
7. Unit 4
8. Unit 5

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9 A) Unit 1.

(or)

B) Unit 1.

10 A) Unit 2.

(or)

B) Unit 2.

11 A) Unit 3.

(or)

B) Unit 3.

12 A) Unit 4.

(or)

B) Unit 4.

13 A) Unit 5.

(or)

B) Unit 5.

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College with Potential for Excellence
(Awarded by UGC)

BUSINESS ENGLISH SYLLABUS FOR BBA/ BBA BA/ B.COM AF/B.COM TPP/BPM/MSDS/CSCS/BSFI/AI&ML COURSES UNDER CBCS

SEMESTER-I

COURSE CODE: ENG T15 **Max. Marks: 100**
No. of Hours per Week: 4 **External: 75M**
No. of Credits: 3 **Internal: 25M**

COURSE TITIE- BUSINESS ENGLISH-I

UNIT-I Nature of Communication **P- 3-19 - 12 hours**

- Communication core
- Process of communication
- Types of communication
- Aspects – Global, Ethical and Legal
- Communication in organizations
- Review Questions/Exercises

UNIT-II Non Verbal Communication **P-28-52 - 14 hours**

- Importance-Means
- Kinesics
- Paralinguistics - Proxemics
- Chronemics - Haptics
- Review Questions/Exercises

Barriers of Communication

- Causes- Linguistic, Psychological
- Interpersonal- Cultural - Physical
- Organizational Barriers
- Reviews Questions/Exercises

UNIT-III Principles of Letter Writing **P-93-104 - 10 hours**

- Nature and function of Letters
- Principles / Review Questions/Exercises

UNIT-IV Quotations, orders and tenders **P-125-141 - 12 hours**

- Inviting quotations
- Sending quotations
- Placing orders
- Inviting tenders
- Review Questions/Exercises

UNIT-V Claim and Adjustment Letters **P-155-161 - 12 hours**

- Making claims
- Offering adjustments

Review Questions/Exercises

Business Correspondence and Report Writing , RC Sharma and Krishna Mohan

Sl No.	Semester	Course Code	Name Of The Subject	Teaching Hours	Credits
1	**I Semester**	**ENGT15**	**Business English-I**	4	3

OBJECTIVE: The main objective of this course is not only to facilitate the learners to acquire the linguistic competence with a focus on business contexts and environments but also to help them practice and enrich their communication skills by using English in specific business settings and situations and develop their intellectual, personal and professional abilities.

COURSE OUTCOMES:

At the end of the course, the learners will be able to:

CO 1. Recognize the basics of Communication, i.e., its process, components and besides types, giving them a clear perception of the nature of business communication, its global, ethical and legal aspects. ***PO1***

CO 2. Establish and maintain interpersonal relationships with agility and transmit message through nonlinguistic signs focus is on both spoken and written form. ***PO3***

CO 3. Identify the basic principles and elements of writing business letters and apply the fundamentals to compose business letters required for business transactions. ***PO7***

CO 4. Produce clear and coherent writing in which the development, order and style are appropriate to task, purpose and addressees. ***PO1***

CO-PO MATRIX- ENG T15							
CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1	H						
CO2			M				
CO3							H
CO4	M						
CO5							

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SEMESTER- I **PAPER - I**

TITLE OF THE PAPER: HINDI-I

NO OF HOURS: 60 **CREDITS: 03**

WEF: 2021-22

COURSE CODE: HINT11A

COURSE OUTCOMES:

1. मानव मूल्यों को पहचानकर छात्र समाज कल्याण हेतु अपने योगदान दे सकेंगे ।
2. आधुनिक युग की भावनाओं को पहचानकर सामाजिक समस्यओं के प्रति जागरुक हो सकेंगे।
3. हिन्दी और अंग्रेजी के माध्यम से विध्यार्थी अनुवाद कौशल विकसित कर सकेंगे।
4. छात्रों में व्याकरण के व्दारा भाषा में निपुणता बढ़ेगी।
5. छात्रों में पत्रलेखन व्दारा लेखन कौशल बढ़ेगा तथा संप्रेषण बढ़ेगा।

SYLLABUS

I.गद्य संदेश :

1.साहित्य की महत्ता

2.सच्ची वीरता

3.मित्रता

II.कथा – लोक :

1.मुक्तिधन

2.गूदड़ साई

3.उसने कहा था

III.व्याकरण : कार्यालयीन हिन्दी शब्दावली

(हिन्दी से अंग्रेजी में बदलना तथा अंग्रेजी से हिन्दी में बदलना)

IV. व्याकरण :

1.लिंग

2.वचन

3.विलोम शब्द

4.काल

5.वाच्य

6.वाक्य शुद्ध कीजिए

V.पत्र लेखन: पत्र लेखन (मित्र को पत्र, पिताजी को पत्र)

Recommended Books:

1.गद्य संदेश – Dr.V.L.Narasimham Siva Koti

2.कथा – लोक - Dr.Ghana Shyam

3.मिलिन्द प्रकाशन

Hyderabad-95.
Degree First Year Text Book,
Vikram Publishers Pvt. Ltd., Durga Agraharam, Vijayawada-2

PARVATHANENI BRAHMAYYA SIDDHARTHA COLLEGE OF ARTS & SCIENCE :: VIJAYAWADA-520 010.
(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)
I SEMESTER Model Question Paper

Course Code: HINT11A **Max. Marks: 70M**
Time: 3 Hrs. **Pass Min. : 30M**

SECTION-I

I निम्न लिखित प्रश्नों का उत्तर लिखिए। **4×5=20**

1.(a) जीवन में साहित्य की क्या आवश्यकता है? साहित्य व्दारा सभ्यता की परीक्षा किस प्रकार हो सकती है? L1

(अथवा)

(b) वीरता किसे कहते हैं? लेखक का 'सच्ची वीरता' से क्या अभिप्राय है? L1

2.(c) रहमान का चरित्र-चित्रण कीजिए। L2

(अथवा)

(d) गूदड़ साई का शीर्षक पर अपना उद्देश्य प्रकट कीजिए। L2

3.(e) काल किसे कहते हैं तथा उसके कितने प्रकार हैं? L3

(अथवा)

(f) वाच्य किसे कहते हैं तथा उसके कितने प्रकार हैं? L3

4.(g) **नीचे दिए गए शब्दों का लिंग बदलकर लिखिए। L1**

1.विद्वान 2.अध्यापक 3.मोर 4.ठाकुर 5.धोबी

(अथवा)

(h) **नीचे दिए गए शब्दों का वचन बदलकर लिखिए। L1**

1.लड़की 2.वीर 3.सेना 4. रुपया 5.कविता

SECTION-II **1×10=10**

5.(a) 'मित्रता' पाठ का सारांश लिखिए। L2

(अथवा)

(b) 'साहित्य की महत्ता' पाठ का सारांश लिखिए। L2

SECTION-III 1×10=10

6.(a) 'मुक्तिधन' कहानी का सारांश लिखिए। L2

(अथवा)

(b) 'उसने कहा था' कहानी का सारांश लिखिये। L2

SECTION-IV

7.(a) **किन्हीं पाँच शब्दों को अंग्रेजी से हिंदी में अनुवाद कीजिए। L2** **5×2=10**

1.Acceptance 2.Ballot Officer 3.Chairman 4.Duty 5.Supervisor
6.High Court 7.Fair copy 8.Eligibility 9. Passport 10.Accountant

(अथवा)

(b) **किन्हीं पाँच शब्दों को हिंदी से अंग्रेजी में अनुवाद कीजिए। L2**

1.प्रशासन 2.परिपत्र 3.गोपनीय 4.स्पष्टीकरण 5.राजदूत
6.निर्देशक 7.शिक्षा-अधिकारी 8.कुलपति 9.महा प्रबंधक 10.अनुवादक

8.(a) **किन्हीं पाँच शब्दों का विलोम शब्द लिखिए। L1** **5×2=10**

1.वीरता 2. अच्छा 3.नया 4.आना 5.भिन्न 6.सस्ता 7.मित्र 8. लेना

(अथवा)

(b) **वाक्य शुद्ध कीजिए। L1**

1.मोहन पुस्तक पढ़ा।

2.सीता ने चार आम खाया।

3.राम ने गया।

4.दशरथ की तीन रानियाँ थीं।

5.चोरी कौन किया?

SECTION-V 1×10=10

9.(a) पुस्तकें खरीदने के लिए पैसे माँगते हुए अपने पिताजी के नाम पर पत्र लिखिए। L3

(अथवा)

(b) हिंदी सीखने की आवश्यकता के बारे में बताते हुए अपने मित्र को पत्र लिखिए। L3

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DEPARTMENT OF MATHEMATICS

COURSE STRUCTURE

Sem	Course	Paper	Title of the Paper	Total Marks	Internal Exam	Sem.End Exam	Teaching Hours	Credits
I	MAT T14A	CORE	ELEMENTARY MATHEMATICS	100	30	70	5	5

S.NO	PROGRAMME OUTCOMES
1	Ability to apply and commit to professional ethics following cyber regulation in a global economic environment. Create and design innovative applications to solve complex problems using established practices for the betterment of the society.
2	An ability to apply knowledge of mathematics and computer science practices to build innovative public and private sector applications involving complex computing problem solving.
3	An ability to understand the impact of system solutions in a contemporary, global, economical, environmental, cultural and societal context for sustainable development.
4	Ability to develop an understanding of modern computing concepts and architectures from a design and performance perspective of various domains.
5	Ability to communicate effectively and present technical & project management information using audio visual tools as well as in oral and written reports.
6	An ability to perform effectively adapting as per requirement as an individual and as leader of terms of individuals.
7	An ability to appreciate the importance of goal setting aN recognize the need for lifelong learning.

COURSE OUTCOMES

S.No	**Upon Successful completion of this course, students should have the knowledge and skills to:**	Mapping
1	Acquired ability to create sustainable solutions in the context of matrices.	L1, PO2
2	Acquired the ability to solve linear equations involving one, two or more variables.	L2, PO7
3	Acquired ability to recognize linear, quadratic, power and polynomial, algebraic, rational, trigonometric, exponential and logarithmic functions and sketch their graphs.	L2, PO6
4	Acquired ability to solve an algebraic or transcendental equation using an appropriate numerical methods and appropriate function using appropriate numerical methods.	L2, PO2
5	Acquired knowledge to select appropriate numerical methods to apply various types of problems in science consideration of the mathematical operations involved, accuracy requirements and available computational resources.	L1, PO4

CO-PO MATRIX							
CO-PO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
CO1					**M**		
CO2					**M**		
CO3					**L**		
CO4						**M**	
CO5						**M**	

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MATHEMATICS	**MAT T14A**	**2017 – 18 Onwards**	**B.C.A**

ELEMENTARY MATHEMATICS

SEMESTER-I No of Credits: 5

OBJECTIVES:

1. Know when it is possible to multiply two matrices and how it is done.
2. Understand the terms identity matrix, determinant, transpose and inverse matrix.
3. To provide the numerical methods of solving the non-linear equations, interpolation,

differentiation, and integration.

4. To improve the student's skills in numerical methods by using the numerical analysis software and computer facilities.

UNIT – I: MATRIX ALGEBRA **(18hrs)**

1.1 Types of matrices

1.2 Matrix addition and subtraction

1.3 Matrix multiplication

1.4 Transpose of a matrix
- 1.4.1 Row matrix
- 1.4.2 Column matrix
- 1.4.3 Symmetric matrix
- 1.4.4 Skew symmetric matrix.

UNIT – II: LINEAR EQUATIONS **(18hrs)**

2.1 Adjoint of a square matrix (Upto 3x3)

2.2 Inverse of a square matrix (Upto 3x3)

2.3 Solutions of Linear Equations.

- 2.3.1 Cramer's Rule
- 2.3.2 Matrix Inverse Method.

(PTO)

UNIT – III: MAXIMA AND MINIMA. (18hrs)

3.1 Introduction

3.2 Increasing and decreasing functions

3.3 Maxima and Minima of a function of one variable only.

3.4 Numerical Integration introduction
- 3.4.1 Trapezoidal rule
- 3.4.2 Simpson's $1/3^{rd}$ rule
- 3.4.3 Simpson's $3/8^{th}$ rule.

UNIT – IV: NUMERICAL METHODS (18hrs)

4.1 Introduction

4.2 Solution of Algebraic and Transcendental equations

- 4.2.1 Bisection method
- 4.2.2 Method of False Position
- 4.2.3 Newton - Raphson method.

UNIT – V: FINITE DIFFERENCES AND INTERPOLATION (18hrs)

5.1 Finite Differences

5.2 Forward Differences

5.3 Backward Differences

5.4 Newton's forward interpolation formula

5.5 Newton's backward interpolation formula.

Note: Proofs and derivations of Expressions and statements are not included.

STUDENT ACTIVITIES:

1) **Class-room activities:** Power point presentations, Assignments
2) **Library activities:** Visit to library and preparation of notes for Assignment problems.
3) **Activities in the Seminars, workshops and conferences:** Participation/presentation in seminar/workshop/conference.

CO-CURRICULAR ACTIVITES:

- Quiz Competitions, Seminars
- Group Discussions

WEB LINKS:

http://www.bspublications.net/downloads/0523a9f25106ff_M_III_ch_1.pdf

https://nptel.ac.in/courses/111107063

Prescribed Text books:				
S.NO	**AUTHOR**	**TITLE OF THE BOOK**	**PUBLISHER**	**YEAR OF PUBLICATION**
1	Dr. T.K.V Iyengar, Dr. B. Krishna Gandhi, Dr. S. Ranganatham and Dr. M.V.S.S.N. Prasad	Mathematical Methods	S. Chand & Co. Ltd	6th Revised edition 2011
2	J.K.Singh	Business Mathematics	Himalaya Publishing House	Third Edition 2013

Reference Text books:				
S.NO	AUTHOR	TITLE OF THE BOOK	PUBLISHER	YEAR OF PUBLICATION
1.	Dr. P Hazarika	A Text Book Of Business Mathematics	S. Chand	2014
2	D.C. Sancheti V.K. Kapoor	Business Mathematics	S. Chand & Sons	2006
3	Rama Krishna Ghosh SuranjanSaha	Advanced Business Mathematics	New Central Book Agency	2012

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SEMESTER – I

COURSE CODE : MAT T14A (w.e.f 2022 – 2023 onwards) Time: 3hrs.
TITLE OF THE PAPER : ELEMENTARY MATHEMATICS Max. Marks: 70

Answer all the questions . All questions carry equal marks

1 (a) (i) Evaluate $A^2 - 3A + 9I \text{ where } A = \begin{bmatrix} 1 & -2 & 3 \\ 2 & 3 & -1 \\ -3 & 1 & 2 \end{bmatrix}$ (CO1,L1) 10M

OR

(ii) Solve the following equations by matrix inversion method (CO1,L1) 10M

3x+4y+5z = 18 , 2x+y-8z = 13 and 5x-2y+7z = 20

(b) (i) If A = $\begin{bmatrix} 2 & 0 & 4 \\ 6 & 2 & 8 \\ 2 & 4 & 6 \end{bmatrix}$, B = $\begin{bmatrix} 8 & 4 & -2 \\ 0 & -2 & 0 \\ 2 & 2 & 6 \end{bmatrix}$, $C = \begin{bmatrix} 8 & 2 & 0 \\ 0 & 2 & -6 \\ -8 & 4 & -10 \end{bmatrix}$ determine value of (A – B) + C (CO1,L2) 4M

OR

(ii) I f A = $\begin{bmatrix} 1 & 2 & 3 \\ 1 & 2 & 3 \\ -1 & -2 & -3 \end{bmatrix}$ prove that A^2 = O (CO1,L2) 4M

2 (a) (i) If A = $\begin{bmatrix} 3 & -3 & 4 \\ 2 & -3 & 4 \\ 0 & -1 & 1 \end{bmatrix}$ show that $A^{-1} = A^3$ (CO2,L2) 10M

OR

(ii) If A = $\begin{bmatrix} 4 & 1 & 0 \\ 2 & -1 & 2 \\ 0 & 2 & 0 \end{bmatrix}$ and B = $\begin{bmatrix} 1 & 3 & 5 \\ 2 & -1 & 2 \\ 1 & 4 & 3 \end{bmatrix}$ then find Adj A and Adj B (CO2,L2) 10M

(b) (i) A = $\begin{bmatrix} 2 & 3 & 4 \\ -3 & 0 & 2 \end{bmatrix}$ B = $\begin{bmatrix} 3 & -4 & -5 \\ 1 & 2 & 1 \end{bmatrix}$ $C = \begin{bmatrix} 5 & -1 & 0 \\ 7 & 0 & 3 \end{bmatrix}$ and 2A + 3B –X =C, find X (CO2, L3) 4M

OR

(ii) Solve the system of equations by using Cramer's rule 2x-y =5 , 3x+2y = -3 (CO2,L3) 4M

3 (a) (i) Evaluate $\int_0^1 x^3\, dx$ with five subintervals by Trapezoidal rule (CO3, L1) 10M

OR

(ii) Evaluate $\int_1^2 (x^3 + 1) dx$ using Simpson's 3/8 rule , dividing the range into 3 equal parts (CO3,L1) 10M

(b) (i) Inspect whether $y=20-6x+x^2$ for increasing or decreasing function at the points x=0 and X=2(CO3,L3)4M

OR

(ii) The sum of two numbers is 24.Find the numbers , if the sum of their squares is to be minimum (CO3,L3)4M

4(a) (i) By using Regula-Falsi method , find an approximate root of equation $x^4 - x - 10 = 0$ which lies between 1.8 and 2 . carryout 3 approximations (CO4,L2) 10M

OR

(ii) By Newton-Raphson method , find the root of $x^4-x-10 = 0$ correct to 3 places of decimal (CO4,L2)10M

(b) (i) Define Algebraic and Transdental equations with example (CO4, L3) 4M

OR

(ii) write about Bisection method and the importance of the method (CO4,L3) 4M

5(a) (i) Given that y(50) =205, y(60) = 225, y(70) =248 , y(80) = 274 .Compute y(54) using Newton's forward Difference formula (CO5,L1)10M

OR

(ii) Using Newton's backward interpolation formula , compute value of f(2.5) from following table (CO5.L1)10M

X	0	1	2	3
F(x)	1	3	7	13

(b) (i) Prove that $E = \Delta + 1$ (CO5,L3)4M

OR

(ii) Prove that $\mu^2 = 1 + \frac{1}{4}\delta^2$ (CO5, L3)4M

పి.బి. సిద్ధార్థ ఆర్ట్స్ & సైన్స్ కళాశాల (స్వయంప్రతిపత్తి) :: విజయవాడ -10

బి.ఏ., బి.బి.ఏ., బి.కాం., బి.ఎస్సి., బి.సి.ఏ., తదితర ప్రోగ్రాములు

సి.బి.సి.ఎస్. పద్ధతిలో సవరించబడిన పాఠ్యప్రణాళిక

2020-2021 విద్యా సంవత్సరం నుండి

తెలుగు - పాఠ్య ప్రణాళిక

సెమి.	కోర్సు	శీర్షిక	పీరియడ్లు/వారానికి	క్రెడిట్లు	మొత్తం మార్కులు		
					IA	SE	Total
I	I	తెలుగు - I	04	03	25	75	100

(B.A,B.Com-GEN,C.A,A&F,TPP,BPM,BBA,BBA-B.A,BCA,B.Sc&CSCS) EXTRA

కోర్స్ కోడ్:TELT11A **అంశం: తెలుగు** **సెమిస్టర్- I**

కోర్సు-1 : తెలుగు-I

యూనిట్ల సంఖ్య: 5 పీరియడ్ల సంఖ్య: 60

కోర్స్ అవుట్ కంమ్స్ :

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. ప్రాచీన తెలుగు సాహిత్యం యొక్క ప్రాచీనతను, విశిష్టతను గుర్తిస్తారు. తెలుగు సాహిత్యంలో ఆదికవి నన్నయ కాలంనాటి భాషాసంస్కృతులను, ఇతిహాసకాలం నాటి రాజనీతి విషయాలపట్ల పరిజ్ఞానాన్ని సంపాదించగలరు.
2. శివకవుల కాలంనాటి మతపరిస్థితులను, భాషా విశేషాలను గ్రహిస్తారు. తెలుగు నుడికారం, సామెతలు, లోకోక్తులు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందగలరు.
3. తిక్కన భారతంనాటి మత, ధార్మిక పరిస్థితులను, తిక్కన కవితా శిల్పాన్ని, నాటకీయతను అవగాహన చేసుకోగలరు.
4. పోతన అద్భుత కథాకథన శిల్పం, సజీవపాత్ర చిత్రణ, శబ్దాలంకారాల ప్రయోగం మొదలగు విభిన్న రీతులపట్ల అభిరుచిని పొందగలరు. మొల్ల కవిత్వంలోని వీనుల విందైన పదాలు, పాత్రలు మనోభావాల చిత్రణ గుర్తించగలరు.
5. తెలుగు పద్యం స్వరూప-స్వభావాలను, సాహిత్యాభిరుచిని పెంపొందించుకుంటారు. ప్రాచీన కావ్యభాషలోని వ్యాకరణాంశాలను అధ్యయనం చేయడం ద్వారా భాషా సామర్థ్యాన్ని, రచనలో మెలకువలను గ్రహించగలరు.

లెర్నింగ్ అబ్జెక్టీవ్స్ :

1. తెలుగు భాషాసాహిత్యాల పట్ల ప్రీతి, మమకారం, ప్రాచీన కాలంలోని రాజనీతి పట్ల అవగాహన కల్గుతుంది.
2. ప్రాచీన కాలం నాటి చరిత్ర, సంస్కృతి ఆచార సాంప్రదాయాల పట్ల ఆసక్తి కల్గుతుంది.
3. అలనాటి ధర్మ, మత పరిస్థితులు, నైతిక విలువల పట్ల అవగాహన ఏర్పడుతుంది.
4. పూర్వ కవుల సజీవ పాత్రల సృష్టి, వివిధ శబ్ద ప్రయోగాల పట్ల అభిరుచి కల్గుతుంది.
5. కావ్య భాషలోని భాషా పరిజ్ఞానం, వ్యాకరణాంశాలు, వివిధ రచనలలోని మెలకువలు తెలుసుకుంటారు.

పాఠ్య ప్రణాళిక

యూనిట్-I

రాజనీతి – నన్నయ

మహాభారతము – సభాపర్వం – ప్రథమాశ్వాసంలో 26వ పద్యము "మీవంశమున..... నీవు వారిదైన నేర్పెఱింగి" నుండి 57వ పద్యము "నాయథాశక్తి .... వాని ననుష్ఠితు బ్రియముతోడ" వరకు.

యూనిట్-II

దక్షయజ్ఞం – నన్నెచోడుడ

కుమార సంభవం – ద్వితీయాశ్వాసంలో 49వ వచనం "అంతకమున్ను.... భయంకరా కారంబుదాల్చిన" నుండి 86వ పద్యం " ప్రమథగణము.... కనిరిశంభు" వరకు.

యూనిట్-III

ధౌమ్యధర్మోపదేశము – తిక్కన

మహాభారతము – విరాటపర్వము – ప్రథమాశ్వాసంలో 116వ పద్యం "ఎఱిగెడు వారికినైనను.... వలయు దగియెడు బుద్ధుల్" నుండి 146వ పద్యం "అతడు నియతితోడ .... సంచయములు దగ జపించుచుండె" వరకు.

యూనిట్-IV

మధుర స్నేహం – పోతన

ఆంధ్రమహాభాగవతము – దశమస్కంధము – కుచేలోపాఖ్యానంలో 962వ పద్యం "లలిత పతివ్రతాతిలకంబు... కుపాయమూ హింప వైతి" నుండి 983వ పద్యం "తన మృదుతల్పమందు... ధరణీసురు డెంతటి భాగ్యవంతుడో" వరుకు.

యూనిట్-V

సీతారావణ సంవాదం – మొల్ల

రామాయణము – సుందరకాండములో 40వ వచనం "ఆరామంజూచి.... వృక్షం బారోహించి యందు" నుండి 87వ పద్యం " కావున నిక్కోమలియెడ.... మనకు దిక్కగు మీదన్" వరకు.

వ్యాకరణము:

1. **సంధులు:-** సవర్ణ, గుణ, యణాదేశ, వృద్ధి, అకార, ఇకార, ఉకార, త్రిక సంధులు.
2. **సమాసములు:-** తత్పురుష, కర్మధారయ, ద్వంద్వ, ద్విగు, బహువ్రీహి సమాసములు.
3. **ఛందస్సు:-** వృత్త పద్యాల్లో ఉత్పలమాల, చంపకమాల, శార్దూలము, మత్తేభము.
   జాతులు, ఉపజాతుల్లో కందము, తేటగీతి, ఆటవెలది మరియు ముత్యాలసరాలు.
4. **అలంకారములు:-** శబ్దాలంకారాల్లో అనుప్రాసాలైన వృత్త్యనుప్రాస, ఛేకానుప్రాస, లాటానుప్రాస, అంత్యాను ప్రాసములు.
   అర్థాలంకారాల్లో ఉపమ, ఉత్ప్రేక్ష, రూపక, శ్లేషలు.

ఆధార గ్రంథాలు:

1. శ్రీమదాంధ్ర మహాభారతము : సభాపర్వము-తిరుమల తిరుపతి దేవస్థానం ప్రచురణ
2. శ్రీమదాంధ్ర మహాభారతము : విరాటపర్వము-తిరుమల తిరుపతి దేవస్థానం ప్రచురణ
3. కుమార సంభవం - నన్నెచోడుడు
4. శ్రీ మహాభాగవతము - పోతన
5. రామాయణము - మొల్ల

SEMESTER– PARVATHANENI BRAHMAYYA SIDDHARTHA COLLEGE OF ARTS & SCIENCE :: VIJAYAWADA-520 010.
(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)

TELUGU	**TELT11A**	**2020-2021**	**B.A., B.Com., B.B.A., B.B.A.-Ana, B.Com.-CA, B.C.A., & B.Sc.,**

I **Credits – 3**

ప్రశ్నపత్ర నిర్మాణ సూచిక : TELUGU-I

1. ప్రతిపదార్థ పద్యాలు :	**2–1**	**1×7=7మా,**	**2. సందర్భ సహిత వ్యాఖ్యలు:**	**5–3**	**3×4=12మా**
3. సంగ్రహరూప ప్రశ్నలు :	**5–3**	**3×4=12మా,**	**4. వ్యాసరూప ప్రశ్నలు :**	**5–3**	**3×8=24మా**
5. సంధులు :	**5–3**	**3×2=6మా,**	**6. సమాసములు :**	**5–3**	**3×2=6మా**
7. ఛందస్సు :	**2–1**	**1×4=4మా,**	**8. అలంకారములు :**	**2–1**	**1×4=4మా**
				మొత్తం =	**75మా**

గమనికలు / సూచనలు:

1. **ప్రతిపదార్థ పద్యాలు:–** "రాజనీతి, ధౌమ్యధర్మోపదేశం, మధురస్నేహం" అనే మూడు పాఠాల నుండి రెండు పద్యాలు ఇవ్వాలి. అవి కూడ ఈ క్రింది పద్యాల్లో నుండి రెండు ఇవ్వాలి–

రాజనీతి:

1. ఉత్తమ మధ్యమాధమ .... కాలము దప్పకుండగన్
2. బహుధనధాన్య సంగ్రహము ..... భవత్పరి రక్ష్యములైన దుర్గముల్

ధౌమ్యధర్మోపదేశము:

3. రాజ గృహంబు కంటె ..... దగదట్లు సేయగన్
4. ధరణిపు చక్క ..... నుండుటనీతి కొల్పునన్

మధురస్నేహం:

5. కలలో నందను ..... సంపద్విశేషోన్నతుల్.
6. కనిడాయం జనునంత ..... విలోలుండై దిగెన్ దల్పమున్.

2. **సందర్భసహిత వ్యాఖ్యలు:–** "రాజనీతి, దక్షయజ్ఞం, ధౌమ్యధర్మోపదేశము, మధురస్నేహం, సీతారావణ సంవాదం" అనే ఐదు పాఠాలనుండి ఒకొక్కటి చొప్పున సందర్భసహిత వ్యాఖ్య ఇవ్వాలి.

3. **సంగ్రహరూప ప్రశ్నలు:–** "రాజనీతి, దక్షయజ్ఞం, ధౌమ్యధర్మోపదేశము, మధురస్నేహం, సీతారావణసంవాదం" అనే ఐదు పాఠాల నుండి ఒకొక్కటి చొప్పునొ సంగ్రహరూప ప్రశ్న ఇవ్వాలి.

4. **వ్యాసరూప ప్రశ్నలు:–** "రాజనీతి, దక్షయజ్ఞం, ధౌమ్యధర్మోపదేశము, మధురస్నేహం, సీతారావణసంవాదం" అనే ఐదు పాఠాల నుండి ఒకొక్కటి చొప్పున వ్యాసరూప ప్రశ్న ఇవ్వాలి.

5. **సంధులు:–** "సవర్ణ, గుణ, యణాదేశ, వృద్ధి, అకార, ఇకార, ఉకార, త్రిక" సంధులు నుండి ఐదు సంధులు ఇవ్వాలి.

6. **సమాసములు:–** "తత్పురుష, కర్మధారయ, ద్వంద్వ, ద్విగు, బహువ్రీహి సమాసములు" నుండి ఐదు సమాసములు ఇవ్వాలి.

7. **ఛందస్సు:–** వృత్తపద్యాలైన "ఉత్పలమాల, చంపకమాల, శార్దూలము, మత్తేభము"ల నుండి ఒక పద్యపాదమును ఇవ్వాలి.
జాతులు, ఉపజాతుల పద్యాలైన "కందము, తేటగీతి, ఆటవెలది" మరియు 'ముత్యాలసరాలు' నుండి ఏవైన మూడిచ్చి ఒకదానిని లక్ష్యలక్షణ సమన్వయం చేయమనాలి.

8. **అలంకారములు:–** అర్థాలంకారలైన "ఉపమ, ఉత్ప్రేక్ష, రూపకము, శ్లేష"ల నుండి ఒక అలంకారము ఇవ్వాలి. అది కూడ ఐదు పాఠాల (రాజనీతి, దక్షయజ్ఞం, ధౌమ్యధర్మోపదేశము, మధురస్నేహం, సీతారావణసంవాదం) నుండి ఒక పద్యాన్ని ఇవ్వాలి–
శబ్దాలంకారాల నుండి "వృత్తనుప్రాస, ఛేకానుప్రాస, లాటానుప్రాస, అంత్యానుప్రాసా"ల నుండి రెండు అలంకారములు ఇచ్చి, ఒక అలంకారము వ్రాయమనాలి.

ఇక నమూనా ప్రశ్నపత్రాన్ని పరిశీలించి ప్రశ్నపత్రాన్ని తయారు చేసుకోవాలి.

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I Semester Model Question Paper, 2020-21 Batch

No. of Pages: 2	**Roll No.:**	**Max. Marks: 75M**
Time: 3 Hrs.	**No. of Questions: 08**	**Pass Min. : 30M**

I. క్రింది వానిలో <u>ఒకదానికి</u> ప్రతి పదార్థ తాత్పర్యమును వ్రాయండి: 7మా **L1**

1. బహుధనధాన్య సంగ్రహము బాణశరాసన యోధవీర సం
గ్రహము నిరంతరాంతరుదకంబులు ఘాసరసేందనౌఘ సం
గ్రహము ననేక యంత్రములు గల్గియ సాధ్యములై ద్విషద్భయా
వహ లగుచుండ నొప్పునె భవత్పరి రక్ష్యములైన దుర్గముల్.

లేదా

2. కలలోనందను మున్నెఱుంగని మహా కష్టాత్ముడై నట్టి దు
ర్బలు డౌపత్సమయంబునన్ నిజ పదాబ్జాతంబులు ల్లంబులోన్
దలపన్నంతనె మెచ్చి యార్తి హరుడై తన్నైన నిచ్చున్ సు ని
శ్చల భక్తిన్ భజియించువారి కిడడే సంపద్విశేషోన్నతుల్.

II. క్రింది వానిలో <u>మూడింటికి</u> సందర్భసహిత వ్యాఖ్యలు వ్రాయండి: 3 × 4 = 12మా **L2**

1. వార్త నిర్వహింపవలయు బతికి.
2. నన్ను బనుపు దక్షు బట్టి తెచ్చెదన్.
3. పురుషార్థంబునకు హాని పుట్టక యున్నే?
4. గోవింద దర్శనోత్సాహి యగుచు.
5. ఉండు టిది న్యాయమె లతాంగీ !

III. క్రింది వానిలో <u>మూడింటికి</u> సంగ్రహరూప సమాధానాలు వ్రాయండి: 3 × 4 = 12మా **L1**

1. రాజు చేయకూడని పనుల్ని తెల్పండి?
2. ప్రమథులు దక్షుని బంధించిన తీరును తెల్పండి?
3. ధౌమ్యుని ఉపదేశానంతరం ఏమి జరిగింది?
4. అంతఃపురకాంతలు కుచేలుని గూర్చి భావించిన విషయాల్ని తెల్పండి?
5. త్రిజట తన స్వప్నాన్ని ఏమని వివరించెను?

IV. క్రింది వానిలో <u>మూడింటికి</u> వ్యాసరూప సమాధానాలు వ్రాయండి: 3 × 8 = 24మా **L1**

1. ప్రజాపాలనలో రాజులు పాటించాల్సిన ధర్మాలేవి?
2. 'దక్షయజ్ఞం' సారాంశాన్ని వ్రాయండి.
3. ధౌమ్యుడు పాండవులకు చేసిన ధర్మోపదేశాన్ని వివరించండి
4. 'మధురస్నేహం' పాఠ్య సారాంశాన్ని తెల్పండి?
5. సీతారావణ సంవాదాన్ని వివరించండి.

V. క్రింది వానిలో <u>మూడింటిని</u> విడదీసి, సంధి కార్యము వ్రాయండి: 3 × 2 = 6మా **L3**

1. శతైకవృద్ధి 2. జగమెల్ల 3. మనుజేంద్రుడు
4. కష్టాత్ముడు 5. ఇక్కోమలి

VI. క్రింది వానిలో <u>మూడింటికి</u> విగ్రహ వాక్యాలు వ్రాసి, సమాస నామములు తెల్పండి: 3×2=6మా **L3**

1. అష్టాంగాలు 2. అశ్రమము 3. భీమార్జునులు2
4. మధురస్నేహం 5. తోయజాక్షి

VII. క్రింది పద్య పాదాన్ని గణ విభజన చేసి, యతిని గుర్తించి, ఏ పద్యపాదమో తెల్పండి: 1×4=4మా **L3**

తన మృదుతల్పమందు వనితామణియైన రమాలలామ పొం

లేదా

క్రింది వానిలో <u>ఒకదానికి</u> లక్ష్య, లక్షణ సమన్వయం చేయండి. **L1**

1. తేటగీతి 2. ముత్యాలసరాలు 3. ఆటవెలది

VIII. క్రింది పద్యంలోని అలంకారమును గుర్తించి, లక్ష్య లక్షణ సమన్వయం చేయండి: 1×4=4మా **L3**

బాల సఖుడైన యప్పద్మ పత్రనేత్రు
గాన నేగి దరిద్రాంధకార మగ్ను
లయిన మము నుద్ధరింపుము హరి కృపాక
టాక్ష రవిదీప్తి వడసి మహాత్మ! నీవు.

లేదా

క్రింది వానిలో <u>ఒకదానికి</u> లక్ష్య, లక్షణ సమన్వయం చేయండి. **L1**

1. వృత్త్యాను ప్రాసము 2. లాటానుప్రాసము

P. B. SIDDHARTHA COLLEGE OF ARTS & SCIENCE: VIJAYAWADA-10.
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Semester II	Course Code	Course Title	Hours	Credits
BSC(MPCS/MECS/CAME/MSCS /CAMS/CSCS/BCA)	**CGSP21**	**Data Structures Lab**	**30**	**1**

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to:	PROGRAM OUTCOME NO
CO1	implement stacks, queues using arrays and linked lists.	PO1, PSO1, PSO2, PSO4
CO2	Write program for conversion from infix to postfix.	PO1, PSO1, PSO2, PSO4
CO3	implement different sorting and searching techniques.	PO 7, PSO1, PSO2, PSO4
CO4	Construct binary trees and binary search trees.	PO 1, PSO1, PSO2, PSO4
CO5	implement binary tree and Graph traversals.	PO1, PO 7, PSO1, PSO2, PSO4

Title of the Course: DATA STRUCTURES LAB	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
	CO1					M	L	M
	CO2					L	M	L
	CO3					M	L	L
	CO4					L	M	L
	CO5					M	L	L

Lab Experiments List

Cycle - I

Week 1: Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array

- Add an element at the beginning of an array
- Insert an element at given index of array
- Update a element using a values and index
- Delete an existing element

Week 2: Write Program to implement the Stack operations using an array.

Week 3: Write a program using stacks to convert a given infix expression to postfix.

Week 4: Write a program for arithmetic expression evaluation.
Week 5: Write Program to implement the Stack operations using Linked List.

Week 6: Write Program to implement the Queue operations using an array.

Week 7: Write Program to implement the Queue operations using Liked List.

Week 8: Write Program to implement circular Queue operations using an array.

Cycle - II

Week 9: Write a program to implement de-queues.

Week 10: Write a program to implement single linked list.

Week 11: Write a program to implement double linked list.

Week 12: Write a program for Binary Search Tree Traversals.

Week 13: Write a program to search an item in a given list using the following Searching Algorithms

- Linear Search
- Binary Search.

Week 14: Write a program for implementation of the following Sorting Algorithms

- Bubble Sort
- Insertion Sort
- Merge sort

Week 15: Write a program for implementation of the following graph traversals.

- BFS
- DFS

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Semester-II	Course Code	Course Title	Hours	Credits
B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS/), BCA	**CGST21**	**Data Structures**	**60**	**4**

Course Objectives

To introduce the fundamental concept of data structures and to emphasize the importance of various data structures in developing and implementing efficient algorithms.

Course Outcomes:

Course Outcome No	Upon successful completion of the course, student will be able to:	Program Outcome No
CO1	Learn the concepts of ADT and understand analysis of algorithms	PO1, PSO1, PSO2, PSO4
CO2	Understand available Data Structures for data storage and processing.	PO1, PSO1, PSO2, PSO4
CO3	Learn stacks, queues and their applications	PO1, PSO1, PSO2, PSO4
CO4	Understand trees, graphs and implement their operations	PO1, PO7, PSO1, PSO2, PSO4
CO5	Develop ability to implement different Sorting and Search methods	PO1, PO7, PSO1, PSO2, PSO4

Course Code: CSCT21A	Title of the Course: DATA STRUCTURES	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
		CO1						M	H
		CO2						H	L
		CO3						M	H
		CO4						H	L
		CO5						L	M

UNIT – I: **11Periods**

Introduction to Data Structures: Introduction to the Theory of Data Structures, Data Representation, Abstract Data Types, Data Types, Primitive Data Types, Data Structure and Structured Type, Atomic Type, Difference between Abstract Data Types, Data Types, and Data Structures, Refinement Stages.

Principles of Programming and Analysis of Algorithms: Software Engineering, Program Design, Algorithms, Different Approaches to Designing an Algorithm, Complexity, Big 'O'

Notation, Algorithm Analysis, Recursion.

UNIT – II: **11Periods**

Linked Lists: Introduction to Lists and Linked Lists, Basic Linked List Operations, Doubly Linked List, Circular Linked List, Atomic Linked List, Linked List in Arrays, Linked List versus Arrays

UNIT – III: **14Periods**

Stacks: Introduction to Stacks, Stack as an Abstract Data Type, Representation of Stacks through Arrays, Representation of Stacks through Linked Lists, Applications of Stacks, Stacks and Recursion

Queues: Introduction, Queue as an Abstract data Type, Representation of Queues, Circular Queues, Double Ended Queues- Deques, Priority Queues, Application of Queues

UNIT – IV: **10Periods**

Binary Trees: Introduction to Non- Linear Data Structures, Introduction Binary Trees, Types of Trees, Basic Definition of Binary Trees, Properties of Binary Trees, Representation of Binary Trees, Operations on a Binary Search Tree, Binary Tree Traversal, Counting Number of nodes in Binary Trees, Applications of Binary Tree

UNIT – V: **14Periods**

Searching and sorting: Sorting – An Introduction, Bubble Sort, Insertion Sort, Merge Sort, searching – An Introduction, Linear or Sequential Search, Binary Search, Indexed Sequential Search

Graphs: Introduction to Graphs, Terms Associated with Graphs, Sequential Representation of Graphs, Linked Representation of Graphs, Traversal of Graphs, Spanning Trees, Shortest Path, Application of Graphs.

BOOKS:

- "Data Structures using C", ISRD group Second Edition,TMH
- Data Structures through C", YashavantKanetkar, BPBPublications
- "Data Structures Using C" Balagurusamy E.TMH

RECOMMENDED CO-CURRICULAR ACTIVITIES:

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

A. Measurable

1. Assignments (in writing and doing forms on the aspects of syllabus content and

outside the syllabus content. Shall be individual andchallenging)

2. Student seminars (on topics of the syllabus and related aspects (individualactivity))
3. Quiz (on topics where the content can be compiled by smaller aspects and data (Individuals or groups asteams))
4. Study projects (by very small groups of students on selected local real-time problems pertaining to syllabus or related areas. The individual participation and contribution of students shall be ensured (team activity))

B. General

1. Group Discussion
2. Others

RECOMMENDED CONTINUOUS ASSESSMENT METHODS:

Some of the following suggested assessment methodologies could be adopted;

1. The oral and written examinations (Scheduled and surprise tests),
2. Closed-book and open-book tests,
3. Programming exercises,
4. Practical assignments and laboratory reports,
5. Observation of practical skills,
6. Individual and group project reports.
7. Efficient delivery using seminar presentations,
8. Viva voce interviews.
9. Computerized adaptive testing, literature surveys and evaluations,
10. Peers and self-assessment, outputs form individual and collaborative work.

P. B. SIDDHARTHA COLLEGE OF ARTS & SCIENCE: VIJAYAWADA-10.
(An Autonomous college in the jurisdiction of Krishna University, Machilipatnam)
MODEL Question Paper: 2020-2021

TITLE: DATA STRUCTURES **COURSE CODE:**
SECTIONS: B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS /BCA)
SEMESTER: II
TIME: 3 Hrs. **MAX: 75M**

SECTION –A

ANSWER ANY FIVE QUESTIONS **5 X 5 =25 M.**

1. What is an ADT? Explain with an example. **{CO_1, L2}**
2. Explain about algorithm analysis. **{CO1, L2}**
3. Distinguish between linked lists and arrays. **{CO2, L2}**
4. Evaluate the postfix expression **2 3 1 * + 9 -. {CO3, L5}**
5. Explain about min and max priority queues**. {CO3, L2}**
6. Construct binary tree from the following in order and pre order traversals

   In order: D B E A F C
   Pre order: A B D E C F {**CO4, L3}**
7. Explain various representations of graphs with your own example. **{CO5, L2}**
8. Develop a C program for linear search. **{CO5, L3}**

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9 A) Explain about Data structure, structured type and atomic type. **{CO1, L2}**

(Or)

B) Explain about Time Complexity and Space Complexity. **{CO1, L2}**

10 A) Explain about inserting and deleting a node in double linked list.**{CO2, L2}**

(Or)

B) Explain about insertion in atomic node linked list. **{CO2, L2}**

11A) Develop a C program for stack's using arrays. **{CO3, L3}**

(Or)

B) Develop a C program for circular queues. **{CO3, L3}**

12 A) Explain about binary tree traversals with an example. **{CO4, L2}**

(Or)

B) Demonstrate with an example deleting a node in a binary search tree. **{CO4, L2}**

13 A) Illustrate Merge sort with an example and write code for it. **{CO5, L2}**

(Or)

B) Illustrate Depth First search with an example. **{CO5, L2}**

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BLUE PRINT

TITLE : DATA STRUCTURES **COURSE CODE:**
SECTIONS: B.Sc. (CAMS / CAME / MSCS / CSCS / MPCS / MECS /BCA)
SEMESTER: II
TIME: 3 Hrs. **MAX: 75M**

SECTION-A

ANSWER ANY FIVE QUESTIONS **5X5=25M**

1. Unit 1
2. Unit 1
3. Unit 2
4. Unit 3
5. Unit 3
6. Unit 4
7. Unit 5
8. Unit 5

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9 A)Unit 1.

(or)

B) Unit 1.

10 A) Unit 2.

(or)

B) Unit 2.

11 A)Unit 3.

(or)

B) Unit 3.

12 A) Unit 4.

(or)

B) Unit 4.

13 A) Unit 5.

(or)

B) Unit 5.

*****

Parvathaneni Brahmayya Siddhartha College of Arts & Science, Vijayawada-10
(An Autonomous College under the jurisdiction of Krishna University)
Reaccredited at the level 'A+' by the NAAC
College with Potential for Excellence

Title of the Course: Business English-II **Semester -II**
Course Code: ENG T25 Max. Marks: 100
No. of Hours per Week: 4 **External: 75M**
No. of Credits: 3 **Internal: 25M**

OBJECTIVE: The main objective of this course is not only to facilitate the learners to acquire the linguistic competence with a focus on business contexts and environments but also to help them practice and enrich their communication skills by using English in specific business settings and situations and develop their intellectual, personal and professional abilities.

COURSE OUTCOMES:

At the end of the course, the learners will be able to:

CO 1. Develop the skills of writing an effective sales letter by providing detailed guidance on how to arrest the potential buyer's attention and to induce in him an irresistible desire to buy the product. **PO2**

CO2. Acquaint the learner how credit is requested, how it is accepted and when it is rejected and also to make him aware of the procedure for collecting the credit. **PO3**

CO3. Describe the characteristic features of reports written in professional contexts and to impress upon the learner the need for acquiring the skill of report writing. **PO4**

CO4. Describe the various elements of the structure of a report and to provide detailed guidance on how to write them. **PO1**

CO5. Acquaint the learner with some widely used words which appear to be similar but are semantically different and also help them to realize the importance of punctuation and understand the significance of capitalization in writing. **PO1**

CO-PO MATRIX- ENG T25							
CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1		M					
CO2			M				
CO3						H	
CO4	H						
CO5	H						

SYLLABUS

UNIT – I SALES AND CIRCULAR LETTERS **page no: 142 to 154**
10hrs

- Communication Core
- Writing a Sales Letter
- Circular Letters
- Review Questions
- Exercises

UNIT – II CREDIT AND COLLECTION LETTERS page no: 163 to 171
14hrs

- Communication Core
- Nature of a Credit Letter
- Types of Credit Letters
- Collection Procedure
- Distinctive Features of Business Letters
- Review Questions
- Exercises

UNIT – III BUSINESS AND TECHNICAL REPORTS page no: 211 to 221
12hrs

- Communication Core
- Characteristics
- Importance
- Types
- Routine Reports
- Review Questions
- Exercises

UNIT – IV STRUCTURE AND LAYOUT OF REPORTS page no: 222 to 236
14hrs

- Communication Core
- Elements of Structure
- Front Matter
- Main Body
- Back Matter
- Review Questions
- Exercises

UNIT – V PLANNING AND PREPARATION page no: 237 to 243
10hrs

- Preparatory Steps
- Words Often Confused
- Punctuation and Capitalization

****

Parvathaneni Brahmayya Siddhartha College of Arts & Science, Vijayawada-10

Title of the Paper: Business English–II **Max. Marks: 100**

Course Code: ENGT25 **Max.Time: 3h**

MODEL PAPER

SECTION – A

I. Answer any five of the following questions: 5x8=40M

1. "Every business letter, in principle, is a sales letter." Find the qualities of the sales letter in the light of this statement. (L1)COI
2. In what way does a collection letter differ in tone and style from a sales letter? (L1)CO2
3. Why do engineers and scientists need training in report writing? (L1)CO3
4. What are the differences between an abstract and a summary? In what circumstances should both be given in a report? (L1)CO4
5. Construct a definition of the circular letter and describe the features that distinguish it from other business letters. (L1)COI
6. Show the difference between routine reports and formal reports. (L1)CO3
7. Describe the various elements of the structure of a report. (L1)CO4

SECTION – B

II. Answer any four of the following questions. 4x5=20M

1. What are the different ways of starting a sales letter? Illustrate your answer with examples. (L3)CO1
2. Draft a sales letter to be sent to all universities to promote the sale of a new book on the working of democracy in India that your firm has just published. (L3)CO1
3. You are appointed the Manager of a newly-opened stationary shop in a town with a population of about 1, 50,000. There are 19 primary and higher secondary schools and 4 degree colleges in it. Besides, there are several district administration offices. Write a sales letter to be sent to the heads of local educational institutions and offices for promoting the sale of goods you stock. (L3)CO1
4. Assuming you to be the Senior Manager of Production in Stella Steel Manufacturing Company Limited, Amritpura, explain the annual assessment report of Assistant Manager (Production) for 2013-14. (L3)CO3
5. Identify the preparatory steps of writing a report. (L3)CO4

SECTION – C

III. Choose the correct words from the following pairs given in the brackets and fill up the blanks. L2 (CO5) 5x1=5M

1. In his report Hari has made an ---------- to the recent address of the General Manager. (allusion/illusion)
2. The arguments in favour of his proposal were rather ---------- (childish/childlike)
3. The ------- to the summit was difficult. (ascent/assent)
4. The abolition of bonded labour is a ---------- measure. (human/humane)
5. The thief seems to have used a clever ------ to put the police off the scent. (device/devise)

IV. Rewrite the following sentences using the correct punctuation marks. L3(CO5) 5x1=5M

1. John A Burgan observes people in technical fields need to express their ideas clearly
2. Hari has to perform dual function to handle correspondence with other branches organizations and the government and to maintain accounts
3. Your interpretation of socialism is different from mine
4. The qs are not used so frequently as the es

5. He said let us now consider the first suggestion

V. Rewrite the following sentences using Capital letters wherever necessary. L4 (CO5) 5x1=5M

1. there is a statue of mahatma gandhi near india gate in new delhi.
2. myfavourite books are green eggs and ham and Horton hears.
3. terry and Louis went to central park last july.
4. everydecember i can hardly wait for santaclass.
5. i like the poetry of keats and browning.

***

PARVATHANENIBRAHMAIAH SIDDHARTHA COLLEGE OF ARTS AND SCIENCE; VIJAYAWADA-10

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SEMESTER- II **PAPER - II**

TITLE OF THE PAPER: HINDI-II

NO OF HOURS: 60 **CREDITS: 03**

WEF: 2021-22 **COURSE CODE: HINT21A**

COURSE OUTCOMES:

1.मानव मूल्यों से विद्यार्थी अवगत होंगे तथा इस दिशा में आगे बढ़ेंगे।

2.आधुनिक युग की भावनाओं को पहचानकर,निरंतर सामाजिक समस्याओं का सामना करते हुए,आगे बढ़ेंगे।

3.विषय के विश्लेषण से सामाजिक दायित्व को निभाने में अग्रसर होंगे।

4.ग्रहण किये गये पाठ्यांशों के द्वारा विद्यार्थियों का ज्ञान मापन बढ़ेगा तथा अपने क्षेत्र में भी आगे होंगे

5.भाषा की प्रवीणता और प्रयोग से विद्यार्थी उज्वल भविष्य की ओर बढ़ेंगे।

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SEMESTER- II **PAPER - II**

TITLE OF THE PAPER: HINDI-II

NO OF HOURS: 60 **CREDITS: 03**

WEF: 2021-22 **COURSE CODE: HINT21A**

SYLLABUS:

I.गध्य संदेश:

1. संस्कृति औरसाहित्य का परस्पर संबंध
2. भारत एक है
3. एच.आई.वी. / एड्स

II. कथा लोक

1. ज़रिया
2. भूख हड़ताल
3. परमात्मा का कुत्ता

III.कार्यालयीन हिन्दी शब्दावली

(हिन्दी से अंग्रेजी में बदलना तथा अंग्रेजी से हिन्दी में बदलना)

IV. **व्याकरण:** संधि विच्छेद ,वाक्य प्रयोग

V.**पत्र लेखन:** आवेदन पत्र,पुस्तक विक्रेता के नाम पत्र

Recommended Books:

1. गध्य संदेश- Dr. V. L.Narasimham Siva Koti

2. कथा लोक- Dr. Ghana Shyam

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II SEMESTER Model Question Paper

Course Code: HINT21A **Max. Marks: 70M**

Time: 3 Hrs. **Pass Min. : 30M**

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SECTION-I

निम्नलिखित प्रश्नों का उत्तर लिखिए।

4×5=20

1. (a) भारत की मध्यकालीन संस्कृति कैसी रही है? L1

(अथवा)

(b) विविधता के भीतर भारत की एकता कैसे समायी हुई है? स्पष्ट कीजिए। L1

2. (c) एच.आई.वी./ एड्स के लक्षणों पर प्रकाश डालिए। L2

(अथवा)

(d) "अधेड आदमी" चरित्र चित्रण कीजिए। L2

3. (e) "ज़रिया" कहानी का उद्धेश्य क्या है? L2

(अथवा)

(f) "भूख हड़ताल" की विशेषताएँ क्या-क्या हैं? L2

4. (g) अनुवाद किसे कहते हैं ?L1

(अथवा)

(h) संधि किसे कहते हैं तथा उसके कितने प्रकार के हैं ?L1

SECTION-II

1×10=10

1. (a) एच.आई.वी./ एड्स के इतिहास पर प्रकाश डालिए।L2

(अथवा)

(b) 'भारत एक है' पाठ का सारांश लिखिए। L2

SECTION-III **1×10=10**

6. (a) "ज़रिया" कहानी का सारांश लिखिए। L2

(अथवा)

(b) "भूख हड़ताल" कहानी का सारांश लिखिए। L2

SECTION-IV

7.(a) **किन्हीं दस शब्दों को अंग्रेजी से हिंदी मेंअनुवाद कीजिए। L1**

10×1=10

1.Camp Office 2.Embassy 3.Muncipal Corporation 4.Governor 5.Applicant
6.Charge 7.Absence 8.Supervisor 9.Court 10. Building division 11.District board 12.Cash section 13. Branch office 14.Complaint office
15.Enquiry office

(अथवा)

(b) **किन्हीं दस शब्दों को हिंदी से अंग्रेजी में अनुवाद कीजिए।L1**

1.प्रशासनअधिकारी 2.विज्ञापन 3.लेखा परीक्षक 4.प्राचार्य 5.स्वीकार करना
6.अतिथि गृह 7.प्रयोगशाला 8.हृदय-रोग विभाग 9.जिला बोर्ड 10.कलक्टरी
11.सिविल न्यायालय 12.वन विभाग 13.प्रसारण केन्द्र 14.बजट अनुभाग
15.अस्पताल

8.(a) **किन्हीं पाँच शब्दों का संधि विच्छेद कीजिए।L3**

5×2=10

1.रामावतार 2.परमौषध 3.यद्यपि 4.गायक
5.उन्नति 6.प्रत्येक 7.यशोधरा 8.निराशा

(अथवा)

(b) **किन्हीं पाँच शब्दों को वाक्यों में प्रयोग कीजिए। L3**

1.विरासत 2.अज्ञानांधकार 3.इकट्ठा करना 4.बसर करना
5.दुर्भिक्ष 6.पथ प्रदर्शक 7.हवन 8.चिरस्थाई

SECTION-V

1×10=10

9. (a) अनुवादक की नौकरी के लिए प्रबन्धक के नाम पत्र लिखिए। L3

(अथवा)

(b) किसी पुस्तक विक्रेता के नाम पत्र लिखिए। L3

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PARVATHANENI BRAHMAYYA SIDDHARTHA COLLEGE OF ARTS &SCIENCE:: VIJAYAWADA-10.

(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)

STATISTICS	**STAP22**	**2020-21 Onwards**	**CSCS(Computer Science with Cognitive Systems)**

SEMESTER-II **Practical – I: Statistical Methods for Cognitive Systems**

No.of Credits: 1

CO.NO	Upon successful completion of this course, students should have the knowledge and skills to:	Mapping
CO1	draw the suitable diagram and graphs of the given sample data	**PO2**
CO2	Analyze the uni-variate data using statistical techniques.	**PO2**

CO-PO MATRIX								
COURSE CODE	**CO-PO**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
	CO1					**M**		
	CO2					**H**		
	CO3					**H**		
	CO4					**L**		
STAP22	**CO5**					**M**		

List of Practicals

1. Diagrams & Graphs- Bar, Pie , Histogram, frequency polygon, and Ogive curves
2. Computation of measures of central tendency- Arithmetic Mean, Geometric mean and Harmonic Mean – Grouped Data.
3. Computation of measures of central tendency- Median, Mode and Partition Values - Grouped Data.
4. Computation of measures of Dispersion – Quartile Deviation, Mean Deviation, Standard Deviation, Variance and Coefficient of Variation – Grouped Data.
5. Computation of non-central, central moments, $\beta_1$and β_2 and Sheppard's corrections for grouped data.

6. Computation of Karl Pearson's coefficients, Bowley's coefficients of Skewness and coefficients of skewness based on moments – Grouped Data
7. Computation of correlation coefficient and regression lines for (i) ungrouped data (ii) grouped bivariatedata
8. Construction regression line equations for (i) ungrouped data (ii) grouped bi-variate data.

Note: Training shall be on establishing formulae in Excel cells and derive the results. The excel output shall be exported to MS word for writing inference.

Reference Books

1.Practical Manual -Prepared by the Department Faculty Members

2. K.V.S. Sarma: Statistics Made Simple: Do it yourself on PC. PHI

Websites of Interest:http://www.statsci.org/datasets.html

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TELUGU	TELT21A	2020-'21	B.A., B.Com., B.B.A., B.B.A.-Ana, B.Com.-CA, B.C.A., & B.Sc.,

SEMESTER–II **Credits – 3**

TELUGU-II

ఆధునిక తెలుగు సాహిత్యం

యూనిట్ల సంఖ్య: 5

కోర్స్ అవుట్ కమ్స్:

ఈ కోర్సు విజయవంతంగా ముగించాక, విద్యార్థులు క్రింది అభ్యసన ఫలితాలను పొందగలరు.

1. ఆంగ్ల భాష ప్రభావం కారణంగా తెలుగులో వచ్చిన ఆధునిక సాహిత్యాన్ని, దాని విశిష్టతలను గుర్తిస్తారు.
2. సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన "వచన కవిత్వం, కథ, నవల, నాటకం" విమర్శలపై అవగాహన పొందుతారు.
3. భావకవిత, అభ్యుదయ కవిత్వాల లక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు. ఇంకా అస్తిత్వవాదం, ఉద్యమాల పుట్టుకను, ఆవశ్యకతను గుర్తిస్తారు.
4. కథా సాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు. సిద్ధాంతాల ద్వారా కాకుండా, వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించుకోగలరు.
5. ఆధునిక తెలుగు కల్పనా సాహిత్యం ద్వారా సామాజిక, సాంస్కృతిక, రాజకీయ చైతన్యాన్ని పొందుతారు.

లెర్నింగ్ ఆబ్జెక్టివ్స్:

1. ఆధునిక భాషా సాహిత్యము నందలి ప్రక్రియల పట్ల ప్రీతి, మమకారం, ఆసక్తి కల్గుతుంది.
2. ఆధునిక కవిత్వము పట్ల అవగాహన పద్ధతులు, ప్రసిద్ధులైన కవుల, రచయితల రచనా శైలి తెలుస్తాయి.
3. ఆధునిక సాహిత్య ప్రక్రియలైన కథ, నవల, నాటకం, విమర్శ మొదలగు సాహిత్య ప్రక్రియలలో రచనా మెలకువలు తెలుసుకోవటం జరుగుతుంది.
4. ఆధునిక సాహిత్యంలోని వివిధ కొత్త పదబంధాలు, శబ్ద ప్రయోగవైచిత్రి, భాషా పరిజ్ఞానాన్ని తెలుసుకుంటారు.
5. కాలానుగుణంగా సాహిత్యం తన స్వరూపాన్ని ఏవిధముగా మార్చుకుంటుందో విద్యార్థులు క్షుణ్ణంగా పరిశీలించే అవకాశం కల్గుతుంది.

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TELUGU	TELT21A	2020-'21	B.A., B.Com., B.B.A., B.B.A.-Ana, B.Com.-CA, B.C.A., & B.Sc.,

TELUGU-II

పాఠ్యప్రణాళిక

యూనిట్-I

1. ఆధునిక కవిత్వం - పరిచయం
2. కన్యక - గురజాడ వేంకట అప్పారావు
3. కొండవీడు - దువ్వూరి రామిరెడ్డి (కవి కోకిల గ్రంథావళి - ఖండ కావ్యాలు - నక్షత్రాల సంపుటి నుండి)
4. మాతృ సంగీతం - అనిసెట్టి సుబ్బారావు (అగ్ని వీణ కవితాసంపుటి నుండి)

యూనిట్-II

5. తెలుగు కథానిక - పరిచయం
6. భయం / కథ / - కాళీ పట్నం రామారావు
7. స్వేదం ఖరీదు ?/ కథ / - రెంటాల నాగేశ్వరరావు

యూనిట్-III

8. తెలుగు 'నవల' - పరిచయం
9. రథచక్రాలు / నవల / - మహీధర రామ్మోహనరావు (సంక్షిప్త ఇతివృత్తం మాత్రమే)
10. రథ చక్రాలు / సమీక్షా వ్యాసం / - డా. యల్లాప్రగడ మల్లికార్జునరావు

యూనిట్-IV

11. తెలుగు నాటకం - పరిచయం
12. యక్షగానము / నాటకము / నాటిక / - ఎం.వి.ఎస్. హరనాథరావు
13. అపురూప కళారూపల విధ్వంస దృశ్యం 'యక్షగానము'/ సమీక్షావ్యాసం - డా.కందిమళ్ళ సాంబశివరావు

యూనిట్-V

14. తెలుగు సాహిత్య విమర్శ - పరిచయం
15. విమర్శ - స్వరూప స్వభావాలు, ఉత్తమ విమర్శకుడు - లక్షణాలు.

ఆకార గ్రంథాలు / వ్యాసాలు:

1. ఆధునిక కవిత్వం - పరిచయం - ప్రొ.ఎస్వీ. సత్యనారాయణ
2. తెలుగు కథానిక - పరిచయం - ప్రొ. రాచపాళెం చంద్రశేఖర రెడ్డి
3. తెలుగు నవల - పరిచయం - వల్లంపాటి వెంకట సుబ్బయ్య
4. సాంఘిక నవల - కథన శిల్పం - ప్రొ. సి. మృణాళిని
5. తెలుగు నాటకం - పరిచయం - ప్రొ.ఎస్.గంగప్ప
6. తెలుగు సాహిత్య విమర్శ - పరిచయం - ప్రొ. జి.వి. సుబ్రహ్మణ్యం
7. నూరేళ్ల తెలుగు నాటక రంగం - ప్రొ. మొదలి నాగభూషణ శర్మ
8. నాటక శిల్పం - ప్రొ. మొదలి నాగభూషణ శర్మ

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TELUGU	TELT21A	2020-'21	B.A., B.Com., B.B.A., B.B.A.-Ana, B.Com.-CA, B.C.A., & B.Sc.,

ప్రశ్నపత్ర నిర్మాణ సూచిక: **TELUGU-II**

1. సంక్షిప్తరూప ప్రశ్నలు : 5 × 5 = 25మా

ప్రతి యూనిట్ నుండి తప్పనిసరిగా ఒక ప్రశ్న ఇచ్చి, మొత్తం మీద ఎనిమిది ప్రశ్నలు ఇవ్వాలి. అందులో ఐదింటికి సమాధానాలు వ్రాయమనాలి.

2. వ్యాసరూప ప్రశ్నలు : 5 × 10 = 50మా

ప్రతి యూనిట్ నుండి తప్పనిసరిగా ఒక ప్రశ్న ఇచ్చి, మొత్తం మీద ఎనిమిది ప్రశ్నలు ఇవ్వాలి. అందులో ఐదింటికి సమాధానాలు వ్రాయమనాలి.

మొత్తం = 75మా

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SEMESTER-END EXAMINATIONS, APRIL-2021

నమూనా ప్రశ్నపత్రం

Course Code: TEL T21A (Telugu-II) **Max. Marks: 75M**

Time: 3 Hrs. **Pass Min. : 30M**

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SECTION - A

I. క్రింది వానిలో ఐదింటికి సంగ్రహ రూప సమాధానాలు వ్రాయండి: 5 × 5 = 25మా

1. 'కొండవీడు' - శ్రీ దువ్వూరి.
2. తెలుగు కథానికను పరిచయం చేయండి.
3. 'కన్యక' ఖండికను వివరించండి.
4. తెలుగు నాటక సాహిత్యాన్ని తెల్పండి.
5. ఉత్తమ విమర్శకుని లక్షణాలు.
6. ఆధునిక కవిత్వం - పరిచయం.
7. కాళీ పట్నం రామారావు.
8. అనిసెట్టి సుబ్బారావు.

SECTION - B

II. క్రింది వానిలో ఐదింటికి వ్యాసరూప సమాధానాలు వ్రాయండి: 5 × 10 = 50మా

9. శ్రీ దువ్వూరి 'కొండవీడు' ఖండికలో ఇచ్చిన సందేశాన్ని తెల్పండి.
10. 'భయం' కథలోని రచయిత అభిప్రాయాన్ని వివరించండి.
11. 'రథ చక్రాలు' నవల్లోని ఇతివృత్తాన్ని విశ్లేషించండి.
12. యక్షగానాన్ని సమీక్షించండి.
13. విమర్శ స్వరూప స్వభావాల్ని వివరించండి.
14. ఆధునిక కవిత్వ ఆవిర్భావ వికాసాన్ని తెల్పండి.
15. తెలుగు సాహిత్య విమర్శను వివరింపుము.
16. సాహిత్య ప్రక్రియగా 'నవల' స్థానాన్ని విమర్శించండి.

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STATISTICS	STAT26	2020-21 Onwards	CSCS(Computer Science with Cognitive Systems)

SEMESTER- II **PAPER - I** **No of Credits: 4**

Statistical Methods for Cognitive Systems

Course Description

This course is an introduction to statistics for computer science with cognitive systems. The objective of the course will be to learn to use statistical techniques to evaluate, interpret and quantify uncertainty. This will provide a basis for analysing and interpreting data from designing and conducting formal studies to reading magazine, journal and newspaper articles.

OBJECTIVES

1) To enable the students to develop basic knowledge in Statistics
2) To provide understanding in some basic statistical techniques which are used for Solving data science related problems.

LEARNING OUTCOMES At the end of the course, the student will

1) Understand the measurement systems variability
2) Find relationship between two quantitative variables
3) Measure relative changes in price, production or any such quantities of economic interest

S. No	PROGRAMME OUTCOMES
PO1	Remember the basic concepts of statistics at different levels and to understand them for gaining of knowledge.
PO2	Apply the statistical techniques in the analysis of data and also acquire knowledge in optimization techniques.
PO3	Facilitate students to acquire flair knowledge to estimate the values in real life problems.

Title of the course : **Statistical Methods for Cognitive systems** **Course Code : STAT26**		
Course Outcome	**Course: CSCS(Computer Science with Cognitive Systems)** Upon successful completion of this course, students should have the knowledge and skills to:	**Programme Outcomes Mapping**
CO 1	Develop the basic knowledge in Statistics and describe the central tendency value measurement	PO5
CO 2	Knowing the concept of variations and the significance of measuring it by Range, Quartile deviation, mean deviation variance and Standard deviation	PO5
CO3	Knowledge of various types of data, their organization and evaluation of summary measures such as non-central and central moments, measures of skewness and kurtosis.	PO5
CO 4	know about correlation and regression techniques, the two very powerful tools in statistics,	PO5
CO 5	Get the knowledge in respect of usage in day-to-day life in decision making in the face of uncertainty and also obtained the knowledge of probability applications	PO5

CO-PO MATRIX								
COURSE CODE	**CO-PO**	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**
STAT26	**CO1**					**H**		
	CO2					**M**		
	CO3					**L**		
	CO4					**M**		
	CO5					**H**		

Unit-I:

12L

Introduction, Data collection and Presentation of Data: Basic vocabulary of statistics, data collection, Types of Variables, Tables and diagrams and graphs for categorical and numerical data. **Measures of Central Tendency:** Objectives of averages, characteristics of a good average.Arithmetic mean, Geometric mean, Harmonic mean, Median and Mode-merits, demerits, properties and applications.

Unit II:

12L

Measures of Dispersion: Significance of measures of dispersion, characteristics of an ideal measure of dispersion. Absolute and relative measures of dispersion- range, quartile deviation, mean deviation, variance and standard deviation- merits, demerits, properties and applications.

Unit III

12L

Moments- about mean, about arbitrary point, relation between moments about mean and about arbitrary point vice-versa. **Skewness -** Karl Persons' coefficient of skewness, Bowley's coefficient of skewness and coefficient of skewness based on moments. **Kurtosis-** concept, measures of kurtosis based on moments and simple problems.

Unit IV:

12L

Correlation Analysis - Introduction- Types of correlation, methods of studying correlation - scatter diagram, Karl Pearson's coefficient of correlation, and Spearman's rank correlation coefficient- merits, demerits properties and applications. **Linear Regression Analysis** – Introduction**,** Lines of regression, coefficients of regression – properties and applications.

Unit V:

12L

Probability: Definitions of various terms, classical, statistical and axiomatic probability definitions, addition theorem of probability. Conditional probability-definition, multiplication theorem of probability and Bayes' theorem – applications.

Note: Proofs and derivations of theorems are excluded.

TEXT BOOK:

S.C. Gupta, (2016), Seventh Edition, Fundamentals of Statistics, Mumbai: Himalaya Publishing House.

REFERENCE BOOKS

1. Sharma, J. K. (2013), *Business statistics*, New Delhi: Pearson Education
2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012*), Statistics for managers using Microsoft Excel*, New Delhi: Prentice Hall India Pvt.
3. Aczel, A. D. &Sounderpandian, J. (2011), *Complete Business Statistics*, New Delhi: Tata McGraw Hill.
4. Anderson, D., Sweeney, D., Williams, T., Camm, J., & Cochran, J. (2013), *Statistics for Business and Economics*, New Delhi: Cengage Learning.
5. Davis, G., &Pecar, B. (2014), *Business Statistics using Excel*, New Delhi: Oxford University Press.

Websites of Interest: http://onlinestatbook.com/rvls/index.html

Co-Curricular Activities in the class:

1. Pictionary
2. Case Studies on topics in field of statistics
3. Snap test and Open Book test
4. Architectural – To be build the procedures
5. Extempore – Random concept to students
6. Interactive Sessions
7. Teaching through real world examples

Model Paper Structure: Answer ALL FIVE questions with internal choice
Each question carries 15 Marks and a total of 75 Marks.

Statistical Methods for Cognitive Systems

Model Paper

Answer the following **5 x 15M = 75Marks**

1. (a) (i) Briefly explain the principles of classification.(3M) (CO- 1, L – 1)

(ii) Calculate the mean, median and mode from the following data(12M) (CO – 1, L – 4)

Class interval	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	15	20	34	40	50	30	10

(OR)

(b) (i) Explain briefly the various methods that are used for graphical representation of frequency distribution. (5M)
(CO- 1, L – 1)

(ii) Find the geometric and harmonic mean from the following data (10M) (CO- 1, L – 4)

Marks	0-10	10-20	20-30	30-40	40-50
Number of Students	5	7	15	25	8

2. (a) Calculate mean deviation and standard deviation from the following data (CO – 2, L – 4)

Class interval	0-9	10-19	20-39	39-39	40-49	50-59	60-69
Frequency	5	7	10	12	18	10	6

(OR)

(b) (i) Two groups of students revealed the following results in the semester end examinations as follows.

Groups	Number of students	Mean	S.D
A	25	73.2	2.6
B	28	71.8	3.1

Find the combined standard deviation and examine the consistency of groups. (7M) (CO – 2, L – 4)

(ii) A biologist copy the results of his findings from his study and he found that mean and standard deviation of 28 results are respectively 46 and 8.1. In the verification process he found that two values (45, 61) are wrongly copied as (54, 16). Without making entire calculations find the corrected standard deviation.
(8M) (CO – 2, L – 4)

3. (a) The first four moments of a distribution about the value 5 are -4, 22,-117 and 560. Find the corresponding moments about the mean, about zero and also find

β_1 *and* β_2

(CO – 3, L – 4)

(b) (i) The standard deviation of a symmetrical distribution is 5. What must be the value of the fourth moment about the mean in order that the distribution be (i) leptokurtic, (ii) mesokurtic and (iii) platykurtic ? (8M)

(CO – 3, L – 4)

(ii) Find the C.V. of a frequency distribution given that its mean is 120, mode is 123 and Karl Pearson's co-efficient of skewness is - 0·3. (7M) (CO – 3, L – 4)

4. (a) (i) Calculate the correlation coefficient from the following data (8M) (CO – 4, L – 4)

X	23	28	36	41	10	20	35	24	21	18	50
Y	19	21	24	16	15	18	22	16	12	30	25

(ii) The following table shows the marks of two subjects X and Y. Calculate Rank Correlation coefficient between X and Y. (7M) (CO – 4, L – 4)

X	68	64	75	50	64	80	75	40	55	64
Y	62	58	68	45	81	60	68	48	50	70

(OR)

(b) (i) The lines of regression of a Bi-variate population are $8x - 10y + 66 = 0$ and $40x - 18y - 214 = 0$. The variances of X is 9 then, find 5M(CO –4, L – 5)

i. Identify x on y and y on x regression equations (1M)

ii. The mean values of X and Y (2M)

iii. Correlation coefficient between X and Y (1M)

iv. Standard deviation of Y (1M)

(ii) From the following data estimate the value"Y" when X = 30 and X when Y = 25

(10M) (CO –4, L – 5)

X	21	18	26	21	10	20	15	14	21	18	25
Y	19	21	24	16	15	18	22	16	12	30	25

5. (a) (i) Explain the various definitions of probability. (5M) (CO –5, L –1)

(ii) The content of urns I, II and III are as follows

1 white, 2 black and 3 red balls

2 white, 1 black and 1 red balls and

4 white, 5 black and 3 red balls

One urn is chosen at random and two balls are drawn. They happen to be white and

red. What is the probability that they come from the urns I, II and III? (10M)

(CO – 5, L – 4)

(OR)

(b) **(i)** State the Law of addition and multiplication theorems of probability (7M)

(CO –5, L –1)

(ii) The probability that a student passes a Physics test is 2/3 and the probability that he passes both a Physics test and an English test is 14/45.The probability that he passes at least one test is 4/5. What is the probability that he passes the English test? **(8M)** (CO –5, L – 4)

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INFRASTRUCTURE MANAGEMENT LAB

Offered to: B.Sc. (CSCS) **Course Code**: CGSP31

Course Type: Core (Practical) **Course:** INFRASTRUCTURE MANAGEMENT LAB

Year of Introduction: 2021 **Year of offering: 2021**

Year of Revision: - **Percentage of Revision: -**

Semester: III **Credits: 1**

Hours Taught: 30 hrs. Per Semester **Max.Time**: 3 Hours

Course Prerequisites (if any): Basic knowledge in computers and Windows 10 concepts.

Course Description:

This course enables students to gain a fundamental knowledge regarding infrastructure management using Windows 10.

Course Objectives:

1. To educate student in various deployment techniques of Windows 10 and Configuring devices and drivers.
2. To educate students in MS SCCM, SCOM basic concepts.
3. To educate students in Agent deployment and monitoring concepts in operations manager.

Course Outcomes: At the end of this course, students should be able to:

CO1: Perform post installation configuration task and configure devices and drivers. (PO5, PO7)

CO2: Manage content in configuration manager and maintaining and monitoring system center 2012 configuration manager. (PO5, PO7)

CO3: Understand basic concepts of operations manager and its system requirements along with installing SQL server, operations and web console. (PO5, PO7)

CO4: Understand Agent and Agent less managed systems and gain fundamental knowledge in management packs. (PO5, PO7)

CO5: Create rules for monitoring and gain knowledge in operations manager reporting along with disaster recovery. (PO5, PO7)

LAB LIST

1. Windows 10 OS Installation in VMware.
2. Configuring printers in Windows 10 OS.

3. Configuring scanner in Windows 10 OS.
4. Updating drivers in Windows 10 OS.
5. Windows Server OS Installation in VMware.
6. Install and Configure Active Directory in Windows Server
    a. Working with SCCM
    b. Working with SCOM

7. SQL server installation and configuration using operations manager.
8. Installing SQL reporting services.
9. Installing operations manager reporting.
10. Implementing dash board

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DATABASE MANAGEMENT SYSTEMS LAB

Offered to: B.Sc. (CSCS) **Course Code**: CGSP32

Course Type: Core (Practicals) **Course:** DATABASE MANAGEMENT SYSTEMS LAB

Year of Introduction: 2021 **Year of offering: 2021**

Year of Revision: - **Percentage of Revision:** -

Semester: III **Credits: 1**

Hours Taught: 30 hrs. Per Semester **Max.Time**: 3 Hours

Course Prerequisites (if any): Basic knowledge in computers and internet concepts.

Course Description: This course focuses towards Database System Concepts and Architecture, ER models, relational algebra relational calculus, SQL and PL/SQL.

Course Objectives:

1. Enhance the knowledge and understanding of Database concepts and design.
2. Enhance the knowledge of the processes of Database Development using SQL
3. Enhance the knowledge of the processes of Database manipulation using SQL
4. Develop efficient PL/SQL programs to access Oracle databases

Course Outcomes: At the end of this course, students should be able to:

CO1: Understand database concepts and design. (PO5, P07)

CO2: Create databases using structured query language. (PO5, P07)

CO3: Apply data manipulation commands in SQL. (PO5, P07)

CO4: Learn the programming basics of PL/SQL. (PO5, P07)

CO5: Implementation of cursors in PL/SQL. (PO5, P07)

	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Title of the Course: DBMS LAB	CO1					L	M	L
	CO2					M	L	M
	CO3					L	M	L
	CO4					M	L	M
	CO5					L	M	L

LAB LIST

1. Using Different operators
2. Using Control Structures
3. Implement Built-in functions
4. Implement update and Alter table
5. Implementing PL/SQL Block
6. Implement PL/SQL table and record
7. Using Functions
8. Using Cursors
9. Using Triggers

@@@@

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OBJECT ORIENTED PROGRAMMING USING JAVA LAB

Offered to: B.Sc. (CSCS) **Course Code**: CGST33

Course Type: Core (Practical) **Course:** OBJECT ORIENTED PROGRAMMING USING JAVA LAB

Year of Introduction: 2021 **Year of offering: 2021**

Year of Revision: - **Percentage of Revision: -**

Semester: III **Credits: 1**

Hours Taught: 30 hrs. Per Semester **Max.Time**: 3 Hours

Course Prerequisites (if any): Knowledge in OOP & Java concepts, Programming Fundamentals

Course Objective:

The Objective of this course is to apply programming skills in java.

Course Outcomes: At the end of this course the student is able to

CO1: Overview of java programming**. (PO5,PO7)**

CO2: Understand fundamentals of programming such as variables, conditional and iterative execution, statements, etc**. (PO5,PO7)**

CO3: Understand the principles of arrays, inheritance, packages and multi-threading**. (PO5,PO7)**

CO4: Understand the Fundamental features of Exceptions and Applet Programming**. (PO5,PO7)**

CO5: Understand the Files concept in java**. (PO5,PO7)**

	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Title of the Course: PROGRAMMING WITH JAVA LAB	CO1					L	M	M
	CO2					M	L	L
	CO3					M	L	L
	CO4					L	L	M
	CO5					L	M	M

LAB LIST

1. Write a java program to print Hello World.
2. Write a java program on Variables.
3. Write a java program to use various Data types.
4. Write a java program to implement main method inside and outside of a class.
5. Write a java program on Operators.
6. Write a java program on Decision making.
7. Write a java program on Looping.

8. Write a java program on Statements.
9. Write a java program to display Fibonacci series.
10. Write a java program to find out the given number is palindrome or not.
11. Write a java program on single and Multi-dimensional array.
12. Write a java program on Strings.
13. Write a java program on interface.
14. Write java programs on various types of Inheritance.
15. Write java programs on Packages.
16. Write a java program on Multi-Threading.
17. Write java programs on various types Exceptions.
18. Write an Applet program to draw a Line, Rectangle, Circle, Ellipse, Arcs and a Polygon.
19. Write an Applet program to draw Line graphs and Bar charts.
20. Write a java program to create a file.
21. Write a java program to perform read data from a file.
22. Write a java program to perform write data from a file.

Reference: https://www.atnyla.com/overview-of-java-language/0/2

APPENDIX - VIII

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DATABASE MANAGEMENT SYSTEMS

Offered to: B.Sc. (CSCS) **Course Code**: CGST32

Course Type: Core(Theory) **Course:** DATABASE MANAGEMENT SYSTEMS

Year of Introduction: 2021 **Year of offering: 2021**

Year of Revision: - **Percentage of Revision:** -

Semester: III **Credits: 4**

Hours Taught: 60 hrs. Per Semester **Max. Time**: 3 Hours

Course Prerequisites (if any):

Course Description: This course focuses towards Database System Concepts and Architecture, ER models, relational algebra relational calculus, SQL and PL/SQL.

Course Objectives:

1. **Able to understand the Database concepts and design.**
2. **Able to processes the Database Development using SQL**
3. **Able to know Data Retrieval and Database manipulation using SQL**
4. **Develop efficient PL/SQL programs to access Oracle databases**

Course Outcomes: At the end of this course, students should be able to:

CO1: Understand database concepts and design. (PO5, P07)

CO2: Create databases using structured query language. (PO5, P07)

CO3: Apply data manipulation commands in SQL. (PO5, P07)

CO4: Learn the programming basics of PL/SQL. (PO5, P07)

CO5: Implementation of cursors in PL/SQL. (PO5, P07)

	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Title of the Course: DBMS	CO1						M	L
	CO2						L	M
	CO3						M	L
	CO4						L	M
	CO5						M	L

Syllabus		
Unit	**Learning Units**	**Lecture**

		Hours
I	**Database Concepts-A Relational approach**: Database - Relationships - DBMS - Relational data model - Integrity rules - Theoretical relational languages. **Database Design**: Data modeling - Dependency - Database design - Normal forms - Dependency diagrams – De normalization.	12
II	**Structured Query Language (SQL):** Introduction – DDL - Naming rules and conventions - Data types-Constraints- Creating a table- Displaying table information - Altering an existing table – Dropping, renaming, and truncating table - Table types	12
III	**Working with tables**: DML - Adding a new Row/Record - Customized prompts - Updating and deleting an existing rows/records - Retrieving data from table - Arithmetic operations - Restricting data with WHERE clause - Sorting - Substitution variables - DEFINE command - CASE structure. **Functions and Grouping**: Built-in functions - Grouping data. **Joins and Views**: Join - join types-**Views:** Views - Creating a view - Removing a view - Altering a view.	12
IV	**PL/SQL:** Fundamentals - Block structure - comments - Data types – Other data types - Variable declaration - Assignment operation - Bind variables - Substitution variables - Printing. **Control Structures and Embedded SQL**: Control structures - Nested blocks - SQL in PL/SQL - Data manipulation - Transaction control statements	12
V	**PL/SQL Cursors and Exceptions**: Cursors - Implicit & explicit cursors and attributes - cursor FOR loops - SELECT…FOR UPDATE - WHERE CURRENT OF Clause - cursor with parameters - Cursor variables - Exceptions - Types of exceptions - Records - Tables -Procedures - Functions –Triggers **Differences between various Database software's**	12

Reference Text Books:

	Author	Title	Publisher
1	Nilesh Shah	Database Systems Using ORACLE", 2nd Edition, 2011	PHI

Course Delivery method: Face-to-face / Blended

Course has focused on: Skill Development.

Websites of Interest:

- https://www.tutorialspoint.com/dbms/index.htm
- https://www.tutorialspoint.com/plsql/index.htm
- **https://www.adamenfroy.com/database-software**

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DATABASE MANAGEMENT SYSTEMS

MODEL QUESTION PAPER FOR SEM END EXAMINATIONS

COURSE CODE: CGST32 **CLASS / GROUP:II B.Sc. (CSCS)** **SEMESTER: III**

Time: 3 Hrs. **Max. Marks: 75**

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SECTION – A

ANSWER ANY FIVE QUESTIONS **5 X 5 =25 M.**

1. Define the following terms:
   a. Entity.
   b. Entity set.
   c. Attribute.
   d. Tuple.
   e. Key. (CO1, L2)
2. What are the integrity rules of the relational model? (CO1,L2)
3. Describe the naming rules and conventions of SQL. (CO2,L2)
4. List out data types of SQL with a brief description. (CO2,L2)
5. Explain about WHERE clause. (CO3,L2)
6. How to add a record in to table. List various methods. (CO3,L3)
7. Explain the PL/SQL block structure. (CO4,L2)
8. What is the purpose of a Trigger? Give any example. (CO5,L2)

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9. a) Explain about Normal forms with examples. (CO1, L2)

(Or)

b) What are different types of keys? What is their use? (CO1, L2)

10. a) How to enforce different types of constraints on tables? (CO2, L2)

(or)

b) Write a SQL query to create the following tables with the following fields and constraints and insert 5 records in each table in oracle.

Deptno	Number	Primary key
Dname	Varchar	
Loc	varchar	

Empno	Number	Primary key
Ename	Varchar	Should not null
Job	Varchar	
Hiredate	Date	Default system date
Mgr	Number	Foreign key to empno
Sal	Floating point number	Should not exceed one lakh
Comm	Floating point number	
Deptno	Number	Foreign key to deptno in dept table

Insert 5 records into each table (CO2, L3)

11. a)Give a brief description about joins and explain types of joins with examples. (CO3, L3)

(or)

b) What are the various types of functions available in Oracle? List and explain at least 4 from each category. (CO3, L3)

12. a) Explain about the control structures in PL/SQL. (CO4, L2)

(or)

b) How to manipulate (insert/update/delete) the data in PL/SQL? (CO4, L2)

13. a) Differentiate between implicit and explicit cursors with examples. (CO5, L3)

(or)

b) Explain about built in exceptions in Oracle. (CO5,L2)

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OBJECT ORIENTED PROGRAMMING USING JAVA

Offered to: B.Sc. (CSCS) **Course Code**: CGST33

Course Type: Core (Theory) **Course:** OBJECT ORIENTED PROGRAMMING USING JAVA

Year of Introduction: 2021 **Year of offering: 2021**

Year of Revision: - **Percentage of Revision: -**

Semester: III **Credits: 4**

Hours Taught: 60 hrs. Per Semester **Max.Time**: 3 Hours

Course Prerequisites (if any): Knowledge in C Programme

Course Description: As the business environment becomes more sophisticated, the software development (software engineering is about managing complexity) is becoming increasingly complex. As of the best programming paradigm which helps to eliminate complexity of large projects, Object Oriented Programming (OOP) has become the predominant technique for writing software in the past decade. Many other important software development techniques are based upon the fundamental ideas captured by object-oriented programming.

Course Objectives:

The Objective of the course is to assist the student in understanding the concepts of Object Oriented Programming using Java language.

Course Outcomes: At the end of this course the student is able to

CO1: Overview of java programming, history and its features**.(PO5,PO7)**

CO2: Understand fundamentals of programming such as variables, conditional and iterative execution, statements, etc**.(PO5,PO6,PO7)**

CO3: Understand the principles of arrays, inheritance, packages and multi-threading**.(PO5,PO6,PO7)**

CO4: Understand the Fundamental features of Managing Errors, Exceptions and Applet Programming**.(PO5,PO6,PO7)**

CO5: Understand the Files concept in java**.(PO5,PO6,PO7)**

Title of the Course:Object Oriented Programming Using JAVA	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	Course Code: CSCT31 PO7
	CO1						L	M
	CO2						M	L
	CO3						M	L
	CO4						L	L

	CO5						M	M

Syllabus		
Unit	**Learning Units**	**Lecture Hours**
I	JAVA Evolution: History - Features - Java differs from C and C++ - Java and Internet - Java and WWW - Web Browsers. Overview of Java Language: Introduction - Simple Java program - Structure - Java tokens - Statements - Java virtual Machine.	12
II	Constants - Variables - Data types - Operators and expressions - Decision making and Branching: Simple If Statement, the IF…Else statement, The Else... If ladder, The Switch Statement, The? : Operator, Decision making and looping: The While statement, The do Statement - The for Statement - Jumps in loops - labeled loops - Classes, Objects and Methods.	14
III	Arrays, Strings and Vectors – Interfaces- Multiple Inheritance – Packages: Putting classes together – Multi Threaded Programming.	12
IV	Managing Errors and Exceptions – I/O Exceptions – Applet Programming – Graphics programming: The Graphics class-Lines and rectangles-Circles and ellipses-Drawing arcs-Drawing polygons-Line graphs-Using Control loops in applets-Drawing Bar charts.	12
V	Files: Introduction – concept of streams – Stream classes – Using stream – I/O classes – File class – creation of files – Reading / Writing characters/ Bytes– Random Access Files.	10

Text Books:			
	Author	**Title**	**Publisher**
1	E. Balaguruswamy,	Programming with JAVA - A Primer, 2015	McGraw Hill Professional

Reference Text Books:			
	Author	**Title**	**Publisher**
1	Sachin Malhotra	Programming in Java	OXFORD University Press
2	John R. Hubbard	Programming with Java, Second Edition	Schaum's outline Series, TATA McGraw-Hill Company.

3	Deitel &Deitel.	Java TM: How to Program 2007	PHI
4	D.S Mallik	Java Programming: From Problem Analysis to Program Design	
5	P. Radha Krishna	Object Oriented Programming Through Java, 2008	Universities Press

Course Delivery method: Face-to-face / Blended

Course has focus on: Skill Development.

Websites of Interest:
https://www.tutorialspoint.com/java/index.htm

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OBJECT ORIENTED PROGRAMMING USING JAVA
MODEL QUESTION PAPER FOR SEM END EXAMINATION

TITLE : Object Oriented Programming using Java COURSE CODE: CGST33
SECTIONS : B.SC CSCS SEMESTER: III
TIME: 3 Hrs MAX: 75M

SECTION –A

ANSWER ANY FIVE QUESTIONS 5 X 5 =25 M.

1. Explain the History of Java.(CO1,L5)
2. Explain about JVM.(CO1, L5)
3. Write a java program to implement final keyword.(CO2,L1)
4. Write java programs to implement while and do while.(CO2, L1)
5. Write a java program on Single Dimensional Array.(CO3, L1)
6. Explain the concept of interface with an example. (CO3, L5)
7. Explain about Runtime error caused by divisible by zero with an example.(CO4, L5)
8. Write a java program to read data from a file(CO5, L1)

SECTION – B

ANSWER ALL THE QUESTIONS 5 X 10 =50 M.

9.(a) Explain various Java Features.(CO1, L5)

OR

(b) Explain various Java tokens.(CO1, L5)

10.(a) Write a java program on data types.(CO2, L1)

OR

(b) Write a java program on Decision Making Statements.(CO2, L1)

11.(a) Explain different types of Inheritance.(CO3, L5)

OR

(b) Write a java program to implement Multi-Threaded Programming.(CO3, L1)

12.(a) Explain about Unchecked Exceptions with suitable examples.(CO4, L5)

OR

(b) Write a program to control loops in applets.(CO4, L1)

13.(a) Explain about OutputStream and InputStream Classes.(CO5, L5)

OR

(b) Write a java program to create a file and to write data to a file.(CO5, L1)

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DEPARTMENT OF ENGLISH
Course Structure and Syllabi under CBCS

Sl No.	Semester	Course Code	Name Of The Subject	Teaching Hours	Credits
1	**III Semester**	**ENGT02**	**Business English-III**	4	3

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DEPARTMENT OF ENGLISH
BUSINESS ENGLISH-III

Max. Marks: 100
No. of Hours per Week: 4 **External: 75M**
No. of Credits: 3 **Internal: 25M**

OBJECTIVE: The main objective of this course is to facilitate the learners to acquire the linguistic competence essentially required in a variety of life situations and develop their intellectual, personal and professional abilities.

COURSE OUTCOMES:

At the end of the course, the learners will be able to:

CO 1. Write an inter-office memorandum, press release and fax for performing day-to-day professional tasks and relate the situations in which these forms of communication are generally used. **PO 2**

CO 2. Understand the role of meetings in business transactions and figure out how to call a meeting, how to conduct and participate in a meeting, how to record the minutes and if necessary, how to write a note of dissent. **PO3**

CO 3. Inscribe a job-application letter, prepare a striking resume and also chart how letters of appointment and resignation are written. **PO4**

CO 4. Prepare for a face-to-face job interview, carry out oneself when being interviewed and also quiz the candidates, if required. **PO7**

CO 5. Participate in group discussions as an instrument for training in spoken English and imbibe the skills required for an effective participation. **PO3**

CO-PO MATRIX- ENG T02							
CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1		M					
CO2						H	
CO3	H						
CO4							H
CO5	H						

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(Awarded by UGC)

Course Code: ENG T02 **Max Marks: 75**
Title: Business English-III **Time: 3 hours**
SEMESTER III **No. of Credits: 3**

FOR BBA, BBA BA, B.COM AF, B.COM TPP, BPM, B.SC MSDS, CSCS

SYLLABUS

UNIT – I MEMORANDUM page-340-347

- Communication Core
- Function and Structure
- Types
- Press Release 10 hrs
- Other Short Messages
- Review Questions
- Exercises

UNIT – II NOTICES.AGENDA AND MINUTES page- 349-356

- Communication Core
- Notices
- Agenda
- Minutes 10 hrs
- Note of Dissent
- Review Questions
- Exercises

UNIT – III APPLICATION FOR JOBS page- 361-379

- Communication Core
- Importance and Function
- Drafting the Application
- Elements of Structure
- Preparing the Resume 10 hrs

- Helpful Hints
- Job Offer
- Resignation Letter
- Review Questions
- Exercises

UNIT – IV EMPLOYMENT INTERVIEW page-381-391

- Communication Core
- Types of Interview
- Preparing for the Interview
- Attending the Interview
- Interview Process
- Employers' Expectations
- Telephone Interview
- Negotiating a Job Offer 15 hrs
- Thank –You Letter
- Conducting an Interview
- Negative Aspects
- Sample Interviews for a Job
- Review Questions
- Exercises

UNIT – V GROUP DISCUSSION page-392 - 495

- Communication Core
- Definition
- Process
- Guidelines
- Helpful Expressions
- Group Discussion and Campus Interview
- Evaluation 10 hrs
- Evaluation Sheet
- Review Questions
- Exercises
- Abbreviations and Numerals
- Communication Core
- Abbreviations
- Numerals

Business Correspondence and Report Writing
R. C. Sharma and Krishna Mohan, Fifth Edition, Tata McGraw-Hill Publishing Company, Chennai, 2016

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SEMESTER-III (2021-22)

COURSE CODE: ENG T02 **Max. Marks: 100**
No. of Hours per Week: 4 **External: 75M**
Title: BUSINESS ENGLISH-III **Internal Marks: 25M**

QUESTION PAPER PATTERN

SECTION A

I. 8 short questions would be given of which the candidate has to attempt 6. Each question carries 5 marks. (From Review Questions) **6X5=30 marks**

SECTION B

II. 5 essay questions would be given of which the candidate has to attempt 3. Each question carries 10 marks. (From Exercises) **3X10=30marks**

SECTION C

III. Expansion of abbreviations. (Pgs 493,494 and 495) **5X1= 5marks**
IV. Fill in the blanks (from the 5 prescribed Units) **5X1=5marks**
V. Rewrite the following as instructed (from Numerals Pgs 495, 496 and 497) **5X1=5marks**

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SEMESTER-III

COURSE CODE: ENG T02 **Max. Marks: 100**
No. of Hours per Week: 4 **External: 75M**
Title: Business English-III **Internal Marks: 25M**

SECTION A

I. Answer any SIX of the following questions. **6X5=30 marks.**

1. Distinguish clearly between a press release and a memo. (**L2) CO1**
2. What precautions should be taken while taking notes for writing the minutes of a meeting? (**L4) CO1**
3. What is a resume? What is its main function? (**L1) CO3**
4. What points would you bear in mind while writing the covering letter? (**L3) CO3**
5. What traits/ qualities does an employer look for in a candidate while interviewing him? **(L4) CO4**
6. What are the various purposes for which group discussion is held? (**L4) CO5**
7. Why is it necessary to circulate the agenda well in time to all those who have a right to attend a meeting? (**L2) CO1**
8. What is the difference between the tone and style of a letter and a memo? (**L2) CO1**

SECTION B

II. Answer any THREE of the following questions. **3X10=30 marks.**

1. As the Managing Director of a company, write a memo to the Sectional Heads, announcing the appointment of a person from outside to the post of Personnel Manager. Bear in mind the fact that some of the sectional heads having long experience in your company were aspirants for this post. (**L4) CO1**
2. At a meeting of the Staff Council of Acharaya Polytechnic, Bhopal, the following business was transacted: minutes of the last meeting, introduction of the tutorial system, special classes for weak students, better facilities for sports, organization of community lunch and entertainment, any other matter. Assuming that you are the Secretary of the Council, write the minutes of the meeting. Invent the necessary details. (**L3)**
3. Write an application in response to the following advertisement:

A large company having foreign collaboration requires salesmen. Candidates should be graduates with about two years selling experience. Age should not exceed 28 years. Attractive salary commensurate with ability offered. Other benefits include provident fund, gratuity, bonus and allowances. Bright prospects of promotion for the right men. Apply within two weeks to P.O. Box No. 3214, New Delhi-110001. (**L3) CO3**

4. Assume that you are going to conduct a campus interview at a reputed management institute for recruiting MBA Final Year student as management trainees in your company. Prepare a list of questions that you would ask them to assess their communication skills and to ascertain their personality traits. (**L4) CO4**
5. Internet is more of a bane than a boon – discuss. (**L2) CO5**

SECTION – C

III. Expand the following abbreviations 5X1=5 marks
(L2)

1. Messrs
2. oz.
3. ad.
4. Vol(s).
5. Ft.

IV. Fill in the blanks. 5X1=5 marks
(L3)

1. A ---------- is a short piece of writing generally used by the officers of an organization for communicating among themselves.
2. A ---------- is written to make noteworthy information available to the public.
3. The practice of interviewing the employees before taking a final decision is called as a ---------- interview.
4. Unlike a meeting, the ---------- is not structured.
5. The purpose of ---------- is to elicit the views of all participants and through intense interaction evolve a consensus.

V. Rewrite the following as instructed 5X1=5 marks.
(L4)

1. Write the Roman numerals for 40, 59, 90,200 and 900.
2. Include decimal points in a no integer figure 00257, 00003, and 00047.
3. Express fractions in words for the following 1/3, 2/3,1/1000.
4. Use commas to offset units 3312, 6700, 6932406, 47432311
5. Write any two compound numerals.

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Probability Distributions and Testing of Hypothesis

Offered to:B.SC (CSCS-Computer Science with Cognitive Systems)/ **STAT36**

Course Type: Core (Theory)

Year of Introduction:2021 **Percentage of Revision: Nil**

Semester: III Paper No. 2 **Credits: 4**

Hours Taught: 60periods per Semester **Max.Time: 3** Hours

S. No	PROGRAMME OUTCOMES
PO1	**Effective Communication**: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO2	**Effective Citizenship**: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO3	**Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
PO4	**Environment and Sustainability**:Understand the issues of environmental contexts and sustainable development
PO5	**Critical Thinking**: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO6	**SpecializedSkills / Transferable Skills:**Acquisitionof communication and soft, analytical and technological skills that aid in enhancing
PO7	**Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

Course Outcomes		
Course Outcome	Upon successful completion of this course, students should have the knowledge and skills to:	Programme Outcomes Mapping
CO 1	Acumen to apply Random Variable and expectation to data standard discrete probability distribution to different situations.	PO - 5
CO 2	knowledge of important discrete distributions such as Binomial, Poisson, Geometric distributions and relations with some other distributions	PO - 6
CO3	knowledge of important continuous distributions such as Uniform, Normal, Exponential and Gamma and relations with some other distributions	PO – 6
CO 4	Demonstrate the computation skills to estimate the parameters in point and interval forms and also getting the knowledge of formulating different hypothesis	PO - 7
CO 5	Testing the Qualitative and Quantitative factors in case of one and two samples using standard normal variate, student's t ,F-statistic and chi square test statistic and Quantitative factors in case of more than two samples using ANOVA	PO - 7

CO-PO MATRIX								
COURSE CODE	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
STAT36	CO1					H		
	CO2						M	
	CO3						H	
	CO4							M
	CO5							H

Syllabus

Course Details

Unit	Learning Units	Lecture Hours
I	**Random Variables & Expectations** Univariate – Definition and types. Bivariate Random variables –	12

	Definition. Probability mass function and probability density function with illustrations. Distribution function and its properties - Simple problems. Mathematical Expectations: Definition, Properties. Variance – Definition, Properties. Generating Functions statements of their properties with applications.	
II	**Discrete Distributions** Discrete Probability Distributions – Binomial, Poisson and Geometric distributions - Definitions, properties and application, simple problems.	**12**
III	**Continuous Distributions** Continuous Probability Distributions – Uniform distribution (rectangular), Exponential and normal distributions - Definitions, properties and application, simple problems.	**12**
IV	**Exact Sampling distributions** Chi – square, Student's t distributions and Sendecor's F - definition, properties and applications, Problems based on small sample tests - Single mean, Difference of means, Paired t-test and difference of variances. Problems based on chi-square tests – Goodness of fit and Independence of attributes. Analysis of Variances – One Way and Two Way classifications. Testing - Goodness of fit, Independence of attributes.	**12**
V	**Testing of Hypothesis** Definitions of Parameter, Statistic, Standard Error of the statistic- mean and proportion, Concepts of statistical hypotheses – types of hypothesis, Critical region, types of errors, level of significance, power of a test and p-value. Procedure for testing of hypothesis, Problem based on Large samples tests - Single proportion, difference of proportions, single mean and difference of means.	**12**

Note: Proofs and derivations of theorems are excluded

TEXT BOOK:

1. S.C. Gupta, (2019), Seventh Edition, Fundamentals of Statistics, Mumbai: Himalaya Publishing House.

REFERENCE BOOKS

1. Sharma, J. K. (2013), *Business statistics*, New Delhi: Pearson Education
2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012*), Statistics for managers using Microsoft Excel*, New Delhi: Prentice Hall India Pvt.
3. Aczel, A. D. &Sounderpandian, J. (2011), *Complete Business Statistics*, New Delhi: Tata McGraw Hill.
4. Anderson, D., Sweeney, D., Williams, T., Camm, J., & Cochran, J. (2013), *Statistics for Business and Economics*, New Delhi: Cengage Learning.
5. Davis, G., &Pecar, B. (2014), *Business Statistics using Excel*, New Delhi: Oxford University Press.

Websites of Interest: http://onlinestatbook.com/rvls/index.html

Co-Curricular Activities in the class:

1. Pictionary
2. Case Studies on topics in field of statistics
3. Snap test and Open Book test
4. Architectural – To be build the procedures
5. Extempore – Random concept to students
6. Interactive Sessions
7. Teaching through real world examples

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Model Question Paper Structure for SEE

Max.: 75 Marks **Min.Pass : 30 Marks**

Probability Distributions and Testing of Hypothesis

Answer the following 5 x 15M = 75Marks

1. a. A random X has the following probability distribution.

X=x	-2	-1	0	1	2	3
P(X=x)	0.1	k	0.2	2k	0.3	3k

Find (i) k, (ii) $P(X < 2)$, (iii) $P(X \geq 2)$ (iv) $P(-2 < X < 2)$ (Co-1, L-4)

b. Define Distribution function and write its properties. (5M) (Co-1, L-1)

(OR)

c. A random variable X is distributed at random values 0 and 1 so that its probability density function $f(x) = k\, x^2 (1 - x^3)$, where k is constant.

Find (i) k, (ii) Mean, (iii) Variance (Co-1, L-4)

2. a. Define Geometric distribution. State its properties. (5M) (Co-2, L-1)

b. A coffee connoisseur claims that he can distinguish between a cup of instant coffee and a cup of percolator coffee 75% of the time. It is agreed that his claim will be accepted if he correctly identifies at least 5 of the 6 cups. Find his chances of having the claim (i) accepted, (ii) rejected, when he does have the ability he claims. (10M) (Co-2, L-4)

(OR)

c. Define Poisson distribution. State its properties. (5M) (Co-2, L-1)

d. A manufacturer, who produces medicine bottle, finds that 0.1% of the bottles are defective. The bottles are packed in boxes containing 500 bottles. A drug manufacturer buys 100 boxes from the producer of bottles. Using Poisson distribution, find how many boxes will contain: (i) no defective, and (ii) at least two defective. (Co-2, L-4)

3. a. Explain the exponential distribution with their limitations. (5M) (Co-3, L-2)

b. If X is uniformly distributed with mean 1 and variance 4/3. Find (i) $P(X<0)$, (ii) $P(-1 \leq X \leq 2)$ (10M) (Co-3, L-4)

(OR)

c. Define Normal distribution. State its properties. (5M) (Co-3, L-1)

d. The mean yield for one-acre plot is 662 kilos with standard deviation 32 kilos. Assuming normal distribution, how many one-acre plots in a batch of 1,000 plots would you expect to

have yield (i) over 700 kilos, (ii) below 650 kilos, and (iii) what is the lowest yield of the best 100 plots? (10M) (Co-3, L-3)

4. a. A filling machine is expected to fill 5kg of powder into bags. A sample of 10 bags gave the weights 4.7, 4.9, 5.0, 5.1, 5.4, 5.2, 4.6, 5.1, 4.6 and 4.7. test whether the machine is working properly. (8M) (Co-4, L-5)

   b. Out of 8,000 graduates in a town 800 are females, out of 1,600 graduate employees 120 are females. Use χ^2 to determine if any distinction is made in appointment the basis of sex. (7M) (Co-4, L-3)

(OR)

c. The marketing manager of a consumer product company wanted to know whether it is worth investing money and efforts in designing different sizes of package design with different color. He was wondering if the factors color and size of package could enhance the sale significantly. He performed the following experiment. The data matrix containing the response variable in 1000 is given below.

	Size of Package		
Color	Large	Medium	Small
Blue	90	96	116
Red	90	110	126
Pink	98	125	149

Perform the two-way ANOVA and test whether the mean sales are influenced by package size and color. What are your findings? (15M) (Co-4, L-3)

5. a. What do you mean by statistical hypothesis? Explain the concepts of the two types of errors with examples. (7M) (Co-5, L-1)

   b. Before increase in excise duty on tea, 400 people out of a sample of 500 persons were found to be tea drinkers. After an increase in duty, 400 people were tea drinkers out of a sample of 600 people. Using the standard error of proportion, state whether there is a significant decrease in the consumption of tea? (8M) (CO-5, L-5)

(OR)

c. A sales manager of a large company conducted a sample survey in states A and B taking 400 and 500 samples respectively. The results were

	State A	State B
Average Sales	Rs. 2500	Rs. 2200
Standard Deviation	Rs. 400	Rs. 550

Test whether the average sales is the same in the 2 states at 1% level. (10M) (Co-5, L-4)

d. Write down the steps to perform difference of means test for large samples. (5M) (Co-5,L-4)

***

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VIRTUALIZATION AND CLOUD COMPUTING LAB

Offered To:	**B.Sc. (CSCS)**	**Course Code:**	CGSP41
Course Type:	Practical	**Course:**	Virtualization and Cloud Computing Lab
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	1
Hours Taught:	30 hrs. per semester	**Max. Time:**	2 Hrs

Course Prerequisites (if any): Basic knowledge in computers and internet.

Course Description: This course focuses towards Distributed Systems, Cloud Concepts, Virtualization and Datacentres

Course Objectives:

1. Enhance the knowledge on Cloud Computing.
2. To Configure and Manage AWS.

Course Outcomes: At the end of this course, students should be able to

CO1: Understand Distributed Systems concepts and its applications. (PO5,PO6, PO7)

CO2: Learn about Cloud Computing. (PO5, P07)

CO3: Learn to Configure and Manage Virtual Machines. (PO5, P07)

CO4: Know about Virtual Machines. (PO5, P07)

CO5: Understand Data Center. (PO5,PO6, PO7)

Practical Exercises:

1. Installing and Using Workstation Player
   a. Install Workstation Player on a Windows Host
   b. Start Workstation Player
   c. Use the Workstation Player Window
2. Changing Workstation Player Preference Settings
   a. Configuring Close Behavior Preference Settings
   b. Configuring Software Updates Settings
   c. Configuring Workstation Player Color Theme Settings
3. Creating Virtual Machines in Workstation Player
   a. Preparing to Create a Virtual Machine
   b. Create a Virtual Machine

4. Installing and Upgrading VMware Tools
    a. Installing VMware Tools
    b. Upgrading VMware Tools
    c. Configure Software Update Preferences
    d. Configure VMware Tools Updates for a Specific Virtual Machine

5. Starting and Stopping Virtual Machines in Workstation Player a. Start a Virtual Machine in Workstation Player
    b. Power Off a Virtual Machine in Workstation Player
    c. Use Ctrl+Alt+Delete to Shut Down a Guest
    d. Suspend and Resume a Virtual Machine in Workstation Player
    e. Reset a Virtual Machine in Workstation Player

6. Changing the Virtual Machine Display
    a. Configure Display Settings for a Virtual Machine
    b. Use Full Screen Mode in Workstation Player

7. Configuring and Managing Virtual Machines
    a. Change the Name of a Virtual Machine
    b. Change the Working Directory for a Virtual Machine
    c. Change the Virtual Machine Directory for a Virtual Machine
    d. Change the Memory Allocation for a Virtual Machine
    e. Moving Virtual Machines
    f. Delete a Virtual Machine

8. Configuring and Managing Devices
    a. Configuring DVD, CD-ROM, and Floppy Drives
    b. Configuring and Maintaining Virtual Hard Disks
    c. Configuring Keyboard Features
    d. Modify Hardware Settings for a Virtual Machine

9. Configuring Network Connections
    a. Understanding Common Networking Configurations
    b. Configuring Bridged Networking
    c. Configuring Network Address Translation
    d. Configuring Host-Only Networking
    e. Changing a Networking Configuration

10. Configuring Virtual Machine Option Settings
    a. Configuring General Option Settings for a Virtual Machine
    b. Configuring Power Options for a Virtual Machine
    c. Configuring VMware Tools Options for a Virtual Machine

11. Configuring Virtual Machine Hardware Settings
    a. Adding & Removing Hardware to a Virtual Machine
    b. Adjusting Virtual Machine Memory
    c. Configuring Virtual Machine Processor Settings
    d. Configuring and Maintaining Virtual Hard Disks
    e. Configuring Virtual Network Adapter Settings
    f. Configuring Display Settings

Lab Requirements:

- Download: VMware Workstation Player
- User Guide: Using VMware Workstation Player for Windows

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PYTHON PROGRAMMING LAB

Offered To:	**B.Sc CSCS**	**Course Code:**	CGSP43
Course Type:	Practical	**Course:**	Python Programming Lab
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	1
Hours Taught:	30 hrs. per semester	**Max. Time:**	2 Hrs

Course Prerequisites (if any): Basic programming knowledge.

Course Description: This course focuses towards Algorithmic Problem Solving, Data, Expressions, Statements, Control Flow, Functions, Lists, Tuples, Dictionaries, Files, Modules, and Packages

Course Objectives:

1. To learn and understand python programming basics.
2. To learn and understand python looping, control statements and string manipulations.
3. To make students familiar with the concepts of file handling, exception handling.

Course Outcome	Upon successful completion of this course, students should have the knowledge and skills to:	Program Outcome
CO_1	To write, test, and debug simple python programs.	PO5, PO7
CO_2	Implement python programs with conditionals and loops	PO5, PO7
CO_3	Read and write data from/to files in python	PO5, PO7
CO_4	Implementation of searchings' and sorting's using lists	PO5, PO7
CO_5	Simulation using pygame	PO5, PO7

	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Title of the Course: PYTHON LAB	CO1					L	M	L
	CO2					M	L	L
	CO3					L	M	L
	CO4					M	L	L
	CO5					L	M	L

Exercises

1. Find the maximum of a list of numbers
2. Linear search and Binary search
3. Selection sort, Insertion sort
4. Merge sort
5. First n prime numbers
6. Multiply matrices
7. Programs that take command line arguments (word count)
8. Find the most frequent words in a text read from a file
9. Simulate elliptical orbits in Pygame
10. Simulate bouncing ball using Pygame

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DATA MINING LAB

Offered To:	BCA/ B. Sc (CSCS)	**Course Code:**	CSCP45(BCA) /CGSP45(CSCS)
Course Type:	Core (Practical)	**Course:**	Data Mining Lab
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	1
Hours Taught:	30 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Basic knowledge in DMDW concepts.

Course Description: This course is used to implement various Data Mining concepts practically using Weka Tool.

Course Objectives:

The main objective of this lab is to impart

1. The knowledge on how to implement classical models and algorithms in data warehousing and data mining .
2. To characterize the kinds of patterns that can be discovered by association rule mining, classification and clustering. And also to compare and contrast different conceptions of data mining.
3. To understand different models of OLAP and data pre-processing. To understand different classification techniques and association rule mining

Course Outcomes: by the end of the course, students will be able to:

CO1. To evaluate the different models of OLAP and data pre-processing. (PO1)
CO2. To enlist various algorithms used in information analysis of Data Mining Techniques. (PO1)

CO3. To demonstrate the knowledge retrieved through solving problems (PO1)

CO4. To evaluate the different classification techniques (PO1)

CO5. To evaluate the different association techniques(PO1)

Lab List

1. Demonstration of preprocessing on dataset student.arff
2. Demonstration of preprocessing on dataset labor.arff
3. Demonstration of Association rule process on dataset contactlenses.arff using apriori algorithm
4. Demonstration of Association rule process on dataset test.arff using apriori algorithm
5. Demonstration of classification rule process on dataset student.arff using j48 algorithm
6. Demonstration of classification rule process on dataset employee.arff using j48 algorithm
7. Demonstration of classification rule process on dataset employee.arff using id3 algorithm
8. Demonstration of classification rule process on dataset employee.arff using naïve bayes algorithm
9. Demonstration of clustering rule process on dataset iris.arff using simple k-means
10. Demonstration of clustering rule process on dataset student.arff using simple k-means.

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VIRTUALIZATION AND CLOUD COMPUTING

Offered To:	**B.Sc. (CSCS)**	**Course Code:**	CGST41
Course Type:	Core (Theory)	**Course:**	Virtualization and Cloud Computing
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	4
Hours Taught:	60 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Basic knowledge in computers and internet.

Course Description: This course focuses towards Distributed Systems, Cloud Concepts, Virtualization and Datacentres

Course Objectives:

1. Understanding of Distributed Systems.
2. Enhance the knowledge on Cloud Computing.
3. To Configure and Manage Virtual Machines.
4. To Know about Data Center.

Course Outcomes: At the end of this course, students should be able to

CO1: Understand Distributed Systems concepts and its applications. (PO5,PO6, PO7)

CO2: Learn about Cloud Computing. (PO5, P07)

CO3: Learn to Configure and Manage Virtual Machines. (PO5, P07)

CO4: Know about Virtual Machines. (PO5, P07)

CO5: Understand Data Center. (PO5,PO6, PO7)

Syllabus		
Unit	**Learning Units**	**Lecture Hours**
I	**Distributed Systems:** Overview of Computing Paradigm, Recent trends in Computing, Grid Computing, Cluster Computing, Distributed Computing, Utility Computing, Cloud Computing, Evolution of Cloud Computing, Benefits of Cloud Computing	12

II	**Data Center** :Data Center Overview, Data Center Evolution, Modern Business Requirements for Data Center, Making Agile Datacenter, Data Center Transformations, Future of Data Centers	14
III	**Virtualization :**Define Virtualization, Need of Virtualization, Virtualization Technologies, Uses of Virtualization, Planning for Virtualization, Virtualization Pitfalls	12
IV	**Cloud:** Cloud Fundamentals, Benefits of Cloud Computing, Type of Clouds, Cloud Computing Services, Cloud Computing Architecture, Virtualization and Cloud Computing, Grid Computing vs Cloud Computing, Security Concerns	10
V	**Hybrid Cloud:** Hybrid Cloud Fundamentals, Benefits of a Hybrid Cloud, Key Considerations for Hybrid Cloud, Components of Hybrid Cloud, Hybrid Cloud Deployment Models, Managing Hybrid Cloud Environments	12

Text Books			
	Author	**Title**	**Publisher**
1	Jean Dollimore formerly of Queen Mary, Tim Kindberg	Distributed Systems Concepts and Design [PDF]	5th Edition Cambridge University, University of London (2012)
2	VenkataJosyula , Malcolm Orr , Greg Page	Cloud Computing: Automating the Virtualized Data Center[PDF]	1st Edition By Josyula (2012)
3	Brian J.S. Chee, Curtis Franklin Jr.	Cloud Computing: Technologies and Strategies of the Ubiquitous Data Center[PDF]	1st Edition By Brian J,S, Chee, Curtis Franklin Jr (2019)

Course Delivery method : Face-to-face / Blended

Course has focus on : Skill Development

Co-curricular Activities: Programming Contests, Assignments & Quiz

Websites of Interest:

Distributed Systems

- https://www.itu.int/dms_pub/itu-t/oth/23/01/T23010000090001PDFE.pdf
- https://www.tutorialspoint.com/Distributed-Systems
- https://blog.stackpath.com/distributed-system/
- https://www.tutorialspoint.com/software_architecture_design/pdf/distributed_architecture.pdf
- https://archive.mu.ac.in/myweb_test/MCA%20study%20material/M.C.A.(Sem%20-%20V)%20Distributed%20Computing.pdf

Data Center

- https://acadpubl.eu/jsi/2017-114-7-ICPCIT-2017/articles/12/8.pdf
- https://www.actualtechmedia.com/wp-content/uploads/2016/05/Building-a-Modern-Data-Center-ebook.pdf
- https://www.youtube.com/playlist?list=PLJuCep43JwAVl17HMPNZRwmlEn2mzhha

Virtualization

- https://www.vmware.com/pdf/virtualization.pdf
- https://ssl.www8.hp.com/de/de/pdf/virtuallisation_tcm_144_1147500.pdf
- https://www.youtube.com/playlist?list=PLndqfxA_9SWFsFpP1Db_E8DmzY3K5Wkq

Cloud

- https://www.guru99.com/cloud-computing-for-beginners.html
- https://www.youtube.com/playlist?list=PLDns5jVqEmIoNrmSY0aRHwK5LqGM9u3LL

Hybrid Cloud

- https://www.omg.org/cloud/deliverables/CSCC-Practical-Guide-to-Hybrid-Cloud-Computing.pdf
- https://www.youtube.com/playlist?list=PLOspHqNVtKABPTyvxoNW0e4XSgCNdZ40F

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VIRTUALIZATION AND CLOUD COMPUTING

SEMESTER END MODEL QUESTION PAPER

COURSE CODE: CGST41 **Max.Marks:75M**

CLASS: B.Sc. (CSCS) **Semester IV**

Section-A

Answer any five questions. **5*5=25M**

1. Explain about Grid Computing(CO1, L2)
2. What are the different types of Data Centers?(CO2, L3)
3. Explain how Switches and Cables are used in Data Centers(CO2, L2)
4. Define Virtualization.(CO3, L3)
5. What are the Pitalls for Virtualization?(CO3, L6)
6. List out different types of Clouds (CO4, L3)
7. What are the differences between Grid and Cloud Computing(CO4, L3)
8. What are the benefits of Hybrid Cloud? (CO5, L3)

Section-B

ANSWER THE FOLLOWING QUESTIONS **5x10M=50M**

9. (A)What are the recent trends in Computing?(CO1, L3)

   OR

   (B)Explain the evolution and benefits of Cloud Computing(CO1, L2)

10. (A)Explain types of servers in detail. (CO2, L2)

    OR

    (B)What are the three key principles around which agile IT revolves?(CO2, L3)

11. (A) What is the need of Virtualization?(CO3, L3)

    OR

    (B) Explain about Virtual Machines and Benefits of Virtualization (CO3, L2)

12. (A) Explain the benefits of Cloud Computing.(CO4, L2)

    OR

    (B) Explain Cloud Computing Architecture.(CO4, L2)

13. (A) What are the Key Considerations for Hybrid Cloud?(CO5, L3)

    OR

    (B) Explain the components of Hybrid Cloud.(CO5, L2)

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PROCESS MANAGEMENT

Offered To:	**B.Sc CSCS**	**Course Code:**	CGST42A
Course Type:	Core (Theory)	**Course:**	Process Management
Year of Introduction:	2022 – 2023	**Year of offering:**	2023 – 2024
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	4
Hours Taught:	60 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Basic knowledge in computers and internet.

Course Description: This course focuses towards Software Engineering, Agile and Scrum, DevOps Tools and Design Thinking

Course Objectives:

1. Understanding the concept of Software Engineering.
2. To Know about Agile and Scrum.
3. To implement DevOps Tools.
4. Understanding the concept of Design Thinking.

Course Outcomes: At the end of this course, students should be able to

CO1: Understand about Software Engineering. (PO5,PO6, PO7)

CO2: Learn about Agile. (PO5, P07)

CO3: Learn about Scrum (PO5, P07)

CO4: Know about DevOps. (PO5, P07)

CO5: Understand Design Thinking is about. (PO5,PO6, PO7)

Syllabus

Unit	Learning Units	Lecture Hours
I	**Software and Software Engineering (15 Hrs.)** The Nature of Software, The Unique Nature of WebApps, Software Engineering- Software Process, Software Engineering Practice-Software Myths. Software Process Model: A Generic Process Model, Process Assessment and Improvement, Perspective Process Models, Specialized Process Model, The Unified Process. Software Engineering Code of Ethics.	12
II	**Agile (14 Hrs.)** What Is Agile, Understanding Agile Value, Agile Manifesto, Principles of Agile, Agile Methodologies, Advantages and Disadvantages of Agile - Agile anti-patterns, Scaled Agile Framework, Why Lean UX, The Three Foundations of Lean UX, Principles of Lean UX.	12
III	**Scrum (14 Hrs.)** Definition of Scrum, Uses of Scrum, Scrum Theory, Scrum Values, The Scrum Team, Scrum Events, Scrum Artifacts, Artifact Transparency.	12
IV	**DevOps (15 Hrs.)** Introduction to DevOps, methodologies, principles, strategies, Automation, Performance Measurement through KPIS and Metrics, Agile and DevOps, Agile Infrastructure, Velocity, Lean Startup UPS.	12
V	**Design Thinking (14 Hrs.)** Introduction to Design Thinking – Lean thinking, Actionable Strategy, The Problem with Complexity, Vision and Strategy, Defining Actionable Strategy Act to Learn, Leading Teams to Win.	12

Text Books

	Author	Title	Publisher
1	Roger S Pressman,	"Software Engineering A Practitioner's Approach"	7th Edition 2010
2	KalloriVikraman,	"Introduction to Devops"	1st Edition, 2016.

3	Stephen Haunts	Essential of Scrum" Addison-Wesley Professional	1st Edition, 2012
4	Jonny Schneider	"Understanding Design Thinking, Lean, and Agile"	O'Reilly Media 2017.
5	Jeff Gothelf	"Lean vs. Agile vs. Design Thinking"	Sense and Respond Press,2017

Course Delivery method : Face-to-face / Blended
Course has focus on : Skill Development
Websites of Interest:
https://www.javatpoint.com/devops
https://www.tutorialspoint.com/scrum/scrum_overview.htm
https://www.javatpoint.com/agile
https://www.tutorialspoint.com/design_thinking/design_thinking_introduction.htm
Co-curricular Activities: Programming Contests, Assignments & Quiz

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PROCESS MANAGEMENT
SEMESTER END MODEL QUESTION PAPER
COURSE CODE: CGST42A **Max.Marks:75M**

CLASS: B.Sc. (CSCS) **Semester IV**

Section-A

Answer any five questions. **5*5=25M**

1. Explain the nature of Software.(CO1, L2)
2. Describe the unique nature of WebApps.(CO1,L1)
3. List and explain principles of Agile.(CO2, L2)
4. Explain Scrum Roles.(CO2, L2)
5. Summarize the need of DevOps. (CO3, L2)
6. Discuss Velocity in Agile.(CO3, L2)
7. What is Sprint? Explain. (CO4, L2)
8. Explain the Actionable Strategy for Design Thinking.(CO5, L2)

Section-B

ANSWER THE FOLLOWING QUESTIONS5x10M=50M

9. (A)Summarize software myths. (CO1, L2)

OR

(B)Explain Software Process Models (SPM). (CO1, L2)

10. (A) Classify and explain agile methodologies.(CO2, L2)

OR

(B) Summarize scrum artifacts. (CO2, L2)

11. (A) Illustrate measuring performance through KPIS and its metrics. (CO3, L2)

OR

(B) Explain about Lean Startup UPS.(CO3, L2)

12. (A) Illustrate staggering a sprint with an example. (CO4, L2)

OR

(B) Illustrate coordinating multiple Lean UX teams. (CO4, L2)

13. (A) Explain Lean Thinking and its Principles?(CO5, L2)

OR

(B)Explain the vision and Strategy of Design Thinking.(CO5, L2)

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PYTHON PROGRAMMING

Offered To:	**B.Sc CSCS**	**Course Code:**	CGST43
Course Type:	Core (Theory)	**Course:**	Python Programming
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	4
Hours Taught:	60 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Basic programming knowledge.

Course Description: This course focuses towards Algorithmic Problem Solving, Data, Expressions, Statements, Control Flow, Functions, Lists, Tuples, Dictionaries, Files, Modules, and Packages

Course Objectives:

1. To learn and understand python programming basics.
2. To learn and understand python looping, control statements and string manipulations.
3. To make students familiar with the concepts of file handling, exception handling.

COURSE OUTCOME NO	Upon successful completion of this course, students should have the knowledge and skills to	PROGRAM OUTCOME NO
CO_1	implement a given algorithm as a computer program (in Python)	PO5,PO7
CO_2	Able to understand functions, modules and data types in python	PO5,PO7
CO_3	Able to use standard programming constructs: repetition, selection and aggregated data (arrays, lists, etc.)	PO5,PO7
CO_4	Able to learn how to use lists, tuples, dictionaries in python programs	PO5,PO7
CO_5	To identify and repair coding errors in a program	PO5,PO7

	CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Title of the Course: PYTHON	CO1						M	L
	CO2						M	M
	CO3						L	L
	CO4						M	L
	CO5						L	M

Syllabus		
Unit	**Learning Units**	**Lecture Hours**
I	**Algorithmic Problem Solving:** Algorithms, building blocks of algorithms (statements, state, control flow, functions), notation (pseudo code, flow chart, programming language), algorithmic problem solving, simple strategies for developing algorithms (iteration, recursion). Illustrative problems: find minimum in a list, insert a card in a list of sorted cards, and guess an integer number in a range, Towers of Hanoi.	10
II	**Data, Expressions, Statements:** Python interpreter and interactive mode; values and types: int, float, boolean, string, and list; variables, expressions, statements, tuple assignment, precedence of operators, comments; modules and functions, function definition and use, flow of execution, parameters and arguments; Illustrative programs: exchange the values of two variables, circulate the values of n variables, distance between two points.	12
III	**Control Flow, Functions:** Conditionals: Boolean values and operators, conditional (if), alternative (if-else), chained conditional (if-else if-else); Iteration: state, while, for, break, continue, pass; Fruitful functions: return values, parameters, local and global scope, function composition, recursion; Strings: string slices, immutability, string functions and methods, string module; Lists as arrays. Illustrative programs: square root, gcd, exponentiation, sum an array of numbers, linear search, binary search.	15
IV	**Lists, Tuples, Dictionaries:** Lists: list operations, list slices, list methods, list loop, mutability, aliasing, cloning lists, list parameters; Tuples: tuple assignment, tuple as return value; Dictionaries: operations and methods; advanced list processing - list comprehension; Illustrative programs: selection sort, insertion sort, merge sort, histogram.	12
V	**Files, Modules, Packages:** Files and exception: text files, reading and writing files, format operator; command line arguments, errors and exceptions, handling exceptions, modules, packages; Illustrative programs: word count, copy file.	11

Text Books			
	Author	**Title**	**Publisher**
1	Allen B. Downey	"Think Python: How to Think Like a Computer Scientist''	2nd edition, Updated for Python 3, Shroff/O'Reilly Publishers, 2016.

2	Guido van Rossum and Fred L. Drake Jr	"An Introduction to Python – Revised and updated for Python 3.2"	Network Theory Ltd., 2011
3	Charles Dierbach	"Introduction to Computer Science using Python: A Computational Problem-Solving Focus	Wiley India Edition, 2013.
4	John V Guttag	"Introduction to Computation and Programming Using Python''	Revised and expanded Edition, MIT Press , 2013

Course Delivery method : Face-to-face / Blended

Course has focus on : Skill Development

Websites of Interest:
https://www.tutorialspoint.com/python/index.htm
https://www.w3schools.com/python/

Co-curricular Activities: Programming Contests, Assignments & Quiz

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PYTHON PROGRAMMING
SEMESTER END MODEL QUESTION PAPER

COURSE CODE: CGST43
Max.Marks:75M
CLASS: B.Sc. (CSCS) **Semester IV**

Section-A

Answer any five questions. **5*5=25M**

1. Develop an algorithm to find minimum element in the given list. (CO1, L6)
2. Explain precedence of operators in Python. (CO2, L2)
3. Develop a python script to swap values between two variables. (CO2, L6)
4. What are conditional control statements in python? Explain with appropriate syntax and flow charts. (CO3, L2)
5. Develop a python script to demonstrate binary search . (CO3, L6)
6. Differentiate between list and tuple. (CO4, L3)
7. How to access values in a dictionary in python. (CO4, L3)
8. How to create a module and use it in a python program. Explain with an example. (CO5, L2)

Section-B

ANSWER THE FOLLOWING QUESTIONS **5x10M=50M**

9. (A) Explain building blocks of algorithms. (CO1, L2)

OR

(B) Explain the role of algorithms in problem solving. (CO1, L3)

10. (A) List and explain different arithmetic operators supported by Python. Discuss about their precedence and associativity. (CO2, L2)

OR

(B) Write a Python program to convert height in feet and inches to cm. [1 feet = 12 inch and 1 inch= 2.54 cm] (Sample input: 2 feet 7 inches Sample output: 78.74 cm). (CO2, L3)

11. (A) Demonstrate various iterative structures used in python with examples. (CO3, L3)

OR

(B) Demonstrate various string methods in python with examples. (CO3, L3)

12. (A) Develop a Python script to demonstrate insertion sort. (CO4, L6)

OR

(B) Develop a python script to demonstrate various operations on tuples. (CO4, L6)

13. (A) Explain file operations in python with examples. CO5, L2)

OR

(B) Define a module? Write python scripts to demonstrate Math module and Random module. (CO3, L2)

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BLUE PRINT

TITLE: PYTHON **COURSE CODE: CSCT41B**

SECTIONS: B.Sc. (MSCS/MPCS/MECS/CAMS/CAME/BCA)) **SEMESTER: IV**

TIME: 3 hrs. **MAX: 75M**

SECTION-A

ANSWER ANY FIVE QUESTIONS **5X5=25M**

1. Unit 1
2. Unit 2
3. Unit 2
4. Unit 3
5. Unit 3
6. Unit 4
7. Unit 4
8. Unit 5

SECTION – B

ANSWER ALL THE QUESTIONS **5 X 10 =50 M.**

9. A) Unit 1.

(or)

B) Unit 1.

10. A) Unit 2.

(or)

B) Unit 2.

11. A) Unit 3.

(or)

B) Unit 3.

12. A) Unit 4.

(or)

B) Unit 4.

13. A) Unit 5.

(or)

B) Unit 5.

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ADVANCED JAVA

Offered To:	BCA / B. Sc. (CSCS)	**Course Code:**	CSCT42A(BCA)/ CGST44(CSCS)
Course Type:	Core (Theory)	**Course:**	Advanced Java
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	4
Hours Taught:	60 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Core Java Programming Language

Course Description: It's is an advanced course in Java to introduce the topics like Networking, RMI, Swings, JDBC, Servlets and JSP.

Course Objectives:

As the business environment becomes more sophisticated, the software development is becoming increasingly complex. Java as of the best programming paradigm helps to develop large software projects from the past decade. Many website developments can be done using object oriented programming like Java.

Course Outcomes:

Upon successful completion of this course, students should have the knowledge and skills to:

1. Understand the concept of networking with different datagram sockets.(PO1)
2. Understand how swing components can be used to develop java applications.(PO1)
3. Understand how to connect to a database using Java.(PO1)
4. Understand how to develop a website using servlet technology.(PO1)
5. Understand the drawbacks of servlet technology and learn how to develop a website using JSP.(PO1,PO7)

Syllabus		
Unit	**Learning Units**	**Lecture Hours**
I	**1.1 Networking** 1.1.1 Networking Basics 1.1.1.1 Socket Overview 1.1.1.2 Client/Server 1.1.1.3 Reserved Sockets 1.1.1.4 Proxy Servers 1.1.1.5 Internet Addressing 1.1.2 URL 1.1.3 TCP/IP Client Sockets 1.1.4 TCP/IP Server Sockets	8

	1.2 RMI 1.2.1 RMI Introduction 1.2.2 Simple Client Server Application Using RMI	
II	**1.1 Introducing Swings** 1.1.1 The origins of Swing 1.1.2 Swing is built on AWT 1.1.3 Two key swing features 1.1.4 The MVC Connection 1.1.5 Components and Containers 1.1.6 The swing packages 1.1.7 Event Handling. **1.2 Exploring Swing** 1.2.1 JLabel and ImageIcon 1.2.2 JTextField 1.2.3 The Swing Buttons 1.2.4 JTabbedPane 1.2.5 JList 1.2.6 JComboBox 1.2.7 Trees 1.2.8 JTable.	15
III	**Database Access** 3.1 Introduction 3.2 Database programming using JDBC 3.3 How Jdbc works 3.4 Jdbc Architecture 3.5 Jdbc driver types 3.6 Studying javax.sql.* package – programs.	10
IV	**Servlets** 1.1 The life cycle of a servlet 1.2 Using Tomcat 1.3 A simple servlet 1.4 The Servlet API 1.5 The javax.servlet package 1.6 Reading Servlet Parameters 1.7 The javax.servlet.http package 1.8 Handling HTTP requests and responses 1.9 Using Cookies 1.10 Session Tracking.	
V	**Introduction to JSP** 1.1 Introduction 1.2 Advantages of JSP 1.3 The problem with servlet 1.4 The anatomy of JSP page 1.5 JSP processing 1.6 JSP application design with MVC 1.7 Setting up the JSP Environment 1.8 Tomcat server 1.9 Testing Tomcat 1.10 Accessing database from JSP page.	12

Prescribed Text Books			
	Author	**Title**	**Publisher**
1	Herbert Schildt	Java Complete Reference	8th Edition, Oracle Press.
2	A.A. Puntambekar	Advanced Java and Web Technologies	First Edition, Technical Publications, 2013.

References Books:			
	Author	**Title**	**Publisher**
1	Santosh kumar k	JDBC, Servlet and JSP Black Book	Kogent Solutions Inc, Reprint 2012

Course Delivery method : Face-to-face / Blended
Course has focus on : Skill Development
Websites of Interest:
https://www.javatpoint.com/what-is-advance-java
https://www.tutorialspoint.com/servlets/index.htm
https://www.tutorialspoint.com/jdbc/index.htm
https://www.tutorialspoint.com/jsp/index.htm
Co-curricular Activities: Seminars, Quiz, Certifications

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TITLE: ADVANCED JAVA MODEL PAPER

COURSE CODE: CSCT42A(BCA)/ CGST44(CSCS) **Max. Marks: 75M**
CLASS: II BCA / II CSCS **Time: 3 Hours**

Answer any FIVE questions 5*5=25M

1. Write a java program to get the details about url using URL Class?(CO1,L6)
2. Explain about Reserved Sockets. (CO1,L1)
3. Explain about Proxy Server. (CO1,L1)
4. Write a java program to create combo box using JFrame. (CO2,L6)
5. Write a java program to get the Connection with Database. (CO3,L6)
6. Write a java program to retrieve all data present in the table using JDBC. (CO3,L6)
7. Write an java program on Cookies.(CO4,L6)
8. Write are the advantages of JSP? (CO5,L6)

Answer all the questions 5*10=50M

9.(a) Explain about TCP/IP client sockets and server sockets(CO1,L1)

OR

(b) Explain the rules to develop RMI applications. (CO1,L1)

10.(a) Explain about components and containers. (CO2,L1)

OR

(b) What is JFrame? Write a program to create login form using JFrame. (CO2,L6)

11.(a) Explain different types of JDBC drivers with example (CO3,L1)

OR

(b)Write a java program to create employee table with 8 fields by using JDBC(CO3,L6)

12.(a) What are the life cycle methods of a servlet? Explain with example. (CO4,L1)

OR

(b) Write an java program to implement doPost().(CO4,L6)

13.(a)Define JSP application design with MVC Architecture(CO5,L1)

OR

(b)Write a JSP program to connect to Oracle Data Base using thin driver?(CO5,L6)

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TITLE: ADVANCED JAVA

BLUE PRINT

COURSE CODE: CSCT42A(BCA)/ CGST44(CSCS) **Max. Marks: 75M**

CLASS: II BCA/ II CSCS **Time: 3 Hours**

Section-A

ANSWER ANY FIVE QUESTIONS **5x5M=25M**

1. UNIT -1 ---------- 5M
2. UNIT -1 ---------- 5M
3. UNIT -1 ---------- 5M
4. UNIT -2 ---------- 5M
5. UNIT -3 ---------- 5M
6. UNIT -3 ---------- 5M
7. UNIT -4 ---------- 5M
8. UNIT -5 ---------- 5M

Section-B

ANSWER THE FOLLOWING QUESTIONS **5x10M=50M**

9. UNIT -1 ---------- 10M

OR

UNIT -1 ---------- 10M

10. UNIT -2 ---------- 10M

OR

UNIT -2 ---------- 10M

11. UNIT -3 ---------- 10M

OR

UNIT -3 ---------- 10M

12. UNIT -4 ---------- 10M

OR

UNIT -4 ---------- 10M

13. UNIT -5 ---------- 10M

OR

UNIT -5 ---------- 10M

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DATA MINING AND WAREHOUSING

Offered To:	BCA / B. Sc. (CSCS)	**Course Code:**	CSCT46B(BCA)/ CGST45(CSCS)
Course Type:	Core (Theory)	**Course:**	Data Mining and Warehousing
Year of Introduction:	2021 – 2022	**Year of offering:**	2021 – 2022
Year of Revision:	-	**Percentage of Revision:**	-
Semester:	IV	**Credits:**	4
Hours Taught:	60 hrs. per semester	**Max. Time:**	3 Hrs

Course Prerequisites (if any): Programming / Statistics Language

Course Description: It's is an introductory course on Data mining and Data Warehousing. Its introduces the Basic concepts Data warehouse Architecture OLAP Technologies, Principles, methods Implementation techniques, Applications and Query Languages of Data mining . The major methods focused were Data pre-processing Techniques, Association Rule mining, Classification and prediction and Cluster Analysis Techniques.

Course Objectives: In this course students will learn about

1. Data mining primitives, Architecture.
2. OLAP operations.
3. Mining association rules on large databases.
4. Classification and prediction.
5. Cluster analysis.

Course Outcomes: At the end of this course, students should be able to:

CO1: Understands knowledge discovery in databases (PO5, PO7)

CO2: Understands OLAP operations and types of OLAP (PO5, PO7)

CO3: Apply Apriori and FP-Growth algorithms to generate frequent itemsets in a dataset. (PO5, PO7)

CO4: Apply Decision tree induction and Bayesian algorithm to classify the unknown sample. (PO5, PO7)

CO5: Describes preparing data for clustering, clustering methods. (PO5, PO7)

Syllabus		
Unit	**Learning Units**	**Lecture Hours**
I	**Introduction** Fundamentals of Data mining, Data mining functionalities, Classification of data mining systems, Data mining task primitives, Data mining applications, Data Warehouse and OLAP technology: What is Data Warehouse+, Multidimensional data model, Data warehouse architecture.	12
II	**Data preprocessing** Data cleaning, Data integration and Transformation, Data reduction, Discretization and Concept hierarchy generation, Data generalization and summerization, Mining descriptive statistical measures,Data Mining Query Languages.	12
III	**Associaion Rule Mining** Market basket analysis, Efficient and scalable frequent itemset mining methods(Apriori and FP-Growth), Mining various kinds of association rules.	12
IV	**Classification and Prediction** Introduction to classification, Classification by Decision tree induction, Bayesian classification, Prediction: Linear regression, Non-Linear regression.	12
V	**Cluster analysis** Types of data in cluster analysis, Categorization of clustering methods, Partioning methods, Outlier analysis, DB Scan method	12

Prescribed Text Books			
	Author	**Title**	**Publisher**
1	Jiawei Han University of Illinois at Urbana–Champaign, Micheline Kamber Jian Pei Simon Fraser University.	Data Mining Concepts and Techniques	

Prescribed Text Books			
	Author	**Title**	**Publisher**
1	Pang-Ning Tan, Vipin Kumar, Michael Steinbach	Introduction To Data Mining	Pearson Education

Course Delivery method : Face-to-face / Blended

Course has focus on : Skill Development

Websites of Interest:

Co-curricular Activities:

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DATA MINING AND WAREHOUSING

SEMESTER END MODEL QUESTON PAPER

Programme: BCA/B.Sc (CSCS) Course Code: CGST45 Semester: IV

Time: 3 Hrs. Max.: 75 Marks Min. Pass: 30 Marks

SECTION - A

Answer any *five* of the following: 5 X 5= 25 MARKS

1. Illustrate essential steps in the process of knowledge discovery in databases. (CO1,L2)
2. Describe classification of data mining systems. (CO1,L2)
3. What is the need of data preprocessing? List major tasks in data preprocessing. (CO2,L2)
4. Write DMQL syntax for specifying task-relevant data. (CO2,L3)
5. Explain market basket analysis in detail. (CO3,L2)
6. List various pre-processing steps may be applied to prepare data for classification and prediction. (CO4,L3)
7. Explain the methods of tree pruning. (CO4,L2)
8. Differentiate between clustering and classification. (CO5,L3)

SECTION – B

Answer *all* the following questions 5 X 10 = 50 MARKS

9.(a) Describe data mining functionalities, and the the kinds of patterns they can discover. (CO1,L2)

OR

(b) Draw the 3-tier Data Warehouse Architecture. Explain each tier in detail. (CO1,L3)

10.(a) Explain the methods to handle missing values and smooth noise in data cleaning. (CO2,L2)

OR

(b) What is dimensionality reduction? Explain dimensionality reduction steps in Discrete wavelet transform with an example. (CO2,L3)

11.(a) Write an algorithm to generate frequent itemsets using Apriori algorithm. (CO3,L3)

OR

(b) Write an algorithm to generate frequent itemsets using FP-Growth. (CO3,L3)

12. (a) Write an algorithm for classification using Decision tree induction. (CO4,L3)

OR

(b) Explain Bayesian classification in detail. (CO4,L3)

13. (a) Explain categorization of clustering methods in detail. (CO5,L2)

OR

(b) Write K-means clustering algorithm. Explain with suitable example. (CO5,L3)

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PARVATHANENIBRAHMAIAH SIDDHARTHA COLLEGE OF ARTS AND SCIENCE; VIJAYAWADA-10

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SEMESTER- III/IV **PAPER – III/IV**

TITLE OF THE PAPER: HINDI-III/IV

NO OF HOURS: 60 **CREDITS: 03**

WEF: 2021-22 **COURSE CODE: HINT01A**

Cos:

1.दोहों के व्दारा विद्यार्थियोंमें समाज सुधार की भावना, मानव मूल्यों का विकास हो सकेगा।

2. हिंदी साहित्य के इतिहास के व्दारा हिन्दी भाषा और साहित्य की प्रमुखता से परिचित हो सकेंगे।

3. समाज कल्याण के विषयों को समझकर विद्यार्थिअपने ज्ञान का विकास कर सकेंगे।

4. समाज में हिन्दी भाषा के परिचित हो सकेंगे और हिन्दी भाषा का ज्ञानप्राप्तकर दूसरों से आसानी से संप्रेषित करने में सक्षम हो सकेंगे।

5.प्रयोजनमूलक हिन्दी प्राप्तकर सकेंगे और हिन्दी में पत्राचार का कौशल विकसित कर सकेंगे।

PARVATHANENIBRAHMAIAH SIDDHARTHA COLLEGE OF ARTS AND SCIENCE; VIJAYAWADA-10

(An autonomous college in the jurisdiction of Krishna University)

SEMESTER- III/IV **PAPER – III/IV**

TITLE OF THE PAPER: HINDI-III/IV

NO OF HOURS: 60 **CREDITS: 03**

WEF: 2021-22 **COURSE CODE: HINT01A**

SYLLABUS

I.**काव्य दीप**:

साखी- 1-10 - कबीरदास

बालवर्णन - सूरदास

मातृभूमि - मैथिलीशरण गुप्त

तोडती पत्थर - सूर्यकांत त्रिपाठी निराला

गीत फरोश - भवानी प्रसाद मिश्र

II.**हिन्दी साहित्य का इतिहास**:

काल विभाजन - आचार्य रामचन्द्र शुक्ल के अनुसार

भक्ति काल : ज्ञानाश्रयी शाखा - कबीर

प्रेमाश्रयी शाखा - जायसी

III.**साधारण निबन्ध**:समाचार पत्र, पर्यावरण और प्रदूषण,

बेकारी की समस्या, कंप्यूटर

IV. **अनुवाद** :(हिन्दी से अंग्रेजी में बदलना तथा अंग्रेजी से हिन्दी में बदलना)

V.**प्रयोजनमूलकहिन्दी**: परिपत्र,कार्यालय ज्ञापन,राष्ट्र-भाषा हिन्दी

Recommended Books:

1.काव्य दीप- **SRI B.RADHA KRISHNA MURTHY**

PARVATHANENI BRAHMAYYA SIDDHARTHA COLLEGE OF ARTS & SCIENCE :: VIJAYAWADA-520 010.
(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)
III SEMESTER Model Question Paper, November-2022 (Hindi-III)

Course Code: HINT01A **Max. Marks: 75M**
Time: 3 Hrs. **Pass Min. : 30M**

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PART-A

I. निम्नलिखित प्रश्नों में से किन्हीं पाँच प्रश्नों का उत्तर दीजिए: **5×5=25M**

1. व्याख्या कीजिए। L2

पाहन पूजे हरि मिलै, तो मैं पूजूँ पहाड़।

ताते ये चाकी भली , पीस खाय संसार ।।

2.किसी एक कवि का साहित्यक परिचय दीजिए। L1

(i)कबीर (ii) सूर्यकांतत्रिपाठी‘निराला’

3.मातृभूमिकविता की विशेषताएँ लिखिए। L1

4.व्याख्या कीजिए । L2

जी गीत जनम का लिखूँ, मरन का लिखूँ,

जी गीत जीत का लिखूँ, शरण कर लिखूँ।

5.ज्ञानमार्ग शाखा की विशेषताएँ बताइए। L2

6.प्रदूषण के निवारणोपाय लिखिए। L1

7.परिपत्र की परिभाषा दीजिए। L1

8.अनुवाद किसे कहते हैं? L2

PART-B

II. निम्नलिखित प्रश्नोंका उत्तर दीजिए: **5×10=50M**

9. किसी एक कविता का सारांश विशेषताओं के सहित लिखिए। L2

(i)गीत फरोश (ii) तोड़ती पत्थर

10. (अ) हिन्दी साहित्य का इतिहास - काल विभाजन के बारे में लिखिए। L2

अथवा

(आ) प्रेमाश्रय शाखा की विशेषताओं का परिचय दीजिए।

11.किसी एक निबंध पर प्रकाश डालिए। L2

(i) बेकारी की समस्या (ii) पर्यावरण और प्रदूषण (iii) कंप्यूटर

12. (अ) हिन्दी में अनुवाद कीजिए। L2

(i) India is our country

(ii) We should respect our parents

(iii)How many students are there in the class room?

(iv)Where are you going now?

(v)This is our college.

अथवा

(आ)अंग्रेजी में अनुवाद कीजिए।

(i)हम कॉलेज जाते हैं।

(ii)हिन्दी हमारी राष्ट्रभाषा है।

(iii)रमा नाचती है।

(iv)मानव सेवा ही माधव सेवा है।

(v)कल रविवार था।

13.किसी एक पर टिप्पणी लिखिए। L1

(i)परिपत्र (ii)कार्यालय ज्ञापन (iii)राष्ट्र-भाषा हिन्दी

CO PO MAPING

Course Code : TEL T01A SEMESTER III/IV

COURSE NAME	COURSE OUT COMES NO	COURSE OUT COMES	PO NO.
B.A., B.B.A. B.B.A. B.A. B.COM (TPP) B.COM (A & F) B.COM (GEN) B.COM (C.A.) B.COM (BPM) B.COM (CA) B.C.A. B.Sc. (MPC) B.Sc. (BZC) B.Sc. (M.E.Cs) B.Sc. (M.PCs) B.Sc. (M.S.Cs) B.Sc. (CAME) B.Sc. (CAMS) B.Sc. (MSDS) B.Sc. (CSCS)	CO 1	వర్ణము, పదము, వాక్యములతో భాషాస్వరూపాన్ని పరిస్తూ పూర్ణంగా తెలుసుకొని చక్కని వ్యవహార వైఖరి ప్రదరిస్తారు.	6
	CO 2	సమాజ స్వరూపాన్ని సాహిత్య ప్రక్రియల ద్వారా పూర్తిగా అవగతం చేసుకొని జీవితాన్ని పరిపూర్ణంగా సాధించగలుగుతారు.	4
	CO 3	వివిధ భాషల పై సంప్రదాయము, సంస్కృతుల ప్రభావాన్ని భిన్న సమాజ దృక్పథాన్ని అవగాహన చేసుకుంటారు.	1
	CO 4	సమాజంలో ప్రసార మాధ్యమాల కృషిని గమనిస్తూ చైతన్యవంతమైనస్ఫూర్తిదాయకమైన జీవితాన్ని గడుపుతారు.	3
	CO 5	చక్కని విలువలతో అందర్నీ కలుసుకుంటూ సహజ సిద్ధమైన నైపుణ్యాలని మరింత పెంపొందించగలుగుతూ ఆదర్శవంతులౌతారు.	2

CO – PO MATRIX

Academic Year 2020-21

Course Code : TEL T01A SEMESTER III/IV

CO-PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CO1		L					
CO2			M				
CO3							H
CO4				M			
CO5					H		

SYLLABUS పాఠ్యప్రణాళిక

TELUGU-III / IV **TELT01A** **Credits – 3**

యూనిట్-I వ్యక్తీకరణ నైపుణ్యాలు

1. భాష-ప్రాథమికాంశాలు:- భాష-నిర్వచనం, లక్షణాలు, ఆవశ్యకత, ప్రయోజనాలు.

2. 'వర్ణం-పదం-వాక్యం', వాక్య లక్షణాలు, సామాన్య-సంయుక్త-సంశ్లిష్ట వాక్యాలు.

3. భాషా నిర్మాణంలో 'వర్ణం-పదం-వాక్యం' ప్రాధాన్యత.

యూనిట్-II సృజనాత్మక రచన

4. కవితా రచన:- ఉత్తమ కవిత - లక్షణాలు.

5. కథా రచన:- ఉత్తమ కథ - లక్షణాలు.

6. వ్యాస రచన:- ఉత్తమ వ్యాసం - లక్షణాలు.

యూనిట్-III అనువాద రచన

7. అనువాదం:- నిర్వచనం, అనువాద పద్ధతులు.

8. అనువాద సమస్యలు:- భౌగోళిక, భాషా, సాంస్కృతిక సమస్యలు, పరిష్కారాలు.

9. అభ్యాసము:- ఆంగ్లం నుండి తెలుగునకు ఒక పేరాను అనువదించడం.

యూనిట్-IV మాధ్యమాలకు రచన-I:- ముద్రణ / ప్రింట్ మీడియా

10. ముద్రణా మాధ్యమం / అచ్చు /:- పరిచయం, పరిధి, వికాసం.

11. వివిధ రకాల పత్రికలు - పరిశీలన, పత్రికా భాష, శైలి, వైవిధ్యం.

12. పత్రికా రచన:- వార్తా రచన, సంపాదకీయాలు, సమీక్షలు - అవగాహన.

యూనిట్-V మాధ్యమాలకు రచన-II:- ప్రసార మాధ్యమం / ఎలక్ట్రానిక్ మీడియా

13. ప్రసార మాధ్యమాలు:- నిర్వచనం, రకాలు, విస్తృతి, ప్రయోజనాలు.

14. శ్రవణ మాధ్యమాలు-రచన:- రేడియో రచన, ప్రసంగాలు, నాటికలు, ప్రసార సమాచారం.

15. దృశ్య మాధ్యమాలు-రచన:- వ్యాఖ్యానం / యాంకరింగ్, టెలివిజన్ రచన.

ఆధార గ్రంథాలు / వ్యాసాలు:

1. వ్యక్తీకరణ నైపుణ్యాలు-చూ.

1. ఆధునిక భాషా శాస్త్ర సిద్ధాంతాలు - ఆచార్య పి.ఎస్. సుబ్రహ్మణ్యం. 2. తెలుగు భాషా చరిత్ర - సం.ఆచార్య భద్రిరాజు కృష్ణమూర్తి.
3. తెలుగు వాక్యం - డా.చేకూరి రామారావు.

2. ఉత్తమ కవిత-లక్షణాలు - చూ. 1.నవ్యకవిత్వ లక్షణములు-ఆచార్య సి.నారాయణరెడ్డి. 2.ఆధునికాంధ్ర కవిత్వము-సంప్రదాయములు, ప్రయోగములు: చతుర్థ ప్రకరణము**3. ఉత్తమ కథ - లక్షణాలు - చూ.** 1. కథా శిల్పం - వల్లంపాటి వెంకట సుబ్బయ్య, పుటలు:11-17

4. ఉత్తమ వ్యాసం - లక్షణాలు - చూ. 1. చదువు-సంస్కృతి (వ్యాసం) - కొడవటిగంటి కుటుంబరావు.

5. అనువాద రచన - చూ. 1. అనువాద సమస్యలు - రాచమల్లు రామచంద్రారెడ్డి, పుటలు: 61-75, 85-94
2. అనువాద పద్ధతులు ఆచరణ సమస్యలు-చేకూరి రామారావు 3.'భాషాంతరంగం',పుట:130-146, తెలుగు విశ్వవిద్యాలయం ప్రచురణ.

6. ముద్రణా మాధ్యమం-చూ. 1. మాధ్యమాలకు రచన, పుటలు: 9-12, డా.బి.ఆర్. అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

7. పత్రికా భాష-చూ. 1. మాధ్యమాలకు రచన, పుటలు: 67-74, డా.బి.ఆర్.అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

8. పత్రికా రచన- చూ. 1. తెలుగు-మౌలికాంశాలు, పుటలు: 59-69, డా.బి.ఆర్. అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

9. ప్రసార మాధ్యమాలు- చూ. 1. మాధ్యమాలకు రచన, పుటలు: 3-10, డా.బి.ఆర్. అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

10. రేడియో రచన- చూ. 1. మాధ్యమాలకు రచన, పుటలు: 141-148, డా.బి.ఆర్. అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

11. వ్యాఖ్యానం/యాంకరింగ్ - చూ. 1. మాధ్యమాలకు రచన, పుటలు: 178-181, డా.బి.ఆర్. అంబేద్కర్ విశ్వవిద్యాలయ ప్రచురణ.

12. టెలివిజన్ రచన- చూ. 1. మాధ్యమాలకు రచన, పుటలు:153-160, డా.బి.ఆర్.అంబేద్కర్ విశ్వవిద్యాలయం ప్రచురణ.

13. తెలుగు జర్నలిజం- డా. బూదరాజు రాధాకృష్ణ.

నమూనా ప్రశ్నపత్రం

Course Code: TEL T01A (Telugu-III/IV) **Max. Marks: 75M**
Time: 3 Hrs. **Pass Min. : 30M**

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అ-భాగం

I. క్రింది వానిలో ఐదింటికి సంగ్రహరూప సమాధానాలు వ్రాయండి. ఎనిమిదవ ప్రశ్నకు సమాధానం తప్పనిసరిగా వ్రాయాలి. **5 × 5 = 25మా**

1. భాష - ప్రయోజనాలు. **L2**
2. ఉత్తమ వ్యాసం - లక్షణాలు. **L1**
3. అనువాద సమస్యలు. **L2**
4. సంపాదకీయాలు. **L3**
5. టెలివిజన్ రచన. **L6**
6. ఉత్తమ కథ - లక్షణాలు. **L2**
7. సమీక్షలు - అవగాహన. **L2**
8. క్రింది అంశాన్ని నుడికారం చెడకుండా తెలుగులోకి అనువదించండి. **L2**

   To many, Indian thought, Indian manners, Indian customs, Indian philosophy, Indian literature are repulsive at the first-right, but let them preservere, let then read, let them become familiar with the great principles underlying these ideas, and it is ninety-nine to onethat the charm will come over them, and fascination will be the result. Slow and silent, as the gentle dew that falls in the morning, unseen and unheared yet producing, a most tremendous result, has been the work of the calm, patient, all-suffering spiritual race upon the world of thought.

ఆ-భాగం

II. క్రింది వానిలో ఐదింటికి వ్యాసరూప సమాధానాలు వ్రాయండి: **5 × 10 = 50మా**

9. భాషా నిర్మాణంలో 'వర్ణం-పదం-వాక్యా'ల ప్రాధాన్యతను వివరించండి. **L1**
10. ఉత్తమ కవితా లక్షణాలను విశ్లేషించండి. **L2**
11. అనువాద లక్షణాలను తెల్పి, పద్ధతులను రాయండి. **L3**
12. ముద్రణా మాధ్యమాన్ని వివరించి, దాని పరిధి వికాసాలను తెల్పుము. **L2**
13. యాంకరింగ్ నిర్వహణ, తీరు తెన్నుల్ని తెల్పండి. **L6**
14. పత్రికా భాష - శైలి - వైవిధ్యాన్ని వివరింపుము. **L2**
15. సామాన్య-సంయుక్త-సంశ్లిష్ట వాక్యాలను వివరింపుము. **L1**
16. ప్రసార మాధ్యమాల విస్తృతి, ప్రయోజనాలను సమీక్షించండి. **L2**

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