

Enrolment No. _____



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Pimpri
Chinchwad
University

Pimpri Chinchwad University

Established under Govt. of Maharashtra Act No. V of 2023
Sate, Maval (PMRDA) Dist - Pune, Maharashtra - 412 106.



SCHOOL OF ENGINEERING & TECHNOLOGY

DEPARTMENT OF MCA

ACADEMIC YEAR: - 2024-25(ODD SEM.)

CLASS TEST-II EXAMINATION –NOVEMBER- 2024

Programme : MCA

Batch : 2024-26

Semester: I

Maximum Marks: 20 marks

Date:-11th November 2024

Time: 1 Hr.

Course Name: PYTHON PROGRAMMING

Course Code : PMC101

Course Outcomes (CO):

1. To identify the basics of Python programming
2. To explain the control statements and functions with packages.
3. To comprehend the python programming strings and regular expressions.
4. To apply knowledge of numpy and plotting tools in Python.
5. To analyse data by using file handling operations.

Instructions:

1. Each question carries equal marks.
2. Answer any four questions, following the marks allotted to each.
3. Use your time wisely, providing concise yet complete answers.

Question	CO	BI	Marks
Q.1) Explain the purpose of control flow statements in Python(5-6 lines max), and illustrate with an example of using if-elif-else statements.	2	II	5 Marks
Q.2) Explain the difference between for and while loops in Python (3 points only). Provide examples of when each loop type would be most appropriate to use.	2	II	5 Marks
Q.3) Explain lambda functions, and provide an example using lambda with the map() function to multiply each number in a list by 2.	2	II	5 Marks
Q.4) Apply the concept of modules by creating a Python module in one package, then importing and using it in another module.	2	III	5 Marks
Q.5) Demonstrate string formatting, comparison, and splitting in Python with relevant examples.	3	IV	5 Marks

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SCHOOL OF ENGINEERING & TECHNOLOGY DEPARTMENT OF MCA

ACADEMIC YEAR: - 2024-25(ODD SEM.)

CLASS TEST-II EXAMINATION – NOVEMBER- 2024

Program : Master In Computer Application

Batch: 24-26 Semester: I

Maximum Marks:20 marks

Date:-12th November 2024

Time:1 Hr.

Course Name: Data Structures And Algorithm

Course Code : PMC103

Course Outcomes (CO):

- To identify the concepts like array, matrix, traversing, and indexing using sorting and searching techniques.
- To explain the appropriate data structures like stack, queue as applied to the specified problem definition.
- To apply the concepts of Linked Lists and it's applications on given data
- To implement the knowledge of handle operations like searching, insertion, deletion, and traversing mechanisms on various data structures
- To evaluate the non-linear data structures through Tree.

Question	CO	BL	Marks
Solve any 4 questions. Each question carries equal marks. <i>Link</i>			
Q.1) a. List down the applications of List. b. What are the operations performed in list?	1	3	5 Marks
Q.2) Difference between Stack And Queue	2	3	5 Marks
Q.3) Write a note on priority queue	2	4	5 Marks
Q.4) 1) Convert Infix to Postfix $(A * B + C) / (D \% E - F) + G$ 2) Convert Infix to Prefix $((A + B) / C) + (E \wedge F)$	2	3	5 Marks
Q.5) Write a Program Function for create a single linked list and display it's contents.	1	4	5 Marks

9
1
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DEPARTMENT OF MCA

ACADEMIC YEAR: - 2024-25(ODD SEM.)

CLASS TEST-II EXAMINATION - NOVEMBER - 2024

Program: MCA

Maximum Marks: 20 marks

Batch: 2024-26

Semester: 1

Date: -14th November 2024

Time: 1 Hr.

Course Name: Probability And Combinatory

Course Code : PMC106/BSC

Course Outcomes (CO):

1. To compare head graph theory and several concepts related to it. It enables the use of the concept of tree to find solution of several problems related to computer applications.
2. To identify of set theory and partially ordered sets to expand mathematical maturity.
3. To apply the rule for appropriate principles for counting techniques to understand partials examples and interpret the associated operations and terminologies in context.
4. To formulate problems precisely, solve the problems.
5. To develop students understanding of formal proof technique and explain the reasoning clearly by using the probabilities and statistics method

Instructions:

1. Answer any 4 out of the 5 questions provided.
2. Each question carries equal marks.
3. Where applicable, provide examples so support your answers.

Question	CO	BL	Marks
Solve any 4 questions. Each question carries equal marks.			
Q1. Solve the following: 1) Find the value of Permutation: 1. 6P_4 2. 7P_3 3. 9P_6 4. 6P_3 5. 8P_4	3	3	5 Marks
2) Find the value of Combinations: 1. ${}^{30}C_2$ 2. 6C_2 3. 9C_3 4. ${}^{14}C_4$ 5. ${}^{24}C_6$			
Q.2) Solve the following permutation: 1. 2. In how many different ways can the letters of the word THOOUUGGGHTTSS be arranged so that the vowels always come together? 2. Find the number of permutations of the letters of the word ALLAHHABBADDD. 3. In how many of the distinct permutations of the letters in MISSISSIPPI do the four Is not come together? 4. How many different arrangements of letters of the word MATHEMATICCS are possible? 5. In how many ways the letter of the word ACCCOOUUNNTTAANTSS can be arranged?	3	3	5 Marks

Q.3) 1. Calculate the following Combination:

(3 Marks)

a. ${}^n C_r$, when $n=24, r=3$

b. ${}^n C_r$, when $n=35, r=5$

c. Father asks his son to choose 4 items from the table. If the table has 18 items to choose, how many different answers could the son give?

d. A student has to answer 7 questions out of 12 in an examination, how many choice has he

3

4

5
Marks

2. Calculate the following Permutation:

(2 Marks)

1. ${}^n P_r$, when $n=16, r=4$

2. ${}^n P_r$, when $n = 12, r = 3$

3. Find the number of permutations and combinations if $n = 12$ and $r = 2$.

Q.4) Define Events and any five types of events given below:

1. Simple events
2. Compound events
3. Equally likely events
4. Exhaustive events
5. Sure events
6. Mutually exclusive or disjoint events
7. Independent or mutually independent events
8. Complement of an events

4

1

5
Marks

Q.5) Solve the following:

(3 Marks)

1. Three coins are tossed what is the probability of getting

- a. all heads
- b. Only 2 heads or 2 tell
- c. At least 2 tell 1 head
- d. All tell

2. Define Random experiment
3. Define Sample Space

4

3

5
Marks

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ACADEMIC YEAR: - 2024-25(ODD SEM.)

Class Test-II Examination – NOVEMBER- 2024

Program : MCA

Batch :2024-26

Semester:1

Maximum Marks: 20 marks

Date:-15th November 2024

Time: 1 Hr.

Course Name: Organizational Behavior

Course Code : PMC108

Course Outcomes (CO):

1. To identify different levels of analysis in organizational behavior.
2. To apply the different factors that influence the organizational climate and cultures.
3. To understand the use of different concepts of organizational behavior to solve problems in organizations.
4. To analyze the different factors that contribute to organizational effectiveness.
5. To create a new organizational culture that is more supportive of employee engagement to evaluate the effectiveness of different organizational behavior interventions.

Instructions:

Solve any 4 questions.

Each question carries equal marks.

Question	CO	BL	Marks
Q.1) Define the term Heuristic. Briefly explain any 4 types of heuristics with suitable examples.	CO2	I & II	5 Marks
Q.2) Define Attribution Theory. Briefly explain any 4 components of attribution theory with examples.	CO2	I & II	5 Marks
Q.3) Define attitude. Briefly explain the ABC Model of Attitude with suitable examples.	CO3	I & II	5 Marks
Q.4) Define Cognitive Dissonance. Explain the Cognitive Dissonance Theory with suitable examples.	CO3	I & II	5 Marks
Q.5) Briefly explain the theory of Classical conditioning and Operant conditioning with suitable examples	CO2	II	5 Marks
Q.6) Distinguish between Intrinsic and extrinsic motivation. Briefly explain any 4 theories of motivation	CO4	II & IV	5 Marks

END

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ACADEMIC YEAR: - 2024-25(ODD SEM.)

Class Test-II Examination – November - 2024

Program: MCA

Batch: 2024-25

Semester: I

Maximum Marks: 20 marks

Date:-13th November 2024

Time: 1 Hr.

Course Name: Object Oriented Software Engineering

Course Code: PMC105B

Course Outcomes (CO):

1. To identify differences between the structured paradigm and the object-oriented paradigm in software development
2. To Explain the differences between the structured paradigm and the object-oriented paradigm in software development
3. To Analyze knowledge of concepts, principles, and state-of-the-art methods in software architectures and their relationship to other areas of software engineering, specifically requirements, analysis and design, and implementation
4. To Analyze different testing methods with suitable case studies.
5. To be able to design, manage, and implement a computer-based software system using the oops software engineering approach in a group setting

Instructions:1) Draw the diagram wherever necessary

2) Solve any two from Q.1. To Q.3.

3) Solve anyone from Q.4. To Q.5.

Question	CO	BL	Marks
Q.1) Differentiate between functional and non-functional requirements.	1	1	5 Marks
Q.2) Give IEEE SRS format	2	2	5 Marks
Q.3) List the good characteristics of SRS	3	3	5 Marks
Q.4) Write an SRS document for the Online Shopping System.	3	4	10 Marks
Q.5) Write an SRS document for the Bank ATM System.	3	4	10 Marks

*****Best of Luck*****