QP CODE: D1BCS2401

Name: .....
Reg.No.: .....

FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2024

MAJOR

BCA1CJ101 FUNDAMENTALS OF COMPUTERS AND COMPUTATIONAL THINKING

Time : 2 Hrs **Maximum Marks : 70**

BL - Bloom's Taxonomy Level (1 to 6) CO - Course Outcome

Section A

Ceiling Marks : 24

Answer all questions. Each carries 3 marks.

No.	Question	M	BL	CO
1.	Explain the concept of the stored-program computer and its significance.	3	2	CO1
2.	Outline the key features of Charles Babbage's Difference Engine and Analytical Engine.	3	2	CO1
3.	What are the advantages and disadvantages of single-core processors?	3	2	CO1
4.	Explain the features of SMPS.	3	3	CO3
5.	What is cache memory?	3	3	CO3
6.	Classify the operating system based on the number of users.	3	3	CO4
7.	Explain the concept of Hardware Software Compatibility	3	3	CO4
8.	What is dual booting?	3	3	CO4
9.	Develop an algorithm to add two numbers	3	6	CO6
10.	Assess the importance of inductive vs. deductive reasoning in the development of algorithms	3	5	CO6

Section B

Ceiling Marks : 36

Answer all questions. Each question carries 6 marks.

No.	Question	M	BL	CO
11.	Using a neat diagram, describe the components of a CPU.	6	2	CO1
12.	What is a diode? Explain its functionalities and applications	6	2	CO2
13.	Compare and contrast different types of processors.	6	2	CO2
14.	Explain about the peripheral port. List various peripheral ports and its functions	6	3	CO3
15.	What is an open-source operating system? Discuss its advantages and disadvantages	6	3	CO4
16.	Evaluate the effectiveness of different problem-solving strategies for various types of problems. Justify your assessment with specific examples.	6	5	CO5
17.	Design a new curriculum for computer science education that emphasizes computational thinking and problem-solving skills. Justify your design choices.	6	6	CO5
18.	Design a flowchart to solve a real-world problem(eg., sorting students by grade) and explain the symbols used.	6	6	CO6

Section C

Answer any 1 question. Each carries 10 marks. (1x10=10 marks)

No.	Question	M	BL	CO
19.	Elaborate on the contributions of any two pioneers to the field of computing	10	2	CO1
20.	Explain OS Installation process. Elaborate the procedure for installing OS on a computer	10	3	CO4

***