A1020

Name..........................

Register No................

NAIPUNNYA INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY (AUTONOMOUS)

FIRST SEMESTER (FYUG) DEGREE EXAMINATION NOVEMBER 2025

COMPUTER SCIENCE

CSC1CJ101 - FUNDAMENTALS OF COMPUTERS AND COMPUTATIONAL THINKING

Time: Two Hours | Maximum:70 marks

Section A

Answer all questions.
Each question carries 3 marks. Ceiling 24 marks

1. Name any three programming interfaces. CO1
2. Define cache memory. CO5
3. Write a note Quantum gates. CO1
4. Comment on two fields where computer science has a major impact. CO4
5. Differentiate inductive and deductive reasoning. CO3
6. Define parallel processing. CO1
7. Briefly describe any two types of storage devices. CO4
8. State the disadvantages of multi core processors. CO1
9. Define hardware software compatibility. CO2
10. Write an algorithm to check the given number is odd or even. CO3

Section B

Answer all questions.
Each question carries 6 marks. Ceiling 36 marks

11. Explain the symbols used in flow chart. CO3
12. Describe the role of resistors, capacitors, and inductors in an electrical circuit. CO5
13. Briefly describe the function of CPU, RAM, and Expansion slots (PCIe) on the motherboard. CO4
14. Create a flowchart to find the largest of three numbers. CO2
15. Write a short note on booting. CO2
16. Explain the steps involved in a systematic problem-solving approach. CO2
17. Summarize Von Neumann architecture. CO1
18. Convert the following to BCD, XS-3 and Gray code: i) 6 ii) 25 iii) 97 CO1

Turn Over

Section C

Answer any one question

The question carries 10 marks.

19. Describe the different computer memory types — RAM (DRAM, SRAM, DDR SDRAM), ROM, and Cache memory — with their advantages and limitations. CO5

20. Explain the four key components of computational thinking. CO3

****