(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEAR 2024-2027 ONLY)   REG.NO. :

24UIT102

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOV 2024

B.Sc IT   **MAXIMUM MARKS: 75**

SEMESTER: I   **TIME : 3 HOURS**

PART - III
24UIT102– COMPUTER SYSTEM ARCHITECTURE

SECTION – A   **(10 X 1 = 10 MARKS)**

ANSWER THE FOLLOWING QUESTIONS.(K1)

1. Which of the following numbers are is binary in nature?

    a) 1,2   b) 1,1   c) 0,3   d) 0,1

2. The length of a register is called _____

    a) word limit   b) word size   c) register limit   d) register size

3. What does CPU stand for?

    a) Computer Performance Unit   b) Central Personal Unit

    c) Central Processing Unit   d) Central Power Unit

4. Which of the following is a image scanner?

    a) Flat-held   b) Hand-led   c) Flat-bed   d) Compact

5.   What is the permanent memory built in the computer.

    a) RAM   b) floppy   c) CD – ROM   d) ROM

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES   (K2)

6. List out the Logical Gates.

7. What is interrupt?

8. What does LIFO stands for?

9. Define DMA.

10. What is the advantage of Associative Mapping?

ETHICAL PAPER

SECTION – B   **(5 X 5 = 25 MARKS)**

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Write in detail about Full Adder.

(OR)

b) Represent the decimal number 8620 in excess-3 code.

12. a) Write short notes on Instruction codes.

(OR)

b) Describe the memory - reference instructions.

13. a) Explain about memory stack.

(OR)

b) Write down the advantages of RISC Instructions.

14. a) Determine I/O versus Memory Bus.

(OR)

b) Explain Parallel Priority Interrupt.

15. a) Examine the RAM and ROM chips.

(OR)

b) Write note on Direct Mapping.

SECTION – C   **(5 X 8 = 40 MARKS)**

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4/K5)

16. a) Give the circuit diagram and truth table of NOR, NAND and XOR gates.

(OR)

b) Discuss in detail about Octal and Hexadecimal number systems.

17. a) Explain about computer instructions.

(OR)

b) Discuss input output configurations.

18. a) Determine General Register Organizations.

(OR)

b) Explain the types of Interrupts.

19. a) Explain in detail about Peripheral Devices.

(OR)

b) Summarize Direct Memory Access.

20. a) Discuss about Auxiliary Memory.

(OR)

b) Explain in detail about Virtual Memory.

ETHICAL PAPER