

**(FOR THE CANDIDATES ADMITTED
DURING THE ACADEMIC YEAR 2021 ONLY)**

21UBC414

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS: MAY-2023

COURSE NAME: B.C.A

MAXIMUM MARKS: 70

SEMESTER: IV

TIME: 3 HOURS

PART - III

COMPUTER SYSTEM ARCHITECTURE

SECTION - A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

1. Which of the architecture is power efficient?
a) RISC b) ISA c) IANA d) CISC
2. Which of the following is not a type of bus in computer architecture?
a) Data bus b) Address bus c) Control bus d) Memory bus
3. What will be the sum of Adding these two binary numbers $(0000\ 0111)_2$ and $(0000\ 0110)_2$?
a) $(0011\ 1101)_2$ b) $(0000\ 1001)_2$ c) $(0000\ 1101)_2$ d) $(0000\ 1111)_2$
4. How many types of modes of I/O data transfer?
a) 2 b) 3 c) 4 d) 5
5. In how many categories memory / storage is classified?
a) 2 b) 3 c) 4 d) 5

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.

(K2)

6. What is an Instruction?
7. Define the term stack.
8. What is the hexadecimal equivalent of a binary number 10101111?
9. What is an I/O organization?
10. Interpret Memory.

SECTION – B

(5 X 4 = 20 MARKS)

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

11. a) Explain the instruction code.
(OR)
b) Describe timing and control.
12. a) Examine stack organization.
(OR)
b) List any three instruction format and Explain.

(CONTD 2)

13. a) Show the addition and subtraction of floating point arithmetic operations.
(OR)

b) Describe the Decimal arithmetic operation with example.

14. a) Describe DMA.
(OR)

b) Discover Handshaking.

15. a) Compare RAM and ROM .
(OR)

b) Describe Auxiliary Memory,

SECTION - C

(4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS

**(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS
(FROM Qn. No: 17 to 21) (K4 (Or) K5)**

16. Categories the Addressing Modes.

17. Summarize Input – Output interrupts.

18. Classify the instruction formats.

19. Develop a division algorithm with example.

20. What is the data transfer? Explain the modes of Transfer.

21. Analysis the concept of associative memory.

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