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Roll No.

BCA-11
Computer Organization
Bachelor of Computer Application
(BCA-11/16/17)
Fourth Semester
Examination, 2019

Time : 3 Hours

[Maximum Marks : 80

Note : This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section–A

(Long Answer Type Questions)

Note : Section A contains Five (05) long-answer-type questions of Fifteen (15) marks each. Learners are required to answer any three (03) questions only. **(3×15=45)**

1. (a) What is the function of cache memory?
(b) Explain the term cache hit and cache miss?

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P.T.O.

(2)

- (c) What do you mean by locality of reference? What are its types?
2. What is virtual memory? Explain the paging.
3. What is Magnetic Disk. Compare Optical memory and magnetic tape.
4. What is pipelining explain the basic principle of parallel processing?
5. (a) What is pipeline hazard? Write the merits and demerits of pipelining. (7)
(b) What is stall? Discuss data hazard giving appropriate example. (8)

Section–B

(Short-Answer-Type Questions)

Note : Section 'B' contains Eight (08) short-answer-type questions of Seven (07) marks each. Learners are required to answer any Five (05) questions only. **(5×7=35)**

1. Design a 2 to 4 bit encoder and decoder.
2. Draw the circuit diagram of magnitude comparators.

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(3)

3. What is multiplexer and de-multiplexer?
4. Design a Flip flop and explain its working.
5. What is register? Write the different types of register are user with symbols.
6. Design a 4bit adder with 1 half adder and three full adder. Also draw the truth table.
7. Design a adder and subtractor circuit explain its working. Hierarchy.
8. Explain the memory Hierarchy.