[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2127)

17094(N)

B. Tech 3rd Semester Examination

Computer Architecture and Organization (CBS)

CS-303

Time : 3 Hours **Max. Marks : 60**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Candidates are required to attempt five questions in all selecting one question from each of the sections A, B, C and D of the question paper and all the subparts of the question in section E.

SECTION - A

1. Define the following:

   (a) Decoders (b) Multiplexers

   (c) Registers (d) Binary counters (4×3=12)

2. Explain Booth's multiplication algorithm. (12)

SECTION - B

3. Explain the various characteristics of RISC architecture and also explain how overlapped windows are used in procedure calls. (12)

4. Explain the various instruction formats for expression evaluation, using the following expression: A*B+C*D (12)

SECTION - C

5. What are the different modes of data transfer? Explain. (12)

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6. What are the different types of memories available? Explain the features of each of them. (12)

SECTION - D

7. Write short notes on the following:

   (a) Flyn's classification.

   (b) Pipelining.

   (c) Interconnection structures.

   (d) Interprocess Communication. (4×3=12)

8. What are the different performance evaluation systems? Explain. (12)

SECTION - E

9. Attempt all questions

   (a) What is a high impedance state?

   (b) Define Micro-programmed control.

   (c) Define micro operations.

   (d) Define instruction cycle.

   (e) What is the difference between memory mapped I/O and Isolated I/O?

   (f) What is the purpose of program counter?

   (g) What are the overlapped windows?

   (h) What do you mean by micro-programmed control?

   (i) Distinguish between RISC and CISC.

   (j) What do you mean by priority interrupt?

   (k) What do you mean by associative memory?

   (l) What are transaction processing bench marks? (1×12=12)

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