Roll No. ....
Total No. of Questions : 09]   [Total No. of Pages : 02

B. Tech. (Sem. - 3rd)
COMPUTER ARCHITECTURE
SUBJECT CODE : CS - 201
Paper ID : [A0451]

[Note : Please fill subject code and paper ID on OMR]

Time : 03 Hours   Maximum Marks : 60

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

Q1)   (10 × 2 = 20)

a) What is the necessity of connecting variety of memory devices to a computer?

b) Explain the role of a compiler.

c) What a main memory of a computer consists of?

d) If A = 101.101 and B = 110.100 both in binary evaluate B - A by 2's complement method?

e) Where ASCII code is used in computers?

f) Discuss the role of I/O processor.

g) What do you mean by I/O channels?

h) Mention the limitations of 8085.

i) Role of microprogrammed control over hardwired control.

j) What do you understand by transaction processing benchmarks.

J-802   *P.T.O.*

Section - B

(4 × 5 = 20)

Q2) List the various memories in order of their features and discuss their comparison.

Q3) Discuss RISC Vs CISC.

Q4) With the help of circuits discuss look ahead carry generator. Show how it makes faster additions.

Q5) Write a note on 8251.

Q6) (a) What do you mean by parallel and distributed computers? Explain.

(b) Discuss cost/benefit concept of layers in architecture design.

Section - C

(2 × 10 = 20)

Q7) Discuss the various I/O data transfer techniques alongwith their merits and demerits.

Q8) Discuss :

(a) Virtual memory.

(b) Booth's algorithm for binary multiplication.

Q9) Write notes on any two of the following :

(a) 8255 chip.

(b) MIMD machines.

(c) Cache memory.

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