Paper ID [CS201]

(Please fill this Paper ID in O.M.R Sheet)

B.Tech. (Semester - 3rd)

COMPUTER ARCHITECTURE (CS - 201)

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 x 2 = 20)

a) Draw top leveled view of computer components.

b) Write typical physical realization of bus architecture.

c) Differentiate among direct mapping and associate mapping.

d) Define the terms : - Seek time, Rotational Delay, Access time.

e) Differentiate between RISC & CISC.

f) Differentiate between arithmetic shift and logical shift.

g) Write characteristics of I/O Channels.

h) Briefly write about 8255 chip.

i) Compare SPMD and MIMD machine.

j) Write major requirement for I/O module.

Section - B

(4 x 5 = 20)

Q2) Write functional view of computer which are the possible computer operational.

Q3) Write and explain all the classes of interrupts.

Q4) Which is the elements considered in Bus Design.

Q5) Write instructions (8085) to : Load 00H in the accumulator; Decrement the accumulator; Display the answer.

Q6) What is the difference between memories mapped I/O and Isolated I/O?

Section - C

(2 x 10 = 20)

Q7) (a) When a device interrupt occurs, how does the processor determine which device issued the interrupt.

(b) When a DMA module takes control of a bus and while it retain control of the bus, what does the processor do.

Q8) (a) Provide it typical list of the input and outputs of control unit.

(b) What is the difference between a hardwired implementation and a micro programmed implementation of a control unit?

Q9) (a) Explain instruction set of SPARC with Descriptions.

(b) Write and explain types of Parallel processor systems?

++++