Please check that this question paper contains 9 questions and 2 printed pages within first ten minutes.

EVENING

[Total No. of Questions: 09]
Uni. Roll No. .....

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[Total No. of Pages: 02]

Program: B.Tech. (Batch 2018 onward)
Semester: 4th
Name of Subject: Computer Architecture and Microprocessors
Subject Code: PCIT-108
Paper ID: 16237

Time Allowed: 03 Hours **Max. Marks: 60**

NOTE:

1) Parts A and B are compulsory
2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

Q1.

a) Differentiate between register and memory.
b) What do you mean by cache coherence?
c) What do you understand by programmed I/O?
d) What is Interrupt?
e) How RISC is different from CISC?
f) How auxiliary memory is different from associative memory?

Part – B

[Marks: 04 each]

Q2. Discuss the different characteristics of multiprocessors.

Q3. Elaborate the function of timing and control unit in a basic computer.

Q4. Briefly discuss the steps followed in designing a CPU.

Q5. How pipelining improves performance of a microprocessor?

Q6. What is the need of microprocessor? How microprocessor is different from microcontroller?

Q7. Evaluate the different phases of instruction cycle.

Part – C EVENING **[Marks: 12 each]**

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Q8. Question Write a short note on

a) Embedded System

b) Virtual Memory

OR

Explain the architecture of 8051 with the help of labelled diagram.

Q9. Write a program in assembly language to find larger of two 8 bit numbers stored at different memory locations.

OR

What is the difference between a direct and an indirect address instruction? How many references to memory are needed for each type of instruction to bring an operand into a processor register?

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