D 50632

(Pages : 2)

Name.....................................

Reg. No................................

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(CUCBCSS—UG)

Computer Science

BCS 5B 08—COMPUTER ORGANIZATION AND ARCHITECTURE

Time : Three Hours

Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 mark.

1. What are registers ?

2. What are the major parts of CPU ?

3. What is meant by pipelining ?

4. What do you mean by addressing mode ?

5. What is micro program ?

6. What are interrupts ?

7. What is a cache memory ?

8. What do you mean by physical address ?

9. What are instruction codes ?

10. What is DMA ?

(10 × 1 = 10 marks)

Part B (Short Answer)

Answer **all** *questions.*
Each question carries 2 marks.

11. Define the terms Computer Organization and architecture.

12. What is the purpose of a program counter ? Explain with an example.

13. What is parallel processing ? Explain.

14. What is asynchronous data transfer ?

15. Compare between CISC and RISC.

(5 × 2 = 10 marks)

Turn over

Part C (Short Essays)

Answer any **five** *questions.*
Each question carries 4 marks.

16. Explain the basic operational concepts of a computer.

17. How are instructions executed ? Explain.

18. Explain the floating point representation of a number.

19. Explain the organization of RAM.

20. Explain the concept of virtual memory.

21. Write notes on micro programmed control.

22. Distinguish between programmed I/O and interrupt initiated I/O.

23. Explain the various instruction formats.

(5 × 4 = 20 marks)

Part D (Essays)

Answer any **five** *questions.*
Each question carries 8 marks.

24. Explain in detail the technique behind DMA.

25. Discuss about general register organization.

26. Explain the various types of addressing modes with examples.

27. How are instructions classified ? Explain.

28. Discuss about the design of instruction pipelining.

29. What are the various mapping techniques used in cache memory ? Explain any *two*.

30. What are the different parallel processing architectures ? Explain.

31. Write short notes on :

    (a) Auxiliary memory.

    (b) I/O interface.

    (c) Priority interrupts.

(5 × 8 = 40 marks)