FOURTH SEMESTER EXAMINATION 2021-22

Class - B.C.A.

Subject - Computer Organisation & Architecture

Time : 2.30 Hrs.   **Max. Marks : 80**
Total No. of Printed Page : 05   **Mini. Marks : 28**

_____

Note: Question paper is divided into three sections. Attempt question of all three section as per direction. Distribution of Marks is given in each section.

_____

Section - 'A'

Attempt any two questions from each unit.

Very short answer question (word limit 30 words.)   **10x2=20**

UNIT - I

1. Explain Pipelines processor.

2. Explain Arithmetic Pipeline design.

3. Explain Dynamic instruction scheduling.

UNIT - II

4. Describe the Bus Specifications.

5. Explain Cache Coherence.

6. What is memory hierarchy ?

_____

UNIT - III

7. Write the classification of SIMD and MIMD.

8. Explain program partitioning & scheduling.

9. Write about classification of Machines.

UNIT - IV

10. Expain SIMD parallel algorithms.

11. Describe Vector instruction type.

12. Define symbolic processor.

UNIT - V

13. Explain Dynamic inter connection network.

14. Explain Network routing.

15. Write properties of Network.

Section - 'B'

Attempt all questions.

Short answer question (word limit 60 words.)   **5x6=30**

UNIT - I

16   Explain VLIW Architecture.

OR

Describe Non-linear pipeline processor.

UNIT - II

17.   Discuss high bandwidth I/O and Disk I/O.

OR

What is cache memory and Advantages ?

UNIT - III

18.   Discuss the control flow and Data Control.

OR

What do you mean by condition of parallelism ?

UNIT - IV

19.   Explain SIMD Architecture.

OR

Discuss about SIMD computer and performance

UNIT - V

20.   Brief explain of static interconnection network ?

OR

Describe Multi stage & combining networks.

Section - 'C'

Attempt any two questions.

Long answer question (word limit 120 words.)   **2x15=30**

UNIT - I

21.   Brief discussion of linear non linear pipeline processor.

UNIT - II

22.   Write difference between main memory and cache memory.

UNIT - III

23.   Write short notes on following :

(i)   SISD

(ii)   Program Parallelism

UNIT - IV

24.   What is Vector and explain about vector and symbolic process ?

UNIT - V

25.   Describe the static and dynamic interconnection networks.

--00--