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**First Semester B.Sc./B.C.A. Degree Examination, August 2021**

**Career Related First Degree Programme Under CBCSS**

**Computer Science/Computer Applications/Physics with Computer Applications**

**Foundation/Vocational Course**

**CS 1121/CP 1121/PC 1171 : COMPUTER FUNDAMENTALS AND ORGANIZATION**

**(2020 Admission Regular)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

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

1. What is CMOS?
2. What is port?
3. What is ROM?
4. What is virtual memory?
5. What is USB?
6. What is instruction register?
7. What is OP CODE?

P.T.O.



8. What is ISR?
9. What is HLDA?
10. What is a bus?

(10 × 1 = 10 Marks)

### SECTION – B

Answer **any eight** questions. **Each** question carries **2** marks.

- ✓ 11. Write short notes on ASCII.
- ✓ 12. What is BIOS?
- ✓ 13. What is the use of expansion cards?
- ✓ 14. What is RAM? Explain its types.
15. What are the operations in cache memory?
- ✓ 16. Write short notes on memory representation.
17. Explain instruction format with an example.
- ✓ 18. What are the data transfer instructions?
19. What is parallel processing?
20. Write short notes on interrupt priority.
- ✓ 21. What is hit ratio?
22. What are the types of optical disks?
- ✓ 23. Write short notes on ribbon cables.
- ✓ 24. Why we need an external hard disk?
25. What are the advantages of hardwired control unit?
26. Write short notes on programmed I/O.

(8 × 2 = 16 Marks)



### SECTION – C

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

- ✓ 27. Explain the characteristics of computer.
- ✓ 28. Explain the following :
  - (a) SMPS
  - (b) Motherboard.
- ✓ 29. Discuss Von Neumann model briefly..
- ✓ 30. What is memory hierarchy? Explain its characteristics.
- ✓ 31. Write notes on CPU registers.
- 32. Explain micro programmed control unit.
- 33. Explain fetch cycle with an example.
- 34. Explain types of interrupts.
- 35. Explain asynchronous data transfer.
- 36. What is accumulator? Explain its characteristics.
- 37. With a figure, explain interrupt cycle.
- ✓ 38. What are the advantages of magnetic disk?

**(6 × 4 = 24 Marks)**

### SECTION – D

Answer **any two** questions. **Each** question carries **15** marks.

- 39. Explain various input and output devices in detail.
- 40. Discuss types of secondary storage devices and its characteristics.

41. Briefly explain CISC and RISC architectures.
42. Explain working of DMA controller and transfer modes in detail.
- ✓ 43. Explain the following :
  - (a) Primary memory
  - (b) Instruction format and cycles.
44. Explain any four hardware located inside the computer.

**(2 × 15 = 30 Marks)**

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