

**S-738**

**Total Pages : 3**

**Roll No. -----**

**BCA-11**

**Computer Organization**

**Bachelor of Computer Application (BCA)**

**4<sup>th</sup> Semester, Examination 2022(Dec.)**

**Time: 2 Hours**

**Max. Marks: 70**

Note : This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

**Section – A**

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

[2 x 19 = 38]

P.T.O.

- Q.1. Explain instruction set Architecture? Give examples.
- Q.2. Draw and explain typical hardware control unit.
- Q.3. What do you mean by cache coherence? Mention the condition which cache coherence occurs. Explain how cache coherence problem can be resolved.
- Q.4. With a neat block diagram, show how the basic computer registers are connected to the common bus. Explain the working of the 16-bit common bus.
- Q.5. What do you mean by virtual memory? Discuss how paging helps in implementing virtual memory.

## **Section – B**

### **(Short-answer-type questions)**

Note: Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

[4 x 8 = 32]

- Q.1. Define set associative cache.
- Q.2. Draw the block diagram of a DMA controller explain its functioning.
- Q.3. Explain instruction pipelining.
- Q.4. Compare synchronous counters with asynchronous counters.
- Q.5. What is the function of a Multiprocessor system and list out the various characteristics of Multiprocessor?
- Q.6. Draw the instruction word format and indicate the number of bits in each part.
- Q.7. What is the difference between microprocessor and micro program? Is it possible to design a microprocessor without a micro program? Are all micro programmed computers also microprocessor?
- Q.8. Write a short notes on multiplexer.

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