



**K15U 0324**

**Reg. No. :** .....

**Name :** .....

**III Semester B.C.A. Degree (CCSS-2014 Admn. – Regular)**

**Examination, November 2015**

**CORE COURSE**

**3B06BCA : Computer Organization**

**Time: 3 Hours**

**Max. Marks : 40**

**SECTION – A**

**1. One word answer :**

**(8×0.5=4)**

- a) The situation when two instructions require the use of a given hardware resource at the same time is called \_\_\_\_\_
- b) \_\_\_\_\_ provides control signals in accordance with some timings which in turn controls the execution process.
- c) \_\_\_\_\_ are fast stand-alone storage locations that hold data temporarily.
- d) \_\_\_\_\_ hold the instructions that is currently being executed.
- e) \_\_\_\_\_ points to the next instruction that is to be fetched from memory.
- f) \_\_\_\_\_ is a request from I/O device for service by processor.
- g) The CPU and memory are normally connected by three groups of connections, each called \_\_\_\_\_
- h) If the word is 8 bits, it is referred to as a \_\_\_\_\_

**SECTION – B**

**Write short notes on any seven of the following questions :**

**(7×2=14)**

- 2. What is memory access time ?**
- 3. What is arithmetic overflow ?**
- 4. Explain straight-line sequencing of instruction execution.**

**P.T.O.**



5. Explain Three-state bus buffers.
6. Explain different instruction code formats.
7. What is interrupt vector ?
8. What is control memory ?
9. What is programmed I/O ?
10. What is hit ratio ?
11. What is an effective address ?

#### SECTION – C

Answer **any four** of the following questions :

(4×3=12)

12. Explain instruction cycle.
13. Distinguish between memory mapped I/O and I/O mapped I/O.
14. Explain vector processing.
15. What is locality of reference ?
16. Distinguish between multiprocessor and multi computers.
17. Explain sign and magnitude number representation with an example.

#### SECTION – D

Write an essay on **any two** of the following questions :

(2×5=10)

18. With the help of a block diagram functional units of a digital computer.
  19. Explain Microprogrammed Control Unit.
  20. Explain Flynn's classification of parallel processing.
  21. Give an account of Virtual Memory.
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