

G. H. POY RAITURCAR
LIBRARY
COMMERCE & ECONOMICS

Goa Vidyaprasarak Mandal's
Gopal Govind Poy Raiturcar College of Commerce and Economics
Ponda-Goa.

B.C.A. (Semester - I) Examination, October 2018

COMPUTER ORGANIZATION AND ARCHITECTURE

Duration : 2 hours

Marks : 50

Instructions : A.) All the questions are compulsory.
B.) Draw neat diagrams with pencil wherever required.

- I. 1. State whether the following statements are True or False. (1mk x 5 = 5 mks)
- a) The non maskable interrupts are the interrupts which cannot be ignored.
 - b) CISC stands for Complex Instruction Set Computer.
 - c) Loop Buffer is very good for small loops or jumps.
 - d) An act of interrupting is not referred to as an Interrupt request.
 - e) In Indirect Cycle, Indirect Addressing does not require more memory access.
2. Answer the following. (1mk x 5 = 5 mks)
- a) What are the types of Operand ?
 - b) What is DMA ?
 - c) What is Relative Addressing ?
 - d) What is ORG 100h in Assembly Language ?
 - e) What is Assembler ?
- II. 1. Explain the structure of Dynamic RAM. (2 mks)
2. Explain the 8086 Instruction Sets with the appropriate examples. (3 mks)
3. Explain the Typical Cache Organization with the diagram. (5 mks)

- III. 1. Perform the following operations. (1 mk x 2 = 2 mks)
- $(-4) + (+4)$
 - $(+5) + (+2)$
2. Perform the following conversions. (1.5 mk x 2 = 3 mks)
- $(74)_{10} = (X)_2$
 - $(11011)_2 = (X)_{10}$
3. Explain the basic Computer operations and draw the block diagram of Computer. (5 mks)
- IV. 1. Explain the Fetch Cycle and the Execute Cycle. (2 mks)
2. Explain the Horizontal micro-programming. (3 mks)
3. Explain the model of Control Unit with the diagram. (5 mks)
- V. 1. Explain the Read and Write Mechanisms of Magnetic Disk. (2 mks)
2. Explain the FireWire Protocol Stack. (3 mks)
3. Explain the I/O Module with the block diagram. (5 mks)
