

# **B.C.A. (Part-I) EXAMINATION – 2018**

(Faculty of Science)  
(Three-Year Scheme of 10+2+3 Pattern)

## **COMPUTER ORGANIZATION – 135**

Time Allowed: Three Hours

Maximum Marks: 100

Question paper consists of three parts.  
*All THREE parts are compulsory*

**Part - I** (very short answer) consists 10 questions of two marks each with two questions from each unit. Maximum limit for each question is up to 40 words.

**Part - II** (short answer) consists 5 questions of four marks each with one question from each unit. Maximum limit for each question is up to 80 words.

**Part - III** (Long answer) consists 5 questions of twelve marks each with one question from each unit with internal choice.

*Write your roll number on question paper before start writing answers of questions*

### **Part – I**

**Attempt all questions. Each question carries 2 marks.**

**10 x 2=20**

1. (i) What do you mean by Von Neumann Machine Architecture?
- (ii) What is the utility of system clock in computer architecture?
- (iii) What is Instruction Cycle?
- (iv) What do you mean by memory hierarchy?
- (v) What do you mean by I/O subsystem organization?
- (vi) What are the System Bus?
- (vii) What are static pointer and accumulator?
- (viii) What is EPROM and EEPROM?
- (ix) What is the Microprocessor and Microcontroller?
- (x) Give the introduction of 8085.

## Part – II

Attempt all questions. Each question carries 4 marks.

2. What about the Mother Board and Network Adaptor Card? 4
3. Discuss about the Control Unit and its function. 4
4. Discuss about shift micro operation with suitable diagram. 4
5. What do you mean by Static and Dynamic RAM? 4
6. Draw the block diagram of common bus of 4 registers of 4 bit each. 4

## Part – III

7. Discuss following points about the storage devices: 12
  - (i) Random V/s Sequential Access.
  - (ii) Track and Sector
  - (iii) Optical Disc.

**OR**

- Discuss Following: 12
- (i) Magnetic Tape
  - (ii) TV Tuner Card
  - (iii) Input Devices

8. Discuss about the Control Unit and its functionality in details. 12

**OR**

- Give the classification of computer system and discuss the merits and demerits. 12

- 9 Explain the Instruction Cycle with the fetch and decode phase. 12
- OR**
- Discuss about the Register Transfer Language and draw the block diagram of the hardware that implement the following statement. 12
- P: R2-R1
- 10 Explain the Cache Memory and Direct Mapping. 12
- OR**
- Explain Virtual Memory in detail. 12
- 11 Draw the pin diagram of 8085 and discuss each pin in brief 12
- OR**
- Discuss about the RISC and RISC computer with merits and demerits. 12