

# ANNUAL EXAMINATION 2020

**(Only for Regular Students)**

**Centre No.** 135

**Centre Name-** Disha College, Raipur (C.G.)

**Class-**B.Sc.-II

**Subject-**Computer Science

**Paper No-** I

**Paper Name-** Computer Hardware

**Time-** 3 hrs.

**M.M.-50**

Note – Attempt all units. Each question carries equal marks.

## **Question 1 (Unit I)**

- (a) Draw and explain the schematic diagram of CPU.
- (b) What do you understand by Terminal? Explain various types of terminals in brief.

**OR**

- (c) What is Microprocessor? Distinguish among 8088, 80286 and P-1 microprocessor.
- (d) Explain the various features of Server and Laptop computer.

## **Question 2 (Unit II)**

- (a) What is the purpose of providing registers in a CPU? Describe various registers which are usually provided in a microprocessor?
- (b) What do you mean by fetch cycle? Draw and explain the timing diagram for opcode fetch cycle for Intel 8085.

**OR**

- (c) What do you understand by Instruction and Data flow?
- (d) What do you mean by Interrupt and exceptions?

## **Question 3 (Unit III)**

- (a) What is the role of cache memory in computer system? Explain write through and write back Cache memory in brief.
- (b) What is Content Addressable Memory? Draw and explain its block diagram.

**OR**

- (c) What do you understand by Virtual memory?
- (d) What are PCMCIA cards and slots? Discuss their applications.

## **Question 4 (Unit IV)**

- (a) Discuss the construction of mechanical, capacitive and Hall Effect key-switches.
- (b) Discuss asynchronous scheme which are used for data transfer with suitable examples.

**OR**

- (c) What are programmable and nonprogrammable ports?
- (d) What is DMA controller? Describe Intel 8237.

## **Question 5 (Unit V)**

- (a) What do you understand by system software? Explain it in brief.
- (b) Describe any two programming techniques with suitable examples.

**OR**

- (c) What are common and special symbols for flow charts? Discuss the application of flow chart.
- (d) What are the differences between subroutines and macros?

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