



End Term (Even) Semester Examination May-June 2025

Roll no.....

Name of the Program and semester: Diploma CS IV SEM

Name of the Course: Computer Architecture and Maintenance

Course Code: DTCS-401

Time: 3-hour

Maximum Marks: 100

Note:

- (i) All the questions are compulsory.
- (ii) Answer any two sub questions from a, b and c in each main question.
- (iii) Total marks for each question is 20 (twenty).
- (iv) Each sub-question carries 10 marks.

Q1.

(2X10=20 Marks)

- a. What do you understand by term system bus in terms of motherboard? Explain features of different type of system bus. (CO 1)
- b. What do you understand by Chipset basic? Explain it with the help of chipset architecture. (CO 1)
- c. Differentiate between PCI vs PCI express. (CO 1)

Q2.

(2X10=20 Marks)

- a. What is formatting? Also explain low level and high-level formatting? (CO 2)
- b. What is hard disk? Describe the different terms related to hard disk drive track, sector, cylinder, cluster, landing zone. (CO 2)
- c. Differentiate between SATA and PATA. (CO 2)

Q3.

(2X10=20 Marks)

- a. Explain the characteristics of CRT monitor. (CO 3)
- b. What is LCD monitor? Explain with the help of functional block diagram. (CO 3)
- c. Differentiate between:
 - i. TDM and FDM.
 - ii. Active and Passive matrix. (CO 3)

Q4.

(2X10=20 Marks)

- a. What is mechanical mouse? Explain its internal and external components of it. (CO 4)
- b. Write short note on working of: i). OCR. ii). Flatbed Scanner (CO 4)
- c. Discuss dot matrix printer also mention its features, advantage and disadvantages. (CO 4)

Q5.

(2X10=20 Marks)

- a. Explain the working of SMPS with the help of block diagram. (CO 5)
- b. Write short notes on:
 - i. Power blackout ii. Power brownout iii. Power surges and spikes (CO 5)
- c. Explain the different power supply characteristics? (CO 5)