

QP CODE 2123514304

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DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2023

Semester: II 351SE43 PC HARDWARE & TROUBLE SHOOTING

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Explain Memory Chips in computer systems. What are memory chips? **(10 Marks)**
b) Discuss the Memory Hierarchy in computer organization. **(10 Marks)**
2. a) Explore CRT Displays and CRT Controllers. **(10 Marks)**
b) Discuss the Keyboard Interface in the context of peripherals and controllers. **(10 Marks)**
3. a) Examine the Switched-Mode Power Supply (SMPS) in computer systems. **(10 Marks)**
b) Explain the concept of Wait State Logic in motherboard design. **(10 Marks)**
4. a) Discuss the importance of preventive maintenance for computer systems. **(10 Marks)**
b) Explain the importance of pre-installation planning when setting up a computer system. **(10 Marks)**
5. a) Explain the nature of computer faults. Provide examples of common types of computer faults. **(10 Marks)**
b) Discuss troubleshooting related to CMOS (Complementary Metal-Oxide-Semiconductor) setup. **(10 Marks)**
6. a) Explain the concept of Peripheral Devices in the context of computer systems. **(10 Marks)**
b) Explain the overview of the Hard Disk Controller in computer systems. **(10 Marks)**
7. a) Explore the Expansion Bus in motherboard design. **(10 Marks)**
b) Provide an overview of different chipsets used in motherboards, including AMD chipsets, Intel chipsets, VIA chipsets, SIS chipsets, and OPTI chipsets. **(10 Marks)**