DIP–151 **VDHS–1**

VOCATIONAL DIPLOMA IN COMPUTER HARDWARE SERVICING EXAMINATION – DECEMBER, 2019.

PERSONAL COMPUTER ORGANIZATION

Time : 3 hours Maximum marks : 75

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Explain in detail about the different types of mother boards.

2. Describe about SCSI.

3. Describe about the floppy disk drive.

4. Discuss about the Pen drive.

5. Discuss about Use and RS232 C.

6. Mention about the Monitor.

7. Discuss about the Dot matrix printer.

8. Discuss about the Printer Controller.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

Answer FIVE questions, question 9 and 10 Compulsory.

9. Choose the correct answer : (10 × 1 = 10)

(a) ———— are used to overcome the difference in data transfer speeds of various devices.

(i) Speed enhancing circuitory

(ii) Bridge circuits

(iii) Multiple Buses

(iv) Buffer registers

(b) To extend the connectivity of the processor bus we use ————.

(i) PCI bus

(ii) SCSI bus

(iii) Controllers

(iv) Multiple bus

(c) The bus used to connect the monitor to the CPU is ————————.

(i) PCI bus

(ii) SCSI bus

(iii) Memory bus

(iv) Rambus

(d) The ISA standard Buses are used to connect ————————.

(i) RAM and processor

(ii) GPU and processor

(iii) Harddisk and Processor

(iv) CD/DVD drives and Processor

(e) Which memory device is generally made of semiconductors?

(i) RAM

(ii) Hard-disk

(iii) Floppy disk

(iv) Cd disk

(f) The best mode of connection between devices which need to send or receive large amounts of data over a short distance is ————————.

(i) BUS

(ii) Serial port

(iii) Parallel port

(iv) Isochronous port

(g) In the output interface of the parallel port, along with the valid signal ———————— is also sent.

(i) Data

(ii) Idle signal

(iii) Interrupt

(iv) Acknowledge signal

(h) The transmission over the USB is divided into

(i) Frames

(ii) Pages

(iii) Packets

(iv) Tokens

(i) Circuits that can hold their state as long as power is applied is ————————.

(i) Dynamic memory

(ii) Static memory

(iii) Register

(iv) Cache

(j) The reason for the fast operating speeds of the flash drives is

(i) The absence of any movable parts

(ii) The integrated electronic hardware

(iii) The improved bandwidth connection

(iv) All of the mentioned

10. State whether the following are true or false : (10 × 1 = 10)

(a) IBM developed a bus standard for their line of computers 'PC AT' called IB bus.

(b) Direct mapping implies that the number of lines in the cache must be equal to the main memory.

(c) Multiple interrupts cannot be handled by the processor.

(d) The program counter stores the address of the next instruction to be executed.

(e) The fundamental building block of the ENIAC machine was transistors.

(f) The Intelx86 architecture is CISC-based.

(g) Static RAM is a faster and more dense memory than DRAM.

(h) ROMs cannot be used even when only few bits are corrupted.

(i) Hamming code is a typical error correcting mechanism used to repair Hard failures.

(j) Read-mostly memory is a type of random-access memory.

11. Explain in detail about the Disk control and Hard Disk controller.

12. Briefly explain about the Video display Adoptors and Solid sate display.

13. Write in detail about the CRT block diagram and principle of operation of computer.

14. Write about the FDD.

15. Write detail about the Printing Mechanism.

16. Discuss about the signals from PC to Printer and Printer to PC.

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DIP–152 **VDHS–2**

VOCATIONAL DIPLOMA IN COMPUTER HARDWARE SERVICING EXAMINATION – DECEMBER 2019.

First Year

Computer Science

COMPUTER HARDWARE SERVICING

Time : 3 hours Maximum marks : 75

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Mention about the scanner.

2. Write about the Hard Disk Drive.

3. Discuss about SCSI.

4. Describe about the Pen drive.

5. Write detail about the Printing Mechanism.

6. Explain about the keyboard switches.

7. Discuss about the block diagram of motherboard.

8. Discuss about the Printer Controller.

PART B — (5 × 10 = 50 marks)

Answer FIVE questions.

Question 9 and 10 Compulsory.

9. Choose the correct answer: (10 × 1 = 10)

(a) When installing PCI NICS you can check the IRQ availability by looking at

(i) dip switches

(ii) CONFIG.SYS

(iii) jumper settings

(iv) motherboard BIOS

(b) In which mode can two or more applications be stored in memory at the same time?

(i) Segmented Mode

(ii) Unprotected Mode

(iii) Real Mode

(iv) Protected Mode

(c) The software used to drive microprocessor-based systems is called:

(i) assembly language programs

(ii) firmware

(iii) BASIC interpreter instructions

(iv) flowchart instructions

(d) How does a parallel port communicate information to a peripheral device?

(i) one bit at a time

(ii) 8 bytes at a time

(iii) one byte at a time

(iv) 16,555 bytes at a time

(e) A wrist grounding strap contains which of the following:

(i) Surge protector

(ii) Capacitor

(iii) Voltmeter

(iv) Resistor

(f) From where can the boot option be selected?

(i) Advanced BIOS Features

(ii) Advanced Chipset Features

(iii) CPU Soft menu

(iv) Power management Setup

(g) Which chip contains the system BIOS and can hold data permanently, even without electricity?

(i) Flash ROM

(ii) NVRAM

(iii) RAM

(iv) ROM

(h) Which chip can be reprogrammed to update its contents?

(i) system BIOS

(ii) ROM

(iii) RAM

(iv) Flash ROM

(i) Where do modern PCs store CMOS settings?

(i) BIOS

(ii) Flash ROM

(iii) NVRAM

(iv) Southbridge

(j) POST checks all of the following except:

(i) modem

(ii) memory

(iii) CPU

(iv) video

10. State whether the following are true or false: $(10 \times 1 = 10)$

(a) POST beep codes vary from manufacturer to manufacturer.

(b) When you turn ON the computer, it will first run through POST, a series of software-controlled diagnostic test. The POST checks system memory, the motherboard circuitry, the display, the keyboard, the diskette drive, and other I/O devices.

(c) The fundamental purposes of the BIOS are to initialize and test the system hardware components, and to load a boot loader or an operating system from a mass memory device.

(d) USB was designed to standardize the connection of computer peripherals, such as keyboards, pointing devices, digital cameras, printers, portable media players, disk drives and network adapters to personal computers, both to communicate and to supply electric power.

(e) The CPU sometimes called "Processor" actually functions as the"Brain" of the computer. It interprets and execute program commands and processes data stored in memory.

(f) POST beep codes NOT vary from manufacturer to manufacturer.

(g) Power-On Self-Test (POST) is a process performed by firmware or software routines immediately after many digital electronic devices are powered on.

(h) BIOS parameters can be configured by the user through the BIOS/CMOS setup program.

(i) The BIOS software is built into the PC, and is NOT run by a PC when powered on.

(j) Higher temperatures and longer power-off time will shorten cell life of CMOS battery.

11. Write in detail about the monitor and video display adoptors.

12. Discuss about the signals from PC to Printer and Printer to PC.

13. Briefly explain about the Video display Adoptors and Solid state display.

14. Describe about the block diagram of keyboard controller.

15. Write a VB program to create an Inkjet and Laser printer.

16. Explain in detail about the different type of Buses and LPT1.

DIP – 153 **VDHS–3**

VOCATIONAL DIPLOMA IN COMPUTER HARDWARE SERVICING EXAMINATION — DECEMBER, 2019.

First Year

Computer Science

TROUBLESHOOTING AND DATA RECOVERY

Time : 3 hours Maximum marks : 75

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Explain about the Network operating system.

2. Discuss about the File system care.

3. Write about the Hard disk configurations.

4. Describe about the common errors during installation.

5. List the types of virus and explain them.

6. Explain about the Partition table.

7. Discuss about the Recovering the Files and Directories.

8. Explain about the Disk Cloning Software.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

Answer FIVE questions, question 9 and 10 compulsory.

9. Choose the correct answer: (10 × 1 = 10)

(a) External command in DOS are

(i) Copy, edit, sys, format

(ii) Edit, sys, chkdsk

(iii) Chkdsk, prompt, date

(iv) Sys, ver, vol

(b) Which command be used to ask you to confirm that you want to delete the directory?

(i) Deltree

(ii) Deltree/f

(iii) Del *.*/p

(iv) Erase *.*

(c) The deleted file in MS-DOS can be recovered if you use the command mention below immediately, the command is

(i) DO NOT DELETE

(ii) NO DELETE

(iii) UNDELETE

(iv) ONDELETE

(d) FAT stands for

(i) File Accommodation Table

(ii) File Access Tape

(iii) File Allocation Table

(iv) File Activity Table

(e) Format command is used to

(i) Prepare a blank disk

(ii) Create a new blank disk from a used one

(iii) Both of above

(iv) None of above

(f) _____ is a unique tag, usually a number, identifies the file within the file system.

(i) File identifier

(ii) File name

(iii) File type

(iv) None of the mentioned

(g) The main function of the command interpreter is

(i) to get and execute the next user-specified command

(ii) to provide the interface between the API and application program

(iii) to handle the files in operating system

(iv) none of the mentioned

(h) A filename without path information.

(i) File name

(ii) Complete filename

(iii) Directory name

(iv) Relative filename

(i) internal command in Dos are

(i) Cls, rd label

(ii) Dir, ren, sys

(iii) Time, type, dir

(iv) Del, disk copy, label

(j) Which command be used to clear the screen and display the operating system prompt on the first line of the display?

(i) Cd

(ii) Md

(iii) Rename

(iv) cls

10. State Whether the following are True or False : (10 × 1 = 10)

(a) One way to collaborate, and share files, with others is to take advantage of cloud computing.

(b) The Mac OS can read files created by the Windows OS.

(c) Having all files in one large folder or directory makes it much easier to locate files, compared to organizing files into folders or subfolders.

(d) Because different operating systems use different file systems, the same external hard drive cannot be used to make backups for both a Windows and a Mac computer.

(e) The file management system tracks information, or data, about files stored in the computer. This information is known as: file properties

(f) A smaller page size reduces paging I/O throughput

(g) A blocking user-level thread blocks the process

(h) File management functions are built into the hardware features on mobile devices.

(i) Renaming a file and changing the file extension of a Word document created in Microsoft Office Word 2010 from (.docx) to (.ppts) will make it so that the file can also be read by Microsoft Office Powerpoint.

(j) Users have the option in both the Windows and the Mac OS to display, or to hide, file extensions for filenames.

11. Discuss briefly logical drive and volume.

12. Explain about the Hardware requirements and installing Windows XP.

13. Write in detail about the uninstalling Software.

14. Discuss about the Master Boot Record and partition table.

15. Discuss about the Disk cloning using GHOST and solving Disk cloning failures.

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