

DIP-C-169

DCHS-1

**DIPLOMA EXAMINATION –
DECEMBER, 2020.**

Computer Hardware Servicing

PERSONAL COMPUTER ORGANISATION

Time : 3 hours

Maximum marks : 75

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. CISC stands for
 - (a) Complete Instruction Set Computer
 - (b) Complex Instruction Set Computer
 - (c) Complement Instruction Set Computer
 - (d) None of the above

2. Expansion for BIOS IS
 - (a) Beginners I/P O/P System
 - (b) Basic I/P O/P System
 - (c) Bus I/P O/P System
 - (d) Block I/P O/P System

3. Recent intel architectures incorporate with _____ chip set
- (a) 3 (b) 6
(c) 7 (d) 8
4. The DIMM modules have
- (a) 148-pin (b) 168-pin
(c) 186-pin (d) 188-pin
5. Many printers offered condensed text mode of
- (a) 12 CPI (b) 15 CPI
(c) 17 CPI (d) All the above
6. Which of these is not secondary memory?
- (a) Hard disk (b) RAM
(c) Floppy disk (d) CD Rom
7. Floppy disks have a track density of _____ tracks per inch or less
- (a) 133 (b) 135
(c) 136 (d) 138
8. DMA stands for
- (a) Direct Memory Access
(b) Directed Memory Access
(c) Delay Memory Access
(d) None of the above

9. The sectors are grouped together in to continuous chunk called
- (a) Tracks
 - (b) Cylinder
 - (c) Clusters
 - (d) Buffer
10. The size of a regular keycap is approximately
- (a) 0.5 inches
 - (b) 1.0 inches
 - (c) 1.5 inches
 - (d) 2.0 Inches
11. DIN stands for
- (a) Deutsche Industry Norm
 - (b) Deutsche International Norm
 - (c) Deutsche Integrated Norm
 - (d) None of the above
12. To start window
- (a) <windows> + < f >
 - (b) <windows > + < e >
 - (c) <windows > + < s >
 - (d) <windows > + < r >
13. DPMS stands for
- (a) Display process management system
 - (b) Display point management system
 - (c) Display power management system
 - (d) None of the above

14. Full motion video typically
- (a) 10 frames
 - (b) 20 frames
 - (c) 30 frames
 - (d) 40 frames
15. Mouse is a
- (a) I/P Device
 - (b) O/P Device
 - (c) I/P and O/P Device
 - (d) None of these
16. Many printers offered condensed text mode of
- (a) 12 CPI
 - (b) 15 CPI
 - (c) 17 CPI
 - (d) All the above
17. The _____ possible intensities for each of red, blue and green
- (a) 255
 - (b) 256
 - (c) 257
 - (d) 258
18. The traditional laser scanning assembly includes
- (a) Laser
 - (b) Movable mirror
 - (c) Lens
 - (d) All the above
19. If you need to use more than one keyboard with a PC you can use a
- (a) Switch box
 - (b) Multiplexers
 - (c) Cable Extension
 - (d) None of the above

20. GMR heads are comprised of
- (a) 7 Layers
 - (b) 5 Layers
 - (c) 4 Layers
 - (d) 2 Layers

SECTION B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

21. Draw and explain the motherboard.
22. Explain the principle and construction of Floppy disk drive.
23. Explain platters and media.
24. Explain Block Diagram of keyboard.
25. Explain about Alphanumeric Key Layouts.
26. Explain the function of scanner, digitizer.
27. Write the characteristics of CRT.
28. Explain introduction to solid state displays.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

29. Explain in detail about various types of Buses.
 30. Explain principle and construction of Hard Disk Device (HDD).
 31. Explain construction and working principles of Dot metrics printer.
 32. Draw and explain block diagram of switches.
 33. Explain following:
 - (a) Liquid crystal display
 - (b) Multiplexers.
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DECEMBER 2020**

COMPUTER HARDWARE SERVICING

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SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. From what location are the 1st computer instructions available on boot up?
 - (a) ROM BIOS
 - (b) CPU
 - (c) Boot.ini
 - (d) CONFIG.SYS

2. Missing slot covers on a computer can cause.
 - (a) over heat
 - (b) power surges
 - (c) EMI
 - (d) incomplete path for ESD

3. In laser printer technology, what happens during the conditioning stage?
 - (a) The corona wire places a uniform positive charge on the paper
 - (b) A uniform negative charge is placed on the photosensitive drum
 - (c) A uniform negative charge is placed on the toner
 - (d) All of the above

4. ESD would cause the most damage to which component?
 - (a) Power supply (b) Expansion board
 - (c) Monitor (d) Keyboard

5. To view any currently running Terminate Stay Resident (TSR's) programs you could type:
 - (a) Memory (b) MEM
 - (c) SYS/M (d) Memmaker

6. Most PCs give a single beep on bootup to indicate they are ok hardware wise. You boot your PC and don't get a beep. What should you check first?
 - (a) System board (b) RAM
 - (c) Microprocessor (d) SPEAKER

7. Which peripheral port provides the FASTEST throughput to laser printers?
 - (a) RS-232
 - (b) SCSI
 - (c) Parallel
 - (d) Serial

8. The mouse pointer moves erratically, what is the possible cause? The mouse
 - (a) ball is dirty
 - (b) is not connected
 - (c) driver is not installed properly
 - (d) has an incorrect IRQ setting

9. Your customer tells you the print quality of their dot matrix printer is light then dark. Which of the following could cause the problem?
 - (a) Paper slippage
 - (b) Improper ribbon advancement
 - (c) Paper thickness
 - (d) Head position

10. The terms “red book”, “yellow book”, and ‘orange book” refer to:
 - (a) SCSI
 - (b) Ide
 - (c) Floppy drive technology
 - (d) CD-ROM standards

11. What beep codes could indicate a system board or power supply failure?
- (a) steady short beep
 - (b) no beep
 - (c) one long continuous beep tone
 - (d) all of the above
12. In Inkjet technology the droplets of ink are deflected by.
- (a) multi directional nozzles
 - (b) electronically charged plates
 - (c) high pressure plates
 - (d) electro static absorbtion
13. What voltage does a Pentium system use?
- (a) +12 volts (b) + 5 volts
 - (c) + 8 volts (d) +3.3 volts
14. CRT stands for
- (a) Cathode ray tube
 - (b) Cathode real tube
 - (c) Cathode real terminal
 - (d) None of the above

15. The _____ was 30 per second dot matrix printer.
- (a) LA03 (b) LA30
(c) LA33 (d) LA43
16. On the PC side, the printer port is a:
- (a) 25 pin female serial connector
(b) 15 pin female parallel connector
(c) 25 pin male serial connector
(d) 25 pin female parallel Connector
17. During boot-up, the memory test:
- (a) Is a superfluous step that should be ignored
(b) Checks and verifies that contiguous memory is installed
(c) Is an operational error
(d) Displays what memory is installed, but nothing else
18. The speed of the processor is
- (a) KHz (b) MHz
(c) GHz (d) Either (b) or (c)

19. On a dot matrix printer, you should never lubricate which part?
- (a) carriage rails
 - (b) print head pins
 - (c) paper advance bearings
 - (d) carriage bearings
20. Match the device driver HIMEM.SYS to its operation.
- (a) Supports (ANSI) terminal emulation
 - (b) Manages the use of extended memory
 - (c) Uses expanded memory on a 80386 processor
 - (d) Supports code page switching

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

21. Explain ROM BIOS organization and services.
22. Describe navigating and changing CMOS values.
23. Explain about near letter quality.
24. Describe the impact vs non-impact and inside an inkjet printer.
25. Explain advanced chipset features.

26. Explain POST test sequence and error message.
27. Describe System configuration summary.
28. Write detail about External peripheral connection procedure.

SECTION C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

29. Explain in detail about the history of computer.
 30. Discuss in detail about bus architecture system.
 31. Explain about video card failure and I/O conflict.
 32. Explain SMPS and front panel control.
 33. What is a printer server? And how to setup print server in windows 2000/2003?
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**DIPLOMA EXAMINATION —
DECEMBER 2020**

Computer Hardware Servicing

TROUBLE SHOOTING

Time : 3 hours

Maximum marks : 75

SECTION A — (20 × 1 = 20 marks)

Choose the correct answer :

1. To repair windows DLL error, you must run
 - (a) Anti-spyware scan
 - (b) Anti-spyware system
 - (c) dn serror.htm
 - (d) None of the above
2. VxD errors are caused due to
 - (a) Memory conflicts
 - (b) Faulty mother board.
 - (c) Incorrect CMS configuration.
 - (d) All of the above

3. COM stands for
 - (a) Common object model
 - (b) Component object model
 - (c) Complete object model
 - (d) None of the above

4. Windows will load the default logo screen that is inside the file
 - (a) C:\I-O sys (b) C:\IO sys
 - (c) C:\Logo sys (d) None of the above

5. The initial version of FAT is now referred to as
 - (a) FAT 6 (b) FAT 8
 - (c) FAT 10 (d) FAT 12

6. NTFS is stands for
 - (a) New Technology File Server
 - (b) New Technology File System
 - (c) New Technical File Server
 - (d) None of the above

7. For a each cluster of FAT file is
 - (a) 4 KB (b) 6 KB
 - (c) 8 KB (d) 12 KB

8. A typical diskette floppy have _____ sectors per tracks
- (a) 2 (b) 4
(c) 8 (d) 16
9. The disk drive consists of a motor to rotate the disk assembly at high speed of about _____ revolution per minute.
- (a) 1800 (b) 3600
(c) 6400 (d) 12000
10. The common advantage of partitioning method is/are
- (a) Quick
(b) Simple to use
(c) Easy to understand
(d) All of the above
11. The errors are typically flagged as
- (a) CRC
(b) Cyclic Redundancy Error
(c) Either (a) or (b)
(d) None of the above

12. A partition defined in _____ is called primary partition.
- (a) MRB (b) MBR
(c) MPB (d) MBr
13. The minimum hardware requirement for windows XP home edition are :
- (a) Pentium 222 MHz (b) Pentium 233 MHz
(c) Pentium 244 MHz (d) None of the above
14. DRM stands for
- (a) Digital Related Management
(b) Digital Rights Management
(c) Directory Rights Management
(d) None of the above
15. The FAT32 file system does not support drives that are smaller than _____
- (a) 318 MB (b) 412 MB
(c) 512 MB (d) 612 MB
16. Device drivers are loaded by the device or DEVICE HIGH command in
- (a) CONFIG.DLL (b) CONFIG.inf
(c) CONFIG.Sys (d) None of the above

17. Most frequently used ZIP formats
- (a) MSI
 - (b) RAR
 - (c) ZIP
 - (d) All of the above
18. Virtual CD player form Daemon download
- (a) WWW.daemon-tools.com
 - (b) WWW.daemon.com
 - (c) WWW.daemon-tools.cc
 - (d) WWW.daemon.cc
19. Hardware requirement of processor average is
- (a) 1 MB
 - (b) 1 KB
 - (c) 1 GH
 - (d) 1 MH
20. The VGA or higher resolution monitor with
- (a) 24 color
 - (b) 254 color
 - (c) 256 color
 - (d) 258 color

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

21. Explain the overview of operating system.
22. Explain Dos system files and Dos interface.
23. Explain different types of FAT File System.

24. Describe checking the drive for error.
25. Explain about formatting a hard drive.
26. Describe about repairing the Master Boot Record.
27. Explain about searching for drivers in the Internet.
28. Describe the manual removal of installed software.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

29. Explain common windows errors.
30. Explain the supported file systems of different versions of Microsoft windows.
31. Explain Hardware requirements and Hardware compatibility.
32. Explain about the Hard disk configuration and partition.
33. Explain the installing software (MS-office, Anti-virus, Network games).

DIPLOMA EXAMINATION
DECEMBER 2020

COMPUTER HARDWARE SERVICING

DATA RECOVERY

Time : 3 hours

Maximum marks : 75

SECTION A — (20 × 1 = 20 marks)

Answer ALL questions.

1. A computer _____ is a malicious code which self-replicates by copying itself to other programs.
(a) program (b) Virus
(c) application (d) worm

2. Which of the following is a software that, once installed on your computer, tracks your internet browsing habits and sends you popups containing advertisements related to the sites and topics you've visited?
(a) Backdoors (b) Adware
(c) Malware (d) Spyware a

3. _____ monitors the user's online activities like search queries, history pages and downloads, for selling purposes.
- (a) Ad-based spyware
 - (b) System Monitors
 - (c) Spy-trojans
 - (d) Tracking cookies
4. The virus that spread in application software is called as
- (a) Boot virus
 - (b) Macro virus
 - (c) File virus
 - (d) Anti virus
5. Sectors are typically
- (a) 256 kilobytes
 - (b) 512 bytes
 - (c) 512 kilobytes
 - (d) 1024 bytes
6. The full form of HDD is
- (a) High Disk Drive
 - (b) Hard Disk Drive
 - (c) Hard digital Disk
 - (d) High digital drive
7. For most computers, the bootstrap is stored in
- (a) RAM
 - (b) ROM

- (c) Cache
 - (d) Tertiary storage
8. SYS command is used to
- (a) Copy DOS system files to new disk
 - (b) Copy DOS configuration files to a new disk
 - (c) Update the DOS system files
 - (d) None of above
9. Error that causes loss of data of Volatile storage, and halts transaction processing is known as
- (a) System error
 - (b) Application error
 - (c) System crash
 - (d) Transaction error
10. What could cause fixed disk error
- (a) Bad ram
 - (b) Slow processor
 - (c) Incorrect CMOS setting
 - (d) No CD installed
11. Which of the following is Backup software?
- (a) Amanda
 - (b) Bacula

- (c) IBM Tivoli Storage Manager
 - (d) All of the mentioned
12. The purpose of backup is:
- (a) To restore a computer to an operational state following a disaster
 - (b) To restore small numbers of files after they have been accidentally deleted
 - (c) To restore one among many version of the same file for multiple backup environment
 - (d) All of the mentioned
13. What happens to files deleted from the Recycle Bin?
- (a) Clusters are flushed
 - (b) The files are moved to c:\windows\Temp
 - (c) Sectors of hard drive are blanked/erased
 - (d) Associated entries in the FAT are removed
14. Best utility to edit windows registry
- (a) Edit
 - (b) Regdt32

- (c) Device Manager
 - (d) Control panel applets
15. What type of file is the Windows 9x registry?
- (a) File text file.
 - (b) Relational database
 - (c) Hierarchical database
 - (d) Spread sheet template
16. Which file gets executed in Windows 95 when a user chooses to shutdown or restart in DOS mode?
- (a) COMMAND.COM
 - (b) CONFIG.EXE
 - (c) DOSSTART.BAT
 - (d) AUTOEXEC.BAT
17. Which of the following could be used to edit a text file on a PC.
- (a) DOS EDIT
 - (b) Microsoft Windows NOTEPAD
 - (c) Microsoft Windows Write or Windows 95/98 Wordpad
 - (d) All of the above

18. If you need to duplicate the entire disk, which command will you use?
- (a) Copy (b) Diskcopy
(c) Chkdsk (d) Forma
19. Which command is used to set a name to a disk in DOS?
- (a) VOLUME (b) VOL
(c) LABEL (d) DISKLAB
20. F Which of the following statements is true in regard to diskcopy?
- (a) Copy and discopy are same
(b) Discopy is a built in command in dos
(c) Diskcopy can be used on hard disks
(d) Diskcopy can be Used with a floppy and a hard disk

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

21. How will you decide which antivirus software to be installed in a computer?
22. Discuss the Causes and symptoms of a corrupted FAT.

23. Explain how to recover lost and cross-linked files.
24. Discuss how to recover files and directories
25. Discuss in detail how to fix a damaged partition table.
26. What is registry? Explain registry entry structure.
27. Write about common disk cloning errors.
28. Discuss advantages of disk cloning.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

29. Describe how to install Anti-Spyware and removal of virus.
30. Write about Troubleshooting strategy concepts.
31. Explain how you will revive non-bootable disk.
32. Describe how to remove unwanted registry entries.
33. Discuss how to solve disk cloning failures.