

**DIPLOMA EXAMINATION —
JANUARY 2015.**

Diploma in Computer Hardware Servicing

COMPUTER HARDWARE SERVICING

Time : 3 hours

Maximum marks : 75

SECTION A — (20 × 1 = 20 marks)

Answer ALL the questions.

Choose the correct answer.

1. IDE cables have how many pins?
(a) 25 (b) 50
(c) 100 (d) 40

2. An important first step in troubleshooting which component in a laser printer is causing a jam is to:
(a) note where in the paper path the paper stops
(b) check all voltages
(c) look up error code
(d) remove the jammed paper

3. A parity error usually indicates a problem with:
- (a) memory
 - (b) hard drive
 - (c) I/O controller
 - (d) power supply
4. In laser technology, what happens during the transfer stage?
- (a) Residual toner is transferred to the waste receptacle
 - (b) The laser transfers the image from the drum to the paper.
 - (c) The image is transferred from the drum to the paper
 - (d) A negative charge is transferred to the surface of the drum
5. Which provides the fastest data access time?
- (a) RAM
 - (b) ROM
 - (c) CD-ROM
 - (d) Hard disk
6. Which controller would support an external CD-ROM drive?
- (a) ESDI
 - (b) ARLL
 - (c) MFM
 - (d) SCSI

7. In inkjet printers, what is the most common problem with the paper tray?
- (a) inconsistent printing
 - (b) malfunctioning pick-up rollers
 - (c) misalignment of the sheet feeder
 - (d) None of the above
8. Which device uses a DMA channel?
- (a) Modem
 - (b) Network Card
 - (c) Sound Card
 - (d) None of the above.
9. If a computer's BIOS allows it, you can boot from a CD-ROM.
- (a) True
 - (b) false
10. What allows you to print on both sides of the printer?
- (a) Fuser
 - (b) duplexer
 - (c) toner cartridge
 - (d) None of the above
11. Which step should you perform first before discharging a CRT?
- (a) Remove the CRT from its housing
 - (b) Disconnect the CRT from the computer
 - (c) Turn power off before removing power source
 - (d) None of the above

12. The standard VGA display has _____ pixels in its native graphics mode?
- (a) 648 x 320
 - (b) 640 x 480
 - (c) 680 x 440
 - (d) 1024 x 786
13. The ATAPI compliance is stands for?
- (a) CDROM
 - (b) Bus mastering
 - (c) Mass storage device
 - (d) All of the above
14. How much video RAM is needed to display 1024x768 at 24-bit color?
- (a) 1MB
 - (b) 4MB
 - (c) 8MB
 - (d) 512 MB
15. All Operating Systems get their total memory initialized from?
- (a) CPU
 - (b) BIOS
 - (c) ROM
 - (d) RAM
16. During the boot process, a system first counts memory from where?
- (a) Expansion memory board
 - (b) Video adapter
 - (c) System board
 - (d) None of the above

17. In ROM BIOS, the acronym BIOS stands for
- (a) Basic Intuitive Output Set
 - (b) Basic Input Organizational System
 - (c) Basic Input Output System
 - (d) None of the above
18. 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) Displays what memory is installed, but nothing else
 - (d) Is an operational error
19. How many devices does USB support?
- (a) 127
 - (b) 125
 - (c) 100
 - (d) 225
20. How many pins on a VGA?
- (a) 15
 - (b) 9
 - (c) 25
 - (d) 32

SECTION B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

21. Explain integrated mother board layout.
22. Explain dot – matrix printer and assemblies.
23. Explain how BIOS works.
24. Explain drum preparation and paper feed mechanism.
25. Explain the power – on – self test.
26. Explain POST test sequence and error message.
27. Draw the flowchart for power circuit troubleshooting.
28. Explain PC system unit layout.

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

Answer any THREE questions.

29. Explain detail about Intel Pentium microprocessor family.
30. Describe the history and types of Personal Computer Systems.
31. Explain about System Boot Sequence.
32. Explain about video card failure and I/O conflict.
33. Explain SMPS and front panel control.