

DEPARTMENT OF COMPUTER ENGINEERING

35261-COMPUTER HARDWARE AND SERVICING

QUESTION BANK

UNIT-I MOTHER BOARD COMPONENTS

PART-A (2 –MARKS)

01. What is RTC?
02. What is chipset?
03. Define motherboard form factors?
04. What is firmware?
05. Define processor bus?
06. Expand BIOS?
07. What is the use of jumpers?
08. What is Xeon processor?
09. Expand PCI.
10. What is jumper?
11. Expand PCMCIA.
12. What is hardware?
13. What is Pentium processor?
14. Expand USB?
15. Define processor socket?
16. Where are Xeon processors mainly used?

17. Define turbo boost technology?
18. Give the components connected with south bridge?
19. What is the use of AGP?

PART-B (3 –MARKS)

01. Write briefly about hardware, software and firmware?
02. Differentiate north/south bridge architecture from a hub architecture?
03. List the features of Xeon processor?
04. Write any five features of AGP bus?
05. Write the features of core 2 duo processor?
06. Write any five features of PCI bus?
07. Discuss memory socket?
08. Explain the cache memory?
09. Describe clock generator?
10. Discuss USB?
11. Give the basics of chipsets?

PART-C (5 OR 10 –MARKS)

01. Explain in details about the various motherboard components with a neat block diagram?
02. Explain about the hub architecture with a neat block diagram?

- 03.Explain about the USB bus standard with neat block diagram?
04. Define chipset and explain hub architecture?
- 05.Explain motherboard architecture with block diagram?
06. Explain core i- series processors?
- 07.Explain about AGP and USB standard?
- 08.Explain the following: i) Dual core technology?
ii) AGP standard?
- 09.Explain the following :i) Dual core technology
ii) Xeon Processor
- 10.Explain about PCI and AGP Standard?
11. Briefly explain about AMD 10 series processors?
12. Explain North/South bridge architecture?
- 13.Briefly explain the different bus standards in details?

UNIT-II (MEMORY AND I/O DEVICES)

PART-A (2 –MARKS)

01. What is a wait state?
02. What is a power good signal?
03. List types of memory errors?
04. What is access time?
05. Expand DDR3.
06. What is partition?

07. Define Blu-ray.
08. What is memory stick?
09. What are the types of keyboard?
10. Define optical mouse?
11. List out any two parameter of main blue ray disc?
12. List out the keyboard signals?
13. Define flash drive?
- 14.Define solid state drive?
15. Define formatting?
16. What is external drive?
17. What is inkjet printer?
18. What are the types of scanner?
19. List out any two parameter of main blu ray disc?
20. What are the types of mouse?
21. Define key bouncing?

PART-B (3 –MARKS)

01. Explain the formatting of a HDD?
02. Explain about the working of a optical mouse?
03. Explain the types of formatting?
- 04.List the types of keys and write their uses?
05. Describe any one memory error?
06. Explain how DVD- video?
07. List the important blu-ray disk parameters?
08. Give four feature of USB?

09. Explain solid state drive?
10. Explain the types of key?
11. Draw the keyboard matrix?
12. Explain multifunction printer?
13. Draw the scanner mechanism and give the components?
14. Explain handheld scanner?
15. Explain the types of memory errors?
16. Explain the preventive maintenance of scanner?

PART-C (5 OR 10 –MARKS)

01. Explain about the different types of memory errors?
02. Draw the troubleshooting flowchart of a mouse and explain?
03. Explain about the various blu-ray disc parameters and the recording principles?
04. Briefly explain about the recording and playback principles of DVD-Rom?
05. Explain the working principles of bar code scanner?
06. Briefly explain about the recording and playback principles of Blu-ray disc?
07. Explain briefly about laser printer?
08. Explain the troubleshooting of hard disk drives?
09. Explain the following: i) USB flash drive ii) Solid state drive

10. Explain the following: i) Bar code scanner ii) troubleshooting of scanner.
11. Explain in details about the dot matrix printer with neat diagram?
12. Explain i) Handheld scanner ii) Flat bed scanner.
13. Explain the construction and working principles of hard disk?
14. Write short notes of memory stick?
15. Explain the operation of inkjet printer?

UNIT-III (DISPLAY, POWER SUPPLY AND BIOS)

PART-A (2 –MARKS)

01. What is a TFT display?
02. What is a power good signal?
03. Give the full form of LCD and LED.
04. Define POST?
05. Define cold and warm booting?
06. Mention any two POST beep codes?
07. List any two bios error codes?
08. What is the use of video capture card?
09. Give the principles of SMPS?
10. Define error and error message?
11. List voltage levels of SMPS?
12. What is meant by BIOS?
13. Give the functions of BIOS?
14. What is panel display?
15. Define BIOS interrupts?

PART-B (3 –MARKS)

01. Distinguish between cold and warm booting?
02. Explain briefly about the post error and beep codes?
03. Define graphics card and its applications?
04. List the common failures in SMPS?
05. Explain the types of LED?
06. Draw the block diagram of video capture card?
07. Give the basic principles of SMPS and draw the block diagram?
08. List the o/p voltage of SMPS?
09. Explain flash BIOS?
10. Describe POST error message?

PART-C (5 OR 10 –MARKS)

01. Explain the operation of SMPS with a neat block diagram?
02. Explain with a neat block diagram, the functioning of a video capture card?
03. Explain the working principles of plasma panel?
04. Explain BIOS error codes?
05. Explain post fault related to hardware?
06. Explain the principles of operation of SMPS?
07. Explain: i) Plasma panel. ii) TFT display.
08. Explain: i) error message ii) POST.
09. Explain BIOS advanced setup?
10. Explain the following: i) LED Display ii) Video capture card.

11. Explain the principles of LCD?
12. Draw the block diagram ATX power supply connection and explain.

UNIT-IV (MAINTENANCE AND TROUBLESHOOTING OF DESKTOP AND LAPTOP)

PART-A (2 –MARKS)

01. What is ESD?
02. List the types of adaptor used in laptop?
03. List the SMD components of laptop?
04. Describe the uses of battery booster?
05. Differentiate between active maintenance and passive maintenance?
06. List the types of batteries and write the basic problems of them?
07. Write the steps for upgrading memory?
08. Give the different between laptop and desktop?
09. What is passive maintenance?
10. List out the types of laptop?
11. What are the types of battery?
12. What is active maintenance?
13. Define diagnostics software?
14. What is BIOS up gradations?
15. Define system software?
16. Define laptop adaptor and its types?
17. Give the types of SMD components?
18. What is ESD?
19. List the SMD components of laptop?

PART-B (3 –MARKS)

01. Draw the block diagram of laptop?
02. Explain briefly about the post error and beep codes?
03. List the types of batteries and write the basic problems of them?
04. Explain active maintenance and passive maintenance?
05. Give the different between laptop and desktop?
06. Write the steps for upgrading memory?
07. Give the laptop RAM types?
08. Explain laptop diagnostics software?
09. How to upgrade laptop CPU?
10. Discuss the types of laptop?
11. Give the steps to configure laptops?
12. Discuss the types of laptop batteries?
13. Explain the flash BIOS?

PART-C (5 OR 10 –MARKS)

01. Explain the working principles of laptop with a neat block diagram?
02. Draw the block diagram of laptop mother board and explain?
03. Explain formatting, partitioning and installation of OS?
04. Explain in details about formatting and partitioning of a laptop hard disk?
05. Explain in details about the various types of batteries used in a laptop?

06. Explain in details about the upgrading of memory and BIOS of a computer?
07. How to upgrade BIOS and memory?
08. Explain how to configure laptop power settings?
09. Briefly explain about laptop components?
10. How to upgrade mother board and CPU?
11. Explain i) Beep codes ii) SMD components.
12. Explain preventive maintenance schedule?
13. Explain i) Error message ii) POST.
14. Explain BIOS up gradations?
15. Explain the working principles of laptop with neat block diagram?
16. Explain formatting, partitioning and installation of OS?
17. Explain ESD and its precautions?
18. What is AMI?

UNIT-V (MOBILE PHONE SERVICING)

PART-A (2 –MARKS)

01. Write the basics of mobile communications?
02. What are the various IC'S used in mobile phones?
03. What is mobile communications?
04. Define mobile?
05. Give any three mobile phone components?
06. Give any three mobile phone circuit board components?
07. Give any IC'S used in mobile phone?

08. Define soldering
09. What is meant by desoldering?
10. Give the use of battery booster?
11. Define flashing
12. What is neTLSHING?
13. Define flashing?
14. Define unlocking?
15. Give the uses o sectrcete, codes?
16. Define downloading?
17. Define routing.
18. Define mobile communication?
19. Define mobile virus?

PART-A (3 –MARKS)

01. Explain battery booster?
02. Explain briefly about post error and beep codes?
03. Describe the uses of battery booster?
04. Define routing and explain its operations?
05. Write the uses of secret codes?
06. List the names and functions of different IC's used in mobile phone?
07. Explain soldering?
08. Discuss de-soldering?
09. Give the uses of multi meter?
10. Discuss flashing?
11. Explain mobile viruses?
12. Define secret codes and give the uses of the secret codes?

PART-C (5 OR 10 –MARKS)

01. Explain i) Antenna ii) Speaker.
02. Explain i) Unlocking ii) Antivirus.
03. Explain in details about the various components of a mobile.
04. Explain about flashing and formatting of mobiles?
05. Explain about flashing and formatting of mobiles?
06. Explain briefly about names and a function of IC's used in mobile phones?
07. Write short notes on antivirus software?
08. Write short notes on mobile viruses?
09. Explain three types of routing?
10. Explain the different mobile phone components?
11. Discuss basic circuit board components?
12. Explain the different mobile servicing kit?
13. How to assemble and disassemble different mobile phones?
14. Give the steps to install O/S?
15. Explain mobile phone routing?
16. Give the different precautions to be followed to avoid viruses?