



KINGS

COLLEGE OF ENGINEERING
PUNALKULAM.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
QUESTION BANK

SUBJECT CODE : EC1003

SEM / YEAR : VII/ IV

SUBJECT NAME : COMPUTER HARDWARE AND INTERFACING

UNIT I

CPU & MEMORY

PART - A (2 marks)

1. What are the three types of busses?
2. What are the three types of processor modes?
3. What is meant by circuit size and die size?
4. Differentiate between CISC Vs RISC CPUs
5. What is the importance of processor cooling?
6. Write about processor packages
7. What is the importance of over clocking?
8. What is meant by super pipelining?
9. What is meant by multiprocessing?
10. Give details about memory organization?
11. Draw the block diagram of basic memory chip?
12. What is bursting and pipelining?

PART - B

1. Processors are capable of operating in several different modes- explain any three processor modes (16)

2. What are the different factors which summarize the modern concept of CPU? **(16)**
3. Describe the Architectural performance features? **(16)**
4. Explain the concept of CPU over clocking? **(16)**
5. What are the five package styles normally used fro memory devices? **(16)**
6. Explain the three types of memory modules? **(16)**
7. Explain the Logical memory Organization? **(16)**
8. Explain some of the current memory architecture and major issues surround them? **(16)**
9. List out the traditional memory types and specialized memory devices. **(16)**
10. Write the procedure for selecting and installing memory? **(16)**

UNIT II

MOTHERBOARDS

PART - A (2 marks)

1. What is meant by sockets and slots?
2. Differentiate between sockets and expansion slots
3. What is called form factor
4. What is meant by chipsets?
5. What are the two types of bridges in chipsets?
6. What is meant by BIOS?
7. Brief about the function of BIOS
8. What is the difference between BIOS & CMOS?
9. What is the major role of BIOS & CMAOS?
10. Why power management is implemented in the latest motherboard
11. What is the function of POST?

PART- B

1. Explain about Intel 850GB and draw a neat block diagram if Intel 850GB Pentium 4 motherboard? **(16)**
2. Write down the features of Pentium 4 motherboard and compare with Intel 850GB

- (16)**
3. Layout the AT-Style motherboard **(16)**
 4. What are the considerations to be taken to upgrade a motherboard? **(16)**
 5. Mention the major responsibilities of North Bridge and South Bridge using a neat
(16)
 6. block diagram of AMD 750 Chipset **(16)**
 7. What are the major role of CMOS and its optimization tactics? **(16)**
 8. Try to configure the standard CMOS setup and write down its procedure **(16)**
 9. Write down the procedure to configure advanced CMOS Setup **(16)**
 10. What are the three services rendered by BIOS and mention about their major role
in booting-up the system **(16)**
 11. What are the BIOS features and what are major areas the BIOS support the CPU,
chipsets, memory, drives, plug and ply support, power management, USB, parallel
port and so on **(16)**
 12. Mention the series of steps that takes a PC from Power-on to the point where it's
loading an operating system (BIOS and Boot Sequences) **(16)**
 13. Review the need of power supplies and power management with the concept of
switching regulations **(16)**
 14. How do you recognize the potential power problems and power management? **(16)**

UNIT - III

STORAGE DEVICES

PART - A (2 marks)

1. What are the concepts of magnetic storage of floppy drive?
2. What is the magnetic recording principle of floppy drive?
3. Brief about data and disk organization of floppy drive
4. Draw and indicate the pin assignment for floppy drive interface
5. What is Drive Electronics of floppy drive?
6. What is meant by latency and seek?
7. What is meant by tracks, cylinders and sectors?

8. What are the IDE drive standards and features?
9. What is IDE/ATA and ATAPI?
10. Brief about CD Media
11. What is meant by interleave?

PART- B

1. Explain about Data and Disk Organization of floppy drive and its interface (16)
2. Draw a neat block diagram and explain about floppy drive recording principle (16)
3. Describe about the drive electronics of floppy drive with suitable diagrams (16)
4. Draw the block diagram of floppy drive and explain its operations (16)
5. Explain the concept of Tracks, Cylinders and Sectors and with a data organization on a hard drive and typical layout of hard drive sector (16)
6. Comparison between binary megabytes and decimal megabytes. (16)
7. Explain IDE/ATA and AT API. (16)
8. With suitable diagrams, explain in detail about the concept of CD-ROM drive. (16)
9. List out the CD Standards and characteristics. (16)
10. With a neat diagram, explain the mechanism of CD-ROM with its construction. (16)
11. Explain the main features and advantages of CD-ROM Electronics. (16)
12. Compare the technology of floppy drive electronics with CD-ROM Electronics. (16)
13. List out the importance of software and drivers for CD-ROM to be installed in the PC. (16)
14. Write down the DVD Specification, Standards, Media, and Decoder of the DVD. (16)

UNIT - IV

I/O PERIPHERALS

PART - A (2 marks)

1. What do you understand from parallel port and its signal?
2. What are the IEEE 1284 modes?
3. Draw the block diagram of MIDI signals through PC.
4. What is asynchronous communications
5. What are the serial port signals and mention its importance

PART - B

1. Explain the construction of modems and its operation. (16)
2. Explain the serial port signals and its importance. (16)
3. Write short notes on
 - a. Parallel port signals and timing diagram. (4)
 - b. Sound boards (4)
 - c. Graphics accelerator card (4)
 - d. Direct X (4)
4. Explain the construction of mouse and its function of its track ball (16)
5. Write short notes
 - a. Serial port signals (4)
 - b. Video adapters (4)
 - c. Keyboards (4)
 - d. Audio benchmarks (4)

UNIT - V

BUS ARCHITECTURE

PART - A (2 marks)

1. What is open architecture?
2. What are the major difference between AGP and PCI?
3. What is the first open system bus and its 8 bit XT bus
4. Mention ant eight current features of PCI bus
5. List out PnP devices types and identification

PART - B

1. Provide a thorough study of SCSI host adapter with neat typical diagram of SCSI. (16)
2. Explain 3D Graphics accelerator issues. (16)
3. Explain the layout and operation of the PCI bus. (16)

4. Explain AGP, its similarities with PCI, AGP layout & interface and about AGP Signals. **(16)**
5. List out PnP devices types and identification also explain about PnP BIOS, PnP OS and mention essential elements(overview) of PnP. **(16)**

***** ALL THE BEST *****