

2024

COMPUTER HARDWARE AND NETWORKING

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

Answer **any five** questions.

1.	Answer the following questions:	1x20=20
a)	SDRAM stands for (i) Synchronous Double RAM (ii) Synchronous Dynamic RAM (iii) Serial Dynamic RAM (iv) None of the above	
b)	SMPS form is (i) Baby AT (ii) AXT (iii) ATX (iv) All of the above	
c)	DVD stands for (i) Digital Video Disk (ii) Digital Versatile Disk (iii) Dynamic Video Disk (iv) None of the above	
d)	DDR-RAM is faster than (i) S-RAM (ii) SD-RAM (iii) Both (i) & (ii) (iv) None of the above	
e)	Flash Memory is a type of (i) Non-volatile (ii) volatile (iii) RAM (iv) None of the above	
f)	BIOS stands for (i) Basic input output system (ii) Binary input output system (iii) Basic input off system (iv) None of the above	
g)	PS2 port is used for (i) Mouse (ii) Keyboard (iii) Both (i) & (ii)	

		(iv) None of the above	
	h)	PCI stands for (i) Peripheral Component Interconnect (ii) Peripheral Component Index (iii) Peripheral Compact Interconnect (iv) None of the above	
	i)	AMD CPU family is (i) Celeron (ii) Athlon 64 (iii) Core processor (iv) None of the above	
	j)	Pentium processor belongs to (i) Intel CPU family (ii) AMD CPU family (iii) Both (i) & (ii) (iv) None of the above	
	k)	SMPS stands for (i) Switch Mode Power Supply (ii) Start Mode Power Supply (iii) Single Mode Power Supply (iv) None of the above	
	l)	Which technological issue may not be caused due to virus? (i) CMOS battery goes down (ii) The computer slows down (iii) Hard disk is crushed (iv) Some files are missing	
	m)	Class B network mask of (i) 8 bits (ii) 16 bits (iii) 24 bits (iv) None of the above	
	n)	IEEE 802.11a devices can connect at top speed upto the (i) 11 Mbps (ii) 50 Mbps (iii) 54 Mbps (iv) 48 Mbps	
	o)	VGA stands for (i) Visual Graphics Adapter (ii) Video Graphics Adapter (iii) Video Graphics Array (iv) None of the above	
	p)	Network address with 16-bit mask is (i) 255.255.0.0 (ii) 255.255.255.0 (iii) 255.0.0.0 (iv) None of the above	
	q)	Class A network first octet values range from (i) 1 through 126 (ii) 128 through 191 (iii) 192 through 223	

		(iv)None of the above	
	r)	Class D network first octet values range from (i) 1 through 126 (ii) 128 through 191 (iii)192 through 223 (iv)224 through 239	
	s)	Class B networks with (i) 16777216 hosts each (ii) 256 hosts each (iii)65536 hosts each (iv)None of the above	
	t)	Hardware Testing and loading of OS is known as (i) POST (ii) Self-Testing (iii)Booting (v) None of these	
2.	(a)	Fill in the blanks	1x10=10
		(i) SATA stands for _____. (ii) CMOS stands for _____. (iii) BSOD stands for _____. (iv) RAID stands for _____. (v) UTP stands for _____. (vi) _____ port transfers large amount of data at very fast speed. (vii) The BIOS stored on the ROM chip attached to the motherboard is called the _____. (viii) The chipset is divided into _____ and _____. (ix) _____ is the process of dividing the disk into tracks and sectors. (x) _____ port transfers large amount of data at very high speed.	
	b)	True or False:	1x10=10
		(i) ATX is a form of Power supply. (ii) ATA transfer speed is upto 500 MB/sec. (iii) BIOS and POST are synonymous. (iv) The BIOS consists of software that interfaces the hardware to the OS. (v) Programs stored on ROM chips are known as firmware. (vi) Delete obsolete data is related to Preventative maintenance. (vii) Bluetooth is designed for Piconets. (viii) Bluetooth is a high speed, high power device. (ix) Soft cluster errors means that the magnetic signal on the drive is weak. (x) Firewall provides data protection.	
3.	a)	List the different components of a Mother board.	4
	b)	Discuss the OSI model with a layers diagram.	5
	c)	Discuss the different types of network topologies with diagrams.	6
	d)	What is Bluetooth?	3
	e)	What is disk defragmentation?	2
4.	a)	What are the materials required for making straight through cables?	3
	b)	What are the hardware issues in desktops?	5

	c)	What are the four Firewall types?	6
	d)	Write down the major components of the router.	3
	e)	What are Windows OS issues?	3
5.		Write short notes on the following (<i>any four</i>):	4x5=20
	a)	DHCP	
	b)	Primary Memory	
	c)	BIOS	
	d)	Disk Checker	
	e)	POST	
6.		Differentiate between the following (<i>any four</i>):	4x5=20
	a)	PS/2 port and USB port	
	b)	Wired Ethernet and Wireless Ethernet	
	c)	Soft and Hard errors (Bad clusters)	
	d)	Straight through cables and cross cables	
	e)	Bridges and Repeaters	

