

## Course – B.Sc. (HN)

## **Basic Hardware (BHNC201)**

(Semester - 2)

Time allotted: 3 Hours Full Marks: 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group -A (Multiple Choice Type Questions)  $10 \times 1 = 10$ 1. Choose the correct alternative from the followings What is the color of wire, carrying -12V DC in SMPS? (i) a. Red b. White c. Blue d. Black Which is the core part of Operating System? (ii) a. Shell b. Software c. Compiler d. Kernel (iii) Which is the bootloader of Windows 7 Ultimate? a. NTLDR b. NTDETECT.COM c. NTOSKRNL.EXE d. None of these Which of the following techniques belongs to RAID-1? (iv) b. Spanned Volume a. Disk Mirroring c. Disk Duplexing d. Strip sets with parity What is the socket number of Intel Pentium-III? (v) b. 2 a. 1 c. 4 d. None of these Which of the following voltages is used by the chipset in a motherboard? (vi) a. +5V SB b. +12V DC c. +5V DC d.+3.3V DC How many pins are in DDR2 SDRAM? (vii) a. 240 b. 184 c. 168 d. None of these

(vii	i) N	Maximum how many primary partitions can be created in GPT?						
		a. 128	b. 127					
		c. 129	d. None of these					
(ix	) V	Which of the following file systems supports 'Disk Quota'?						
		a. FAT32	b. NTFS					
		c. FAT16	d. None of these					
$(\mathbf{x})$	) V	Which of the following modes of CPU	supports 'Virtual Memory'?					
		a. Real Mode	b. Protected Mode					
		c. Virtual Real Mode	d. Safe Mode					
	Group – B							
		(Short Answer	Type Questions)	$3 \times 5 = 15$				
Answer any three from the followings								
2.		Calculate the maximum drive capaci	ty of FAT16 file system.	[5]				
3.	(a)	Differentiate between Static RAM ar	nd Dynamic RAM.	[2]				
	(b)	Write the importance of 'Zoned Bit l	Recording'.	[3]				
4.		Compare and contrast between MBR	R and GPT.	[5]				
5.	(a)	Write a short note on 'Spanned Volu	ıme'.	[2]				
	(b)	What is 'Shadow Memory'?		[3]				
6.		Discuss about 'Wireless Keyboard'.		[5]				
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	Group – C							
		(Long Answer	Type Questions)	$3 \times 15 = 45$				
Ansv	wer a	ny three from the followings						
7.	(a)	What are the differences between FA		[5]				
	(b)	Describe about the sensors and drive	e motors of Dot Matrix Printer.	[10]				
8.	(a)	What is the relevance of 'high level	<u> </u>	[5]				
	(b)	Differentiate between 'System Partit		[5]				
	(c)	Write a short note on 'Disk Mirrorin	g.	[5]				
9.	(a)	What are the boot files of Windows	7 Ultimate?	[5]				
	(b)	Explain – Write Precompensation.	na process of a DC9	[5]				
	(c)	How does the POST affect the booting	ing process of a PC?	[5]				

10.	(a)	What is the importance of 'Front Side Bus' in a motherboard?	[2]
	(b)	Discuss the significance of 'ICH' in the motherboard.	[3]
	(c)	Describe the following common power problems:-	[10]
		Spikes, Surges, Brownout, Blackout	
11.	(a)	Write the importance of RTC/NVRAM.	[5]
	(b)	Differentiate between BIOS and UEFI.	[5]
	(c)	What are the things you would check, if a customer complains that	[5]
		the computer is working very slow?	