

BRAINWARE UNIVERSITY

Course - MSc. (HN)

Core Hardware (MHN103)

(Semester - 1)

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 Choic	$10 \times 1 = 10$	
1.	Choose the correct alternative from the		
(i)	Maximum number of primary partition	s, supported by MBR, is	
	a. 4	b. 24	
	c. 127	d. 128	
(ii)	Colour of +12 V DC voltage in SMPS	is	
	a. Red	b. Blue	
	c. Green	d. None of these	
(iii)	What is the type of IDE translation?		
	a. LBA	b. CHS	
	c. USB	d. None of these	
(iv)	The 'North Bridge Chip' is popularly k		
	a. GMCH	b. GCMH	
	c. MCH	d. MHC	
(v)	Which IRQ does the system timer use?		
	a. IRQ 0	b. IRQ 1	
	c. IRQ 2	d. IRQ 3	

(vi	Number of pins in DDR4 SDRAM	is		
	a. 184	b.	168	
	c. 240	d.	None of these	
(vi	i) FAT16 supports the following feat	ure		
	a. Disk quota	b.	Encryption	
	c. Compression	d.	None of these	
(vii	ii) The color code of "Standby Power	r" signal wire	e in 20-pin ATX-SMPS is	S
	a. Green	b.	Gray	
	c. Purple	d.	Red	
(ix	s) SRAM is used in			
	a. Video Memory	b.	Motherboard	
	c. Cache Memory	d.	None of these	
(x)) Which IRQ does the key board cor	ntroller use?		
	a. IRQ 0	b.	IRQ 1	
	c. IRQ 2	d.	IRQ 3	
		Group – B		
		swer Type Qu		
	(Answer any a	three from the	e following)	2 v 5 – 15
2.	Calculate the maximum disk capacity	of FAT16 fi	le system.	$3 \times 5 = 15$ [5]
3.	Explain briefly about Cluster and Zor		•	
٥.	HDD.		ding (2DIt) reduces of	[2+3]
4		T 1145 4 -		
4.	Describe the boot files of Windows7			[5]
5.	Write a short note on 'Hard Disk Part	ition'.		[5]
6.	Draw the diagram of a CRT monitor ((with labeling	g).	[5]
		Group – C		
		swer Type Qu		
	(Answer any a	three from the	e following)	2 v 15 – 45
7.	You are asked to repair a computer w	which is absol	utely dead. Describe the	$3 \times 15 = 45$ possible
	tions of the problem.			[15]

8.	(a)	What is 'Cache Memory'?	[5]
	(b)	Explain the usefulness of 'High Level Formatting'.	[10]
9.		Describe the different RAID levels, used for fault tolerance.	[15]
10.		Explain the different types of ROM.	[15]
11.	(a)	What is 'Chipsets'?	[5]
	(b)	Explain the 'Form Factor' and 'Super I/O Chip'.	[10]