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Answer Sheet No	CARE
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ELEMENTARY CHEMISTRY AND CHEMICAL PATHOLOGY HSSC-I

SECTION - A (Marks 10)

Time a	llowed: 10 Minutes									
NOTE:-	Section-A is compulsory.	All parts	of this	section	are to	be answered	d on the	question	paper	itsel
								and the second second		2015

				C / D. Each pa			-		
(i)							o atom		
(1)	A.	atomic number of an atom equals the nun Electrons			B.	Neutrons + Protons			
	C.	Protons			D.	Protons + E			
(ii)		symbol for Pota	assium is		D.	r rotoris + L	rections		
(11)	Α.	Ca	В.	K	C.	Kr	D.	Po	
(iii)				ercial HCI (36%				. 9	
33.03	Α.	11.73 M	В.	36.00 M	C.	26.00 M	D.	1.00 M	
(iv)	Whic	h of the followi	ng elemer	nts is NOT a me					
	A	Tin	В.	Tungsten	C.	Arsenic	D.	Uranium	
(v)	A per	son with cold h	nas a feve	r of 102 F. Wha	at would b	e the temperat	ure on Ce	Isius thermome	eter?
	A	40° C	B.	38° C	C.	39° C	D.	37.6° C	
(vi)	What	is the pH of hu	uman bloc	od?					
	Α.	6.5	B.	7.4	C.	8.0	D.	6.0	
(vii)	An ac	cidic solution ha	as						
	A.	pH = pOH =	7.00		B.	pH ≤ 7.00 a	ind pOH	> 7.00	
	C.	pH > 7.00	and pOH	< 7.00	D.	pH 8.0			
(viii)	Molal	ity is defined a	s						
	A.	Grams of solute/litre of solvent			B.	Grams of solute/kg. of solvent			
	C.	Mol of solut	e/litre of s	olution	D.	Mol of solute/kg. of solvent			
(ix)	What are the basic units of proteins?								
	A.	Vitamins			B.	Lipids			
	C.	Alpha amino	acids		D.	Cholesterol			
(x)	Ather	osclerosis—the	e primary	cause of heart	disease—	is due to high	level of _		
	Α.	Glucose			B.	Cholesterol			
	C.	Bilirubin			D.	Ascorbic aci	id		
Eor E	vamina	r's use only:		_					
FOI E	kamine	r's use only:			Total	Marks:		10	
						marks.		10	
						s Obtained:			

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ELEMENTARY CHEMISTRY AND CHEMICAL PATHOLOGY H

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

NOTE:- Answer any thirteen parts from Section 'B' and any two questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

SECTION - B (Marks 26)

Q. 2 Attempt any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. (13 x 2= 26)

- (i) What are Lipids?
- (ii) Define Amino acids. Give general formula of amino acids.
- (iii) What is the difference between LDL and HDL?
- (iv) Explain the principle of Fractional distillation.
- (v) Define pH.
- (vi) Give Handerson Hassel Bach equation.
- (vii) Vitamin B Complex is a mixture of vitamins. Give their names.
- (viii) What are Enzymes?
- (ix) Write down the role of Thyroid glands.
- (x) Define Atomic number.
- (xi) Write down the mathematical expression for Beer's Law.
- (xii) What is the role of vitamins in maintaining health?
- (xiii) What is the difference between Direct and Indirect bilirubin?
- (xiv) Define Normal Solution.
- (xv) Write down the chemical formula of the following:Copper sulphate, Sodium carbonate, Chloroform, Trichloroacetic acid
- (xvi) What are Electrolytes?
- (XVII) What is the function of proteins in human beings?

SECTION - C (Marks 14)

Note: Attempt any TWO the questions. All questions carry equal marks.

 $(2 \times 7 = 14)$

- Q. 3 What are Carbohydrates? Classify them. What is the role of carbohydrates in human body?
- Q. 4 Give one method for the estimation of each of the following in the blood:
 - (i) Creatinine
- (ii) Uric acid
- (iii) Bilirubin
- Q. 5 What are Vitamins? Discuss their metabolism and importance in maintenance of normal body functions.