Azad Jammu & Kashmir Board of Intermediate & Secondary Education Mirpur Azad Kashmir

(Model Paper)

CHEMISTRY HSSC-II

SECTION – A (Marks 17)

Time allowed: 25 Minutes

Section -A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

Q.1 Fill the relevant bubble for each part. Each part carries one mark.

1. The elements in periodic table are classified into blocks:			
a) 1	b) 2		
c) 4	d) 3		
2. Which of the following has maximum electrons.			
a) F	b) Cl		
c) Br	d) I		
3. V^{+3} ion has colour:	,		
a) Blue	b) Green		
c) Orange	d) Violet		
4. The simplest molecule of Bucky Ball contains carbon atoms:			
a) 20	b) 8		
c) 60	d) 100		
5. The tartaric acid has number of isomers:			
a) 1	b) 2		
c) 3	d) 4		
6 . Ethene upon reaction with ozone will conve	rt into:		
a) Mathanal	b) Ethanal		
c) Propanal	d) Butanal		
7. One of the following is a typical transition e	lement:		
a) Co	b) Sc		
c) Y	d) Ra		
· · · · · · · · · · · · · · · · · · ·	sium bromide followed by acid hydrolysis the product		
formed is:			
a) Acetic acid	b) Formic acid		
c) Propanoic acid	d) Mathanol		
9. The hybridization of oxygen atom in carbon			
a) sp	b) sp^2		
c) sp ³	d) dsp^2		
10. Double bond is formed because of:	12.111.		
a) Substitution Reaction	b) Addition Reaction		
c) Rearrangement Reaction	d) Elimination Reaction		
11. 2,4,6-Trinitrophenol is commercially known			
a) TNT	b) Picric acid		
c) carbolic acid	d) Fumeric acid		
12. According to Lewis concept, ethers act as			
a) Acid	b) Base		
c) Amphoteric	d) Neutral		
13. The mineral, related with the formation o	· · · · · · · · · · · · · · · · · · ·		
a) RNA	b) P		
c) Fe14. Which of the following element is not pre	d) S		
a) S	b) N		
c) C	d) H		
15. Water can be purified by:	u) 11		
a) Aeration	b) Coagulation		
c) Disinfection	d) All of these		
16. What kind of sample can be studied in a	· ·		
a) Solid	b) Liquid		
c) Gas	d) All of these		
17. The position of infra-red absorption band is commonly expressed by:			
a) Wavelength	b) Wave number		
c) Both of these	d) None of these		

(Subjective Part)

Time allowed: 2:35 hours Total Marks: 68

Note: Attempt any 14 questions from Section 'B' and any two questions from Section 'C' on the provided answer book.

SECTION – B (Marks 42)			
Q.2	Atter	npt any fourteen questions. All parts carry equal marks. (14	1×3=42)
i. ii. iii. iv. v. vi. vii. viii. ix. x. xi. xii. xi	Why Al ₂ C Why By s Why Whi Con How Wha How Wri How Diff Wri Diff	y cation has smaller size than its parent atom? y are compounds of transition elements coloured? O ₃ is amphoteric oxide. Justify it. y ethene is more reactive than ethane? starting from phenol, what sort of products are possible by nitration and a y terminal alkynes are acidic in nature? ich is the best method for preparation of alkyl halide from alcohol? evert aniline into phenol. y methanol and ethanol can be differentiated? at products are formed when methanal react with conc. NaOH? at is Kolbe-Schmitt reaction? y nitriles can be converted to ketones? te down different cyclic structures of glucose? y enzymes speed up biological reactions? y indigo (blue) is converted into indigo white (colourless)? Ferentiate between addition and condensation polymers? te down any two sources of ozone depletion? Ferentiate between primary and secondary pollutants? fine chemical shift? y mass spectrometer works?	ılkylation?
		SECTION – C (Marks 26)	
Note: Attempt any two questions. Marks of each question are given within brackets.			
Q.3.	(A)	Write down the possible products when sodium reacts with following:	(2+2)
		a. O ₂ b. H ₂ O	
detail?	(B)	Define Aromatic hydrocarbons. Discuss molecular orbital treatment of	f benzene in (1+5)
	(C)	What is global warming.	(3)
Q.4.	(A)	How following are contributing to water pollution:	(2+2)
		a. Oil spillageb. Industrial waste	
	(B)	Define empirical formula. How it can be calculated by combustion ana	lysis? (1+5)
	(C)	Write any three reactions in which C-O bond of alcohols is broken down	vn. (3)
		What is nucleophilic substitution reaction. How secondary alkyl leophilic substitution reaction. Explain it with help of any suitable exambanism.	
	(B)	Differentiate between line emission and absorption spectrum.	(2+2)
	(C)	Write down the systematic names of the following complexes:	(3)

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a. [Co(NH₃)₆]Cl₃b. [Pt(NH₃)₂Cl₄]c. Na₂[NiCl₄]