Or

8. Write short notes on hydroboration and oxymercuration. 5x2=10

9. (a) Write down the definition of standard enthalpy of formation and heat of dilution. 2x2=4

(b) Given the following heat of reaction at $25^0$c. 6

$C_2H_4(g) + 3O_2(g) = 2CO_2(g) + 2H_2O\ (l)$

$\Delta H = -\ 337.3$ kcal/mol

$2H_2(g) + O_2(g) = 2H_2O\ (l)$

$\Delta H = -\ 136.6$ kcal/mol

$2C_2H_6(g) + 7O_2(g) = 4CO_2(g) + 6H_2O(l)$

$\Delta H = -\ 745.6$ kcal/mol

Calculate $\Delta H$ for the reaction

$C_2H_4(g) + H_2(g) = C_2H_6(g)$ at $25^0$c.

Or

10. For your chemical research how will you configure your computer with input and output devices? 10

★★★





UG (CBCS) EVEN SEMESTER EXAMINATION, 2024

EDUCATION

(B.Sc. B.Ed.)

2nd Semester

Course No. : BSCH – 202

( General Chemistry )

Full Marks : 50

Pass Marks : 20

Time : 2 hours

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

(*Answer five questions*)

1. (a) Why do noble gasses are termed as inert gasses? 2

(b) How do noble gases and their compounds are being used in the society? 4

(c) How will you prepare $P_2O_5$ and HOCl? 2+2=4

Or

2. (a) Give two applications of Xe compounds. 2

(b) Why do Hydrazines show vigorous reactivity? 2

(c) Write a short note on oxides of phosphorus. 6

3. (a) What do you mean by accuracy and precision. 2+2=4

( *Turn Over* )

(b) With an example, explain how organic reagents can be used as precipitants. 6

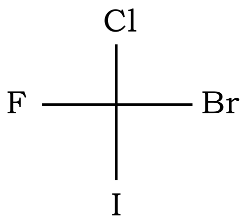
Or

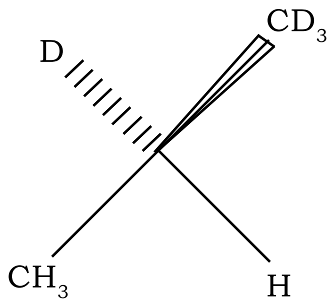
4. Through dry test how will you analyse $Na^+$, $K^+$, $Ca^{2+}$, $Cr^{3+}$ and $Mn^{4+}$? 5x2=10

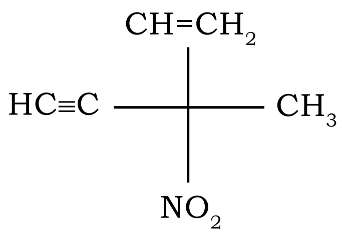
5. (a) All carbocations act as electrophiles. Justify the statement. 3

(b) What are the symmetry elements present in $H_2O$? 2

(c) Determine the R/S nomenclature in the following compounds. 3

(i) 

(ii) 

(iii) 

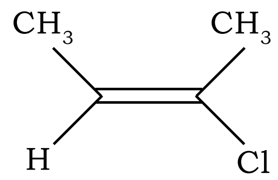
(d) What is racemisation? 2

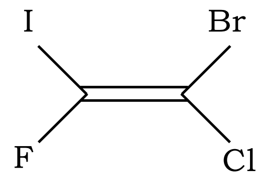
Or

6. (a) Locate the symmetry elements present in $CO_2$. 3

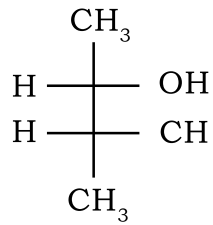


(b) Determine cis/trans and E/Z nomenclature in the following compounds. 2+2=4

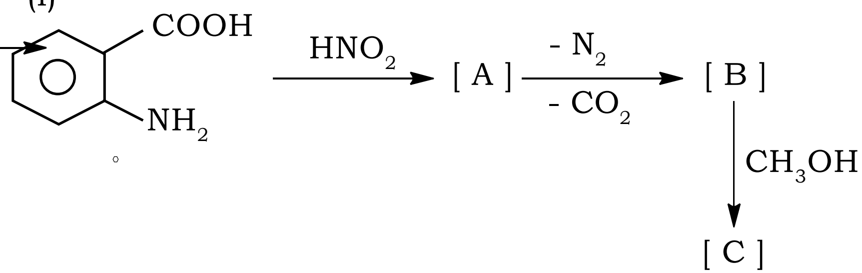
(i) 

(ii) 

(c) Draw the Sawhorse and Flying Wedge structures of the following compound. $1^1/_2$x2=3



7. Identify the products A to E. 5x2=10

(i) 

(ii)