17312

21819

3 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

(8) Use of steam tables, logarithmic, Mollier's chart is permitted.

Marks

1. Answer any TEN of the following: **20**

a) Define isomerism.

b) Define conjugated double bond. Name a compound containing it.

c) Write the physical properties of alkenes.

d) Define pyrolysis.

e) What is polymerization? Give an example.

f) Define aromatic compounds with an example.

g) Write the reduction reaction of benzene.

h) What is alkyl halide? Write its general formula.

i) Write the properties of phenol.

j) Write the IUPAC rules for naming alcohols.

P.T.O.

Marks

k) State Raults law

l) Define indicators.

m) Write IUPAC system for alkenes.

2. Answer any FOUR of the following: **16**

a) Write the differences between organic and inorganic compounds.

b) Name the functional groups of the following compounds.

(i) – COOH

(ii) – CHO

(iii) – NO_2

(iv) – CO –

c) Explain with reaction the halogenation of alkenes.

d) What are 'Cycloalkances'? State its physical properties.

e) Write the differences between an alcohols and a phenol.

f) Describe preparation of alcohol from alkyl holides.

3. Answer any FOUR of the following: **16**

a) Write the IUPAC Name of

(i) $CH_3 - \underset{\underset{CH_3}{|}}{CH} - \underset{\underset{CH_3}{|}}{CH} - CH_3$

(ii) $CH_3 - CH_2 - NH_2$

(iii) $H - \underset{\underset{O}{||}}{C} - OCH_3$

(iv) $CH_3 - CH_2 - O - CH_3$

b) Explain the draw back's of Baeyer's strain theory.

c) Write the uses of phenol.

d) Describe combustion of benzene.

e) Explain with reactions preparation of alcohols from alkenes.

f) Explain the quinonoid theory of indicators.

Marks

4. Answer any FOUR of the following: **16**

a) Write the IUPAC rules for naming single branched carbon compounds.

b) Write:

(i) Halogenations reactions of alkenes

(ii) Oxidation of alkenes.

c) Describe ozonide formation.

d) Describe with reactions action of alkali metal on alcohol.

e) Represent P-*x* diagram for an ideal mixture of two liquid.

f) Explain the ideal and non ideal solutions with an example of each.

5. Answer any FOUR of the following: **16**

a) Define homologs and homologues series. Give examples.

b) Explain halogenation reactions (s) of benzene.

c) Write the down the reaction of alcohol with

(i) PCl_5

(ii) PCl_3

d) Describe dehydrogenation reactions of alkenes.

e) Define hydrogen- ion indicator. Explain its use.

f) Describe Wurtz coupling reaction.

6. Answer any FOUR of the following: **16**

a) Explain the Ozonolysis of Alkenes.

b) Write the uses of aromatic compounds.

c) Explain the Baeyer's strain theory.

d) Describe nomenclature of alcohols.

e) Explain the Ostwald's theory for indicators.

f) Explain any one method of preparation of benzene.

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