

17340

11819

3 Hours / 100 Marks

Seat No.

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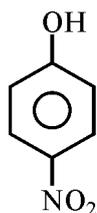
- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.

Marks

1. Attempt any TEN :

20

- (a) What is fused ring ?
- (b) Draw the structure of Benzoic acid.
- (c) Draw the structure of phenol.
- (d) Detect the following compound :



- (e) Define hydroxylation.
- (f) Draw the structure of m-nitro aniline.
- (g) Draw the structure of xylene.
- (h) Define aliphatic & aromatic compound on flame test.

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- (i) Elaborate "Aromatic Nitro compound".
- (j) What is the function of aromatic acid in preparation of intermediates ?
- (k) Define sulphonation with example.
- (l) Define Halogenation with example.

2. Attempt any FOUR :

4 × 4 = 16

- (a) Write down physical & chemical properties of benzene.
- (b) How to prepare chlorobenzene by action of PCl_5 on nuclear hydroxyl compounds ? Explain it with suitable chemical reaction.
- (c) Write reactions indicating conversion of benzene to benzene sulphonic acid.
- (d) Explain reduction of nitrobenzene in acidic, alkaline & neutral medium.
- (e) Write the reactions indicating conversion of
 - (i) Nitrobenzene to Aniline
 - (ii) Chlorobenzene to Aniline
- (f) How to prepare Benzene Diazonium chloride ? Explain with chemical reaction.

3. Attempt any FOUR :

4 × 4 = 16

- (a) Explain applications of phenol in preparation of dye intermediate.
- (b) List physical properties & uses of Benzoic acid.
- (c) Explain resonating structure of Naphthalene.
- (d) Explain any one method to prepare Toluene.
- (e) State physical properties & uses of chlorobenzene.
- (f) Explain with chemical reaction – To prepare nitrobenzene from benzene.

4. Attempt any FOUR :

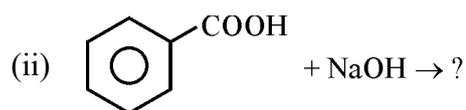
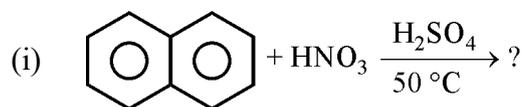
4 × 4 = 16

- (a) Write physical properties & uses of benzene sulphonic acid.
- (b) State chemical properties of aniline.
- (c) Define diazotization. State the application of diazotization in textiles.
- (d) Give any two methods of preparations of phenol.
- (e) Write any two preparation method of benzoic acid.
- (f) Explain nitration of naphthalene with chemical reaction.

5. Attempt any FOUR :

4 × 4 = 16

- (a) Distinguish between aliphatic & aromatic compounds.
- (b) Write down chemical properties of benzene sulphonic acid.
- (c) State physical properties & uses of aniline.
- (d) State physical properties & uses of benzene diazonium chloride.
- (e) State the applications of substituted aromatic hydrocarbon in dye manufacturing.
- (f) Complete the reactions :



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6. Attempt any FOUR :

4 × 4 = 16

- (a) Define Halogenation. Explain Halogenation of Napthalene.
 - (b) Write nomenclature of benzene diazonium chloride.
 - (c) Explain coal for distillation in detail.
 - (d) Write chemical properties of anthracene.
 - (e) State physical properties & uses of phenol.
 - (f) Explain nomenclature of aromatic hydrocarbon.
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