

- 2 (a) What are azo dyes ? Give different methods of diazotization. 12
- (b) Assign the position at which the coupling reactions take place :
- (i) J-acid
 - (ii) S-acid
 - (iii) Chicago acid
 - (iv) 2,4-dihydroxy quinoline
 - (v) Naphthionic acid
 - (vi) Schaffer's acid
- (c) Give the synthesis of :
- (i) Disperse Red 13
 - (i) Naphthol AS-BR.

OR

- 2 (a) Give an account of azoic dyes. 12
- (b) Assign the position at which the coupling reactions take place :
- (i) Nevile acid
 - (ii) Crocein acid
 - (iii) R-acid
 - (iv) G-acid
 - (v) Chromotropic acid
 - (vi) 1-Naphthol
- (c) Give the synthesis of :
- (i) Direct Blue 15
 - (ii) Acid Blue 92
- 3 (a) Classify anthraquinone acid dyes. Discuss anthraquinone acid dyes derived from anthrone, bromamine acid and naphthacarbazole. 11
- (b) Give the synthesis of :
- (i) Indanthrene Scarlet B
 - (ii) Indanthrene Orange FFRK
 - (iii) Caledon Jade Green XBN

OR

- 3 (a) What are solubilized vat dyes ? Discuss the chemistry of solubilized vat dyes. 11
- (b) Discuss the chemistry of anthraquinone dyes based on imidazole, oxazole and thiazole derivatives.
- (c) Give the synthesis of :
- (i) Celliton Fast Blue FFG
- (ii) Indanthrene Yellow 4GK

SECTION – II

- 4 (a) Discuss the chemistry of azine, oxazine and thiazine dyes. 12
- (b) Give the synthesis of :
- (i) Rosinduline GG
- (ii) Sirius Supra Yellow RT

OR

- 4 (a) Give an account of : 12
- (i) Thiazole dyes
- (ii) Organic pigments
- (b) Give the synthesis of :
- (i) Basic Yellow 11
- (ii) Sirius Supra Blue FFRL.

- 5 (a) What are reactive dyes ? Classify them. Give a detailed account of reactive dyes. 12
- (b) Give the synthesis of :
- (i) Malachite Green
- (ii) Crystal Violet
- (iii) Chrysoidine Y

OR

- 5 (a) What are cationic dyes ? Classify them. Give an account of cationic dyes for man-made fibres. 12
- (b) Give the synthesis of :
- (i) Remazole Brilliant Blue R
- (ii) Acid Yellow 73
- (iii) Acid Red 1

- 6** (a) Give an account of : **11**
(i) Indigoid and thio-indigoid dyes
(ii) Sulphur dyes
(b) Give the synthesis of :
(i) Disperse Yellow 14
(ii) Acridine yellow G

OR

- 6** (a) Classification of disperse dyes. **11**
(b) How are disperse dyes applied on polyester fibres ?
(c) Give the synthesis of :
(i) Bismarck Brown
(ii) Indanthrene Brilliant Pink R.
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