

17427

14115

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) Answer each next main question on a new page.
(2) Illustrate your answers with neat sketches wherever necessary.
(3) Figures to the right indicate full marks.
(4) Assume suitable data, if necessary.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
(6) Write any special instructions if any.

Marks

1. (A) Attempt any SIX :

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- (i) Define acid value of oil.
- (ii) Why bamboo is most preferred raw material for manufacture of paper in India ?
- (iii) List four factors affecting growth of micro organisms.
- (iv) What is glacial acetic acid ?
- (v) Write four uses of polystyrene.
- (vi) State importance of Iodine value of oils.
- (vii) Define saponification value of oil.

(B) Attempt any TWO :

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- (i) What are pigments ? State uses of pigment. Write constituents of any one pigment.
- (ii) Compare between soaps and detergents.
- (iii) Write reactions involved in manufacture of polyester.



P.T.O.

- 2. Attempt any FOUR :** **16**
- (a) Describe with a neat sketch vinegar process for acetic acid.
 - (b) Distinguish between paints and varnish.
 - (c) Draw only flow sheet for converting pulp into paper.
 - (d) Draw only flow sheet for manufacture of phenol from chlorobenzene.
 - (e) Compare between hot and cold process for manufacture of soaps.
 - (f) Draw flow sheet for manufacture of vinyl chloride.
- 3. Attempt any FOUR :** **16**
- (a) Describe Oxo process for butanol.
 - (b) What are varnishes ? State their types and uses.
 - (c) List various process of pulp formation. Describe any one in short.
 - (d) Write raw materials and reactions involved in manufacture of phenol from Benzene.
 - (e) Draw flow sheet for manufacture of PVC by emulsion polymerization.
 - (f) What is polymerization ? State types of polymerization processes with one example each.
- 4. Attempt any FOUR :** **16**
- (a) Describe in detail Ziegler process for polyethylene.
 - (b) Draw only block diagram for manufacture of paints. Explain in brief.
 - (c) List industrial uses of alcohol.
 - (d) Describe cleansing action of soaps.
 - (e) Describe extraction of oil using mechanical and hydraulic process.
 - (f) Draw only flow sheet for manufacture of Rayon.
- 5. Attempt any TWO :** **16**
- (a) Describe with flow sheet manufacture of ethanol.
 - (b) Describe continuous process for manufacture of soap.
 - (c) Describe with flow sheet and reactions manufacture of phenol by Benzene Sulphonate process.
- 6. Attempt any TWO :** **16**
- (a) Describe manufacture of phenol from Toluene.
 - (b) Describe with flow sheet Sulphate process for pulp / paper.
 - (c) Describe with flow sheet manufacture of polyester.
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