



17427

16172

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) *All questions are compulsory.*
 - (2) *Illustrate your answers with neat sketches wherever necessary.*
 - (3) *Figures to the right indicate full marks.*
 - (4) *Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.*

Marks

1. A) Attempt **any six** : **12**
- i) Define saponification value of oil.
 - ii) Define pulp. Name the methods for the production of pulp.
 - iii) Define fermentation. State any one application of fermentation.
 - iv) Give any two uses of acetic acid.
 - v) State the methods of polymerisation.
 - vi) State the significance of acid value.
 - vii) Define iodine value of oil.
- B) Attempt **any two** : **8**
- i) Draw flow sheet for the manufacturing of paint.
 - ii) Differentiate between soap and detergent.
 - iii) Write the four uses of polystyrene.
2. Attempt **any four** of the following : **16**
- i) List industrial uses of alcohol.
 - ii) List the raw materials required for the manufacturing of paint along with their purposes.
 - iii) Draw sulphite process for pulp manufacturing.
 - iv) Describe the manufacturing of phenol by toluene oxidation process.
 - v) Draw flow sheet for manufacturing of vinyl chloride.
 - vi) Compare between hot and cold process for manufacturing of soap.

P.T.O.



- 3. Attempt any four of the following :** **16**
- i) Describe the manufacturing of ethyl alcohol from molasses.
 - ii) Differentiate between lacquers and varnishes.
 - iii) List raw materials for the manufacturing of paper. Name the additives are used to improve quality of paper.
 - iv) Describe the low pressure process for manufacture of polyethylene.
 - v) Write raw materials and reactions involved in manufacture of phenol from benzene.
 - vi) Draw the flow sheet for the manufacturing of rayon.
- 4. Attempt any four of the following :** **16**
- i) Describe the cleansing action of soaps.
 - ii) Describe the hydrogenation of oil with neat diagram.
 - iii) Describe the oxo-process for the manufacturing of butanol.
 - iv) Write the constituents of white, black, blue and red pigments.
 - v) Give types of polymers with examples.
 - vi) Draw the flow sheet for the manufacturing of polystyrene.
- 5. Attempt any two of the following :** **16**
- i) Describe the manufacturing of phenol from cumene with neat flow diagram.
 - ii) Describe the manufacturing of acetic acid by acetaldehyde with neat flow diagram.
 - iii) Explain the extraction of oil with neat flow diagram.
- 6. Attempt any two of the following :** **16**
- i) Describe manufacturing of paper by kraft process with neat flow diagram.
 - ii) Describe the manufacturing of polyester with neat flow diagram.
 - iii) Describe the manufacturing of phenol by benzene sulfonate process.
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