

22487

24225

3 Hours / 70 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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) Define Sanding and write any two applications of Sanding.
- (b) List the Machining Techniques used in Mould Designing.
- (c) State the factors consider during solvent cementing process.
- (d) Write the application of Hot Plate Welding.
- (e) Write advantages of Screen Printing over Flexographic Printing.
- (f) State the need of Powder Coating in Polymer Industry.
- (g) Enlist the coating techniques used in Automotive Industries.

2. Attempt any THREE of the following :

12

- (a) Explain factors to be considered while selecting the finishing techniques for suitable products.
- (b) Discuss in detail butt joints.



- (c) Enlist various types of sealing applied on polymeric product. Write application of it.
- (d) Discuss why pre-treatment is done before decoration for the polymer product.
- (e) Discuss Powder Coating types, explain any one.

3. Attempt any THREE of the following :

12

- (a) Explain in detail 'Drilling' Techniques used in polymer industries.
- (b) Differentiate between Adhesive Bonding and Solvent Cementing.
- (c) Describe the principle of Induction Welding.
- (d) Discuss advantages and disadvantages of Screen Printing.
- (e) Explain polyurethane based Powder Coating in detail.

4. Attempt any THREE of the following :

12

- (a) Explain Tumbling method in detail. Write need of Tumbling.
- (b) Discuss various resins used in Adhesive bonding. Explain any one in detail.
- (c) Explain with neat diagram 'Dielectric heat sealing'.
- (d) Describe 'Flame Treatment' pre-treatment techniques in detail.
- (e) Explain manufacturing method of melt-mix coating in detail.

5. Attempt any THREE of the following :

12

- (a) Discuss the role of capillary methods in solvent cementing methods. Write procedure of it.
- (b) Describe the procedure for preparing tongue and groove adhesive joints.
- (c) Explain in detail with sketch 'Impulse type sealer'.
- (d) Explain step-by-step process of pad printing.
- (e) Discuss 'Plasma Treatment' in detail.

6. Attempt any TWO of the following :**12**

- (a) Discuss application and factor to be considered while selecting following methods as adhesive tools :
 - (i) Roller
 - (ii) Squeeze bottle
 - (iii) Roll coaters
 - (b) Discuss in detail shrink fitting and snap fitting. Write importance of these fitting. Discuss two applications of each.
 - (c) With neat sketch, explain Rotogravure Printing. Write the application of printing in packaging industries, with example.
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