

22452

12425

03 Hours / 70 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each Section on same/separate answer sheet.
 - (3) Answer each next main Question on a new page.
 - (4) Illustrate your answers with neat sketches wherever necessary.
 - (5) Figures to the right indicate full marks.
 - (6) Assume suitable data, if necessary.
 - (7) 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) Classify Adhesives.
 - b) State function of filling operation.
 - c) Draw butt and lap joint.
 - d) Define hot gas welding process.
 - e) State any two applications of ultrasonic welding.
 - f) State the need of solvent cleaning method.
 - g) Enlist different methods of printing on plastics.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Elaborate Machining Techniques -
 - i) Drilling
 - ii) Threading
 - b) Enlist Adhesive application methods. Explain any one.
 - c) Explain shrink fitting and snap fitting.
 - d) Describe the process of flocking with neat sketch.
- 3. Attempt any THREE of the following:** **12**
- a) Define
 - i) Ashing
 - ii) Buffing
 - iii) Polishing
 - iv) Grinding
 - b) Describe the process for preparation of substrate for adhesive application.
 - c) Explain the process of hot plate welding.
 - d) State any four advantages and applications of dip coating process.
- 4. Attempt any THREE of the following:** **12**
- a) Explain principle consideration of machining and tool geometry.
 - b) Elaborate -
 - i) Pressure Sensitive Adhesive
 - ii) Hot Melt Adhesive.
 - c) Identify and explain suitable welding technique for milk packaging pouches.
 - d) Describe vacuum metallization technique used with plastics with neat diagram.
 - e) Explain Electrostatic spraying method for application of coating with neat diagram.

- 5. Attempt any TWO of the following:** **12**
- a) Describe the process of solvent cementing by capillary method, state its any two applications.
 - b) Describe the ultrasonic welding process.
 - c) Describe corona discharge treatment for surface treatment of film.
- 6. Attempt any TWO of the following:** **12**
- a) With neat sketch explain screen printing process, state its any four applications.
 - b) Enlist various types of powder coating. Explain any one with its advantages.
 - c) Describe solution blending and dry blending methods for powder coating manufacturing.
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