

315361

12526

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) Use of Non-programmable Electronic Pocket Calculator is permissible.
- (6) 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) State the function of file.
- b) State the function of buffing.
- c) Define adhesive.
- d) Draw a neat diagram of V-joint.
- e) State any four types of adhesives.
- f) Draw a neat labeled diagram of equipment of hot gas welding.
- g) State any two advantages of screen printing process.

P.T.O.

- 2. Attempt any THREE of the following : 12**
- a) Explain tumbling process in detail.
 - b) Describe the drilling technique and state its use in finishing of polymers.
 - c) Explain the process of laser machining.
 - d) Explain dip method used for bonding of polymeric parts.
- 3. Attempt any THREE of the following : 12**
- a) Explain how two acrylic pieces are joined together by cementing.
 - b) Describe the roll coating method used to bond two polymer parts.
 - c) Describe the process of adhesive joining by using butt and tongue-and-groove joints.
 - d) Explain the process of spin welding of two thermoplastic parts.
- 4. Attempt any THREE of the following : 12**
- a) Explain hot melt and pressure sensitive adhesives bonding.
 - b) Explain the ultrasonic welding for the assembly of polymeric parts.
 - c) Explain the dielectric heat sealing method.
 - d) Explain jaw type bar sealer and hot knife.
 - e) Explain the process of in-mould decoration

- 5. Attempt any TWO of the following :** **12**
- a) Describe screen printing method with neat figure.
 - b) Explain dip coating and roll coating method for decoration of polymers.
 - c) Choose the correct method of decoration of ball pen. Also suggest the method for colouring of watch dial. Explain these methods in detail.
- 6. Attempt any TWO of the following :** **12**
- a) Describe dry blend and melt mix powder manufacturing methods.
 - b) Explain flocking and embossing methods in detail.
 - c) Explain the methods of powder coating by using an electrostatic spraying and friction static spraying with sketches.
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