

22555

11920

3 Hours / 70 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.

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| 1. Attempt any FIVE of the following : | 10 |
| (a) Define surface coating. | |
| (b) State two properties and two applications of architectural paints. | |
| (c) Enlist any four ingredients of paints. | |
| (d) Define curing for coating. | |
| (e) Define the term substrate and adherent for coating. | |
| (f) Justify the need of surface pretreatment for adhesion. | |
| (g) Name any two Enamel. | |
| 2. Attempt any THREE of the following : | 12 |
| (a) State any four factors which affects the coating & explain any two in brief. | |
| (b) Differentiate between emulsion paint and solvent paint. | |
| (c) Explain with neat figure the rod coating. | |
| (d) Enlist any four properties and applications of latex adhesives. | |
| 3. Attempt any THREE of the following : | 12 |
| (a) Enlist any two plastic materials with their properties and applications used in surface coating. | |

- (b) State any four applications of water paints and chemical resistant paint.
- (c) Compare pressure sensitive adhesives and solvent borne adhesive on the basis of their properties.
- (d) Explain the diffusion theory with neat sketches.
- 4. Attempt any THREE of the following : 12**
- (a) Describe the effect of surface treatment on substrates of high surface energy.
- (b) State any four properties and applications of hot melt adhesives.
- (c) Explain the adsorption theory with neat sketches.
- (d) Suggest suitable adhesives for following joints :
- (i) rubber – rubber
 - (ii) glass – glass
 - (iii) plastic – plastic
 - (iv) wood – wood
- (e) Describe the mechanism of adhesion on substrate with neat sketch.
- 5. Attempt any TWO of the following : 12**
- (a) Explain solvent containing coating system with its application.
- (b) Describe the general formulation of interior latex paint and fire retardant paint with one example.
- (c) Explain with neat figure the spray coating process in brief.
- 6. Attempt any TWO of the following : 12**
- (a) Explain with neat figure the reverse roll coating.
- (b) Enlist any six ingredients in composition of adhesives with the function of each.
- (c) Explain with neat figure the dip coating process & any one product for which it is used.
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