

## SIXTH SEMESTER DIPLOMA EXAMINATION IN POLYMER TECHNOLOGY

## PAINTS AND SURFACE COATING

(Maximum marks 100)

Time 3:Hours

## PART-A

1. Answer the following questions in one or two sentences .Each question carries 2 marks
1. Define refraction and reflection ?
  2. Distinguish between specular gloss and bloom gloss?
  3. Differentiate oil paints and emulsion paints ?
  4. What are the factors affecting adhesive bond ?
  5. Define pigment volume concentration( PVC) ? (5x2=10)

## PART –B

II. Answer any five of the following questions . Each question carries 6 marks

- 1.What are the properties of the pigment dispersion?
2. Explain additives affecting the viscosity of surface coating?
3. Differentiate marine coating and aircraft coating ?
- 4.Give the advantages and disadvantages of Acrylic paints over other paints?
- 5.Explain the following paint application techniques  
a)Flow coating b)Roller coating
- 6.Explain adhesion properties of coatings ?
- 7.List the different drying methods adopted in painting ? (5x6=30)

## PART –C

Answer any one full question from each unit .Each question carries 15 marks

## UNIT -1

- III. a) Explain the preparation of paint with a typical formulations . mention the function of each ingredient (8)
- b) Describe different types of solvents used in paint manufacture ? (7)

OR

- IV a) Explain the function of Extenders, Solvents and diluents in paint manufacture ? (8)
- b) What are the components of a paint .Write a typical formulations ? (7)

UNIT –II

- V a) Classify the paints based on resin used . Compare the merits and demerits of each (8)
- b) Distinguish oil paints and emulsion paints with examples . Compare their properties (7)

OR

- VI a) Classify paints based on their application. Compare the merits and de merits of each (8)
- b) Explain the manufacture of silicone paints .Give its properties and application (7)

UNIT –III

- VII a) Describe the method of application of paints by Electrode position and chemiphoretic (8)
- b) Explain the methods adopted for surface cleaning (7)

OR

- VIII( a) Describe the method of application of paint by Dip coating and spray painting ?
- Write their merits and demerits (8)
- b) Explain the term silking ,Floating and crate ring (7)

UNIT –IV

- IX a) Describe different types drying used in paint application (8)
- b) Explain any two methods used for film preparation ? (7)

OR

- X a) Explain the mechanical properties and Optical properties of surface coatings (8)
- b) Explain the mechanism of film formation with an example? (7)

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