

Scheme – I
Sample Question Paper

Program Name : Diploma in Plastic Engineering
Program Code : PS
Semester : Fourth
Course Title : Finishing and Joining of Plastics
Marks : 70

22452

Time: 3 Hrs.

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1) A) Attempt any FIVE of the following.

10 Marks

- (a) Classify adhesives.
- (b) State any four examples of mechanical fasteners.
- (c) State the need of surface pretreatment.
- (d) Name any two metallization techniques used with plastics.
- (e) Name any two methods used to modify surface of plastics by material removal.
- (f) State the utility of powder coating.
- (g) Enlist any two methods of powder coating manufacturing.

Q.2) Attempt any THREE of the following.

12 Marks

- (a) Explain principal considerations of machining tool geometry.
- (b) Draw neat sketches of any four adhesive joints.
- (c) Suggest and explain the coating technique for thick coat on large surface.
- (d) Explain the snap fitting and integral hinge alongwith its application.

Q.3) Attempt any THREE of the following.

12 Marks

- (a) Explain ultrasonic assembly technique with neat sketch of equipment.
- (b) State the principle of solvent cementing and mention solvents used for Acrylics and PS.
- (c) Suggest and explain welding technique for PVC folders.
- (d) Name and describe any two flash removal finishing techniques.

Q.4) Attempt any THREE of the following.

12 Marks

- (a) Suggest and explain the method of applying adhesive in hot melt form.
- (b) Suggest and explain relevant welding method for plastics sheet.
- (c) Identify and describe method for Aluminium coating bathroom fittings made from plastics.
- (d) Explain in-mould decorating technique with relevant example.
- (e) Describe the procedure for electrostatic spraying in case of powder coating.

Q.5) Attempt any TWO of the following.

12 Marks

- (a) Identify the tool used in any six machining techniques alongwith application of each.
- (b) Suggest and describe printing method used for products- i) milk pouch and ii) bottle cap.
- (c) Classify powder coating types and state its applications.

Q.6) Attempt any TWO of the following.

12 Marks

- (a) Identify the resin used in liquid, mastics and hot melt type adhesives and state two applications of each.
- (b) Suggest and describe the welding method used for PE pipeline.
- (c) i) Identify and explain the decorating method for giving textile like appearance to plastics.
ii) Suggest and describe surface pretreatment method for PE film.

Scheme – I
Sample Test Paper - I

Program Name : Diploma in Plastic Engineering
Program Code : PS
Semester : Fourth
Course Title : Finishing and Joining of Plastics
Marks : 20

22452

Time: 1 Hour

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1) Attempt any FOUR of the following.

08 Marks

- a) State any four user guidelines for machining tool geometry.
- b) Draw neat sketches of any two adhesive joints.
- c) Name any two flash removal finishing techniques for thermosetting plastics.
- d) Suggest welding method for i) LED bulb, ii) PVC folder
- e) Enlist any four mechanical fastener.

Q.2) Attempt any THREE of the following.

12 Marks

- a) Describe the solvent cementing of dissimilar plastics.
- b) Suggest and explain the method of applying adhesive in hot press bonding.
- c) Explain drilling with plastics and state any two applications of it.
- d) State merits and demerits of any four types of adhesives.

Scheme – I
Sample Test Paper - II

Program Name : Diploma in Plastic Engineering
Program Code : PS
Semester : Fourth
Course Title : Finishing and Joining of Plastics
Marks : 20

22452

Time: 1 Hour

Instructions:

- (1) All questions are compulsory.
- (2) Illustrate your answers with neat sketches wherever necessary.
- (3) Figures to the right indicate full marks.
- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

Q.1) Attempt any FOUR of the following.

08 Marks

- a) Name the welding technique used for lid of box and bottle cap.
- b) Justify the need of surface treatment.
- c) Enlist any two methods of powder coating manufacturing.
- d) State principle of hot gas welding.
- e) Suggest printing method for cylindrical plastic objects and shopping bags.

Q.2) Attempt any THREE of the following.

12 Marks

- a) Suggest and explain welding technique for milk pouch.
- b) Suggest and explain the method of depositing Aluminium onto plastics jewellery.
- c) Describe the procedure for friction static spraying in case of powder coating.
- d) State advantages and limitations of powder coating.