

# PLA 705 PLASTICS PRODUCT AND MOULD DESIGN (PPMD) THEORY



Duration: 60 Minutes

Maximum Marks 50

Each question carries 2 marks

## Question 1-5 : Fill in the blanks

1. Feed system is  
(a) Flow path from runner to impression. (c) Nothing but moulding and gate.  
(b) **Melt flow path which connects nozzle with the impression.** (d) None of the above.
2. Design is the  
(a) Duplication of drawing. (c) **Product of creative thinking.**  
(b) Making 2D drawing to 3D. (d) All of the above.
3. Shot weight is referred as  
(a) Wt. of the mould. (c) Wt. of the machine.  
(b) **Wt. of the moulding(s) and feed system.** (d) Wt. of the moulding.
4. Mould venting is nothing but the  
(a) **Provision for escape of air & gas from the mould cavity.** (c) Heating of the mould.  
(b) Provision for allowing air to enter in to the mould cavity. (d) None of the above.
5. Clamping force is nothing but  
(a) **Projected area X effective injection pressure.** (c) Pressure by unit area.  
(b) Force acting on the injection side of the mould. (d) None of the above

## Question 6-10 :Short Answer questions

6. Define Engineering drawing?  
**An engineering drawing a type of technical drawing, is used to full and clearly define requirements for engineered items.**
7. What is the size of B0 drawing board?  
**1414 mm x 10mm.**
8. Expand B.I.S?  
**Bureau of Indian standards.**
9. What is the thickness of B3 drawing board?  
**25 mm.**

10. What is the size of A3 size paper?

**420mm x 297mm.**

Question 11-14 : Fill in the blanks

11. What is the use of steel rule

- (a) To measure angle.
- (b) To measure radius.

- (c) **To measure length**
- (d) All of the above.

12. What is the use of T-square?

- (a) **To measure right angle.**
- (b) To measure radius.

- (c) To measure length
- (d) All of the above.

13. What is the use of bevel protractor?

- (a) **To measure angle.**
- (b) To measure radius.

- (c) To measure length
- (d) None of the above.

14. Why work shop safety comes first?

- (a) To save others from hazardous
- (b) **To save yourself from hazardous.**

- (c) To save organization from hazardous
- (d) **All of the above.**

Question 15-25 :Short Answer questions

15. What is the least count of Micrometre?

**0.01mm.**

16. What is product design?

**Product design as a verb is the process of creating a new product to be sold by business**

**to its Customers. A very broad concept, it is essentially the efficient and effective generation**

**and development of ideas through a process that leads to new products.**

17. Aesthetic plays a important role in product design. (**True**/False)

18. What are primary concepts for product design?

**The design process follows a guideline involving three main sections:**

- **Analysis**
- **Concept**
- **Synthesis**

19. What is Metrology?

**Metrology is the science of measurement Metrology includes all theoretical and practical aspects of measurement.**

20. What is Inspection?

**Critical appraisal involving examination, measurement, testing, gauging, and comparison of materials or items. An inspection determines if the material or item is in proper quantity and condition, and if it conforms to the applicable or specified requirements.**

21. What is Plastics?

**Plastic is a material consisting of any of a wide range of synthetic or semi synthetic organics that are malleable and can be molded into solid objects of diverse shapes.**

22. What is Polymer?

**A polymer is a large molecule, or macromolecule, composed of many repeated subunits. Because of their broad range of properties, both synthetic and natural polymers play an essential and ubiquitous role in everyday life.**

23. All plastics are polymers, but all polymers are not plastics. (True/False)

24. What do you mean by Elastomers?

**An elastomer is a polymer with viscoelasticity (having both viscosity and elasticity).**

25. Write down the classification of Thermoplastic materials?

- 1. Amorphous thermoplastic polymers**
- 2. Semi-crystalline thermoplastic.**