

## Scheme –I

### Sample Question Paper

**Program Name : Diploma in Plastic Engineering**

**Program Code : PS**

**Semester : Fifth**

**Course Title : Moulds and Die Design**

**Marks : 70**

**22550**

**Time: 3 Hours.**

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#### Instructions:

- 1) All questions are compulsory.
- 2) Illustrate your answers with neat sketches where 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 five of the following.**

**10 Marks**

- a) Define cavity and core
- b) State the function of sprue bush in injection mould.
- c) Enlist the types of core cooling systems
- d) List the types of compression moulds.
- e) Define parison.
- f) Classify the dies on the basis of flow.
- g) Enlist the types of sheet manufacturing dies.

#### **Q.2) Attempt any three of the following.**

**12 Marks**

- a) Differentiate between fixed half and moving half of injection mould with at least four points.
- b) Explain the working and construction of baffle type cooling system with neat diagram.
- c) Explain the working and construction of flash type compression mould with neat diagram.
- d) Describe with neat diagram, the venting method for blow mould where neck and base inserts are used.

#### **Q.3) Attempt any three of the following.**

**12 Marks**

- a) Explain the construction and working of stripper plate ejection system with neat diagram.

- b) Describe the construction and working of integral pot type transfer mould with neat diagram.
- c) Explain with neat diagram, the construction of blow mould where PET performs get stretched.
- d) Describe the construction of in line pipe die with neat diagram

**Q.4) Attempt any three of the following.**

**12 Marks**

- a) Explain with neat diagram, the construction of injection mould which is having two parting lines.
- b) Describe sleeve ejection system with neat diagram.
- c) Explain the construction and working of loose plate transfer moulding.
- d) Explain the constructional details of extrusion blow mould with neat diagram.
- e) Differentiate between two types of wire and cable coating dies with at least four points.

**Q.5) Attempt any two of the following.**

**12 Marks**

- a) Enlist any six types of gates. Explain construction and significance of any two gates with neat diagram.
- b) Explain the construction and working of hot runner mould with neat diagram.
- c) Describe with neat diagram, the construction and working of transfer mould where there is no need of sprue bush.

**Q.6) Attempt any two of the following.**

**12 Marks**

- a) Explain with neat diagram the construction of types of sprue bushes used in transfer mould
- b) Describe the construction of parison die with neat diagram.
- c) Explain with neat diagram the construction of three types of pinch off methods used in blow mould.

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## Scheme –I

### Sample Test Paper - I

**Program Name** : Diploma in Plastic Engineering

**Program Code** : PS

**Semester** : Fifth

**Course Title** : Moulds and Die Design

**Marks** : 20

**22550**

**Time: 1 Hour**

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**Instructions:**

- 1) All questions are compulsory.
- 2) Illustrate your answers with neat sketches where 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 the function of register ring in injection mould.
- b) State the role of venting in injection mould.
- c) Classify the types of ejector system used in injection moulding.
- d) Enlist the types of compression moulds
- e) Define cull pick up

**Q.2) Attempt any three of the following.**

**12 Marks**

- a) Explain the construction of guide pin and guide bush with neat diagram
  - b) Describe the working of fountain type core cooling system with neat diagram
  - c) Differentiate between pot type and plunger type transfer mould with at least four points
  - d) Explain construction and working of flash type compression mould with neat diagram.
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## Scheme –I

### Sample Test Paper - II

**Program Name : Diploma in Plastic Engineering**

**Program Code : PS**

**Semester : Fifth**

**Course Title : Moulds and Die Design**

**Marks : 20**

**22550**

**Time: 1 Hour**

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#### **Instructions:**

- 1) All questions are compulsory.
- 2) Illustrate your answers with neat sketches where 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) Enlist the types of blow moulds.
- b) Define perform.
- c) State the role of venting in blow mould.
- d) Classify the dies on the basis of flow.
- e) Enlist the types of heating systems for moulds and dies.

#### **Q.2) Attempt any three of the following.**

**12 Marks**

- a) Explain the construction of parison die with neat diagram
- b) Explain the constructional details of extrusion blow mould with neat diagram.
- c) Describe the construction of fishtail die with neat diagram
- d) Differentiate between pressure die and tubing die used for wire and cable coating with at least four points.

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