

22550

22232

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.
 - (4) Assume suitable data, if necessary.

Marks

1. Answer any FIVE of the following :

10

- (a) Define undercut. List types of undercut.
- (b) Draw neat & labelled sketch of register ring.
- (c) Suggest suitable ejection system for following plastic product :
 - (i) Plastic bucket
 - (ii) Refrigerator ice tray
- (d) State the advantages of positive compression mold.
- (e) Name any two blow molded product & suggest suitable blow mold for it.
- (f) Define Heater. List the types of heating.
- (g) Define Die. Enlist the type of extrusion die.

2. Answer any THREE of the following :

12

- (a) Derive the equation to determine optimum number of cavity in multicavity injection mold.
- (b) Define split. Draw neat sketch of split mold. Enlist type of split mold.
- (c) Describe the auxiliary ram type transfer mold with sketch.
- (d) Explain with neat sketch stretch blow mold used for mineral water bottle.



- 3. Answer any THREE of the following : 12**
- (a) Describe the concept of runnerless mold with example.
 - (b) Compare semipositive compression mold with flash type mold.
 - (c) Explain with neat sketch pinch off design in blow mold.
 - (d) Draw neat & labelled sketch of blown film die.
- 4. Answer any THREE of the following : 12**
- (a) Draw neat sketch of pipe die & state function of each component of die.
 - (b) State & explain the factors considered while designing extrusion blow mold.
 - (c) Describe any one type of sprue bush design used in transfer mold.
 - (d) Explain with neat sketch hot runner mold.
 - (e) Define gate. Enlist types of gate. Explain with sketch sprue gate.
- 5. Answer any TWO of the following : 12**
- (a) Draw neat & labelled sketch of two plate injection mold. Write the function of each parts of mold.
 - (b) State the need of cooling for injection mold. Enlist different types of cooling circuit used in injection mold. Suggest suitable cooling circuit for plastic chair & explain it in brief.
 - (c) Enlist the types of compression mold. Explain with neat sketch semipositive compression mold.
- 6. Answer any TWO of the following : 12**
- (a) Draw neat sketch of integral pot type transfer mold & explain it in brief.
 - (b) Explain with neat sketch parison die used in blow mold.
 - (c) Compare the extrusion blow mold with injection mold with respect to mold design concepts.
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