



17327

15162

4 Hours / 100 Marks

Seat No.

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- Instructions :** (1) *All questions are compulsory.*
(2) *Answer each next main question on a new page.*
(3) *Figures to the right indicate full marks.*

Marks

1. Answer any five :

(5×4=20)

- Draw a labelled diagram of a hand injection mould.
- Compare manual – clamping and automatic – clamping.
- Describe diaphragm gate.
- How is runner balancing done ?
- Describe function of a sprue puller.
- Explain necessity of venting.
- Explain characteristics of z-type cooling system.

2. Answer any two :

(2×8=16)

- Explain principle of injection moulding. **3**
 - Draw a labelled diagram of two plate injection mold and write the functions of each component. **5**
- Explain necessity of ejection to plastic product. **3**
 - Describe ejection mechanism. **5**
- Describe construction and working of a lathe machine.

3. Answer any two :

(2×8=16)

- Explain function and draw neat sketch of list type of following :
 - guide pin, **2**
 - guide bush **2**
- Explain function of a runner. **2**
 - What are selection criteria of a runner ? Explain it with example. **6**
- Describe any two ejection techniques.

4. Answer any two :

(2×8=16)

- Name types of sprue brushes. **2**
 - Explain with a labelled diagram, any one type of sprue brush. **6**
- Describe gate balancing. What is its importance ?
- Describe cooling system for :
 - Bloster
 - Core inserts. **2**

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Marks

5. Answer any two :

(2×8=16)

a) i) Define :

1) Core,

2) Insert,

3) Platen,

4) Parting line

ii) Describe function of a register ring.

b) Describe ejector plate assembly.

c) Explain :

i) Electroplating

ii) Pressure casting

6. Answer any four :

(4×4=16)

a) Compare compression mold and injection mold.

b) Explain lay-out of a runner.

c) What is a retainer plate ? What is its function ?

d) Describe U-type of cooling system.

e) Describe technique of bench fitting.

f) Explain principle of a milling technique.
