17327

15116

4 Hours / 100 Marks Seat No. | | | | | | | | |

Instructions : *(1)* ***All*** *questions are* ***compulsory****.*

(2) Illustrate your answers with neat sketches ***wherever*** *necessary.*

Marks

1. Attempt **any ten**: **(20)**

a) Enlist the different components of injection mould. **2**

b) Enlist the types of compression moulds. **2**

c) State the basic two differences between compression mould and injection mould. **2**

d) State the basic two differences between injection mould and blow mould. **2**

e) Define the term impression in injection mould. **2**

f) Enlist the various types of parting line. **2**

g) State the importance of register ring in injection mould. **2**

h) Define sprue and runner. **2**

i) Draw the runner layouts for 3 impression cavity and 4 impression cavity. **2**

j) State the factors to be consider for designing runner layout. **2**

k) State the necessity of ejection system in injection mould. **2**

l) State the function of sprue puller in injection mould. **2**

m) State the purpose of cooling in injection mould. **2**

n) State the necessity of venting in injection mould. **2**

2. Attempt **any two**: **(16)**

a) Enlist the types of Bolsters. Explain any three of them with neat diagram. **8**

b) Describe various runner cross section shapes with neat diagram. **8**

c) Describe pin ejection in detail with labelled diagram. **8**

3. Attempt **any two**: **(16)**

a) Enlist the different types of guide piller and guide bushes. Explain the construction features of any one of them with neat diagram. **8**

b) Explain the constructional features of air ejection mechanism with neat diagram. **8**

c) Describe principle, working and constructional features of cylindrical grinding machine with neat diagram. **8**

P.T.O.

Marks

4. Attempt **any two** : **(16)**

a) Explain the constructional features of any four types of register ring with neat diagram. **8**

b) Describe with detailed diagram about positioning of gate in injection mould. **8**

c) Describe the constructional features of ejecton plate assembly with neat diagram. **8**

5. Attempt **any two** : **(16)**

a) Enlist the various types of gates. Explain any four types of gates with neat diagram. **8**

b) Describe in detail the constructional features of cooling bolster with neat diagram. **8**

c) Describe step wise cold nobbing process for manufacturing of cavity inserts with neat diagram. **8**

6. Attempt **any two** : **(16)**

a) Write in detail about indirect bolting method for attachment of mold to platen with neat diagram. **8**

b) Write in detail about "Battled hole" cooling system and "Spiral plug" cooling system with neat diagram. **8**

c) Describe the steps involved in bench fitting for proper allignment of mold. **8**