

- Q.26 Explain bolster plates and its types.
 Q.27 Discuss ejection from fixed half.
 Q.28 Define stepped ejector pins.
 Q.29 State various characteristics of mould materials.
 Q.30 Explain Runner less mould advantages.
 Q.31 How does balancing of runner. Effect processing of plastics.
 Q.32 Discuss side pull core undercut mechanism.
 Q.33 State various considerations of mould materials.
 Q.34 What do you understand by relief of parting surface?
 Q.35 Draw labelled diagram of two plate mould.

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x10=20)

- Q.36 Discuss :
 a) Ejection techniques
 b) Hot runner mould and its importance
 Q.37 Write short note on :
 a) Angle lifts splits and its types
 b) Cooling integer type moulds
 Q.38 Write any five materials used in the fabrication of injection moulds. Write their characteristics and the parts of mould fabricated by them.

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**5th Sem., Branch : Plastic, Chem Engg.
 (Spl. Polymer Engg)
 Subject : Design of Die and Moulds - I**

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 The mould cooling system is nothing but a heat exchange system
 a) True b) False
 c) Maybe d) None of above
 Q.2 Hot runner mould has no runner system in the mould.
 a) True b) False
 c) Maybe d) None of above
 Q.3 Core gives internal shape to plastic part
 a) True b) False
 c) Maybe d) None of above
 Q.4 Line which is formed by joining of core and cavity is known as _____.
 a) Thin Line b) Parting Line
 c) Weld Line d) Parallel Line

- Q.5 The size of the runner depends on the size of the part and its wall thickness
- True
 - Depends on both
 - Does not depends on any of them
 - None of above
- Q.6 Moulding having undercuts are mostly molded using split moulds
- True
 - False
 - Can't say
 - None of above
- Q.7 Direct champing of mould is better than Indirect clamping
- True
 - False
 - Can't say
 - None of above
- Q.8 Cavity gives _____ shape of Plastics part
- Internal
 - External
 - Circular
 - Square
- Q.9 Dies are used in
- Injection moulding machines
 - Extruders
 - Rotational moulding machines
 - Compression moulding machines
- Q.10 Which of the following is the mould material used in Plastic industry?
- Mild steel
 - Die steel
 - Epoxy
 - All of them

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Section-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define runners.
- Q.12 Undercuts make the ejection of plastics product easier (True/False)
- Q.13 Three plate mould is made up of on only three plates. (True/False)
- Q.14 Dies are used in Injection Moulding Machine (True/False)
- Q.15 What N & C stands for in the term NC steel?
- Q.16 Moulds can have more than one parting line. (True/False)
- Q.17 _____ is formed by meeting of core and cavity.
- Q.18 Draw FAN gate.
- Q.19 Give any one advantage of hot runner mould
- Q.20 Feed system should be _____ for effective filling of cavity.

Section-C

Note: Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Explain function of sprue puller.
- Q.22 Discuss side splits and their types.
- Q.23 Explain the requirements of good mould.
- Q.24 Explain Z-Type of cooling connection.
- Q.25 Discuss criteria for selection of parting line.

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