SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain :

a) Types of parting surface

b) Types of gates

Q.24 Write short note on :

a) Cooling insert bolster assembly and its types

b) Ejection Techniques

Q.25 Give difference between two plate and three plate mould.

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3rd Sem / Branch : Plastic Technology
Sub.: Design of Dies and Mould-I

Time : 3Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 What is the purpose of ejector pin?

a) Keeping b) Cooling
c) Ejection d) Injection

Q.2 Which is the heart of a mould?

a) Top plate b) Bottom plate
c) Core and cavity d) Ejector plate

Q.3 What is the standard Helix angle of screw?

a) 15^{o} b) 16^{o}
c) 17.7^{o} d) 19.8^{o}

Q.4 What is the function of mould Runner?

a) Vent trapped air
b) provide entry in to the mould cavity
c) Define the mould parting line
d) Provide a path to the mould gates

Q.5 The female portion of a mould that shapes the outer part of the product is known as _____.

a) Core b) Cavity

c) Runner d) Gate

Q.6 In gating system ratio 1:2:4 represents_____.

a) Sprue base: runner area: gate size

b) Runner area: sprue base : gate size

c) Sprue base: gate size : runner area

d) None of these

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 The smaller the size of gate, better it is for design (True/False)

Q.8 Draw diagram of Diaphragm gate.

Q.9 Name two different types of water connections used in plastic moulds.

Q.10 _____ is a channel that directs the molten plastic from the sprue to the cavity.

Q.11 Give functions of Bolster plate.

Q.12 _____ type of mould is used, when part of the runner system is on a different plane to the injection location.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Discuss ejector plate assembly.

Q.14 Discuss relief of parting surface.

Q.15 State the factors needed for deciding the size of runner?

Q.16 Explain register ring and its types.

Q.17 State criteria for selection of parting surface.

Q.18 Discuss various materials used for dies and mould.

Q.19 What is sprue-puller? Discuss its role in ejection system.

Q.20 Explain Z-type cooling system and its importance.

Q.21 Discuss bolster plate and its types.

Q.22 State various characteristics of hot runner mould.