Q.30 Write and define any two required properties of steel material, for making mould.

Q.31 Write a note on gate side and location. Write its importance.

Q.32 Write a note on hot runner mould. Give their importance.

Q.33 What are threads? Write their importance in plastics mouldings.

Q.34 What is the difference between two plate and three plate moulds?

Q.35 What are sprue pullars? Give their importance.

SECTION-D

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

Q.36 Define parting line. Write and define its types with a neat sketch.

Q.37 Write any five materials used to fabricate moulds. Give two properties and two applications of each.

Q.38 What is cooling system? Why cooling is important in injection moulds? With a neat diagram write the bubbler cooling system for cores.

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5th Sem. / Plastics, Chem Engg.
(Spl. Polymer Engg.)
Subject:- Design of Dies and Mould-I

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 Splits moulds are mostly used for undercut mouldings
a) True b) False
c) Can't say d) None of above

Q.2 In the term NC steel. N stands for
a) Normal b) Nine
c) None d) Nickel

Q.3 Bolster plates are normally used for multi impression moulds
a) True b) False
c) Can't say d) None of above

Q.4 Venting is used in moulds so that
a) Excess material can come out from the impression
b) Entrapped air can get escape from the impression
c) Excess material can be injected in the impression
d) All of above

Q.5 To eject CD and DVD, which ejection technique is used

a) Pin b) Blade
c) Valve d) Air

Q.6 Which of following plastics material requires heated oil cooling

a) PE b) PS
c) PVC d) Glass filled nylon

Q.7 Two plate moulds are made up of only two mould plates

a) True b) False
c) Yes d) None of above

Q.8 Core gives _____ shape to moulding.

a) External b) Internal
c) No d) Yes

Q.9 All moulds have only one parting line

a) True b) False
c) Can't say d) None of above

Q.10 Guide pillars are

a) Circular in shape b) Square in shape
c) Rectangular in shape d) None of above

SECTION-B

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

Q.11 Define cavity.

Q.12 What is the other name of runnerless moulds?

Q.13 Define gate.

Q.14 Expand the term HCHC steel.

Q.15 Register rings are circular in shape. (T/F)

Q.16 Define steel.

Q.17 Moulds gives two dimensional moulding. (T/F)

Q.18 Guide pillars for big moulds are made up of mild steel. (T/F)

Q.19 Dies and moulds are same. (T/F)

Q.20 Define core.

SECTION-C

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

Q.21 Define the term bolster plate. Give its types.

Q.22 With a neat sketch, define standard guide pillar.

Q.23 Define the term register ring, give its types.

Q.24 Define efficiency of runners. Calculate the efficiency of circular runner.

Q.25 With a neat sketch, write a note on sprue bush.

Q.26 What are vents? What is the significance of venting?

Q.27 What is ejector grid? Give its types.

Q.28 For cooling the caps of pens, made up of plastics, which cooling technique is used? Justify your answer.

Q.29 Define daylight of mould. How will you calculate required daylight of a given mould?