Q.27 Explain the procedure for developing alternative conceptual design using design parameters.

Q.28 Explain the procedure of selecting the optimal design.

Q.29 Explain principle of drawing of mould lay out.

Q.30 Explain manufacturing of mould with drawing.

Q.31 Explain drawing norms and practices while designing a mould.

Q.32 Write a short note on bill of materials.

Q.33 Explain concept of processing parameters.

Q.34 Give a classification of software packages of cad.

Q.35 What are principles of thermosetting material processing using cad software?

SECTION-D

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

Q.36 Explain the principle of selection of standard elements for a mould. Draw standard element and explain their nomenclature.

Q.37 Write the principles of lay out of cavities, feed system, layout of runner and gating system. Draw runner and gating system layout for a mould.

Q.38 What are the features need to be calculating before design calculations for a mould? Describe each feature in detail.

Advance Diploma in Tool and Die Making
Subject:- Tool Design Practice - II
(Plastic Moulds)

Time : 4Hrs.   M.M. : 100

SECTION-A

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

Q.1 How does the piston in the clamping unit move?
a) Hydraulic energy   b) Pneumatic energy
c) Heat energy   d) Suction

Q.2 In compression moulding the curing time is_____
a) Less   b) Moderate
c) More   d) None

Q.3 The liquid metal that runs through the channels without friction in the mould obeys which of the following theorem?
a) Bernoulli's theorem b) Clausius theorem
c) Helmholtz's theoremd) Carnot's theorem

Q.4 Which of the following is the purpose of runner extension?
a) To make smooth surface finish
b) To make the casting of specific size and shape
c) To remove slag and dross from the metal
d) To make fast cooling of molten metal

Q.5 The three view drawing which shows arrangements

of parts during conceptual design is called as_____

    a) lofting   b) planning

    c) first order sizing   d) analyzing

Q.6 Which of the following is not counted as mold characteristics?

    a) Possession of strength

    b) Possession of refractoriness

    c) Resist corrosion

    d) Resist metal penetration in molds

Q.7 What is the disadvantage of hand molding?

    a) Damage to the projections

    b) Costly method

    c) Non-uniform strength

    d) Poor surface finish of the mold

Q.8 Thermosetting plastic materials_____?

    a) Can be repeatedly melted

    b) Is useful for melt casting

    c) Cannot be melted after forming

    d) Is useful for spinning

Q.9 Which of the following software can't be categorized application software?

    a) DBM   b) MS-DOS

    c) Spreadsheet   d) Word processing

Q.10 In any software package, which of the following version represents a major improvement on the earlier version ?

    a) 1.1   b) 1.5

    c) 2.0   d) 2.5

SECTION-B

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

Q.11 Define molding.

Q.12 Describe mould housing.

Q.13 Write an application of standard catalogues.

Q.14 Describe allowance.

Q.15 Write the use of information data sheet.

Q.16 Write use of conceptual design.

Q.17 Define assembly drawing.

Q.18 Define work sheet.

Q.19 Define machine set up.

Q.20 Write one application of a software package.

SECTION-C

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

Q.21 Explain the construction of a plastic processing mould.

Q.22 Explain the classification of mould housing and bases.

Q.23 Write a short note on mould parts.

Q.24 What is significance of cooling and heating circuits in moulds?

Q.25 Explain principle of component geometry and dimensional tolerance for a mould.

Q.26 Explain principle of conceptual design.