

- Q.27 Explain Ejector return mechanism with neat sketch.
 Q.28 Write the steps involved in forging a hexagonal nut from a cylindrical bar.
 Q.29 Write the advantages of centrifugal Die casting.
 Q.30 Explain with diagram Open die press forging process.
 Q.31 Describe the applications of pressure die casting process.
 Q.32 Write a short note on screw press.
 Q.33 Explain any one type of cooling method used in die casting.
 Q.34 Draw a neat sketch of push back type Ejector return mechanism and label its main parts.
 Q.35 Write in brief about design consideration of forging tools.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 List the various types of forging machines and explain any one in detail.
 Q.37 Explain main parts of pressure die casting machine with neat diagram.
 Q.38 Explain Cupola furnace with a neat sketch and label its various parts.

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6th Sem / Branch : Tool & Die
Sub.: Forging and casting Dies-Design & Drawing

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 In the forging operation, fullering is done to :
 - a) Draw out the material
 - b) Bend the material
 - c) Upset the material
 - d) Extrude the material
- Q.2 Which of the following process would produce strongest components:
 - a) Hot rolling b) Cold rolling
 - c) Extrusion d) Forging
- Q.3 Another name for closed die forging is:
 - a) Drop forging b) Impression forging
 - c) Cast forging d) Hammering
- Q.4 Foundry crucible is made up of:
 - a) Graphite b) Lead
 - c) Cast iron d) Mild steel

- Q.5 Which one of the following is an advantage of forging?
 a) Good surface finish
 b) Close tolerance
 c) Low tooling cost
 d) Improved physical property
- Q.6 Which of the following material is not suitable to be cast by a hot chamber die casting process?
 a) Lead b) Tin
 c) Aluminium d) Zinc
- Q.7 The hot chamber die casting method is used to cast _____.
 a) Brass
 b) Magnesium
 c) Aluminium
 d) Alloys of lead, tin and zinc
- Q.8 Ornaments are cast by:
 a) Die casting b) Continuous casting
 c) Pressed casting d) Centrifugal casting
- Q.9 The core in a centrifugal casting is made of _____.
 a) Carbon steel b) Plastic
 c) Properly treated sandd) No core is used
- Q.10 Ferrous alloys are usually cast by _____.
 a) Hot chamber machine
 b) Die casting machine
 c) Cold chamber machine
 d) None of the above

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 The forging method used to reduce the cross-sectional area is called _____.
 Q.12 What is the temperature of mild steel in forging?
 Q.13 Write any two tools used in forging die.
 Q.14 Define upsetting.
 Q.15 Write gating formula.
 Q.16 Write the name of any two casting processes.
 Q.17 Write any two uses of Extrusion dies.
 Q.18 What is pressure die casting.
 Q.19 Write the name of any two furnaces used in casting.
 Q.20 What do you mean by die lubricant.

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write short note on Maintenance of forging die tools.
 Q.22 Explain Centrifugal Casting Process.
 Q.23 What is gating system? Write the objectives of a good gating system.
 Q.24 Explain open die forging with neat sketch.
 Q.25 Explain in brief about the design considerations of forging tools.
 Q.26 Define permanent mould casting process. Also write its advantages.