SECTION-D

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

Q.23 What is working principle of press? Explain types of press in detail. (CO2)

Q.24 Explain in brief the design parameters for elements of press tool for cutting operations. (CO5)

Q.25 Write Short Notes on. (CO13)

a) Taylor's principle for designing limit gauge

b) Concept of jigs and fixture in batch and mass production.

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2nd Year/Advance diploma in Tool & Die Making

Subject : Tool design-I (Press Tool, Jigs and Fixtures)

Time : 3 Hrs. M.M. : 60

SECTION-A

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

Q.1 Which of the following holds the punch in position? (CO2)

a) Bolster plate b) Punch holder

c) Lower shoe d) Lipper shoe

Q.2 In which die cutting and non cutting operations are performed per stroke? (CO3)

a) Combination die b) Bending die

c) Forming die d) Progressive die

Q.3 The main element of a press tool responsible for holding the workpiece is called: (CO2)

a) Die block b) Punch

c) Stripper d) Bolster plate

Q.4 In the 3-2-1principle of fixture design 3 refers to the number of (CO8)

a) Clamps required

b) locators on the primary datum face

c) Degrees of freedom of the workpiece

d) Operations Carried on the primary datum Face

Q.5 'Go' and 'No Go' gauges are also known as. (CO9)

a) Limit Gauges. b) Standard gauges

c) Both (a) and (b) d) None of the above

Q.6 A bore gauge is used to measure: (CO9)

a) Linear dimensions b) Internal diameters

c) Angular deviations d) Surface roughness

SECTION-B

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

Q.7 Define Shearing . (CO3)

Q.8 The term _____refers to the clearance between the punch and die. (CO4)

Q.9 Define spring back. (CO5)

Q.10 Define bill of material. (CO6)

Q.11 What is die cushion . (CO10)

Q.12 describe mass production. (CO1)

SECTION-C

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

Q.13 What is the need of mass production in sheet metal working? (CO1)

Q.14 Explain any four non-cutting operations on press tool. (CO3)

Q.15 What are the elements of die set? Provide a neat sketch. (CO10)

Q.16 Explain progressive die with neat diagram. (CO11)

Q.17 What are the different design parameters with respect to press tool? (CO4)

Q.18 How the material utilization is calculated? Give formula also. (CO6)

Q.19 Explain land and shear angle for a die with diagram. (CO5)

Q.20 What is the 3-2-1 principle in jigs and fixture?(CO9)

Q.21 Enlist the properties of materials used for making press tools. (CO6)

Q.22 Explain the standard procedure for storage of press tool. (CO14)