

B.Tech. SEM -V Production 2014 Course (CBCS) : SUMMER - 2019
SUBJECT: METAL FORMING

Day: Thursday
Date: 09/05/2019

S-2019-2690

Time: 10.00 AM TO 01.00 PM
Max. Marks: 60

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Neat diagram must be drawn **WHEREVER** necessary.
- 4) Assume suitable data with necessary.

Q.1 Explain with suitable sketch the construction, working, advantages and limitations of slip stepped cone drawing machine. **(10)**

OR

Q.1 Describe with neat sketches methods of tube drawing in detail. **(10)**

Q.2 a) Explain Liquid metal forging with suitable sketch. **(05)**
b) Describe in detail No draft forging. **(05)**

OR

Q.2 With aid of suitable sketches explain following forging operations. **(10)**
i) Edging iii) Swaging v) Cut off
ii) Blocking iv) Bending

Q.3 Discuss the effect of roll flattening on rolling load. **(10)**

OR

Q.3 Describe in detail defects in rolling and lubrication in rolling. **(10)**

Q.4 Explain methods of reducing cutting forces with neat sketches. **(10)**

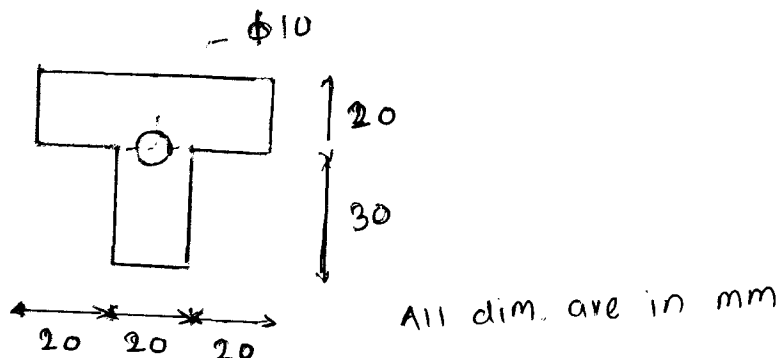
OR

Q.4 With neat sketches explain following sheet metal working operations. **(10)**
i) Metal spinning iii) Embossing
ii) Coining iv) Stretch forming

Q.5 Explain with suitable sketches compound die and progressive die. **(10)**

OR

Q.5 Design a progressive die for the component shown in Figure. **(10)**
Thickness: 2.0mm, Material: Aluminum, shear strength: 135 N/mm².



Q.6 Describe in detail 'Extrusion plant layout'. **(10)**

OR

Q.6 Explain with neat sketch horizontal extrusion press. Also state merits, demerits and applications. **(10)**

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