



C20-A-307

7207

**BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2023
DAE – THIRD SEMESTER EXAMINATION
MACHINE DRAWING**

Time : 3 Hours]

[Total Marks : 60

PART—A

5×4=20

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **five** marks.
(3) Draw proportionate sketches.
(4) All dimensions are in mm and use first angle of projection.
1. Draw the following thread profiles with suitable proportions. Take the pitch of the screw as 20 mm :
 - (a) Knuckle
 - (b) Buttress thread
 2. Draw the following rivet heads with suitable proportions by taking rivet diameter as 20 mm :
 - (a) Snap head
 - (b) Cup head
 3. Draw the two views of Hollow saddle key in the assembly of shaft and hub. Assume shaft diameter as 30 mm and hub diameter as 60 mm.
 4. Draw the front view of woodruff key assembled in a shaft of diameter 25 mm.

PART—B

10+10+20=40

Instructions : (1) Answer **all** questions.

(2) Marks are indicated at the end of each question.

(3) Any missing data or measurements may be suitably assumed.

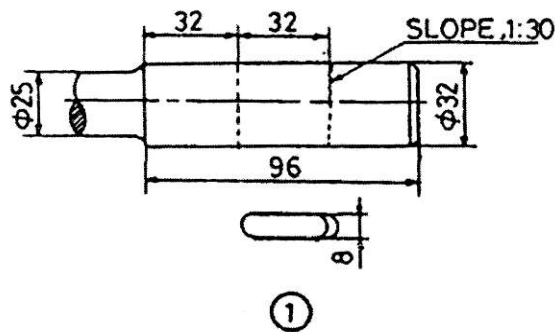
5. Draw two views of the hexagonal headed bolt and nut by taking the bolt diameter as 20 mm. 10

6. Draw the two views of chain type double riveted lap joint by considering the thickness of the plates as 9 mm. 10

7. The details of cotter joint with sleeve are given in **Fig. 1**. Assemble the parts and draw the following views : 20

(a) Full sectional front view

(b) Top view



Parts list

No.	Name	Matl	Qty
1	Rod	MS	2
2	Sleeve	MS	1
3	Cotter	HCS	2

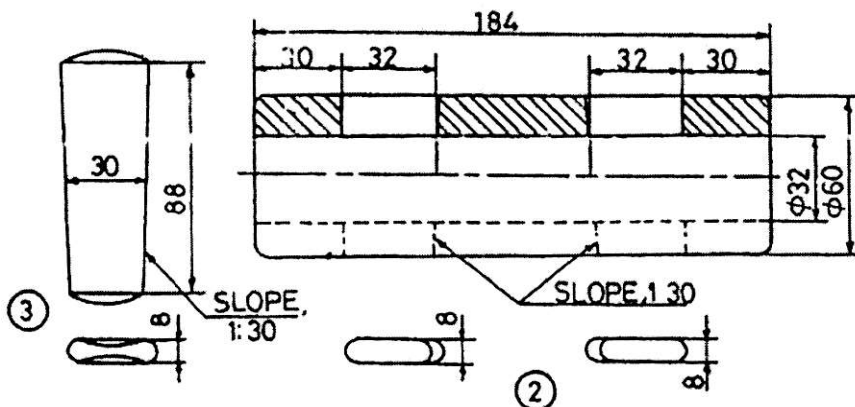


Fig. 1 : Details of Cotter Joint.

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