|BME-034|

DIPLOMA IN MECHANICAL ENGINEERING (DME) / ADVANCED LEVEL CERTIFICATE COURSE IN MECHANICAL ENGINEERING (DMEVI / ACMEVI)

Term-End Examination

00963

December, 2016

BME-034 : MACHINE DRAWING

Time : 2 hours   *Maximum Marks : 70*

Note : Attempt **all** questions.

1. Answer any **seven** questions.   7×2=14

    (a) The area of A0 size drawing sheet is _____ m^2.

    (b) In the following pencils, indicate soft to hard :

        2B, 2H, HB

    (c) Title block in the drawing sheet is placed at

        (i)   Right hand side bottom

        (ii) Left hand side bottom

        (iii) Left hand side top

    (d) The pitch is equal to _____ D, where D is the diameter of rivet, and _____ D is the margin.

    (e) Washer Dimensions for M12 screw is D _____ mm, d _____ mm, t _____ mm.

    (f) In square thread, thread width is _____ P and thread depth is _____ P, where P is pitch.

    (g) First angle projection is represented on the drawing sheet by the symbol _____ .

    (h) In a Double start lead screw, diameter is 50 mm and pitch is 10 mm. If the nut makes one revolution clockwise, how much is the movement ?

        (i) 10 mm   (ii) 50 mm   (iii) 20 mm   (iv) 25 mm

    (i) Two methods of Dimensioning used in the drawings are

        (i) _____   (ii) _____

2. Draw Sectional Front View and Top View for a Double rivet zig-zag type lap joint. The plate thickness is 12 mm. Indicate (a) rivet diameter, (b) pitch, (c) distance between two rows of rivets, and (d) margin.   *26*

<p style="text-align:center">**OR**</p>

Draw Square head screw, Nut with washer for M 24 and length of the screw is 50 mm. Draw two views.

3. Draw Top View and Sectional Front View of the Knuckle Joint. Refer Fig. 1. Consider D = 30 mm.   *30*
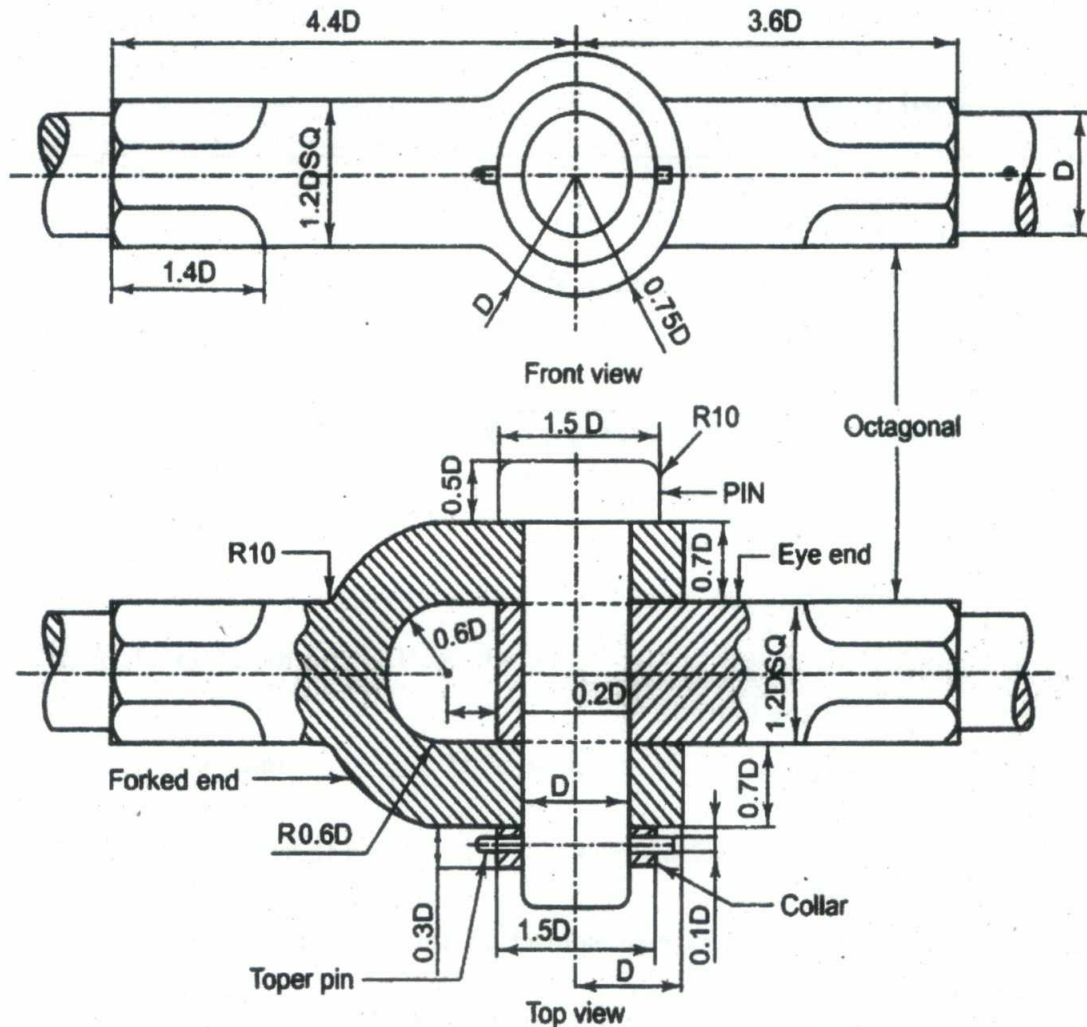

Front view

Top view

Fig. 1   *Knuckle Joint*

<p style="text-align:center">**OR**</p>

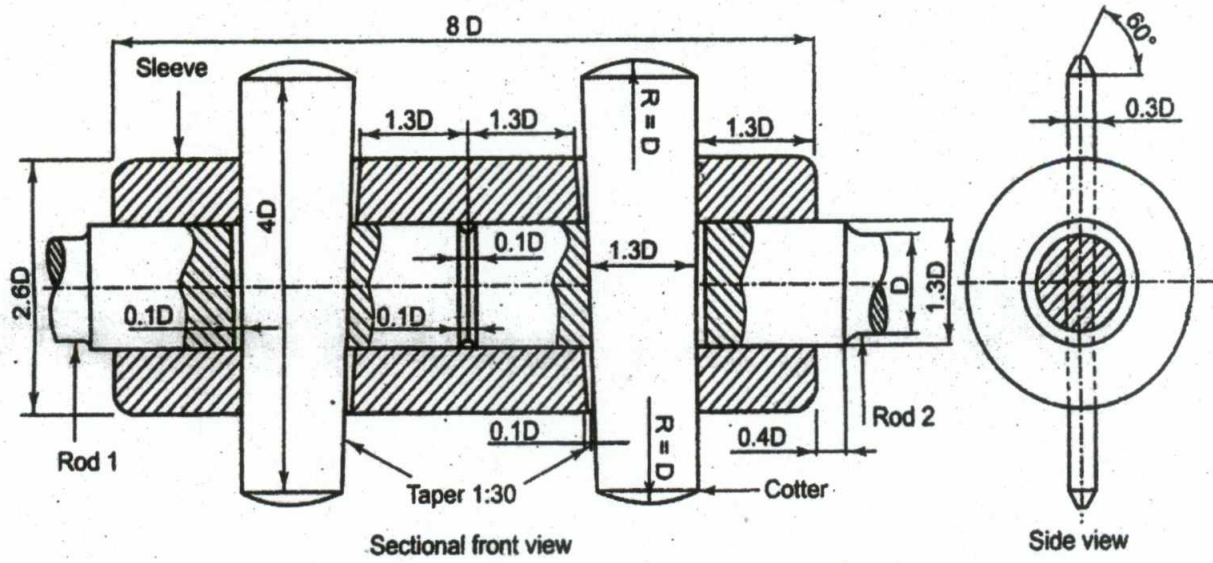Draw Sectional Front View and Side View of the Cotter Joint with Sleeve. Consider D = 30 mm. Refer Fig. 2.

Fig. 2   *Cotter Joint with Sleeve*