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BME-034

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

Term-End Examination

December, 2015

BME-034 : MACHINE DRAWING

Time : 2 hours *Maximum Marks : 70*

Note : *Answer **all** questions. Assume any missing data. Use of scientific calculator is allowed.*

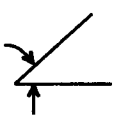
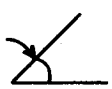
1. Answer any ***seven*** questions from the following : *7×2=14*

(a) Title block in drawing sheet may have maximum width of _____ and is in bottom _____ hand corner.

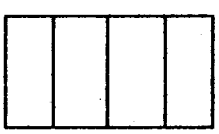
(b) In third angle projection _____ is in between _____ and observer.

(c) Draw the simplified representation of hexagonal and square head screw.

(d) Which method of angle more than 30° is correct ?

(i)  (ii)  (iii) 

(e) Draw the possible front and side views for the top view shown below :



(f) Draw section through British Association thread and show angle, depth and height.

(g) Show a Rounded counter sunk rivet in sketch.

(h) Sketch a round key on a shaft.

(i) Name two types of joints for hydraulic pipes.

2. A shaft of 40 mm dia carries a pulley of hub of outer dia 80 mm. The hub is 60 mm long and the pulley has 4 arms. A square key of 10 × 10 mm^2 cross-section connects the hub with the shaft whose 40 mm dia increases to 60 mm with a transition radius of 5 mm.
Draw :
(a) Front view in section
(b) Side view full
Show only the hub. You need not show circumference of pulley. *26*

OR

Two 16 mm thick plates are joined in double riveted lap joint. Find the pitch, back pitch and diagonal pitch. Draw the front view and plan for three rivet length. *26*

3. Draw the elevation right half in section and plan in full view for the object shown in Figure 1. *30*

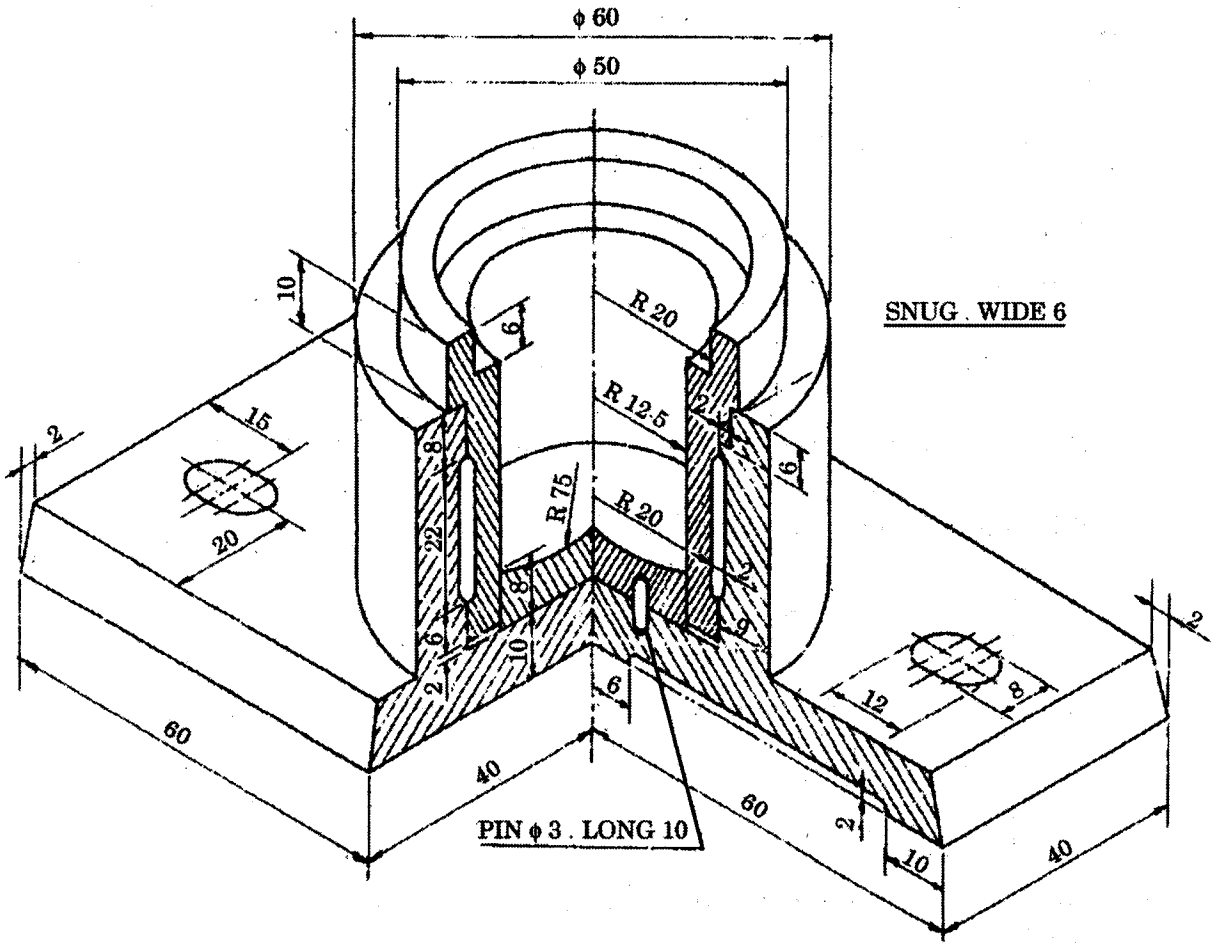


Figure 1

OR

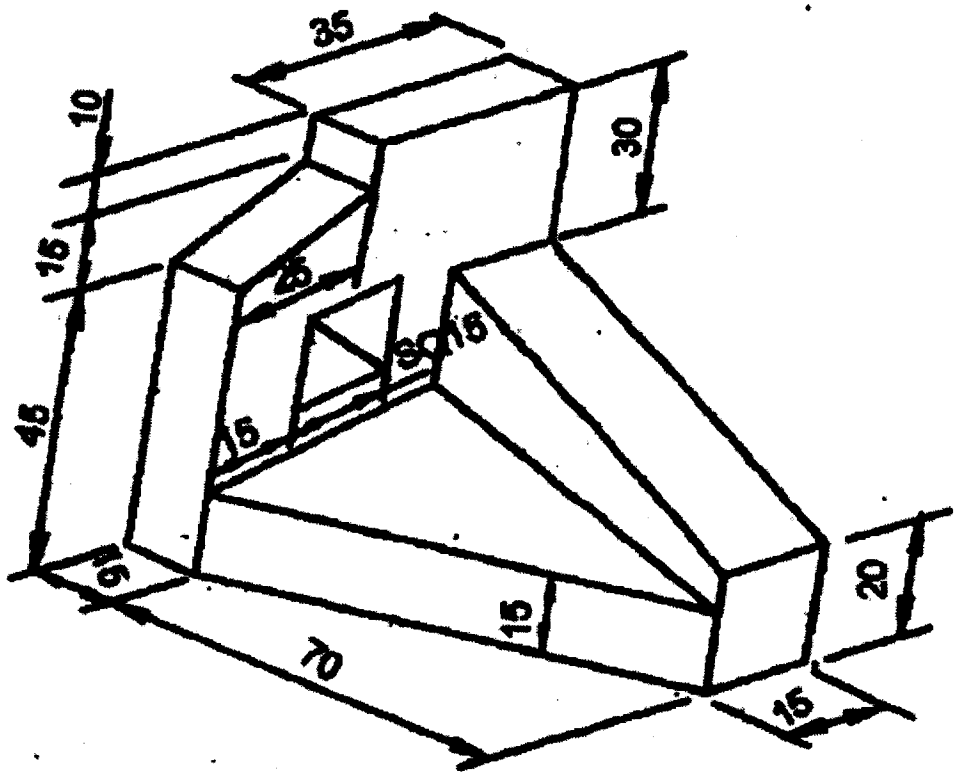


Figure 2

For the object shown in Figure 2, draw :

(a) Front view

(b) Plan

(c) Right hand side view *30*
