No. of Printed Pages : **4 + Drawing Sheet**

BME-034

01725

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

Term-End Examination

June, 2012

BME-034 : MACHINE DRAWING

Time : 2 hours *Maximum Marks : 70*

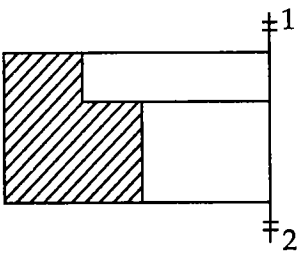
Note : *Answer **all** questions.*

1. Answer ***any seven*** of the following questions. **2x7=14**

(a) Size of standard drawing sheet designated as AO is _____ x _____ mm.

(b) The thickness of line showing outline of a machine part is 0.6 mm. The thickness of dimension or extension line may be _____ or _____ mm.

(c)



What do the parallel strokes 1 and 2 indicate ?

(d) The end of a shaft carries a 45° chamfer over a length of 6 mm. Show how chamfer is presented in a drawing.

(e) Which dimension lines should be avoided ?

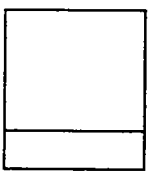
(i) Lines on the outside of the drawing.

(ii) Lines crossing projection lines.

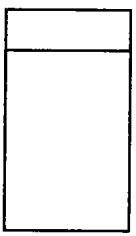
(iii) Lines from centre line.

(f) How many view will need to be drawn for an object which is (i) axisymmetric and (ii) symmetric about two orthogonal axes ?

(g) Show the three dimensional object whose front and top views are shown below.



Front view



Top view

(h) Draw a section through square threads and mark pitch p, the width and depth of thread in term of pitch p.

(i) Name two v-threaded bolts which do not have hexagonal head.

2. 400 mm dia cylinder is 20 mm thick and carries a flat flange of 20 mm thickness. A flat circular disc like cover of 540 mm dia and 30 mm thickness is placed on cylinder flange of same dia and tightened with 4 M20 bolts. Draw front view (half) in section and plan full view. Choose suitable pitch circle dia. for belt circle. **26**

OR

Two plates 20 mm thick as shown in Fig.1 are to be jointed with four bolts (M20). Draw front and top views.

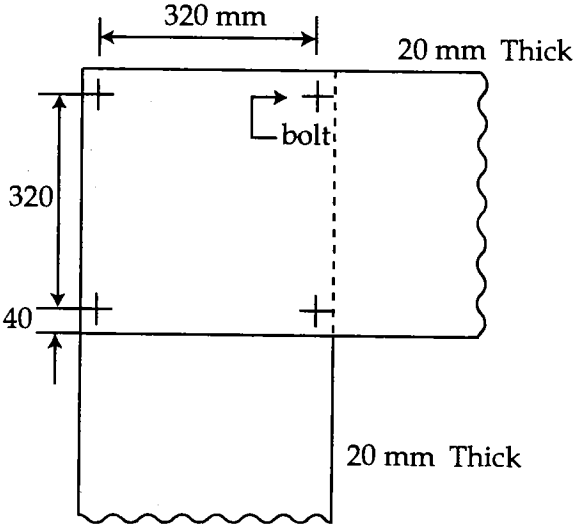


Fig. 1

3. A bush bearing is shown in Fig.2. Draw front view, top view and side view without section. 30

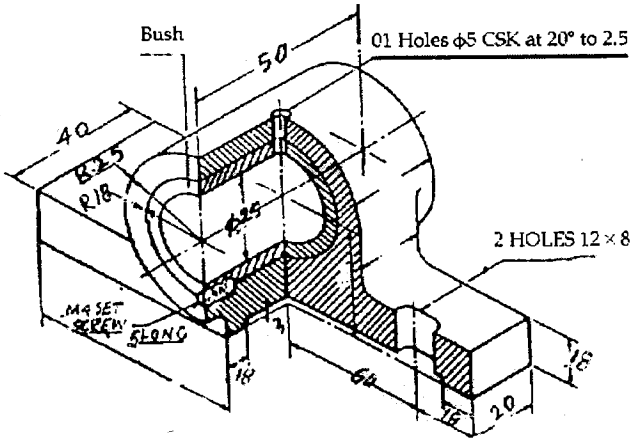


Fig. 2

OR

Draw front, side and top views of the object shown in Fig.3 (No section)

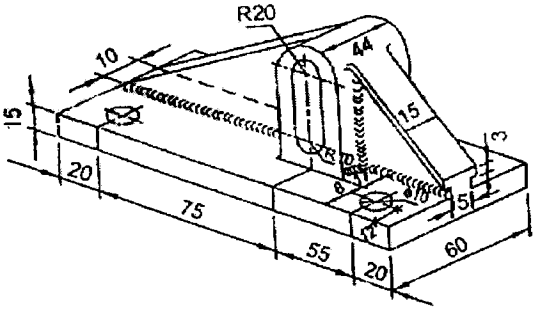


Fig. 3