Engineering Drawing
(ME -102, May-2007))

Note: Section A is compulsory. Attempt any five questions from Section B & C taking at least two questions from each Section.

Section –A
a) Sketch the hidden line, short break line and long break line.
b) Which BIS standards are followed for engineering drawing?
c) What is true length of a line?
d) Following symbol represents first or third angle projection.

Fig.

e) What is difference between prism and pyramid?
f) Why sectional views are used in engineering drawing?
g) What is an isometric view?
h) To represent a solid in an orthographic projection, at least………….views are necessary.
i) What is the trace of a line?
j) Unfolding of all the_____ of the object on a plane is called development.

Section – B
2) A line 6 cm long makes an angle of 45˚ from VP and lies in a plane perpendicular to both the HP and VP. Its one end is in HP and other end is in VP. Draw its projections.
3) Write freehand the following sentence using inclined capital letters of 8 mm size in single stoke using 7.5 ratio

" Nature is beautiful".

4) List out the various principles to be followed while dimensioning a drawing.
5) A cylinder of 65 mm diameter and 90 mm long has its axis parallet to the HP and inclined at 30˚to the VP. It is cut by a vertical section plane in such a way that the true shape of the sectio9n is an ellipse having the major axis 75 mm long. Draw its sectional view and true shape of the section.

Section –C
6) A cube of 40 mm side rests centrally on a square block of 60 mm edges and 20 mm thick. Draw the isometric projections of the two objects with the edges of the two blocks mutually parallel to each other.
7) A vertical cylinder of 45 mm diameter and height 70 mm, resting on its base on HP is completely penetrated by another cylinder of same diameter and length. Their axis bisects each other at right angles and is parallel to VP. Draw the projection showing lines of penetration on the two cylinders.
8) Draw the view from the front (arrow side) and the view from the right of the following object. (All dimensions are in mm).

Fig.

9) Draw the development of the lateral surfaces of the pyramid of height 4 cm. The pyramid is having hexagonal base of 2 cm each side length. The base is parallel to HP and two sides of the base are parallel to the VP.