C16–A/CH/CHST/EI/FW/MNG/

MET/IT/TT/PKG–**/107**

5105

BOARD DIPLOMA EXAMINATION, (C–16)
MARCH/APRIL—2018
FIRST SEMESTER (COMMON) EXAMINATION

ENGINEERING DRAWING—I

Time : 3 hours]   [*Total Marks* : 60

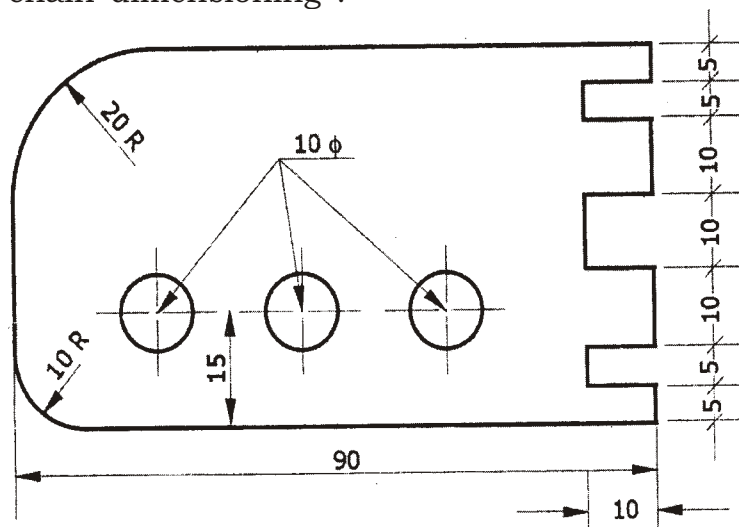**PART—A**   5×4=20

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

(2) Each question carries **five** marks.

1. Write in single-stroke vertical letters of size 10 mm as prescribed in SP:46-1988.

TECHNICAL EDUCATION

2. Redraw the following figure and dimension it as per SP:46-1988, by using chain dimensioning :

3. Draw two exterior tangents to two circles of 70 mm diameter and 40 mm diameter with a gap 80 mm between their centers.

4. A line of 90 mm long is 20 mm in front of VP and parallel to VP. Its one end is in HP while the other end is 40 mm above HP. Draw its projections and find its inclination with VP.

PART—B   10×4=40

Instructions : (1) Answer *any* **four** questions.

(2) Each question carries **ten** marks.

5. A circle of 50 mm diameter rolls along a straight line. Draw a curve traced out by a point *P* on the circumference for one complete revolution. Name the curve.

6. Construct ellipse of major axis 70 mm and minor axis 40 mm by concentric circles method.

7. Draw the projection of a circle of 60 mm diameter, resting on VP on a point of its circumference. The plane is inclined at 45º to VP and perpendicular to HP. The centre of the plane is 40 mm above HP.

8. Draw the projections of a cone, base 30 mm diameter and axis 50 mm long resting on HP on a point of its base circle with the axis making an angle 45º with HP and parallel to VP.

9. A hexagonal prism of base side 30 mm and height 75 mm is resting on the ground with its axis vertical. It is cut by a plane inclined at 30º to the HP and passing through a point on the axis at 20 mm from the top base. Draw the sectional front view, top view and true shape.

10. A cylinder of 40 mm diameter and 50 mm long is resting on one of its base on HP. It is cut by a plane passing through a point on the axis which is at 15 mm from the top base and inclined at 45º with HP. Draw the sectional front view, top view and true shape.

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