## C09-M-307/C09-MET-307

## 3251

## BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV—2017 <br> DME-THIRD SEMESTER EXAMINATION <br> MACHINE DRAWING

Time : 3 hours ]
Total Marks : 60
PART-A
$5 \times 4=20$
Instructions : (1) Answer all questions.
(2) Each question carries five marks.
(3) Answers should be neat and clear with all the necessary dimensions.
(4) All dimensions are in mm .

1. Draw the front view and right-side view of hexagonal headed bolt with proportionate dimensions. Assume diameter of bolt as 30 mm and length as 100 mm .
2. Draw the following with standard proportions :
$21 / 2 \times 2=5$
(a) Capstan nut
(b) Wing nut
3. Draw the symbols for the following pipe fittings :
(a) Globe valve
(b) Check valve
(c) Reducer
(d) Union joint
(e) Gate valve
4. Draw the symbols for the following types of weld :
(a) Spot weld
(b) Steam weld
(c) Single V-butt weld
(d) Fillet weld
(e) Plug weld

## PART—B

Instructions: (1) Answer any one question.
(2) All dimensions are in mm .
(3) Assume missing data suitably.
5. Assemble the parts of the universal coupling as shown in Fig. 1.
(a) Full-sectional front view

20+3 marks for dimensioning
(b) Left-side view 15+2 marks for dimensioning

Partslist

| No. | Name | Matl | Qty |
| :---: | :--- | :---: | :---: |
| 1 | Fork | MS | 2 |
| 2 | Centre block | MS | 1 |
| 3 | Pin | MS | 2 |
| 4 | Collar | MS | 2 |

Fig. 1
[ Contd...
6. Assemble the parts of the screw jack as shown in Fig. 2.
(a) Half-sectional front view with right half in section

23+3 marks for dimensioning
(b) Top view

12+2 marks for dimensioning


Fig. 2

