## с14-м_407

## 4483

## BOARD DIPLOMA EXAMINATION, (C-14)

SEPTEMBER/OCTOBER - 2020
DME-FOURTH SEMESTER EXAMINATION

## PRODUCTION DRAWING

Time : 3 hours ]

PART—A
Instructions : (1) Answer all questions.
(2) Each question carries five marks.
(3) Draw the following neatly with proportionate dimensions.
(4) Use of production drawing tables is allowed.

1. The dimensions of a shaft and a hole are given below :

$$
\begin{array}{ll}
+0.002 & +0.0012 \\
-0.001 & -0.0010
\end{array}
$$

Shaft : 50 Hole : 50
Find maximum allowance and hole tolerance.
2. Draw the tolerance character symbols for the following :
(a) Angularity
(b) Run out
(c) Profile of any surface
(d) Flatness
(e) Straightness
3. Mention the roughness grade symbols for the following roughness values :
(a) $50 \mu \mathrm{~m}$
(b) $25 \mu \mathrm{~m}$
(c) $1.6 \mu \mathrm{~m}$
(d) $0.4 \mu \mathrm{~m}$
(e) $0.05 \mu \mathrm{~m}$
4. Write the meanings of following symbols/specifications :
(a) Fe 510 B
(b) 30 C 5 BO
(c) Hex bolt M $30 \times 1.0 \times 100$ ISI36454.6
(d) O-ring $10 / 2 \cdot 5$, VITON
(e) Bearing no. 305

PART—B 40
Instructions : (1) Answer any one question.
(2) Each question carries forty marks.
5. Study the given assembly drawing of the tool post shown in Fig. 1 :
(a) Draw the part drawings for piller, block and screw.
(b) Select suitable fits and tolerances.
(c) Prepare the process sheet.
(d) Indicate the surface roughness symbols and geometrical tolerance symbols.

6
(e) List out the materials and quantity of the components. 3


Bill of material

| Part No. | Name | Raw material | Qty. |
| :---: | :--- | :--- | :---: |
| 1. | Pillar | MCS - Forging | 1 |
| 2. | Block | MCS - Forging | 1 |
| 3. | Ring | MS - Forging | 1 |
| 4. | Wedge | MCS - Forging | 1 |
| 5. | Screw | MCS - $\$ 32$ Bar stock | 1 |

Fig. 1
6. Study the given assembly drawing of the stuffing box shown in Fig. 2 :
(a) Draw the part drawings for body and gland. 20
(b) Select suitable fits and tolerances. 4
(c) Prepare the process sheet for gland. 7
(d) Indicate the surface roughness symbols and geometrical tolerance symbols.
(e) List out the materials and quantity of the components. 3


Fig. 2

