C14-M-**407**

4453

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DME - IV SEMESTER EXAMINATION

PRODUCTION DRAWING PRACTICE

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

PART - A **4×5=20**

Instructions : *(1) Answer **ALL** questions.*
*(2) Each question carries **FIVE** marks.*
(3) Drawing should be neat and clear with the necessary dimensions.
(4) All dimensions are in mm.

1 Draw the conventional symbols of the following :

(a) Spur gear

(b) Diamond knurling

(c) Cylindrical compression spring

(d) Semi- Elliptic leaf spring

(e) Bevel gear

2 The dimensions of a shaft and hole are given below :

$\begin{matrix} +0.030 \\ +0.000 \end{matrix}$ Hole: 75 $\qquad$ $\begin{matrix} +0.078 \\ +0.059 \end{matrix}$ Shaft: 75

Find out :

(a) Tolerance of the shaft

(b) Tolerance of the hole

(c) Max. Allowance

(d) Min. Allowance

(e) Type of fit

3 Explain the following material specifications :

(a) Hex bolt M 16×80

(b) Spline shaft 32×28×6

(c) Taper key 12×8×60

(d) Fe E 460

(e) Fe 710 B

4 Write a short note on Blue printing process.

PART - B 1×40=40

Instructions : *(1) Answer any **ONE** question.*
*(2) Each question carries **FORTY** marks.*
(3) Use limits fits and tolerance tables if necessary.
(4) Drawing should be neat and clear with the necessary dimensions.
(5) All dimensions are in mm.

5 Study the given assembly drawing- Universal coupling (shown in fig.1)

(a) Draw the component drawings **25**

(b) Apply suitable fits and tolerance. **4**

(c) Apply suitable geometrical tolerances to each component. **3**

(d) Select normal surface roughness values to the components. **3**

(e) Prepare process sheet for Centre Block. **5**

Parts list for Universal coupling

Part No.	Name	Raw material	Qty
1	Fork	MCS - Forging	2
2	Centre Block	C.I - Casting	1
3	Pin	CRS - ∅25 Bar stock	2
4	Coller	M.S - ∅25 Bar stock	2

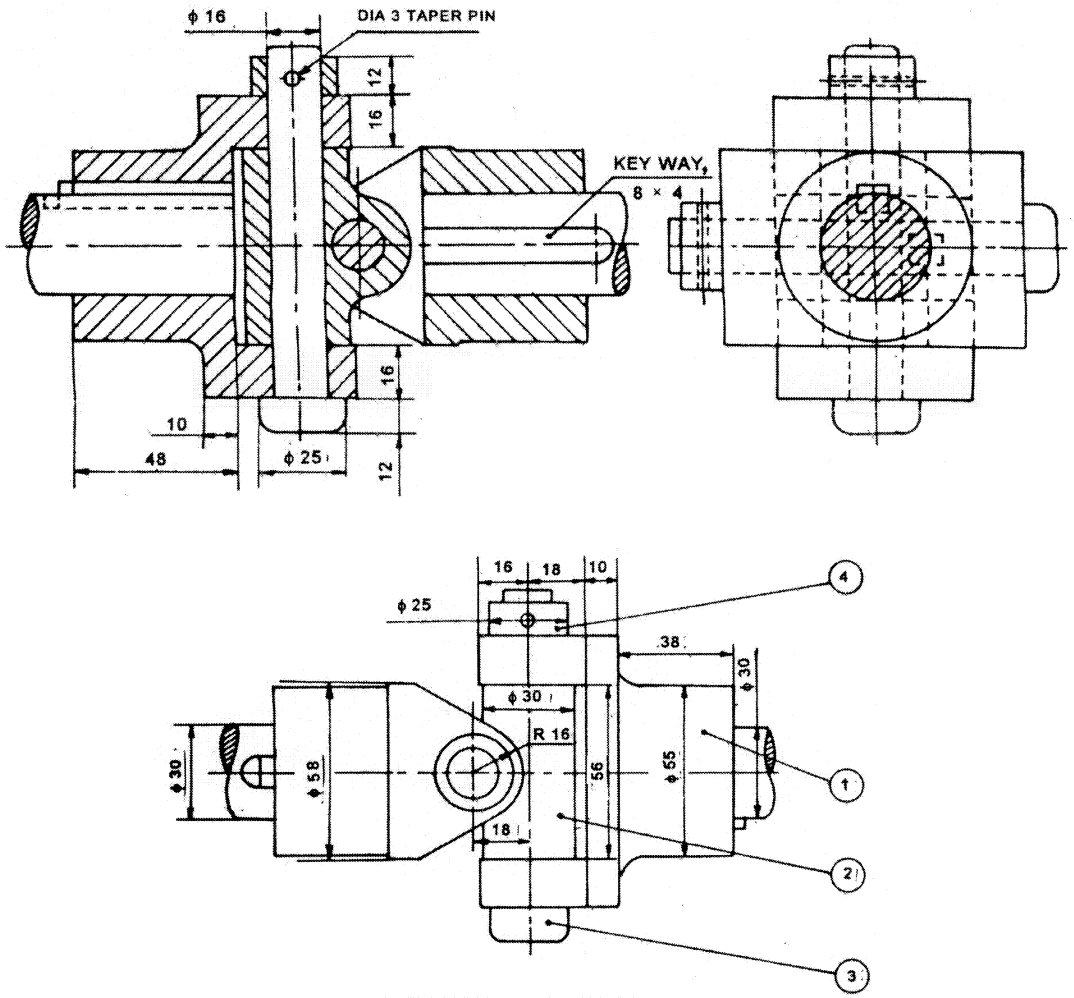

Fig.1 Universal coupling

6 Study the given assembly drawing Revolving Center. (Shown in fig.2)

(a) Draw the component drawings **25**

(b) Apply suitable fits and tolerance. **4**

(c) Apply suitable geometrical tolerances to each component. **3**

(d) Select normal surface roughness values to the components. **3**

(e) Prepare process sheet for Center. **5**

Parts list for Revolving Center

Part. No.	Part Name.
1	Barrel
2	Radial Bearing
3	Thrust Bearing
4	Center
5	Cover
6	Screw
7	Sleeve
8	Cover

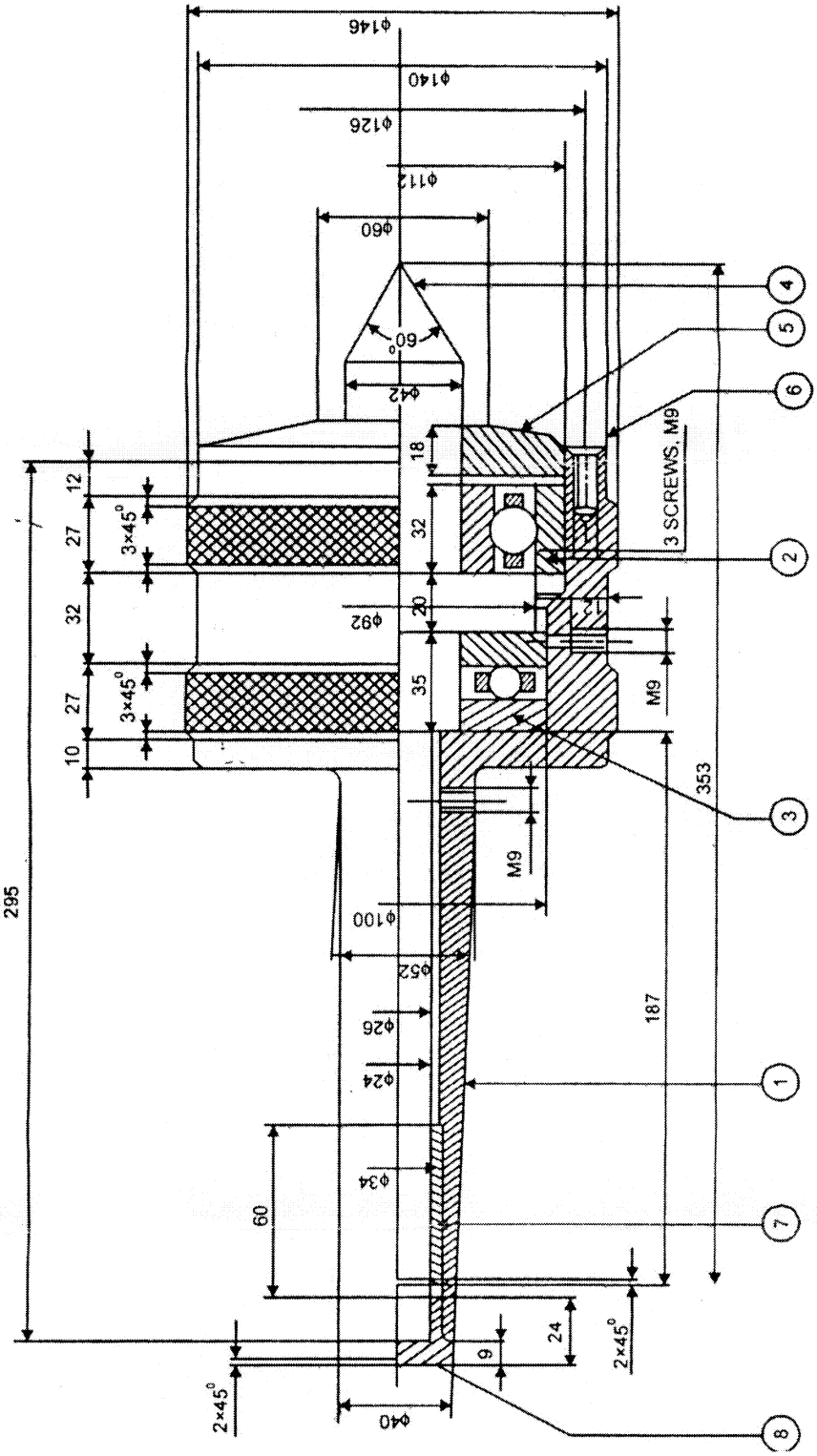

Fig.2. Revolving Center