



C09-M-407

3507

BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2021
DME - FOURTH SEMESTER EXAMINATION
PRODUCTION DRAWING

Time : 3 hours]

[Total Marks : 60

PART—A

10×2=20

- Instructions :** (1) Answer *any two* questions.
(2) Each question carries **ten** marks.
(3) Draw the following neatly with proportionate dimensions.
(4) Use of production drawing tables is allowed.

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

$$\text{Hole } 30^{+0.010}_{-0.005} \quad \text{Shaft } 30^{+0.020}_{-0.022}$$

Find (a) hole tolerance, (b) shaft tolerance, (c) minimum allowance, (d) maximum allowance and (e) type of fit for the assembly.

2. Draw the symbols for the following :

- (a) Perpendicularity
(b) Cylindricity
(c) Run-out

3. Explain the following designations :

- (a) Splines $6 \times 32 \times 28$, IS : 2327
(b) Bearing No. 305
(c) Taper key $15 \times 10 \times 70$

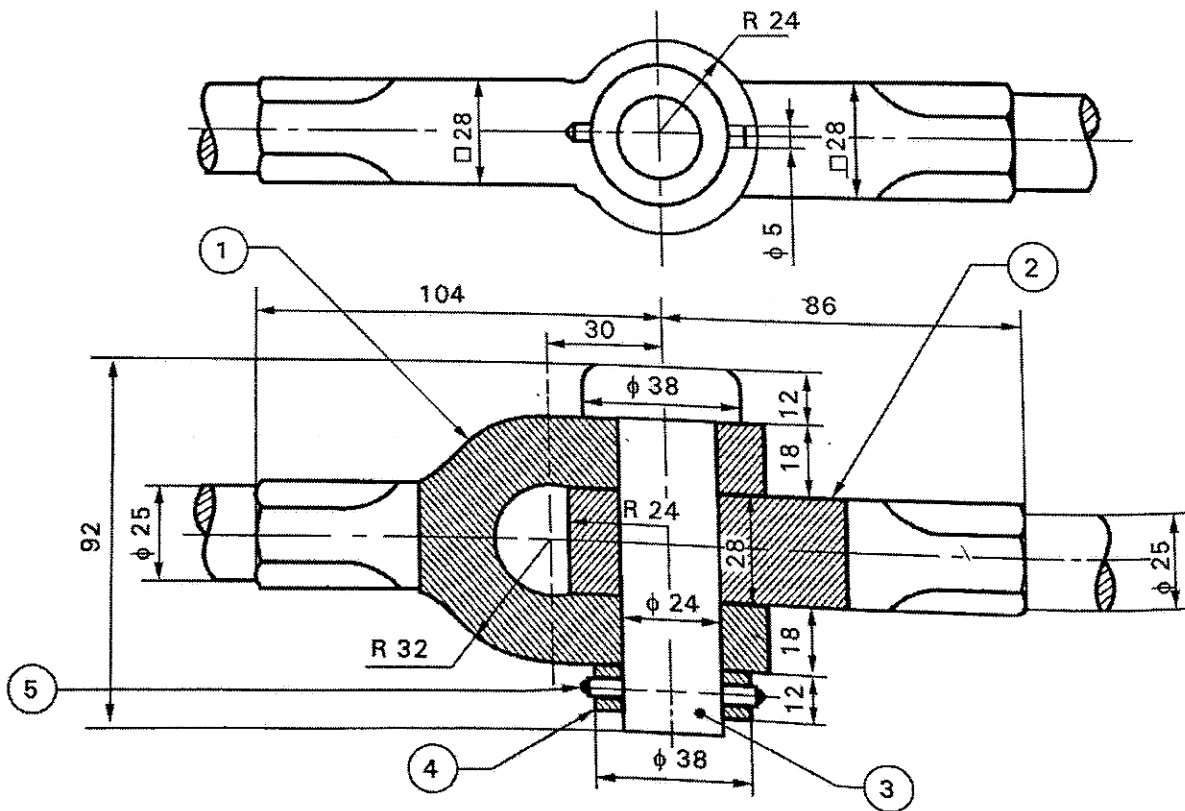
4. Write the surface roughness values for the following :
- Sand casting
 - Filing
 - Hot rolling

PART—B

40×1=40

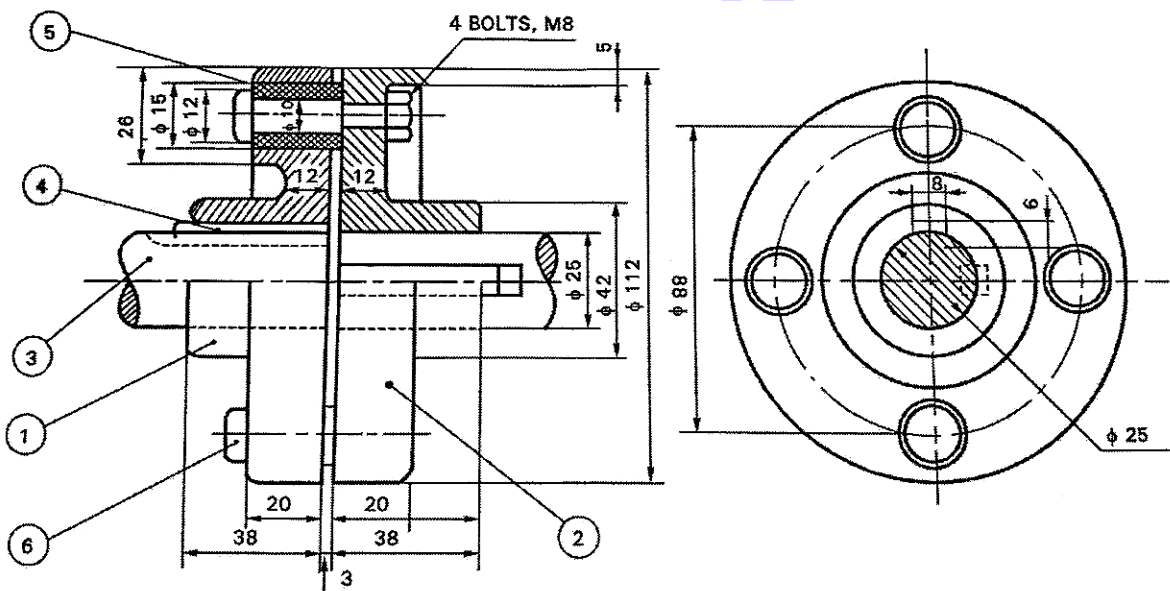
Instructions : (1) Answer *any one* question.
 (2) Each question carries **forty** marks.

5. Study the given assembly drawing of Knuckle joint and
- Draw the component drawings with suitable fits and tolerances.
 - Indicate surface roughness values/symbols to the components.
 - Prepare process sheet for the manufacturing of “Pin”.



- * Part-1 and 2 : Fork end and Eye end
- Part-3 : Central Pin
- Part-4 : Collar
- Part- 5 : Cotter Pin

6. Study the given assembly drawing of Flange coupling and
- (a) Draw the component drawings with suitable fits and tolerances.
 - (b) Indicate surface roughness values/symbols to the components.
 - (c) Prepare process sheet for the manufacturing of “Key (Part-4)”.



- Part-1 and 2 : Flanges
- Part-3 : Shaft
- Part-4 : Key
- Part-5 : Bush
- Part-6 : Bolts with nuts

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