

C20-M-407

7460

BOARD DIPLOMA EXAMINATION, (C-20)  
NOVEMBER/DECEMBER—2022  
DME – FOURTH SEMESTER EXAMINATION  
PRODUCTION DRAWING

Time : 3 hours ]

[ Total Marks : 60

**PART—A**

5×4=20

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **five** marks.  
(3) Draw the following neatly with proportionate dimensions.  
(3) Use of production drawing tables are allowed.

1. Compute the limit dimensions for a clearance fit on the hole basis system for a basic size of 40 mm diameter, with a minimum clearance of 0.05 mm, tolerance on the hole 0.021 mm and tolerance on the shaft 0.15 mm.

2. Draw the symbols for the following geometrical tolerance characteristics :

(a) Flatness

(b) Circularity

(c) Parallelism

(d) Perpendicularity

(e) Concentricity and Coaxiality

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3. Write the surface roughness values for the following manufacturing processes :
- (a) Lapping
  - (b) Reaming
  - (c) Drilling
  - (d) Forging
  - (e) Die Casting
4. Write the meanings of the following designations :
- (a) Fe-410 CuK
  - (b) 40Ni8Cr8V2
  - (c) XT75W18Cr4C1
  - (d) Castle nut M30, IS : 2232-B-4
  - (e) Stud AM 10 X 40, IS : 1862-P-4·6

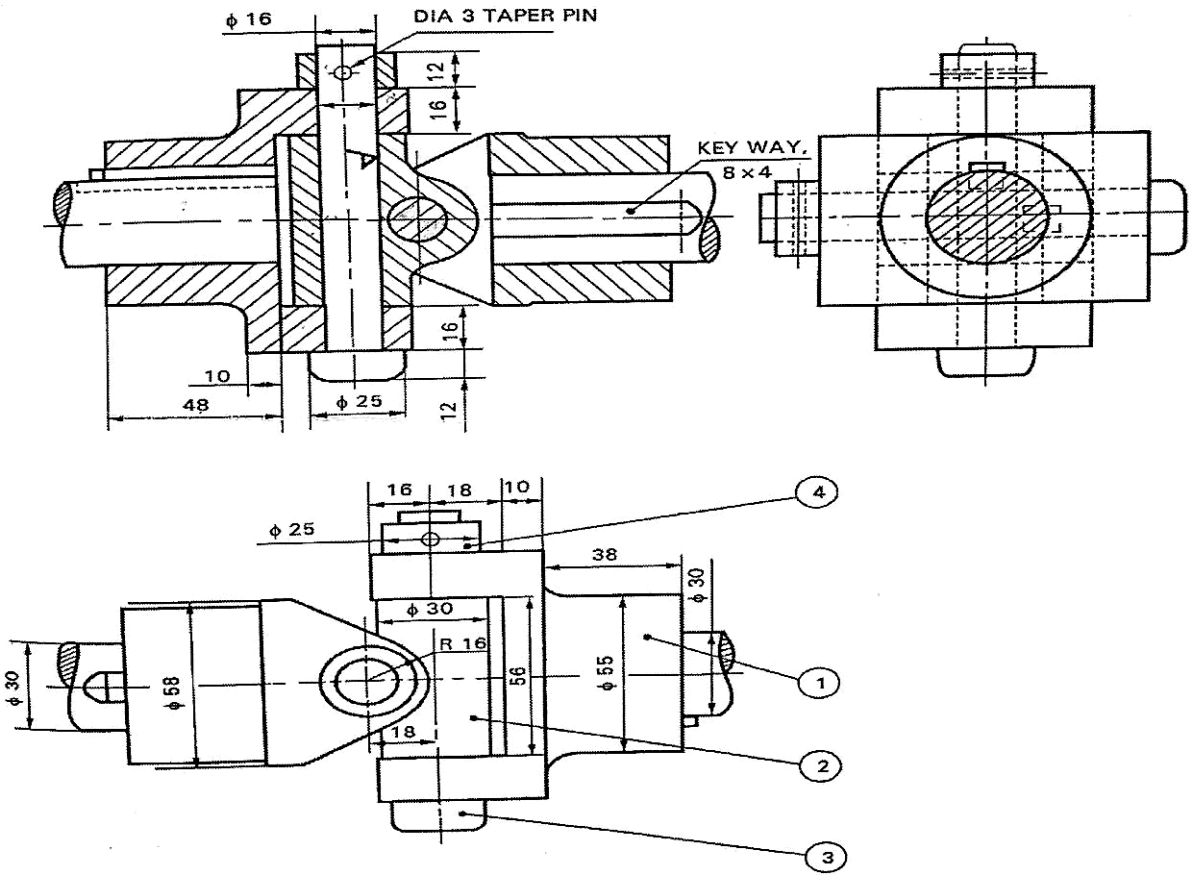
**PART—B**

40×1=40

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

5. Study the given assembly drawing of Universal Coupling :

- (a) Draw the part drawings. 20
- (b) Mention the suitable fits and tolerances wherever required. 4
- (c) Indicate surface roughness values/symbols to the components. 6
- (d) Prepare process sheet for the manufacturing of 'Centre Block'. 7
- (e) Prepare bill of materials. 3



Parts List

S.No.	Name	Material	Qty
1	Fork	MS Forging	2
2	Centre Block	MS Casting	1
3	Pin	CRS $\Phi$ 25 Bar stock	2
4	Collar	MS 2 $\Phi$ 25 Bar stock	2



Parts List

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S.No.	Name	Material	Qty
1	Pillar	MCS Forging	1
2	Block	MCS Forging	1
3	Ring	MCS Forging	1
4	Wedge	MCS Forging	2
5	Screw	MCS $\Phi$ 32 Bar stock	1

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