



C16-M-406

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**5689**

**BOARD DIPLOMA EXAMINATION, (C-16)  
OCTOBER/NOVEMBER-2018  
DME-FOURTH SEMESTER EXAMINATION**

PRODUCTION DRAWING

Time : 3 Hours ]

[ Total Marks: 60

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**PART-A**

5X4=20

- Instructions :**
1. Answer **All** questions.
  2. Each question carries **Five** marks.
  3. Answer should be brief and straight to the point and shall not exceed five simple sentences.
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1. Determine the limit dimensions for a clearance fit between the mating diameter of 30mm, providing a minimum clearance of 0.10mm, with the tolerance on the hole equal to 0.025 mm and on the shaft 0.05mm. Flow the hole basis system.
  - \* 2. Draw the symbols representing the characteristic to be tolerated for the following forms of single features:
    - a. Straightness
    - b. Flatness
    - c. Circularity (Roundness)
    - d. Cylindricity
    - e. Profile of any line
  3. Write the meaning of following designations for the standard Mechanical Components.
    - a. Hex Bolt M 16x70 NL-IS:1363
    - b. Counter sunk screw M5 x 15
    - c. Taper key 12x8x50, IS-2292
    - d. O-Ring, 10/2.5, Viton
    - e. Oil Seal A25 x 40 x7, IS : 5129

4. List out various reprographic methods and explain any one of them.

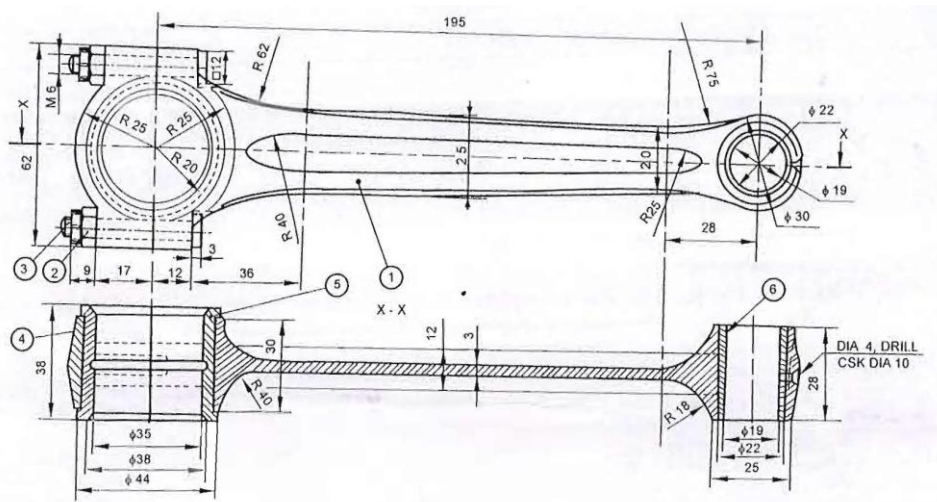
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### PART-B

1x40=40

- Instructions :**
1. Answer any **One** questions.
  2. Each question carries **Forty** marks.
  3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

5. Study the parts list and assembly drawing of petrol engine connecting rod shown in the Fig blow:



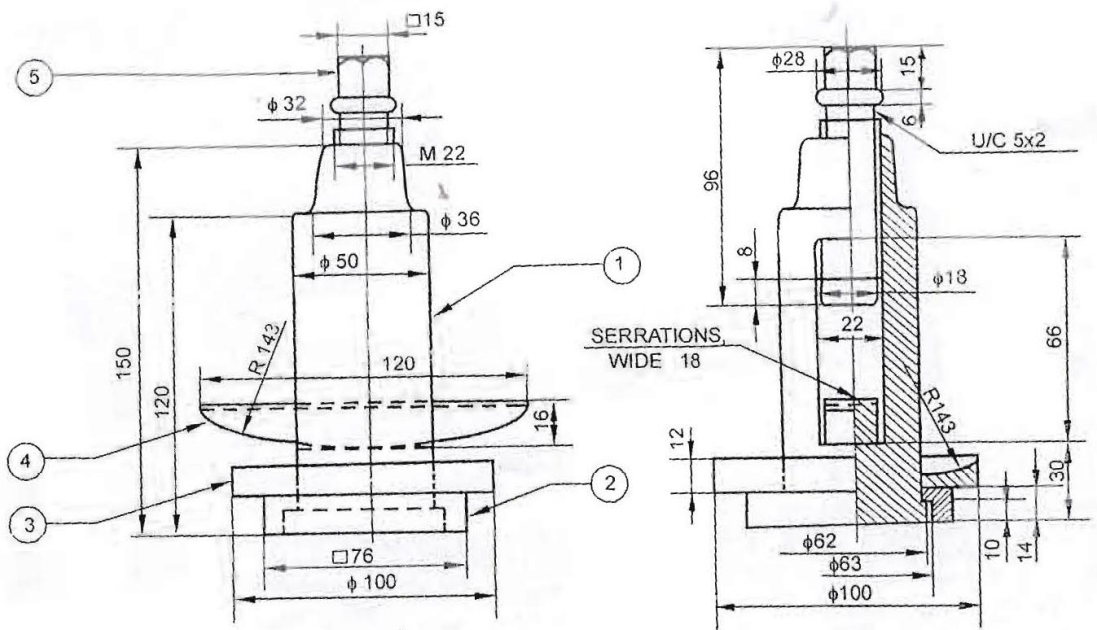
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Part Nos	Name	Raw material	Qty
1	Rod	Steel forging	1
2	Nut	MCS Std. component	2
3	Bolt	MSC-Std. component	2
4	Cap	Steel forging	1
5	Bearing	Gun metal- Casting	2
6	Bearing bush	Phosphor bronze-Casting	1

- Draw the component drawings.
- Apply suitable fits and tolerances.
- Apply suitable geometrical tolerances to each component
- Select normal surface roughness value to components
- Prepare process sheet for bearing brasses

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6. Study the parts list and assembly drawing of single tool post shown in the Fig. below:



Part Nos	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-φ32 bar stock	1

- Draw the component drawings
- Apply suitable fits and tolerances
- Apply suitable geometrical tolerances to each components
- Select normal surface roughness values to the components
- Prepare process sheet for Block.

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