### 6451

# BOARD DIPLOMA EXAMINATION, (C-16) MARCH / APRIL — 2021 DME — FOURTH SEMESTER EXAMINATION

### PRODUCTION DRAWING

*Time* : Three Hours]

[Maximum Marks : 60

#### **PART-A**

5×4=20

**Instructions :** (*i*) Answer all questions.

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- (*ii*) Each question carries **five** marks.
- 1. The dimensions of a shaft and a hole are given below :

-0.020 +0.010 Shaft 60<sup>-0.022</sup> Hole 60<sup>-0.005</sup>

Find out maximum allowance and minimum allowance.

- **2.** Draw the symbolic representation for the following geometrical characteristics to be tolerance :
  - (a) Flatness
  - (b) Parallelism
  - (c) Position
  - (*d*) Run-out
  - (e) Circularity
- **3.** Indicate the surface roughness limiting values for the following manufacturing processes :
  - (a) Sand casting
  - (b) Hot rolling
  - (c) Shaping
  - (d) Honing
  - (e) Super finishing

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- 4. Write the meaning for the code designation of the components :
  - (a) Counter sunk screw  $M8 \times 20$
  - (b) M16NL \*

### PART-B

- (*ii*) Each question carries **forty** marks.
- (iii) All dimensions are in mm.
- (iv) Choose suitable scale.
- 5. Study the given assembly drawing of the Stuffing box and
  - (a) Draw the component drawings
  - (b) Apply suitable tolerance and fits
  - (c) Apply suitable geometrical tolerances to components
  - (d) Show the surface roughness symbols
  - (e) List out the materials for the components
  - (f) Prepare the process sheet for gland 20+5+3+3+4+5

Bill of material:

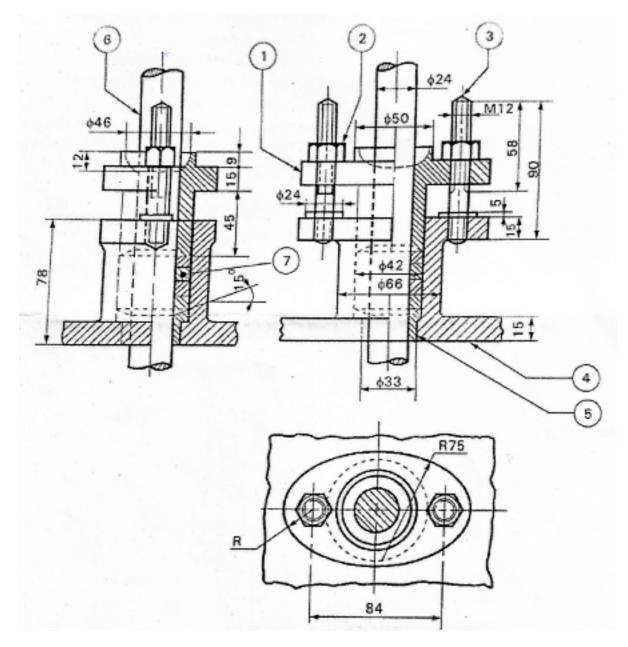
Part No.	Name	Qty
1.	Gland	1
2.	Nut	2
3.	Stud	2
4.	Body	1
5.	Bush	1
6.	Shaft	1
7.	Packing	

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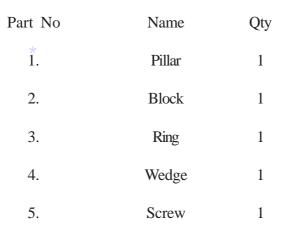
- 6. Study the given assembly drawing of the Lathe tool post and
  - (a) Draw the component drawings
  - (b) Apply suitable tolerances and fits
  - (c) Apply suitable geometrical tolerances to components
  - (d) Show the surface roughness symbols
  - (e) List out the materials for the components
  - (f) Prepare the process sheet for block

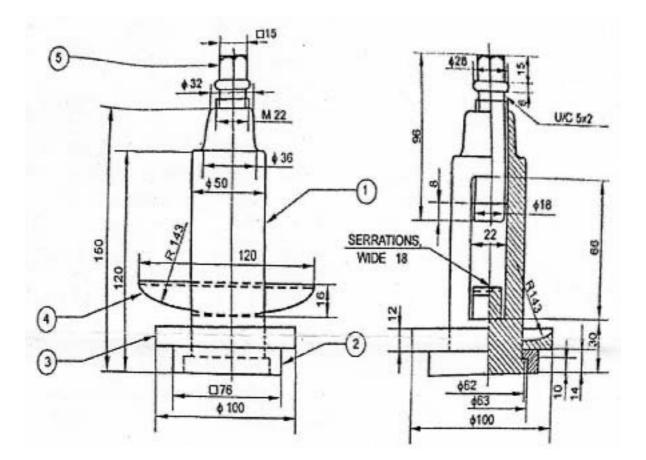
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4