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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^{-0.022} Hole 60^{-0.005}

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:

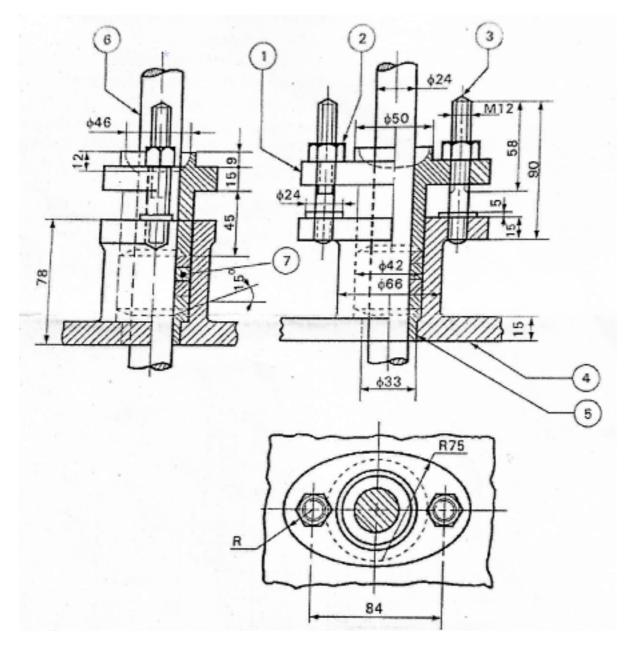
Part No.	Name	Qty
1.	Gland	1
2.	Nut	2
3.	Stud	2
4.	Body	1
5.	Bush	1
6.	Shaft	1
7.	Packing	

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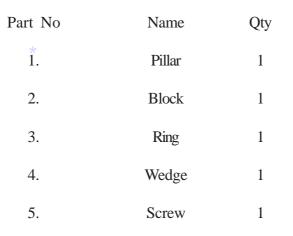
- 6. Study the given assembly drawing of the Lathe tool post and
 - (a) Draw the component drawings
 - (b) Apply suitable tolerances and fits
 - (c) Apply suitable geometrical tolerances to components
 - (d) Show the surface roughness symbols
 - (e) List out the materials for the components
 - (f) Prepare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

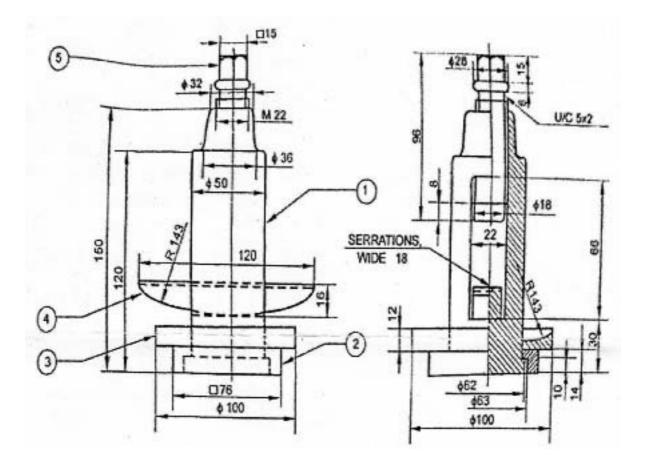
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