

C20-M-407

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BOARD DIPLOMA EXAMINATION, (C-20)

JUNE/JULY—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.
(4) Use of production drawing tables is allowed.

1. Calculate the values of clearance/interference, hole tolerance and shaft tolerance for the assemblies with a basic size of 40 mm and tolerances indicated (a) 120 H7/S6 and (b) 40 G7/h6.
2. Draw the symbols for the following geometrical tolerance characteristics :
 - (a) Profile of any line
 - (b) Cylindricity
 - (c) Profile of any surface
 - (d) Flatness
 - (e) Circularity

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3. Write the surface roughness values for the following manufacturing processes :

(a) Lapping

(b) Reaming

(c) Drilling

(d) Diecasting

(e) Forging

4. Write the meaning of the following designations :

(a) Fe 520 L

(b) X10Cr18Ni9S3

(c) Hex Screw M8×30- IS : 1364- P- 8·8

(d) Solid Taper Pin 10×60, IS : 6688

(e) Snap Head Rivet 6×25, IS : 2155

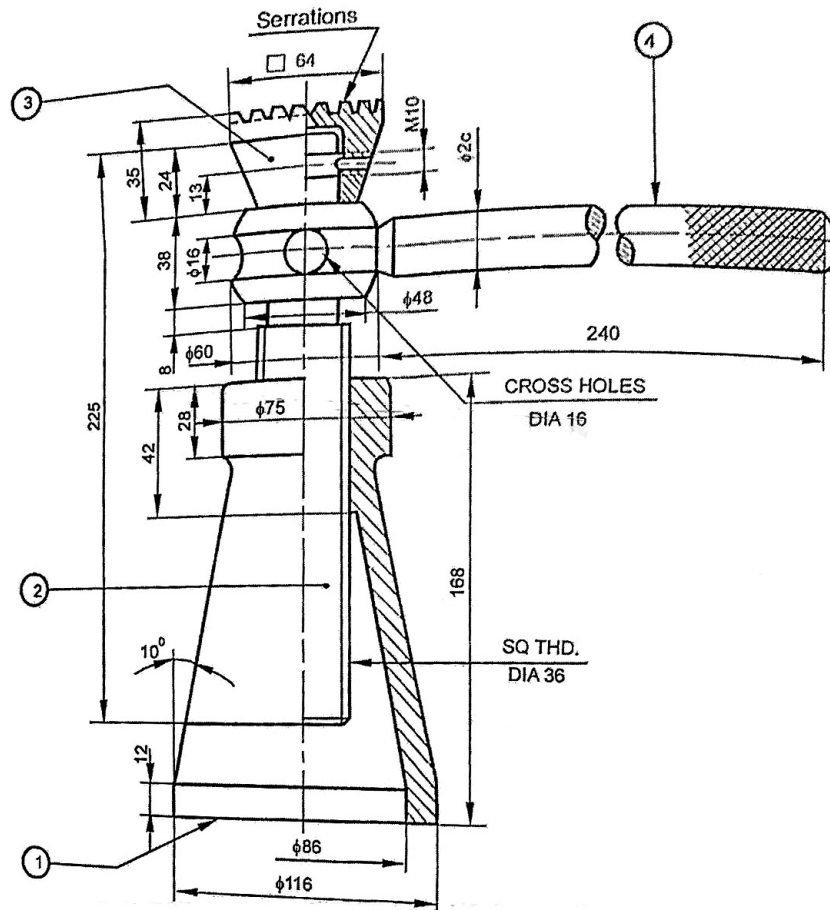
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* **PART—B**

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

5. Study the given assembly drawing of Screw jack :
- (a) Draw the part drawings. 20
 - (b) Mention 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 "Screw". 7
 - (e) Prepare bill of materials. 3

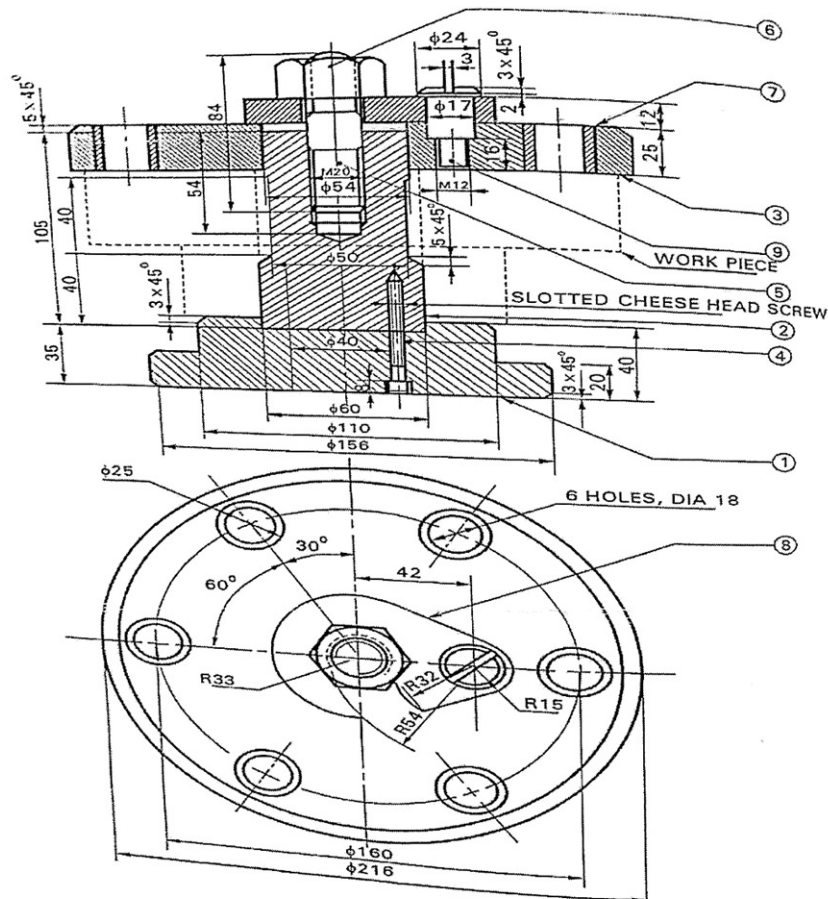


Parts List

Part. No	Name	Raw material	Qty.
1	Body	C.I Casting	1
2	Screw	MCS $\Phi 63$ Bar stock	1
3	Cup	C.I -Casting	1
4	Tommy bar	MS $\Phi 20$ Bar stock	1

6. Study the given assembly drawing of Drill Jig :

- (a) Draw the part drawings. 20
- (b) Mention 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 "Drill Bush". 7
- (e) Prepare bill of materials. 3



Parts List

Part. No	Name	Raw material	Qty.
1	Base Plate	C.I-Casting	1
2	Stem	MS- Φ63 Bar stock	1
3	Jig Plate	C.I-Casting	1
4	Screw	MS- Std. Component	3
5	Stud	MS- Std. Component	1
6	Nut	MS- Std. Component	1
7	Bush	MCS- Φ32 Bar stock	6
8	Latch washer	MS- Stampling	1
9	Screw	MS- Φ25 Bar stock	1

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