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C20-M-407

7460

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 :

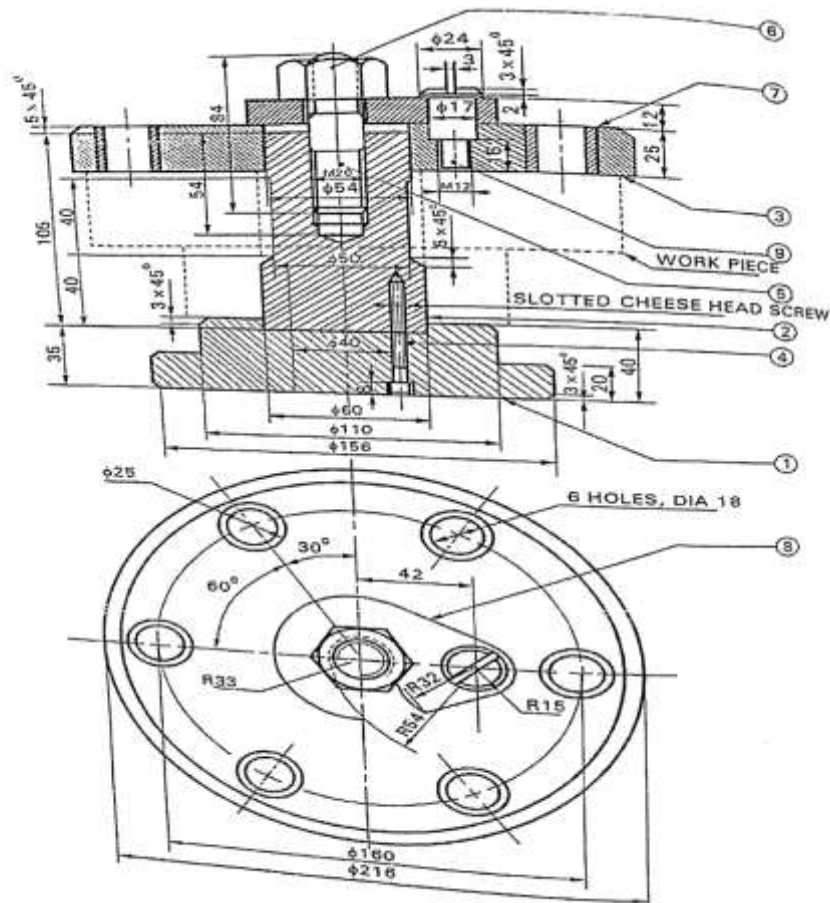
- (a) Fe 520 L
- (b) X10Cr18Ni9S3
- (c) Hex Screw M8×30- IS : 1364- P- 8.8
- (d) Solid Taper Pin 10×60, IS : 6688
- (e) Snap Head Rivet 6×25, IS : 2155

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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- Stamping	1
9	Screw	MS- Φ25 Bar stock	1

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