



C09-M-407

3507

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2018
DME—FOURTH SEMESTER EXAMINATION
PRODUCTION DRAWING

Time : 3 hours]

[Total Marks : 60

PART—A

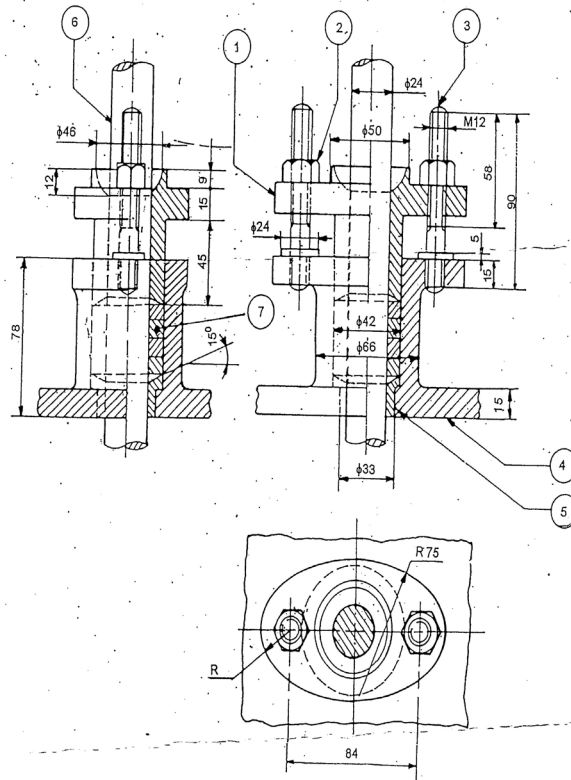
4×5=20

- 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. Determine the limit dimensions for a clearance fit between the mating parts having nominal diameter of 50 mm, providing a minimum clearance of 0.1 mm, with the tolerance of the hole as 0.02 mm and that of the shaft 0.03 mm. Follow shaft basis system.
 2. Sketch the symbols for the following characteristics to be tolerance.
(a) Circularity, (b) Profile of any surface,, (c) Angularity, (d) Symmetry, (e) Position
 3. What is the surface roughness grade symbol for the surface with roughness value 50µm, 25µm, 3.2µm, 0.2µm, 0.05µm.
 4. Write the meaning of the following :
 - (a) Square bolt M 12 x 50 N
 - (b) Castle nut M 20
 - (c) Taper key 12 x 8 x 50
 - (d) Splines 6 x 23 x 26
 - (e) Ball-bearing 205

PART-B

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

- 5.** Study the given assembly drawing of stuffing box.
- (a) Draw the component drawing for all parts.
 - (b) Indicate the geometrical tolerances.
 - (c) Indicate recommended surface roughness values.
 - (d) Mention the type of fit between mating parts.
 - (e) Prepare process sheet for gland.

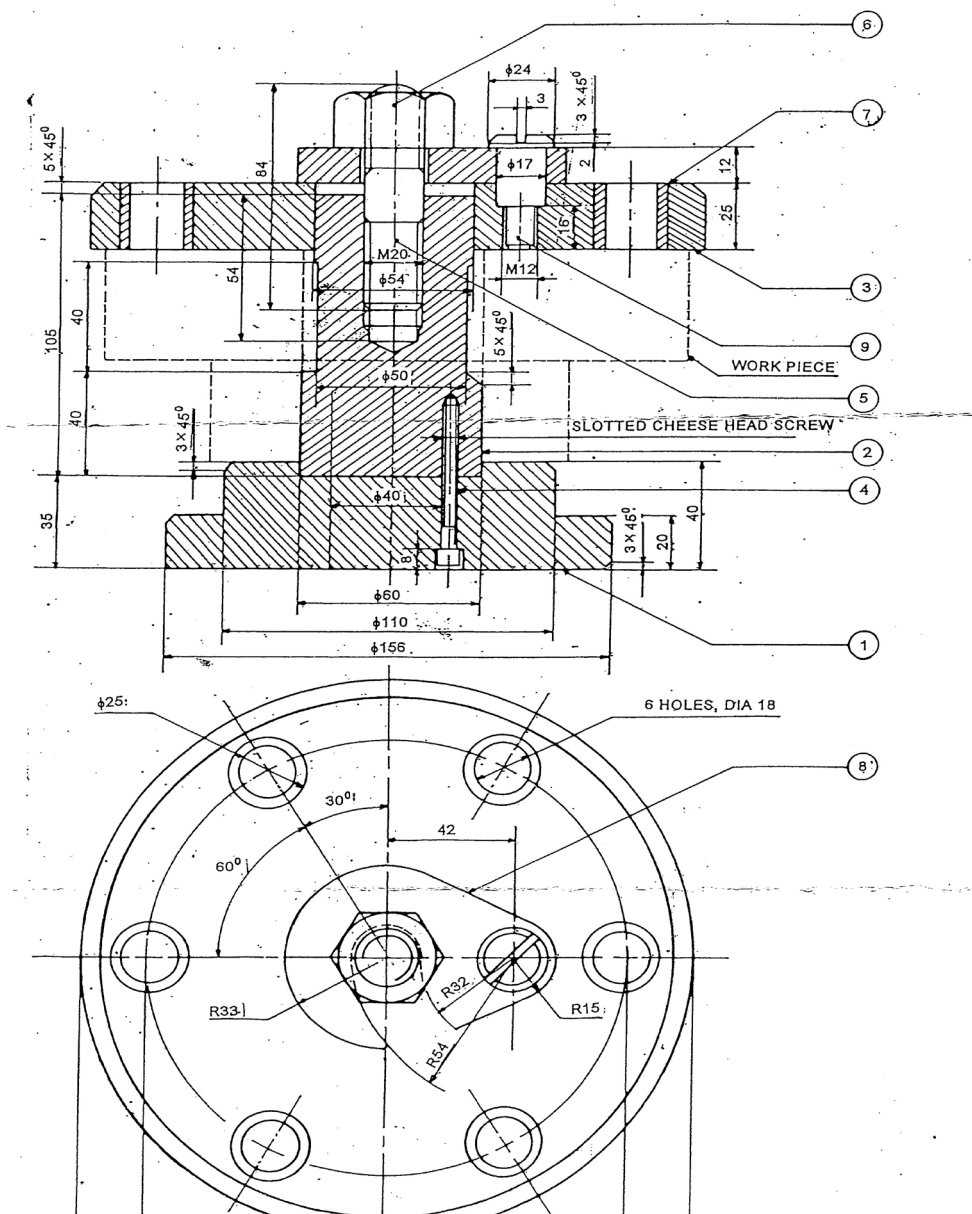


Bill of material

Part No.	Name	Raw material	Qty.
1.	Gland	Brass - Casting	1
2.	Nut	MS - Std. component	2
3.	Stud	MS - Std. component	2
4.	Body	C.I - Casting (part of cylinder)	1
5.	Bush	Brass - Casting	1
6.	Shaft	MS	1
7.	Packing	Asbestos rope	

6. Study the given assembly drawing of drill jig.

- (a) Draw the component drawing for all parts.
- (b) Indicate the geometrical tolerances.
- (c) Indicate recommended surface roughness values.
- (d) Mention the type of fit between mating parts.
- (e) Prepare process sheet for bush.



Bill of material *

Part No.	Name	Raw material	Qty
1.	Base plate	C.I- casting	1
2.	Stem	MS- Φ 63 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- Φ 32 Bar stock	6
8.	Latch washer	MS- Stamping	1
9.	Screw	MS- Φ 25 bar stock	1

*

*