

7460

BOARD DIPLOMA EXAMINATION, (C-20)

MAY—2023

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 tolerance tables are allowed.
1. Calculate the values of min. and max. allowances, hole tolerance, shaft tolerance and indicate type of fit for assembly with a basic size of 50mm and tolerance indicated as H_7/j_6 .
2. Sketch the symbols for the following characteristics to be toleranced :
- (a) Position
 - (b) Symmetry
 - (c) Cylindricity
 - (d) Flatness
 - (e) Perpendicularity

3. Give the range of surface roughness values in microns obtained from the following process :

- (a) Forging
- (b) Sand casting
- (c) Reaming
- (d) Hot rolling
- (e) Broaching

4. State the meaning following designation :

- (a) HEX BOLT M10 × 40 NL
- (b) Stud B M20 × 60
- (c) Cylindrical pin 10 h₈ × 20
- (d) Taper key 15 × 10 × 70
- (e) Oil seal A 25 × 40 × 7

PART—B

40

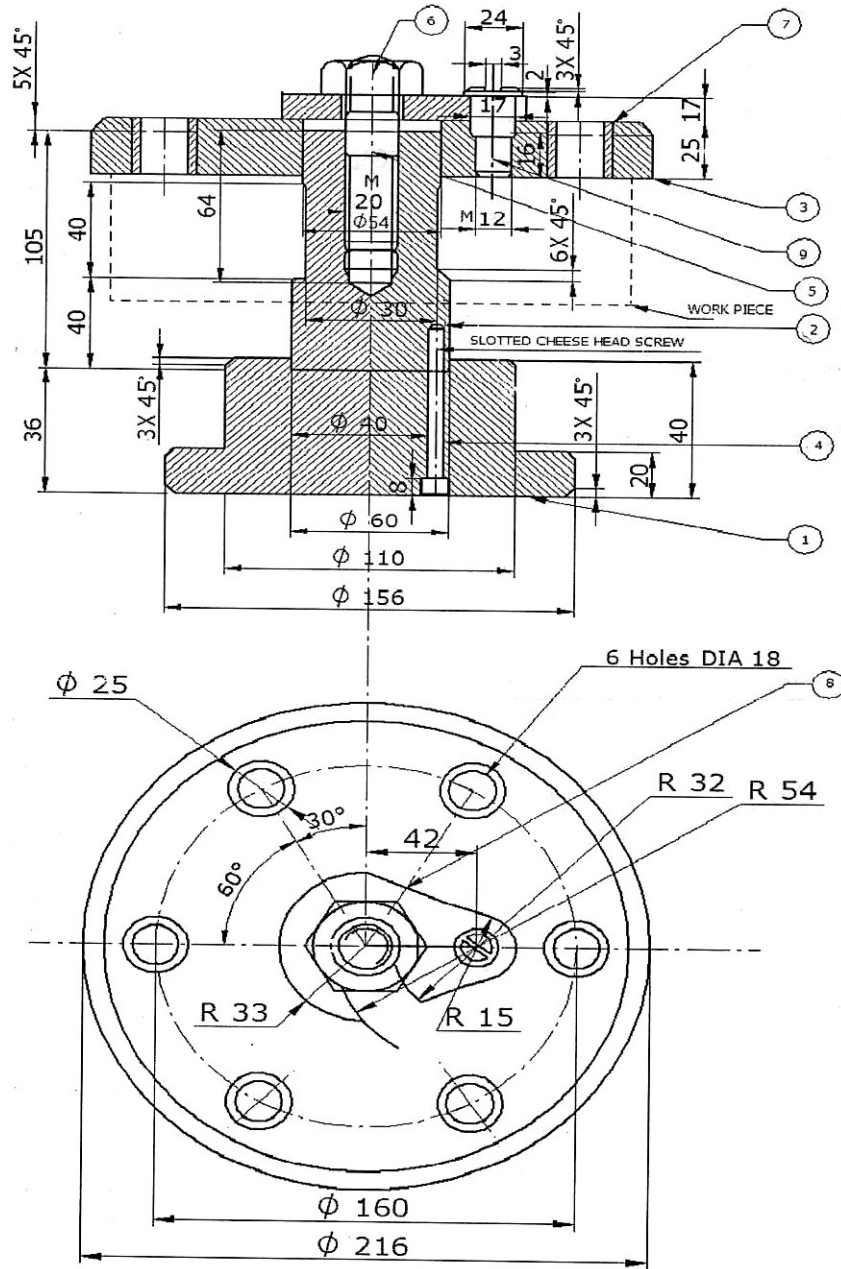
Instructions : (1) Answer *any one* of the following questions.

(2) Each question carries **forty** marks.

5. Study the given assembly drawing of drill jig : 20+5+3+3+5+4

- (a) Draw the component drawing for 1, 2 and 3 parts.
- (b) Indicate tolerance and type of fit between parts 1-2 and 2-3
- (c) Indicate the geometrical tolerances wherever needed.
- (d) Indicate the surface roughness values on all parts.
- (e) Prepare the process sheet for jig plate.

(f) Indicate specifications of materials and standard components.

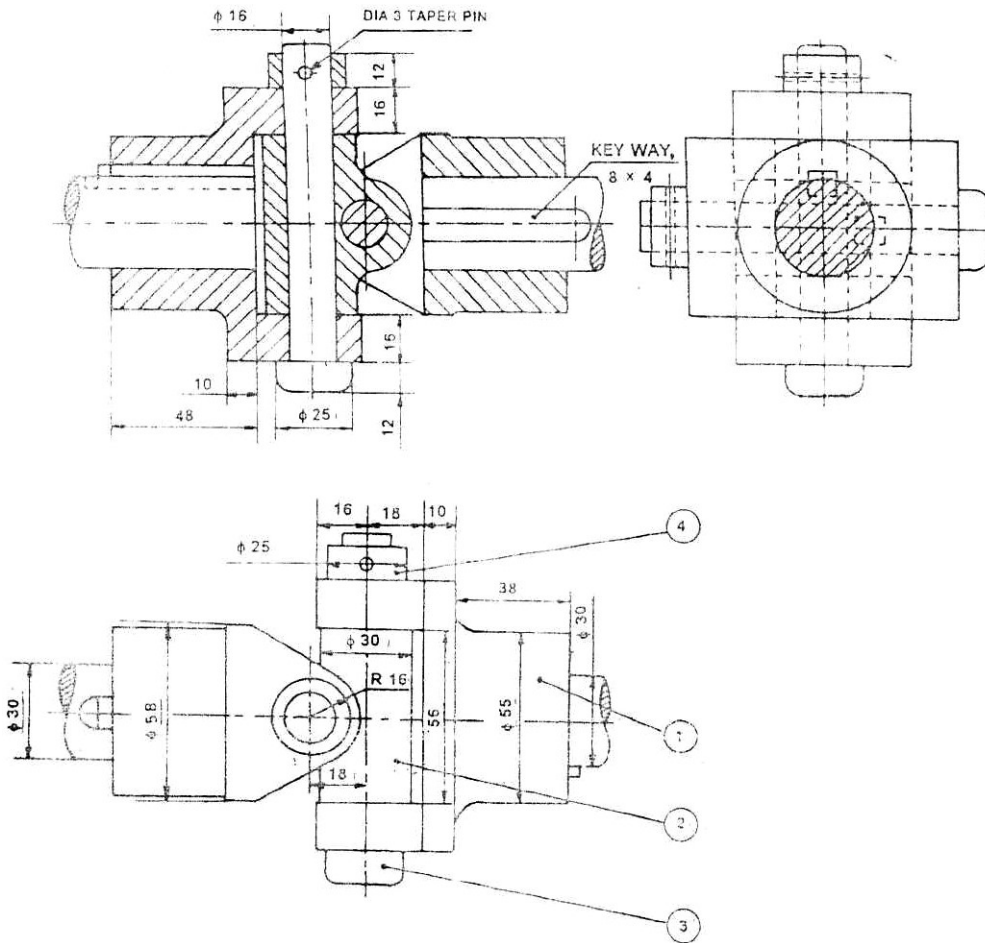


6. Study the given assembly drawing of universal coupling : 20+5+3+3+5+4

(a) Draw the component drawings.

*(b) Indicate dimensional tolerances and fits on important mating parts.

- (c) Indicate the geometrical tolerances wherever needed.
- (d) Indicate the surface roughness values on all parts.
- (e) Prepare the process sheet for centre block.
- (f) Indicate specifications of materials and standard components



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