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C09–M–**407**

3507

BOARD DIPLOMA EXAMINATION, (C–09)

OCT/NOV—2016

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.

1. Calculate the values of clearance/interference, hole tolerance and shaft tolerance for a basic size of 40 mm and also determine the type of fit for the tolerances indicated as H7/m6.

2. Draw the symbols for the following : 1×5

(a) Flatness

(b) Circularity

(c) Profile of any line

(d) Angularity

(e) Symmetry

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3. Write the surface roughness values for the following : 1×5

(a) Hot rolling

(b) Cylindrical grinding

(c) Lapping

(d) Boring

(e) Extrusion

4. Give the meaning of the following designations : 1×5

(a) Hex bolt M20 × 1·5 × 75NL

(b) Stud B M20 × 60

(c) Taper key 15 × 10 × 70

(d) Splines 8 × 23 × 26

(e) Ball bearing 205

PART—B 40

Instructions : (1) Answer *any* **one** question.

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

(3) Choose suitable scale.

5. Study the given assembly drawing (Fig. 1) of non-return valve :

(a) Draw the component drawing (part no. 1, 2, 3, 4) selecting suitable tolerances and fits.

(b) Prepare the process sheet for 'Body'.

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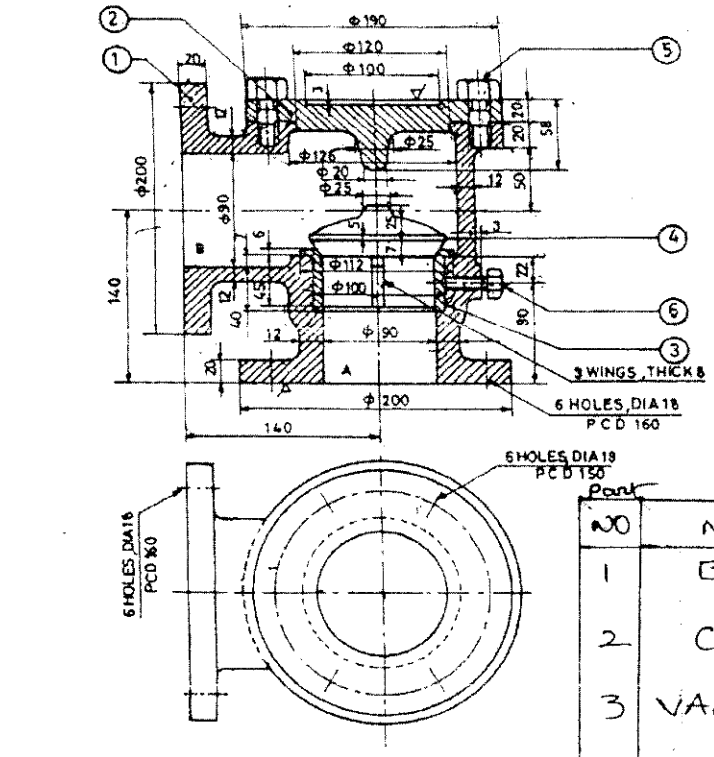
(c) Write the material list for all parts.

(d) Incorporate proper limit, fit and tolerances on components and mention the surface finish on them. 25+5+5+5=40



NON- RETURN VALVE

Part

NO	NAME	Qty
1	BODY	1
2	COVER	1
3	VALVE SEAT	1
4	VALVE	1
5	STUD WITH NUT	6
6	SETSCREW M10X28	1

Fig. 1

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6. Study the given assembly drawing (Fig. 2) of lathe tail-stock :

(a) Draw the component drawing for parts 1, 2 and 6.

(b) Indicate geometrical tolerances wherever needed for parts 1, 2 and 6.

(c) Indicate the recommended surface roughness values on parts 1, 2 and 6.

(d) Prepare the process sheet for Barrel. 25+5+5+5=40

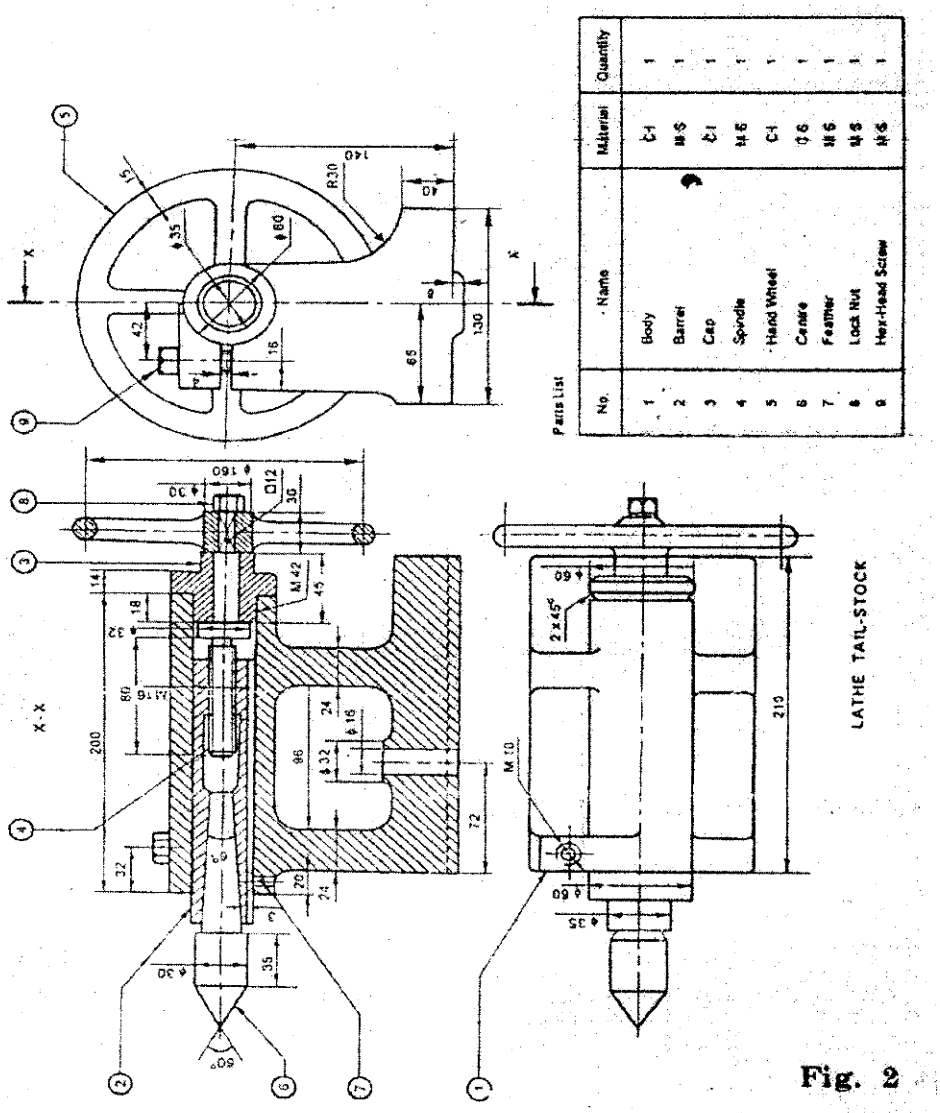

Fig. 2

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