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2. With the help of sketches, show how the geometrical tolerances are indicated, as per the standard, for the following cases :

(a) Symmetry

(b) Angularity

(c) Axial run-out

(d) Parallelism

(e) Perpendicularity

3. Mention the average surface roughness values that can be obtained from the following processes :

(a) Sand casting

(b) Honing

(c) Flame cutting

(d) Hot rolling

(e) Filling

4. Explain the meaning of the following designations :

(a) Hex bolt M20 × 1.5 × 75 NL-IS : 1364-S-4.6

(b) Ball bearing 407

(c) Snap head rivet 6 × 25, IS : 2155

(d) Taper key 14 × 7 × 37, IS : 2292

(e) Oil seal A 25 × 40 × 7, IS : 5129

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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 as shown in Fig. 1—eccentric :

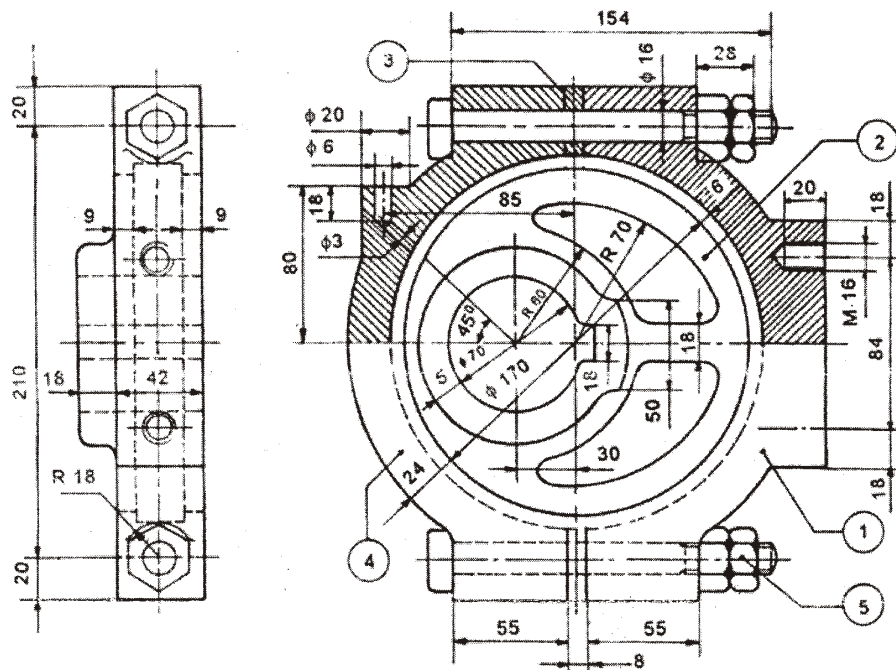


Fig. 1 : Eccentric

Bill of Material

Part No.	Name	Raw material	Qty.
1.	Strap	C.I.-Casting	1
2.	Sheave	C.I.-Casting	1
3.	Shim	Brass-Strips	2
4.	Strap	C.I.-Casting	1
5.	Belt with nut	M.S.-Std. Components	2

- (a) Draw the component drawings.
 (b) Apply suitable fits and tolerances.
 (c) Apply suitable geometrical tolerances to each component.
 (d) Select normal surface roughness values to the components.
 (e) Prepare process sheet for straps. 20+5+5+5+5=40

