

**B.Sc. PROSTHETICS & ORTHOTICS
FIRST YEAR
PAPER V – ENGINEERING DRAWING**

Q.P. Code: 802405

Time: Three hours

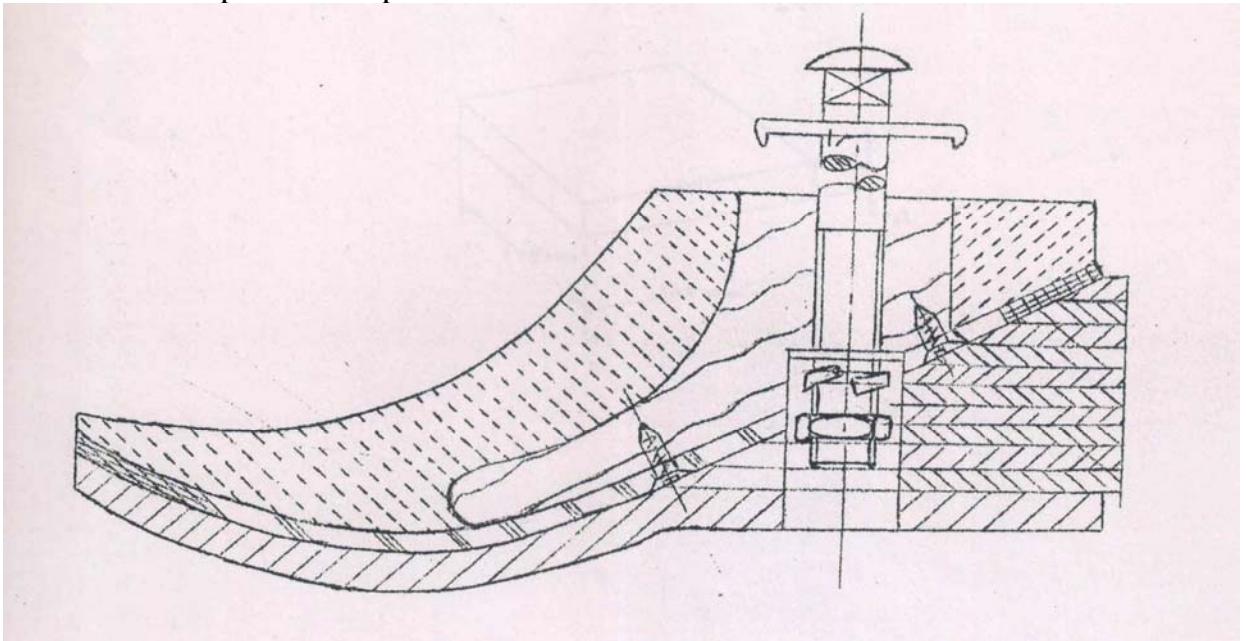
Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. Construct a cycloid of a circle of radius 20 mm.
2. Sketch with free hand, universal coupling of 40 mm diameter of shaft (Only front view).
3. Below is the sectional view of SACH foot. Draw the same assuming necessary data. Name the parts and representations.



II. Write notes on:

(8 x 5 = 40)

1. Draw conventional representation of the following:-
 - a) Diamond knurling
 - b) Gate valve
 - c) Steel
2. Calculate upper limit size and lower limit size for $25 H7$.
3. Explain with the help of sketches (i) chain dimensioning (ii) parallel dimensioning and (iii) combined dimensioning.

4. When the object is placed in 1st quadrant, what is its position with reference to HP and VP?
5. Name the five types of solids and sketch any two of them.
6. Draw the elevation of a hexagonal nut.
7. Sketch any two types of thread profiles.
8. Describe the ways in which a riveted joint may fail. What steps are taken to prevent failures? Illustrate your answer with necessary sketches.

III. Short answers on:

(10 x 3 = 30)

1. What are the types of orthographic projections?
2. What are skew lines?
3. What is the difference between a plane and a lamina?
4. What is an isometric view?
5. What is the difference between a parallelogram and a rhombus?
6. What is a sectional view? Why sectional views are used in drawing?
7. What is a point?
8. What are the types of planes?
9. What are the types of Bolts? Draw any four.
10. Explain the objective of machine drawing with a suitable figure.
