[LK 0217] FEBRUARY 2017 **Sub. Code :2405**

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

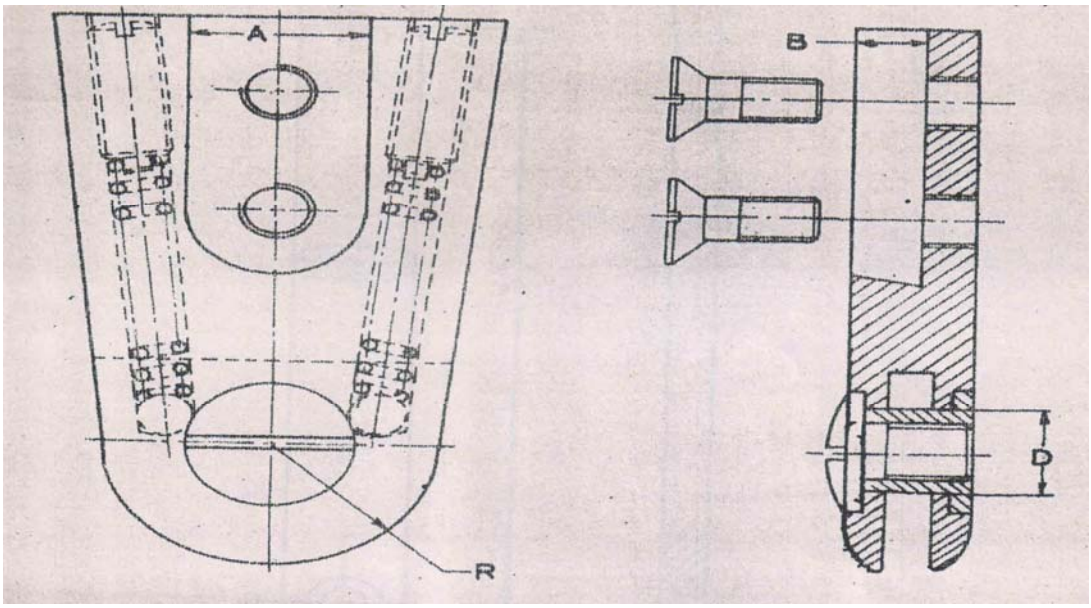
Q.P. Code: 802405

Time: Three hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Below fig. shows the sectional view of Double action ankle joint. Draw the same in full size (1 : 1 size)



A= 20 mm; B= 6 mm; D= 9mm and R= 15 mm

2. Draw Involute of circle of radius 30 mm.
3. Write the following sentence in single stroke vertical letters in ratio of 4:6.

RESIDUAL LIMB SOCKET INTERFACE

II. Write notes on: **(8 x 5 = 40)**

1. Draw conventional representation of the following:-
   a) I section
   b) Spiral spring
   c) External Screw thread

2. Explain with the help of neat sketch what is offset section?
3. Draw free hand proportionate sketch of Counter sunk headed screw.
4. Draw the half sectional front view and side view of a flexible coupling having shaft diameter is 45 mm.
5. Sketch a pin type flexible coupling.
6. Represent two views of hexagonal nut and square nut with proportions and dia of bolt as 30mm.
7. Construct an isometric scale.
8. Draw the symbols for the following:-
    a) Fillet weld
    b) Spot weld
    c) Seam weld

III. Short answers on: **(10 x 3 = 30)**

1. What is difference between pitch and lead?
2. Mention various types of bearings?
3. Write any 4 difference between 1st angle projection and third angle projection.
4. Define engineering drawing. Why drawing is called universal language of engineers?
5. What are the standard sizes of drawing sheets according to I.S.I. and which is suitable for drawing work?
6. What is a scale?
7. What is the representative fraction (R.F.) or scale factor (S.F.)?
8. What is the difference between a quadrilateral and a polygon?
9. What is an auxiliary view?
10. What do you mean by Frustum?

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[LL 0817] AUGUST 2017 **Sub. Code :2405**

B.Sc. PROSTHETICS & ORTHOTICS

FIRST YEAR

PAPER V – ENGINEERING DRAWING

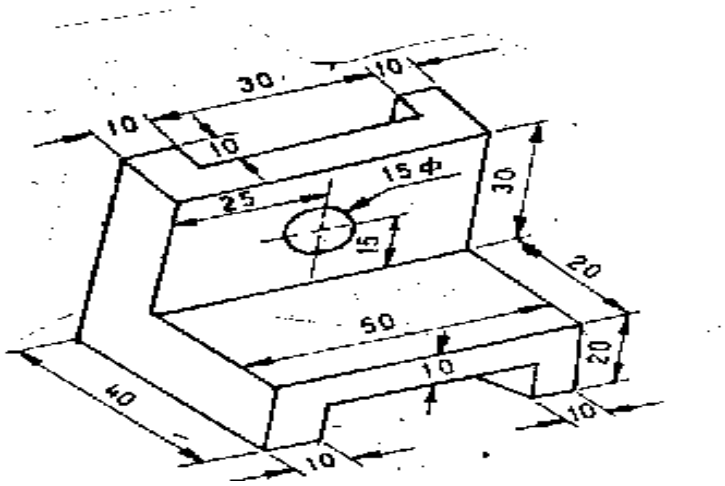
Q.P. Code: 802405

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Draw the plan and elevation of the object given below. All the dimensions are in mm.



2. Construct a cycloid of generating circle diameter 60 mm Draw a tangent at any point on the curve.

3. Briefly explain about all the drawing instruments with their use.

II. Write notes on: **(8 x 5 = 40)**

1. Show the lay out of drawing sheet.
2. Write different type of machine drawing and its use.
3. Construct a plane Scale 1:250 to measure up to 40 meter and measure a distance of 27 meter on scale.

4. Draw the involute of a circle of radius 30 mm.
5. What you mean by Plan and elevation?
6. Draw the isometric view of cone of base diameter 40 mm and height 60 mm.
7. Draw the plan and elevation of single riveted butt joint of rivet dia is 15 mm.
8. Draw three views of hexagonal headed bolt 24mm dia and 100mm long.

III. Short answers on: **(10 x 3 = 30)**

1. List out the different type of scales.
2. What is dimensioning? Describe the terms used.
3. Write down the use of set square.
4. Define orthographic projection.
5. Divide a line of length 125 mm into seven equal parts.
6. Draw a free hand sketch of shaft coupling.
7. Describe about screw tread.
8. Draw the sketch of flanged nut.
9. Sketch three types of rivet head.
10. Draw sketch of coupling used in prosthesis.

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[LM 0218] FEBRUARY 2018 **Sub. Code: 2405**

BACHELOR IN PROSTHETICS & ORTHOTICS

FIRST YEAR

PAPER V – ENGINEERING DRAWING

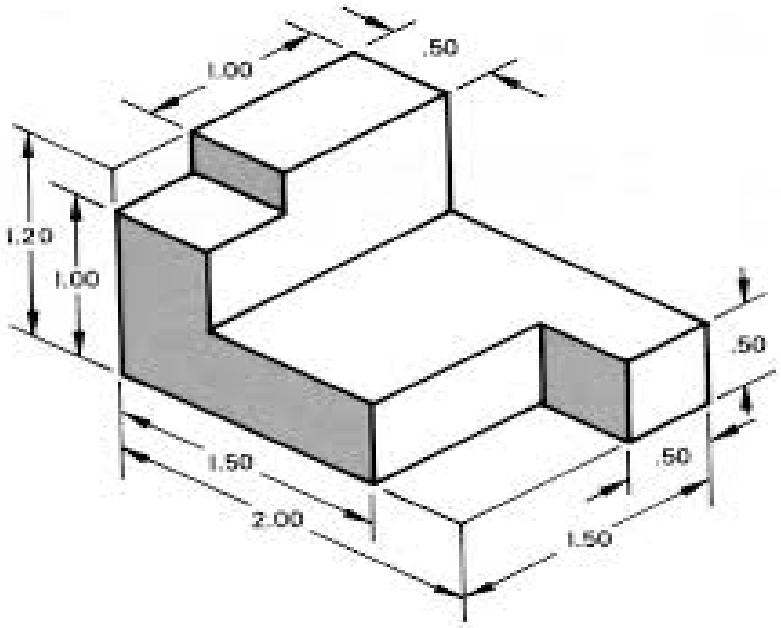
Q.P. Code: 802405

Time: Three Hours **Maximum : 100 Marks**

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Draw the plan and elevation of the object given below. All the dimensions are in mm.



2. Draw the isometric view of Square pyramid of base 25 mm side axis 60 mm and one of the side is parallel to VP.

3. A line AB is 75 mm long is inclined at 30 degree to HP and 45 degree to VP. Its end A is 25 mm above HP and 15 mm in front of VP. Draw its projection.

II. Write notes on: **(8 x 5 = 40)**

1. What is "title box"? Draw and write particulars of title box.
2. Explain about Five type of lines with its use.

3. Construct a Scale 1: 400 to show meters and long enough to measure up to a distance of 44 meter.
4. Construct a ellipse whose major axis is 120 mm and minor axis is 80 mm.
5. Differentiate between Orthographic and Isometric Projection.
6. Draw three views of Hexagonal nut.
7. Write different forms of bolt.
8. Describe about welding process and its types.

III. Short answers on: **(10 x 3 = 30)**

1. What is RF in Scale?
2. Show the parts of Drafting Machine and its use.
3. What is French curve?
4. A point P is 30 mm above HP and 40 mm in front of VP. Draw projection.
5. Draw the diagram of Square head bolt.
6. What is the pitch of screw thread?
7. Write down the types of welded joint.
8. Draw the sketch of Auxiliary crutch.
9. Define oblique projection.
10. What do you understand by “tolerance”?

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