ENGINEERING DRAWING-II
2ND EXAM/Electrical/Mechanical/2454/NOV'15

Duration: 3hrs   M. Marks=100

Note: Attempt all Questions.

Q1.(A) Fill in the Blanks: 10x1=10
   a. In double start threads, lead is equal to _____.
   b. When shafts are not perfectly co-axial, _____ coupling is used to join them.
   c. If 't' mm is the thickness of plates to be joined, then rivet diameter is given by _____.
   d. Feed mechanisms of machine tools have _____ threads.
   e. _____Nut is also known as check nut.
   f. Cotters are driven _____ to axis of the connecting parts.
   g. _____ Washers are used for locking the nuts.
   h. The diameter of a hexagonal nut is 16 mm, its distance (width) across flat will be _____ mm.
   i. Commonly used material for rivet is _____.
   j. The projections drawn with the object lying in front of vertical plane and above horizontal plane are called _____ angle projections.

(B)   State True/False   5x1=5
   a) A riveted joint gives a permanent joint.
   b) Generally square threads are used in nuts and bolts.
   c) A coupling is used to connect two pipes.
   d) The cross section of a cotter is generally circular.
   e) A hexagonal nut is preferred over a square nut.

SECTION-B

Note: Attempt any three Questions.   15x3=45

Q2.   Draw the sectional front view and top view of a single riveted double cover chain type butt joint, thickness of plate is 9 mm. Assume pitch of rivets as three times the rivet diameter.
Q3.   Sketch the following:
        i.   Knuckle threads
        ii.   Metric threads
        iii.   Two views of a sawn nut
Q4.   Draw front view and top view of square headed bolt. Take bolt diameter = 24 mm. Calculate other dimensions.
Q5.   Give proportionate sketches of any three washers.

SECTION –C

Note: Attempt any two Questions.   20x2=40
Q6.   The figure 1 shows detail drawing of a dove trailed halfing joint. Assemble the parts and draw Front view, Top view and Side view.
Q7.   Draw front view of a protected type flange coupling used to connect two shafts of 25 mm diameter.
Q8.   Make a neat sketch showing two views of a cottered joint with a sleeve for connecting rods each of 40 mm diameters. Give all proportions.
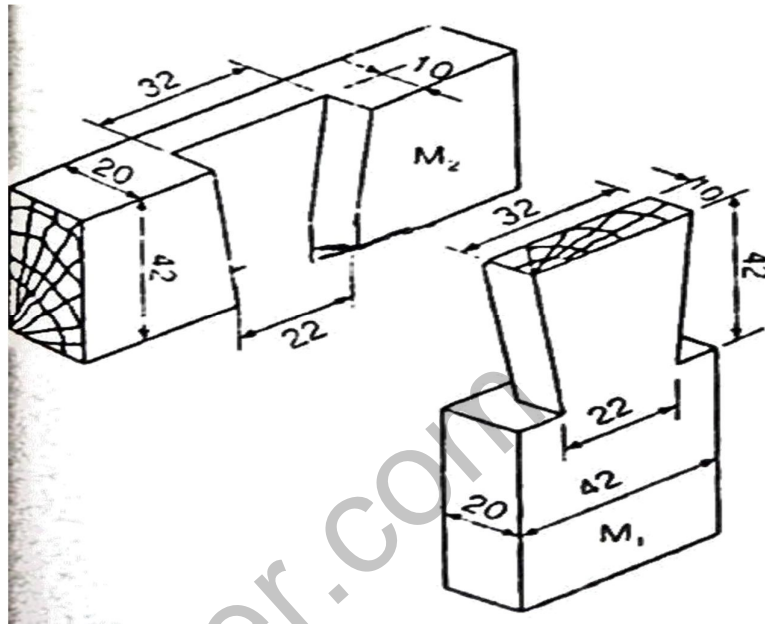
Figure 1