**USN** | | | | | | | | | |

18ME36A/18MEA306/18MA36

# Third Semester B.E. Degree Examination, Feb./Mar. 2022

## COMPUTER AIDED MACHINE DRAWING

Time: 3 Hours  Max. Marks: 100

Note: 1. Answer any ONE question from each of the parts A, B and C.
2. Use **First angle** projections only.
3. If any data is missing it may be suitably assumed and mentioned.
4. All the calculations should be on the answer sheet supplied.
5. All the dimensions are in mm.
6. Drawing instruments may or may not be used for sketching.
7. Part C assembly view should be in 3-D and other views in 2-D.

## Part – A

1. Draw (i) the sectional view from the front and (ii) the view from above of a bearing bracket shown in Fig. 1  **25 Marks**
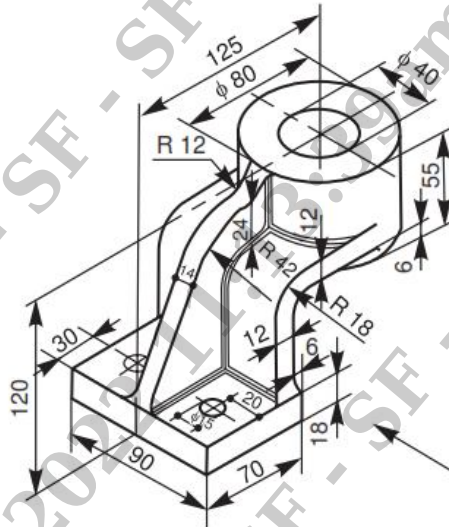


*Figure. 1: Bearing bracket*

2. Draw two views of a square headed bolt and nut (assembly) for a 25mm diameter bolt. Take the length of the bolt equal to 100mm  **25 Marks**

## Part – B

3. Draw the following view of a SOCKET and SPIGOT COTTER JOINT used to joining two rods of diameter 30mm (a) Sectional front view (b) A view looking from socket end.  **25 Marks**

4. Draw sectional front view and side view of a Universal Coupling to connect two rods of diameter 25mm, indicate all dimensions.  **25 Marks**

## Part – C

5. Figure 2 shows the details of a screw jack. Assemble the parts of the screw jack and show the following views.
   a. Half sectional front view showing the right half in section.
   b. Top view.                                                                    **50 Marks**

6. Figure 3 shows the part drawing of a tail stock. Assemble the tail stock and show the following views.
   a. Sectional front view showing the top spindle portion in section.
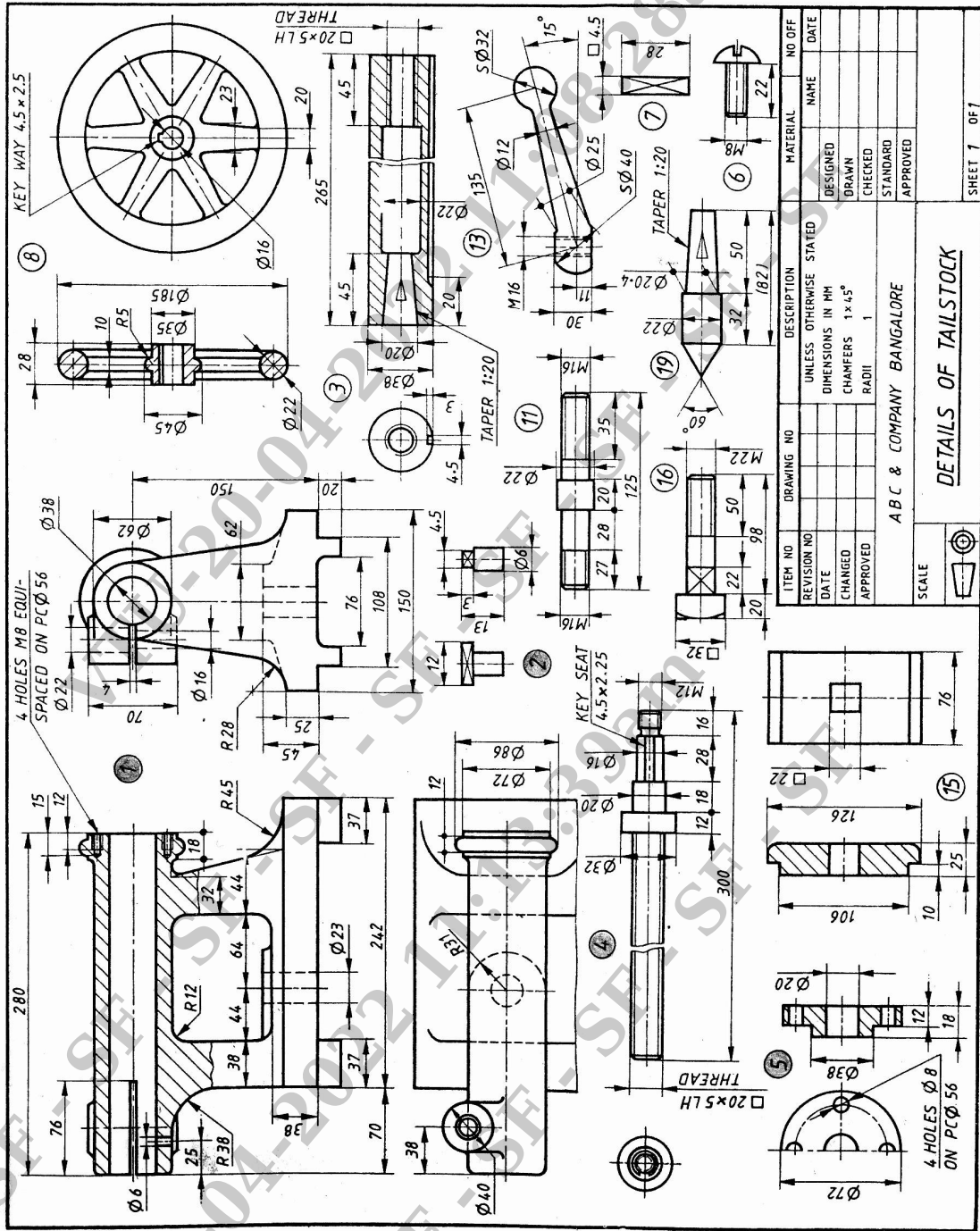   b. Left profile view.                                                          **50 Marks**

*Figure 2: Details of screw jack*

Figure 3 : Details of a tail stock.