



University of Ruhuna Faculty of Engineering

End - Semester 1 Examination in Engineering – October 2019

TIMETABLE

DATE	TIME	MODULE NO.		MODULE NAME
21.10.2019	9.00 a.m. – 12.00 noon	**ME 1201 (DO2)	126	Engineering Drawing (C-18) (Group "A") EG/2018/3265- EG/2018/3388+ EG/2016/2913, EG/2017/3203 (126 students)
	12.15 p.m. – 3.15 p.m.		126	Engineering Drawing (C-18) (Group "B") * EG/2018/3389- EG/2018/3515
23.10.2019	9.00 a.m. – 12.00 noon	EE1302 ✓	289	Introduction to Electrical Engineering(C-18)
		EE1301 ✓	08	Introduction to Electrical Engineering (N/C)
26.10.2019	9.00 a.m. – 12.00 noon	ME1202 ✓	256	Introduction to Mechanical Engineering (C-18)
28.10.2019	9.00 a.m. – 12.00 noon	EE1101 ✓	254	Computer Programming I (C-18)
		EE1102 ✓	01	Introduction to Programming (N/C)
29.10.2019	9.00 a.m. – 11.00 a.m.	CE1101 ✓	251	Basic Concepts in Environmental Engineering (C-18)
31.10.2019	9.00 a.m. – 12.00 noon	CE1202	311	Introduction to Infrastructure Planning (C-18)
02.11.2019	1.30 p.m. – 4.30 p.m.	IS1301 ✓	253	Communication for Engineers (C-18)
		IS1302 ✗	01	Communication for Engineers (N/C)
04.11.2019	9.00 a.m. – 12.00 noon	S1402	253	Mathematical Fundamentals for Engineers(C-18)

* Students of Group" B" must be presented at DO1 at 11.45 a.m. on 21.10.2019

Those who are failing to follow the instructions given for Group B are not allowed to sit for ME1201.

VENUES FOR EE 1302(C-18)

Reg.EG/2018/3265- EG/2018/3424 -Auditorium

Reg.EG/2018/3425- EG/2018/3506+ Repeaters- Drawing Office 2(DO2)

Reg.EG/2018/3507- EG/2018/3515-LR1

VENUES FOR EE 1301(N/C) - LR1

VENUES FOR ME 1202(C-18), EE 1101(C-18) , CE 1101(C-18), IS 1301(C-18), IS 1402(C-18)

Reg.EG/2018/3265- EG/2018/3424 -Auditorium

Reg.EG/2018/3425- EG/2018/3515+ Repeaters- Drawing Office 1(DO1)



UNIVERSITY OF RUHUNA

Faculty of Engineering

End-Semester 1 Examination in Engineering: October 2019

Module Number: ME1201

Module Name: Engineering Drawing

[Three Hours]

[Answer all questions; each question carries 10 marks; all dimensions are in millimetres]

- Q1. With reference to the symmetric object shown in Figure Q1, draw the following orthographic views using the third angle projection. (Note: assume any dimension not given)
- a) Full section front view across the mid cutting plane PQRS, looking in the direction of arrow A. [3.0 Marks]
 - b) Top view. [4.0 Marks]
 - c) Left side view. [3.0 Marks]
- Q2. Orthographic projections of an object drawn in the third angle projection are given in Figure Q2. Use the isometric scale and draw the isometric view of the object looking in the direction shown by the arrows. (Note: assume any dimensions not given) [10.0 Marks]
- Q3. A horizontal cylinder of diameter 75 mm is joined to a vertical cylinder of diameter 100 mm to form an object of which the top view is given in Figure Q3. Draw the given top view and front view of the object when observed from the direction of arrow "A", with the complete curve of intersection including the hidden part of the curve. [10.0 Marks]
- Q4. Details of a cam assembly are given in Figure Q4 together with a key showing the position of various components in the assembly. Draw only two most appropriate assembly drawing views based on the first angle projection to show all the details of the cam assembly using 1:1 scale. If necessary, use sectional views. No need of including dimensions in the drawings. However, parts list and reference balloons are to be there in the drawings. Any additional views if drawn will result in minus marks. [10.0 Marks]
- Q5. Two square ducts have to be connected with each other using a transition duct represented by the front and top views given in the Figure Q5.
- a) Draw the given front and Top views and complete the markings a' to h' , following the usual notation. [2.0 Marks]

b) Start drawing the development of the transition duct by drawing the face $AEFB$.

[2.0 Marks]

c) Complete the development of the surface of the transition duct, marking points A to H on it.

[6.0 Marks]

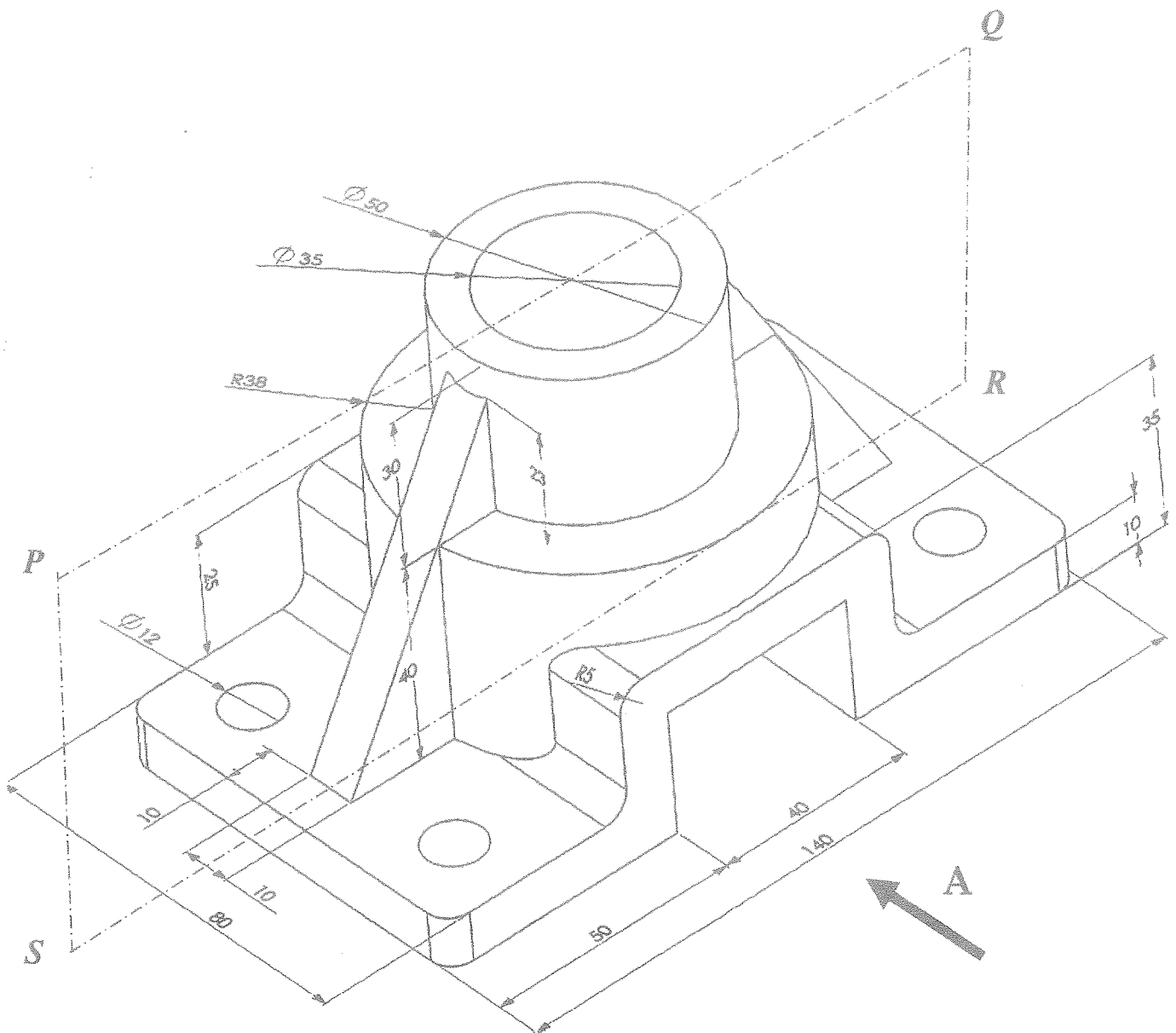


Figure Q1

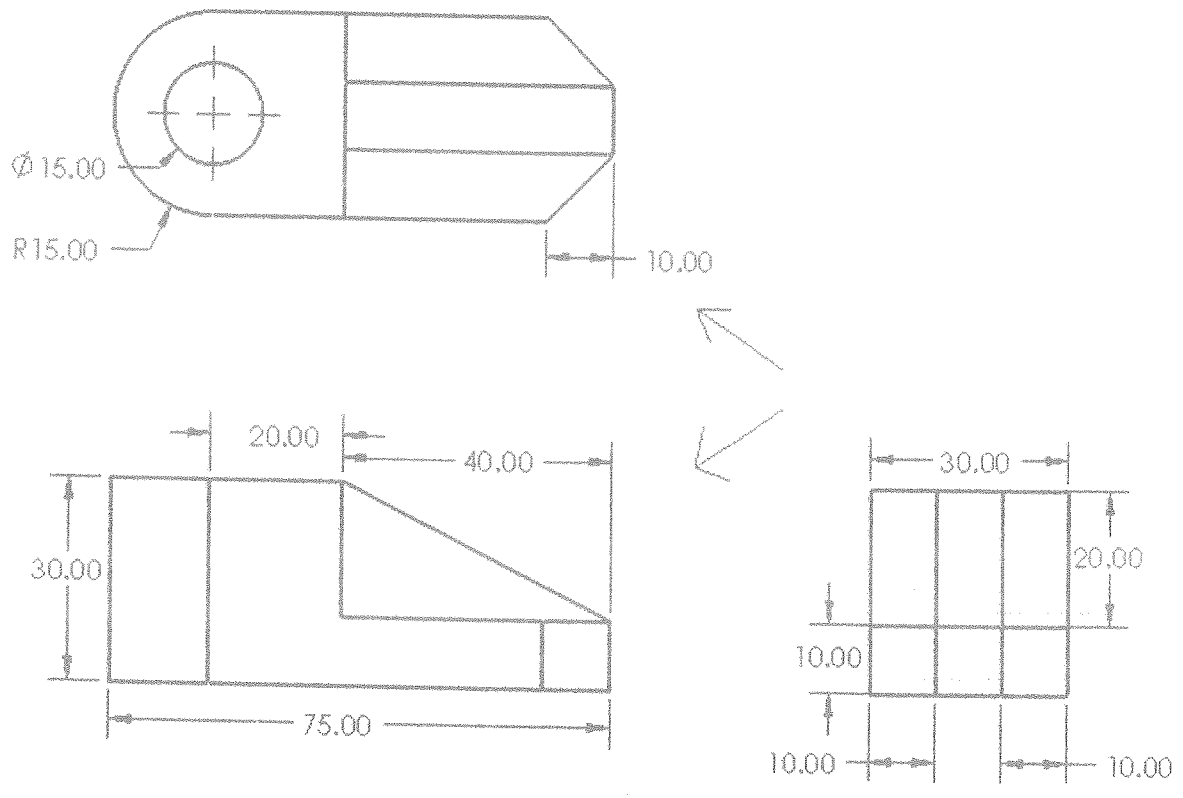


Figure Q2

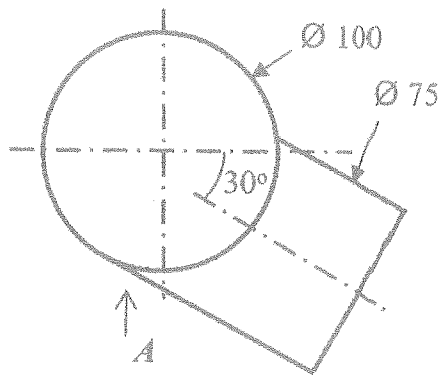
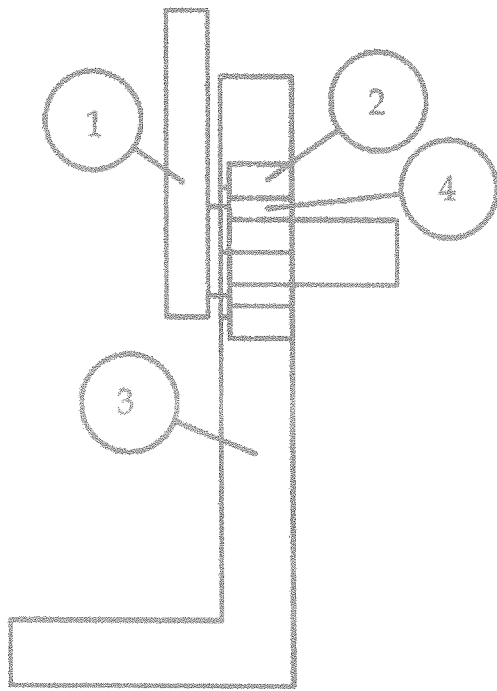
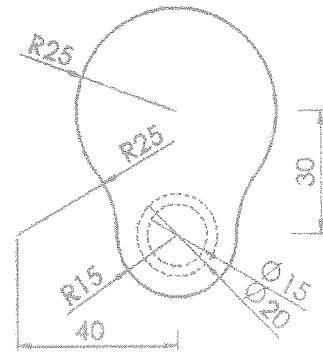
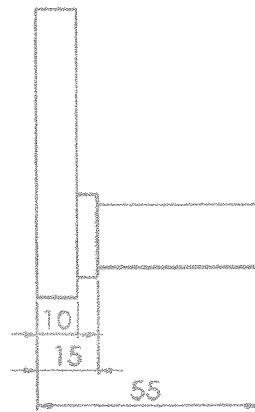


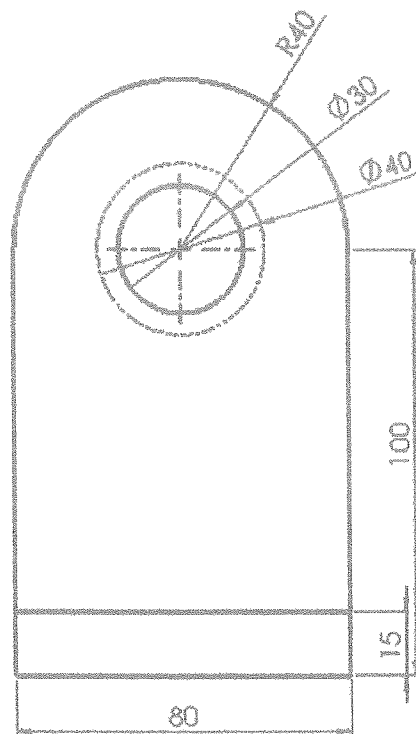
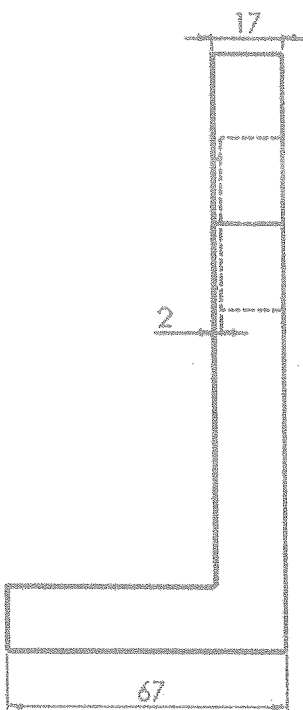
Figure Q3



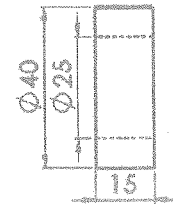
Key to Assembly



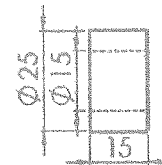
1. Cam



3. Base



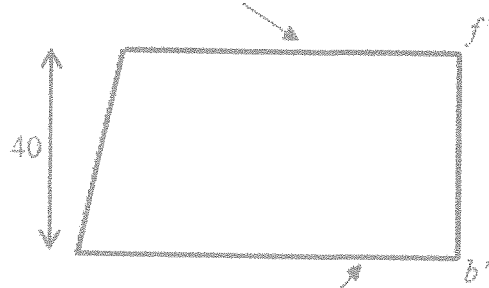
2. Bearing outer



4. Bearing Inner

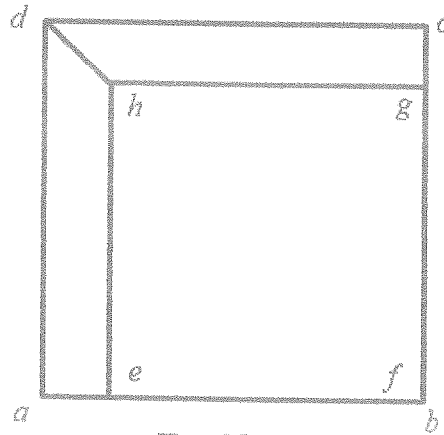
Figure Q4

□ 50 square duct connection side



□ 60 square duct connection side

Front View



Top View

Figure Q5