

# CBCS SCHEME

17AEL48/17ASL48

USN 

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Fourth Semester B.E Degree Examination, June 2019  
(AE/AS)

## COMPUTER AIDED AIRCRAFT DRAWING

Time:3 Hours

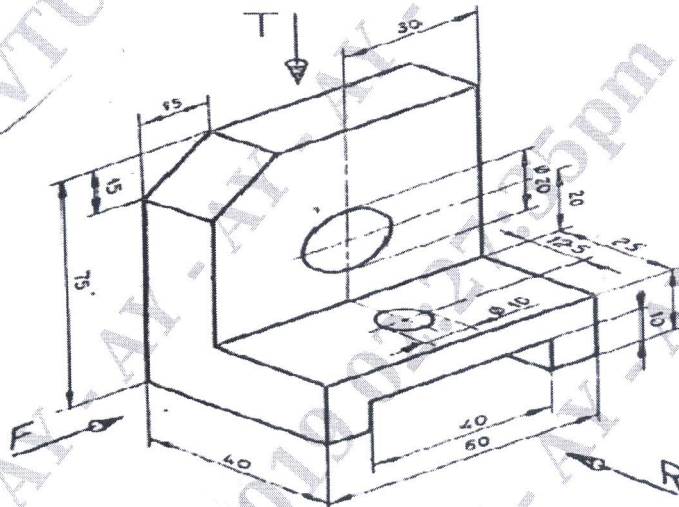
Max. Marks:100

Note:

1. Answer any one question from each of parts A,B and C
2. Use First angle projection only
3. Missing data if any may suitable may assumed
4. All the calculation should be on answer sheet supplied
5. All the dimensions are in mm
6. Part C assembled view should be in 3D and other 2 views in 2D

### Part-A

1. A cone of base diameter 50mm and axis length 65mm rests with its base on the HP. Draw the true shape of section made by a section plane perpendicular to VP and inclined to the HP at  $50^\circ$  and passing through an end point on the circumference of the base circle of the cone  
20 marks
2. For the object shown below draw the three views. Show all the dimensions.



### Part-B

3. Draw two views of hexagonal headed bolt with nut for a 20mm dia bolt. Take length of bolt 100mm.  
20 marks
4. Draw sectional FV and TV of the double riveted chain butt joint with double strap, taking  $t=12\text{mm}$ . Indicate dimensions.  
20 marks

### Part-C

5. The details of WING ASSEMBLY are shown in fig1. Draw front, top and left views of the assembly.  
60 marks

6. The details of a LANDING GEAR ASSEMBLY are shown in fig2. Draw front, top and left views of the assembly. 60 marks

Assembly of Centre wing

Item Number	Title	Material	Quantity
1	Wing Skin	Aluminum Alloy	1
2	Spar Front	Aluminum Alloy	1
3	Spar Rear	Aluminum Alloy	1
4	Rib	Aluminum Alloy	2

REV	DESCRIPTION	DATE	BY

DATE	BY	CHKD	APP'D

SOLID EDGE  
v22.0 - The PDM Company

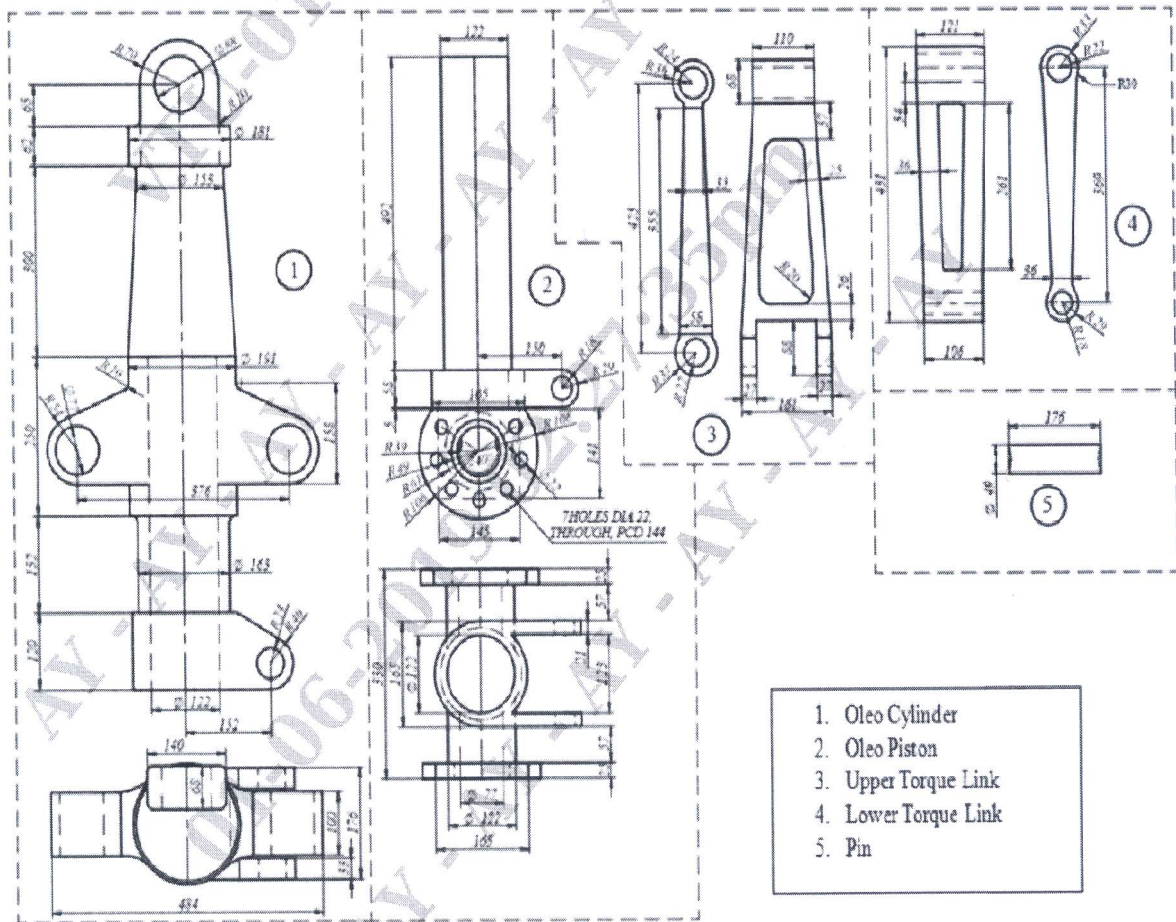
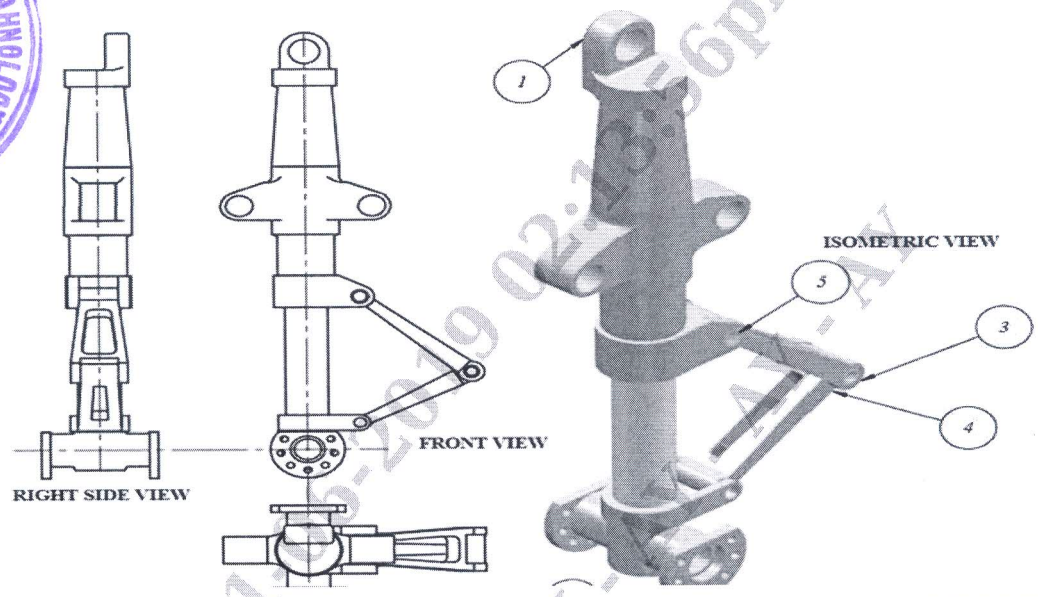
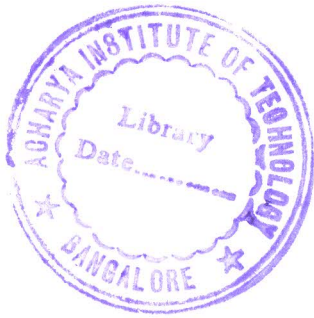
Airfoil Co-ordinate Details-2412

X	Y	Z
1	0	0.0013
0.95	0	0.0114
0.8	0	0.0375
0.6	0	0.0636
0.4	0	0.078
0.25	0	0.0767
0.15	0	0.0661
0.075	0	0.0496
0.025	0	0.0299
0	0	0
0.025	0	-0.0227
0.075	0	-0.0346
0.15	0	-0.041
0.25	0	-0.0422
0.4	0	-0.038
0.6	0	-0.0276
0.8	0	-0.015
0.95	0	-0.0048
1	0	-0.0013

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1	Wing Skin	Aluminum Alloy	1
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Fig 1





- |    |                   |
|----|-------------------|
| 1. | Oleo Cylinder     |
| 2. | Oleo Piston       |
| 3. | Upper Torque Link |
| 4. | Lower Torque Link |
| 5. | Pin               |

Fig 2.