Code.No: 07A32191

R07

II B.TECH – I SEM EXAMINATIONS, NOVEMBER - 2010
AIRCRAFT ENGINEERING DRAWING
(AERONAUTICAL ENGINEERING)

Time: 3hours **Max.Marks:80**

Answer any TWO questions from Part A
And Part B is compulsory

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Part – A

1. Draw four types of rivet heads used in practice. [20]

2. Draw sectional front view of muff coupling to connect shafts of 25 mm diameter. [20]

3. Using a neat figure, locate the mean aerodynamic chord in a trapezoidal wing given that taper ratio = 2:5. [20]

4. Draw a 2-d sectional profile of NACA 2410 from the data given below. Take airfoil chod of 25 cms for your workout.

NACA 2410
(Station and ordinates given in percent of air foil chord)

Upper Surface		Lower Surface	
Station	Ordinate	Station	Ordinate
0	0	0	0
1.098	1.694	1.402	-1.448
2.297	2.411	2.703	-1.927
4.742	3.420	5.258	-2.482
7.217	4.169	7.783	-2.809
9.710	4.766	10.290	-3.016
14.722	5.665	15.278	-3227
19.761	6.276	20.239	-3276
24.814	6.668	25.186	-3.230
29.875	6.875	30.125	-3.125
40.000	6.837	40.000	-2.837
50.049	6.356	49.951	-2.468
60.085	5.580	59.915	-2.024
70.102	4.551	69.898	-1.551
80.097	3.296	79.903	-1.074
90.067	1.816	89.933	-0.594
95.067	0.990	94.959	-0.352
100.00	0.105	100.00	-0.150

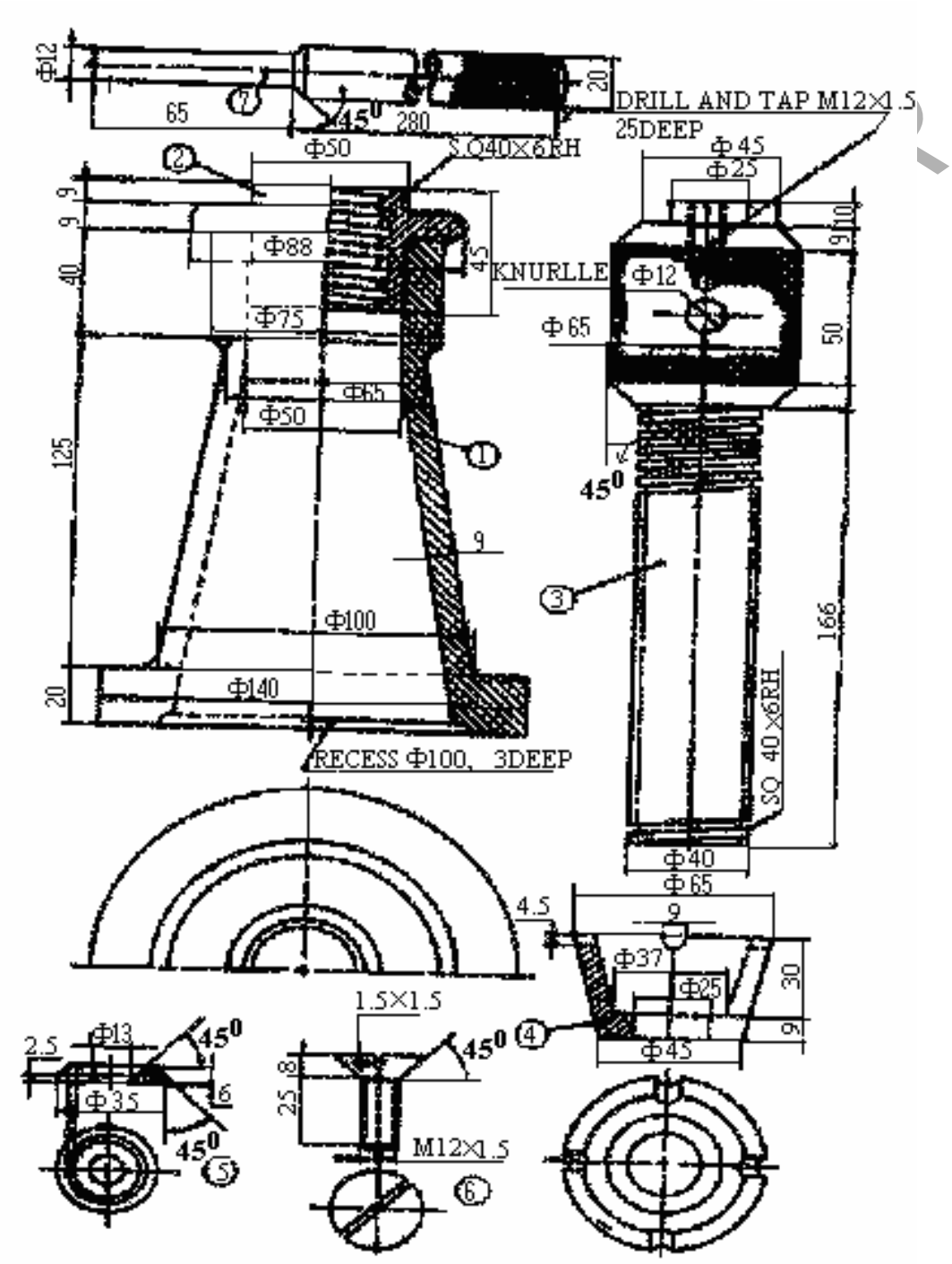
L.E. radius: 1.10
Slope of radius through L.E.: 0.1 [20]

Part – B

5. Assemble all the parts of the screw jack shown in figure and draw the following views.
   a) Half sectional front view.
   b) Top view. [40]

Part List

Part No.	Name	Material	Quantity
1.	Casting	C. I.	1
2.	Nut	Gun metal	1
3.	Screw	M.S.	1
4.	Cup	Casts steel	1
5.	Washer	M.S.	1
6.	Set screw	M.S.	1
7.	Tommy bar	M.S.	1



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