

SCHEME -2013
AERONAUTICAL ENGINEERING (S)

Combined I and II Semesters

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.101	Engineering Mathematics - I (ABCEFHMNPRSTU)	6	2	1	-	50	3	100	150
13.102	Engineering Physics (ABCEFHMNPRSTU)	6	2	1	-	50	3	100	150
13.103	Engineering Chemistry (ABCEFHMNPRSTU)	6	2	1	-	50	3	100	150
13.104	Engineering Graphics (ABCEFHMNPRSTU)	6	1	-	2	50	3	100	150
13.105	Engineering Mechanics (ABCEFHMNPRSTU)	6	2	1	-	50	3	100	150
13.106	Basic Civil Engineering (ABEFHMNPRSTU)	6	2	1	-	50	3	100	150
13.107	Engineering Thermodynamics (MPNSU)	6	2	1	-	50	3	100	150
13.108	Basic Electrical Engineering (ABCHMNPSTU)	6	2	1	-	50	3	100	150
13.109	Basic Electronics Engineering (BCEHMNPSU)	6	2	1	-	50	3	100	150
13.110	Mechanical Engineering Workshop (ABCEFHMNPRSTU)	2	-	-	1	25	3	50	75
13.111	Electrical & Electronics Engineering Workshop (ABCEFHMNPRSTU)	2	-	-	1	25	3	50	75
Total		58	17	8	4	500		1000	1500

Third Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.301	Engineering Mathematics-II (ABCEFHMNPRSTU)	4	3	1	-	50	3	100	150
13.302	Humanities (BEFMRSU)	3	3	-	-	50	3	100	150
13.303	Fluid Mechanics(MS)	4	3	1	-	50	3	100	150
13.304	Mechanics of Solids (MPSU)	4	3	1	-	50	3	100	150
13.305	Metallurgy & Material Science (S)	4	3	1	-	50	3	100	150
13.306	Machine Drawing (S)	5	1	-	4	50	4	100	150
13.307	Production Technology (S)	3	2	1	-	50	3	100	150
13.308	MOS Lab (S)	2	-	-	2	50	3	100	150
Total		29	18	5	6	400		800	1200

Fourth Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.401	Engineering Mathematics -III (BCHMNPSU)	4	3	1	-	50	3	100	150
13.402	Aerocraft Structures-I (S)	4	3	1	-	50	3	100	150
13.403	Fundamentals of Aerodynamics (S)	4	3	1	-	50	3	100	150
13.404	Aeroacoustics (S)	4	3	1	-	50	3	100	150
13.405	Theory of Machines (S)	4	3	1	-	50	3	100	150
13.406	Turbo Machinery (S)	3	-	-	3	50	3	100	150
13.407	Modelling and Simulation Lab (S)	3	-	-	3	50	3	100	150
13.408	Production Engg Lab (S)	3	-	-	3	50	3	100	150
Total		29	15	5	9	400		800	1200

Fifth Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.501	Engineering Mathematics IV (CMPSU)	4	3	1	-	50	3	100	150
13.502	Gas Dynamics (S)	3	3	1	-	50	3	100	150
13.503	Machine Design (S)	4	2	1	-	50	3	100	150
13.504	Aerocraft Structures-II (S)	4	3	1	-	50	3	100	150
13.505	Experimental Stress Analysis (S)	4	3	1	-	50	3	100	150
13.506	Elective I	4	3	1	-	50	3	100	150
13.507	Experimental Stress Analysis Lab (S)	3	-	-	3	50	3	100	150
13.508	Aircraft Structures Lab (S)	3	-	-	3	50	3	100	150
Total		29	17	6	6	400		800	1200

Sixth Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.601	Aircraft Design (S)	4	3	1	-	50	3	100	150
13.602	Computational Methods in Engineering (S)	4	3	1	-	50	3	100	150
13.603	Propulsion-I (S)	3	2	1	-	50	3	100	150
13.604	Heat and Mass Transfer (MSU)	4	3	1	-	50	3	100	150
13.605	Control Systems (S)	4	3	1	-	50	3	100	150
13.606	Elective II	4	3	1	-	50	3	100	150
13.607	Low Speed Aerodynamics Lab (S)	3	-	-	3	50	3	100	150
13.608	Fluid & Flight Mechanics Lab (S)	3	-	-	3	50	3	100	150
Total		29	17	6	6	400		800	1200

Seventh Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.701	Avionics (S)	3	2	1	-	50	3	100	150
13.702	Mechatronics (MPSU)	4	3	1	-	50	3	100	150
13.703	Combustion Technology (S)	4	3	1	-	50	3	100	150
13.704	Rocket Propulsion (S)	4	3	1	-	50	3	100	150
13.705	Flight Dynamics (S)	4	3	1	-	50	3	100	150
13.706	Propulsion-II (S)	4	3	1	-	50	3	100	150
13.707	Elective III	2	-	-	2	50	3	100	150
13.708	Avionics Lab (S)	2	-	-	2	50	3	100	150
13.709	Project and Project Seminar (MPSU)	2	-	-	2	100	-		100
Total		29	17	6	6	500		800	1300

Eighth Semester

Course No	Name of subject	Credits	Weekly load, hours			C A Marks	Exam Duration Hrs	U E Max Marks	Total Marks
			L	T	D/P				
13.801	Aircraft Maintenance and Repair (S)	4	3	1	-	50	4	100	150
13.802	Aircraft Airconditioning (S)	3	2	1	-	50	4	100	150
13.803	Principles of Management (S)	4	3	1	-	50	3	100	150
13.804	Space Technology (S)	4	3	1	-	50	3	100	150
13.805	Elective IV	4	3	1	-	50	3	100	150
13.806	Elective V	3	3	1	-	50	3	100	150
13.807	Seminar (MPSU)	2	-	-	2	100	-	-	100
13.808	Project , Viva-Voce & Industrial Visit (MPSU)	5	-	-	5	100	-	100	200
Total		29	17	6	7	500		700	1200

13.506 Elective I

13.506.1	Composite Materials (S)
13.506.2	Theory of Elasticity (S)
13.506.3	Advanced Fluid Mechanics (S)
13.506.4	Quality Engg and Management (S)
13.506.5	Environmental Science (S)

13.606 Elective II

13.606.1	High Speed Aerodynamics (S)
13.606.2	Wind Tunnel Technology (S)
13.606.3	FEM (S)
13.606.4	Helicopter Aerodynamics (S)
13.606.5	Control Navigation and Guidance (S)
13.606.6	Advanced Mechanics of Solids (S)

13.706 Elective III

13.707.1	Computational Fluid Dynamics (S)
13.707.2	Cryogenics (S)
13.707.3	Experimental Methods (S)
13.707.4	Heat Transfer in Space Applications (S)
13.707.5	Energy Conservation and Management (S)
13.707.6	Research Methodology (S)
13.707.7	Space Mechanics (S)
13.707.8	Gas Turbines (S)

13. 805 Elective IV

13.805.1	Project Management (S)
13.805.2	Reliability Engineering (S)
13.805.3	Aircraft Safety and Regulations (S)
13.805.4	Operations Research (S)
13.805.5	Fracture Mechanics (S)
13.805.6	Industrial Hydraulics (S)

13. 806 Elective V

13.806.1	AircraftRules and Regulations (S)
13.806.2	Non-Destructive Testing (S)
13.806.3	SQC (S)
13.806.4	Industrial Pollution and Control (S)
13.806.5	Safety Engineering (S)
13.806.6	Aerodynamic Testing facility (S)
13.806.7	Rockets and Missiles (S)