B.Tech.- I-Semester									
Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5BS01	Calculus and Applications	BSC	3	1	-	4	30	70	100
A5BS09	Engineering Physics	BSC	3	1	-	4	30	70	100
A5ME01	Engineering Mechanics	ESC	3	1	-	4	30	70	100
A5ME02	Engineering Graphics	ESC	1	-	4	3	30	70	100
A5BS10	Engineering Physics Lab	BSC	-	-	3	1.5	30	70	100
A5ME03	Engineering Workshop and Manufacturing Practices	ESC	1	-	3	2.5	30	70	100
Total			**11**	**03**	**10**	**19**	**180**	**420**	**600**
Mandatory Course (Non-Credit)									
A5MC01	Seminar-I	MC	-	-	2	-	30	70	100

B.Tech.- II-Semester									
Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5BS03	Integral Calculus and Numerical Techniques	BSC	3	1	-	4	30	70	100
A5BS13	Engineering Chemistry	BSC	4	-	-	4	30	70	100
A5CS01	Programming for problem solving	ESC	3	-	-	3	30	70	100
A5HS01	English	HSMC	2	-	-	2	30	70	100
A5CS02	Programming for problem solving Lab	ESC	-	-	3	1.5	30	70	100
A5BS14	Engineering Chemistry Lab	BSC	-	-	3	1.5	30	70	100
A5HS02	English Language and Communication Skills Lab	HSMC	-	-	2	1	30	70	100
Total			**12**	**01**	**08**	**17**	**210**	**490**	**700**
Mandatory Course (Non-Credit)									
A5MC02	Seminar-II	MC	-	-	2	-	30	70	100

B. Tech.- III-Semester

Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5AE04	Introduction to Aerospace Engineering	PCC	3	-	-	3	30	70	100
A5AE05	Mechanics of Solids	PCC	3	1	-	4	30	70	100
A5AE06	Mechanics of Fluids	PCC	3	-	-	3	30	70	100
A5AE07	Engineering Thermodynamics	ESC	3	1	-	4	30	70	100
A5EE70	Basic Electrical and Electronics Engineering	ESC	3	1	-	4	30	70	100
A5AE08	Mechanics of Solids and Fluids Lab	PCC	-	-	3	1.5	30	70	100
A5EE71	Basic Electrical and Electronics Engineering Lab	ESC	-	-	2	1	30	70	100
A5AE09	Computer Aided Aircraft Modelling	ESC	-	-	3	1.5	30	70	100
Total			**15**	**2**	**8**	**22**	**240**	**560**	**800**
Mandatory Course (Non-Credit)									
A5MC03	Environmental Studies	MC	2	-	-	-	30	70	100

B. Tech.- IV-Semester

Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5BS06	Vector calculus and probability statistics	BSC	3	1	-	4	30	70	100
A5AE11	Aerodynamics-I	PCC	3	1	-	4	30	70	100
A5AE12	Aerospace Vehicle Structures - I	PCC	3	-	-	3	30	70	100
A5AE13	Airplane Performance	PCC	3	-	-	3	30	70	100
A5AE14	Aerodynamics Lab	PCC	-	-	3	1.5	30	70	100
A5EC01	Introduction to IOT	ESC	-	-	3	1.5	30	70	100
A5AE16	Aircraft Interior Design Lab	PCC	-	-	3	1.5	30	70	100
A5ME40	Python Lab	PCC	1	-	2	2	30	70	100
Total			**13**	**2**	**11**	**20.5**	**240**	**560**	**800**
Mandatory Course (Non-Credit)									
A5HS03	Gender Sensitization	HSMC	1	-	-	-	30	70	100

B. Tech-V-Semester

Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5AE17	Aerospace Vehicle Structures-II	PCC	3	-	-	3	30	70	100
A5AE18	Aerodynamics-II	PCC	3	-	-	3	30	70	100
A5AE19	Aircraft Stability and Control	PCC	3	-	-	3	30	70	100
A5AE20	Aerospace Propulsion - I	PCC	3	-	-	3	30	70	100
	OPEN ELECTIVE - I	OEC	3	-	-	3	30	70	100
A5AE21	Propulsion and Flight simulation Lab	PCC	-	-	3	1.5	30	70	100
A5AE22	Aerospace Vehicle Structures Lab	PCC	-	-	3	1.5	30	70	100
A5AE33	Aircraft Design Lab	PCC	-	-	3	1	30	70	100
A5AE34	Mini project	PWC	-	-	-	2	30	70	100
Total			**15**	**-**	**9**	**21**	**270**	**630**	**900**
Mandatory Course (Non-Credit)									
A5HS08	Human Values and Professional Ethics	HSMC	2	-	-	-	30	70	100

B. Tech.- VI-Semester

Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5AE24	Aircraft Production Technology	ESC	3	-	-	3	30	70	100
A5AE25	Aerospace Propulsion - II	PCC	3	-	-	3	30	70	100
	OPEN ELECTIVE-II	OEC	3	-	-	3	30	70	100
	PROFESSIONAL ELECTIVE - I	PEC	3	-	-	3	30	70	100
	PROFESSIONALELECTIVE - II	PEC	3	-	-	3	30	70	100
A5AE26	Aircraft Production Technology Lab	ESC	-	-	3	1.5	30	70	100
A5AE27	Computational Structural Analysis Lab	PCC	-	-	3	1.5	30	70	100
A5HS04	Advanced English Communication Skills Lab	HSMC	-	-	3	1.5	30	70	100
A5AE28	Independent Study	PWC	-	-	-	1	--	100	100
Total			**15**	**-**	**9**	**20.5**	**240**	**660**	**900**
Mandatory Course (Non-Credit)									
A5HS12	Constitution of India	HSMC	2	-	-	-	30	70	100

B. Tech.-VII-Semester									
Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
A5AE29	Composite Materials and Structures	PCC	3	-	-	3	30	70	100
A5AE30	Computational Fluid dynamics	PCC	3	1	-	4	30	70	100
	OPEN ELECTIVE-III	OEC	3	-	-	3	30	70	100
	PROFESSIONAL ELECTIVE - III	PEC	3	-	-	3	30	70	100
	PROFESSIONAL ELECTIVE - IV	PEC	3	-	-	3	30	70	100
A5AE31	Computational Analysis of Composite and Structures Lab	PCC	-	-	3	1.5	30	70	100
A5AE32	Computational Fluid dynamics Lab	PCC	-	-	3	1.5	30	70	100
A5AE35	Major Project Phase-I	PWC	-	-	8	4	100	--	100
Total			**15**	**1**	**14**	**23**	**310**	**490**	**800**

B.Tech.- VIII-Semester									
Course Code	Course Title	Course Area	Hours per Week			Credits	Scheme of Examination Maximum Marks		
			L	T	P		Internal (CIE)	External (SEE)	Total
	OPEN ELECTIVE-IV	OEC	3	-	-	3	30	70	100
	PROFESSIONAL ELECTIVE – V	PEC	3	-	-	3	30	70	100
	PROFESSIONAL ELECTIVE– VI	PEC	3	-	-	3	30	70	100
A5AE36	Major Project Phase-II	PWC	-	-	16	8	50	150	200
Total			**9**		**16**	**17**	**140**	**360**	**500**

PROFESSIONAL ELECTIVES			
PE-I		**PE-II**	
A5AE37	Vibration and Structural Dynamics	A5AE41	Finite Element Analysis
A5AE38	Experimental Stress Analysis	A5AE42	Design of UAV Systems
A5AE39	Fatigue and Fracture Mechanics	A5AE43	Mechanisms and Machine Design
A5AE40	Non-Destructive Testing	A5AE44	Geometric Dimensions and Tolerance
PE-III		**PE-IV**	
A5AE45	Wind Tunnel Techniques	A5AE49	Airframe Maintenance and Repair
A5AE46	Aero Elasticity	A5AE50	Aircraft systems and Instruments
A5AE47	Space Mechanics	A5AE51	Flight Scheduling and Operations
A5AE48	Industrial Aerodynamics	A5AE52	Aero Engine Repair and Maintenance
PE-V		**PE-VI**	
A5AE53	Fundamentals of Combustion	A5ME57	Computer Integrated Manufacturing
A5AE54	Rocket and Missiles	A5AE58	3D Printing
A5AE55	Heat Transfer for Aeronautical Engineering	A5AE59	Avionics
A5AE56	Helicopter Engineering	A5AE60	Air Traffic Control and Aerodrome Design

OPEN ELECTIVE COURSES

OPEN ELECTIVE COURSE-I			
S. No.	**Course Code**	**Course Name**	**Offering Department**
1.	A5AE62	Fundamentals of Avionics	Aeronautical Engineering
2.	A5AE63	Introduction to Aerospace Technology	
3.	A5CS30	Core Java Programming	Computer Science and Engineering
4.	A5CS26	Introduction to Data Analytics	
5.	A5EC54	Microprocessors and Interfacing	Electronics & Communication Engineering
6.	A5EC55	Principles of Communications	
7.	A5EE52	Electrical Wiring and Safety Measures	Electrical &Electronics Engineering
8.	A5EE53	Electrical Materials	
9.	A5IT20	Fundamentals of Data Structures	Information Technology
10.	A5ME72	Fundamentals of Engineering Materials	Mechanical Engineering
11.	A5HS06	Business Economics and Financial Analysis	HS
12.	A5HS07	Basics of Entrepreneurship	
OPEN ELECTIVE COURSE-II			
S. No.	**Course Code**	**Course Name**	**Offering Department**
1.	A5AE64	Introduction to Jets and Rockets	Aeronautical Engineering
2.	A5AE65	Non-Destructive Testing Methods	
3.	A5CS31	Fundamentals of DBMS	Computer Science and Engineering
4.	A5CS32	Introduction to Machine Learning	
5.	A5CS07	Introduction to Design and Analysis of Algorithms	
6.	A5EC58	Microcontrollers and Applications	Electronics & Communication Engineering
7.	A5EC61	Fundamentals of Image processing	
8.	A5EE56	Analysis of Linear Systems	Electrical &Electronics Engineering
9.	A5EE57	Neural Networks and Fuzzy Logic	
10.	A5IT29	Basics of Python Programming	Information Technology
11.	A5IT11	Human Computer Interaction	
12.	A5IT31	Software Testing Fundamentals	
13.	A5ME73	Fundamentals of Mechatronics	Mechanical Engineering
14.	A5HS09	Advanced Entrepreneurship	HS

OPEN ELECTIVE COURSE-III			
S. No.	**Course Code**	**Course Name**	**Offering Department**
1.	A5AE66	Introduction to Aircraft Industry	Aeronautical Engineering
2.	A5AE67	Unmanned Aerial Vehicles	
3.	A5CS33	Introduction to Cloud Computing	Computer Science and Engineering
4.	A5CS34	Computer Organization and Operating Systems	
5.	A5CS29	Software Project Management	
6.	A5EC62	Introduction to Sensors and Actuators	Electronics & Communication Engineering
7.	A5EC63	Introduction to Computer Vision	
8.	A5EE60	Solar Energy and Applications	Electrical &Electronics Engineering
9.	A5IT34	Introduction to AI	Information Technology

10.	A5ME75	Basics of Robotics	Mechanical Engineering
11.	A5ME76	Fundamentals of Operation Research	
12.	A5HS10	Indian Ethos & Business Ethics	HS
OPEN ELECTIVE-IV			
S. No.	**Course Code**	**Course Name**	**Offering Department**
1.	A5AE68	Fundamentals of Wind Power Technology	Aeronautical Engineering
2.	A5AE69	Guidance and Control of Aerospace Vehicles	
3.	A5HS15	Management Science	HS
4.	A5HS16	Intellectual Property Rights	
5.	A5CS20	Distributed Databases	Computer Science and Engineering
6.	A5CS35	Fundamentals of Software Testing	
7.	A5EC64	Introduction to Mobile Communications	Electronics & Communication Engineering
8.	A5EC65	Basics of Embedded System Design	
9.	A5EE61	Instrumentation and Control	Electrical &Electronics Engineering
10.	A5EE63	Energy Storage Systems	
11.	A5IT35	Introduction to Mobile Application Development	Information Technology
12.	A5IT36	Big Data	
13.	A5ME78	Renewable Energy Sources	Mechanical Engineering