

# PPAWAN HANS HELICOPTER TRAINING INSTITUTE

## HELICOPTER TURBINE (B1.3) SYLLABUS

Modules covered under CAR 66 B 1.3 License

Module No.	Module
3	Electrical Fundamentals
4	Electronic Fundamentals
5	Digital Techniques/Electronic Instrument Systems
6	Materials and Hardware
7	Maintenance Practices
8	Basic Aerodynamics
9	Human factors
10	Aviation Legislation
12	Helicopter Aerodynamics, Structures and Systems
15	Gas Turbine Engine

### B1.3 SEMESTER-I TRAINING PROGRAM

SR.No.	Module	SEMESTER-I THEORY
1	10	AVIATION LEGISLATION AND HUMAN FACTORS-I
	9	
2	6	MATERIALS AND HARDWARE-I
3	7	MAINTENANCE PRACTICES-I
4	15	GAS TURBINE ENGINE FUNDAMENTALS & HELICOPTER AIRFRAME STRUCTURE
	12	
5	8	BASIC AERODYNAMICS

SR.No.	Module	SEMESTER-I PRACTICAL
1	10	AVIATION LEGISLATION AND HUMAN FACTORS-I
	9	
2	6	MATERIALS AND HARDWARE-I
3	7	MAINTENANCE PRACTICES-I
4	15	GAS TURBINE ENGINE FUNDAMENTALS & HELICOPTER AIRFRAME STRUCTURE
	12	
5	8	BASIC AERODYNAMICS

### B1.3 SEMESTER-II TRAINING PROGRAM

SR.No.	Module	SEMESTER-II THEORY
1	9 & 10	AVIATION LEGISLATION AND HUMAN FACTORS-II
2	6	MATERIALS AND HARDWARE-I
3	7	MAINTENANCE PRACTICES -II
4	3	ELECTRICAL FUNDAMENTALS-I
5	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-I

SR.No.	Module	SEMESTER-II PRACTICAL
1	9 & 10	AVIATION LEGISLATION AND HUMAN FACTORS-II
2	6	MATERIALS AND HARDWARE-I
3	7	MAINTENANCE PRACTICES -II
4	3	ELECTRICAL FUNDAMENTALS-I
5	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-I

### B1.3 SEMESTER-III TRAINING PROGRAM

SR.No.	Module	SEMESTER-III THEORY
1	3	ELECTRICAL FUNDAMENTALS - II
2	5	DIGITAL TECHNIQUES & ELECTRONIC INSTRUMENT SYSTEMS-I
3	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-II
4	7	MAINTENANCE PRACTICES - III

SR.No.	Module	SEMESTER-III PRACTICAL
1	3	ELECTRICAL FUNDAMENTALS - II
2	5	DIGITAL TECHNIQUES & ELECTRONIC INSTRUMENT SYSTEMS-I
3	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-II
4	7	MAINTENANCE PRACTICES - III

### B1.3 SEMESTER-IV TRAINING PROGRAM

SR.No.	Module	SEMESTER-IV THEORY
1	7	MAINTENANCE PRACTICES – IV (ENGINEERING DRAWING)
2	5	DIGITAL TECHNIQUES & ELECTRONIC INSTRUMENT SYSTEMS-II
3	15	GAS TURBINE ENGINE - I
4	4	ELECTRONIC FUNDAMENTALS

SR.No.	Module	SEMESTER-IV PRACTICAL
1	7	MAINTENANCE PRACTICES – IV (ENGINEERING DRAWING)
2	5	DIGITAL TECHNIQUES & ELECTRONIC INSTRUMENT SYSTEMS - II
3	15	GAS TURBINE ENGINE - I
4	4	ELECTRONIC FUNDAMENTALS

### B1.3 SEMESTER-V TRAINING PROGRAM

SR.No.	Module	SEMESTER-V THEORY
1	15	GAS TURBINE ENGINE II
2	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-III
3	-	AVIATION MANAGEMENT

SR.No.	Module	SEMESTER-V PRACTICAL
1	15	GAS TURBINE ENGINE II
2	12	HELICOPTER AERODYNAMICS, STRUCTURES AND SYSTEMS-III
3	-	AVIATION MANAGEMENT

### B1.3 SEMESTER-VI ON JOB PRACTICAL TRAINING PROGRAM

SEMESTER-VI	
On Job Practical Training	
Ref	Details
P6-01	<p><b><u>Aircraft Structure Systems</u></b> Snag Analysis &amp; Rectification (Mechanical) The snags in the aircrafts pertaining to syllabus covered in the semester I to Semester V for aircraft structure systems namely hydraulics, pneumatics, ice &amp; rain protection, landing gear, oxygen, fire protection, air conditioning, and cabin pressurization. The snag analysis and rectification.</p>
	<p>Snag Analysis &amp; Rectification (Avionics) The snags in the aircrafts pertaining to syllabus covered in the semester I to Semester V for aircraft structure systems namely electrical, instrument, radio &amp; digital systems. The snag analysis and rectification.</p>
P6-02	<p><b><u>Aircraft Practices</u></b> Aircraft Engine &amp; Engine fuel system – Repair, maintenance. The snags in the aircrafts pertaining to syllabus covered in the semester I to Semester V for aircraft structure systems namely Aircraft engines, Fuel system, Fuel metering system, lubrication system. The snag analysis and rectification.</p> <p>Ground handling &amp; Documentation Ground handling &amp; ground support and safety equipments, Engine starting precaution, turbine engines, use of equipment for hydraulic power, air conditioning, electrical power, fuelling of aircraft, precautions for servicing oil/ fuel, servicing of oxygen system, lashing &amp; mooring of light and heavy aircraft, taxiing and marshalling, jacking of aircraft, cold weather handling</p>