

Approved by Director General of Civil Aviation, Govt. of India, All India Council for Technical Education Ministry of HRD, Govt of India & Affiliated to Rajasthan Technical University, Kota & BTU, Bikaner Rajasthan

### Question Paper For Internal Assessment Examination (Theory) - Credit 2 / 145

Instructions for Students / Faculty

Mid Term I (Total 40 Marks, 1.5 HRS., Syllabus from Unit-1)

- Part A: Total number of questions to be given are four (2 from CO1 and 2 from CO2), each carrying 2 marks and are compulsory to attend. There is no choice. They are short answer type questions (Not More Than 25 Words for Both Question & Answer), no objective type or fill in the blanks. Total 8 marks.
- Part B: Total number of questions to be given are six (3 from CO1 and 3 from CO2), out of which student has to answer four (2 from CO1 and 2 from CO2). They are long answer type (Not More Than 50 Words for Question Only), each carrying 4 marks. Total 16 marks.
- Part C: Total number of questions to be given are four (2 from CO1 and 2 from CO2), out of which student has to answer two (1 from CO1 and 1 from CO2). They are numerical answer type / fully elaborative type\* (Not More Than 70 Words for Question Only), each carrying 8 marks. Total 16 marks.

Mid Term II (Total 60 Marks, 2 HRS., Syllabus from Unit- 2)

- Part A: Total number of questions to be given are ten (5 from CO3 and 5 from CO4), each carrying 2 marks and are compulsory to attend. There is no choice. They are short answer type questions (Not More Than 25 Words for Both Question & Answer), no objective type or fill in the blanks. Total 20 marks.
- Part B: Total number of questions to be given are six (3 from CO3 and 3 from CO4), out of which student has to answer four (2 from CO3 and 2 from CO4). They are long answer type (Not More Than 50 Words for Question Only), each carrying 4 marks. Total 16 marks.
- Part C: Total number of questions to be given are four (2 from CO3 and 2 from CO4), out of which student has to answer any two (1 from CO3 and 1 from CO4). They are numerical answer type / fully elaborative type (Not More Than 70 Words For Question Only)\*, each carrying 12 marks. Total 24 marks.

Mid Term III (Total 60 Marks, 2 HRS., Syllabus from Unit- 3)

- Part A: Total number of questions to be given are ten (5 from CO5 and 5 from CO6), each carrying 2 marks and are compulsory to attend. There is no choice. They are short answer type questions (Not More Than 25 Words for Both Question & Answer), no objective type or fill in the blanks. Total 20 marks.
- Part B: Total number of questions to be given are six (3 from CO5 and 3 from CO6), out of which student has to answer four (2 from CO5 and 2 from CO6). They are long answer type (Not More Than 50 Words for Question Only), each carrying 4 marks. Total 16 marks.
- Part C: Total number of questions to be given are four (2 from CO5 and 2 from CO6), out of which student has to answer any two (1 from CO5 and 1 from CO6). They are numerical answer type / fully elaborative type (Not More Than 70 Words For Question Only)\*, each carrying 12 marks. Total 24 marks.

\* LIST OF ELABORATIVE THEORY QUESTION SUBJECTS: 1 FY1 - 04 Communication Skills (Cr 2), 1 FY1 - 05 Human Values (Cr 2), 2 FY1 - 04 Communication Skills (Cr 2), 2 FY1 - 05 Human Values (Cr 2), 3 AN1 - 02 Technical Communication (Cr 2), 4 MH1 - 02 Technical Communications (Cr 2), 4 MH1 - 03 Economics and Financial Accounting (Cr 2), 5 AN5 - 12 Aircraft Maintenance Practices (Cr 2), 6 AN3 - 01 Mechanics of Composite Materials (Cr 2), 6 AN5 - 12 Aircraft Rules and Regulation (Cr 2), 6 MH3 - 01 Automobile Engineering (Cr 2).

#### Instructions For Faculties:

There should be total 6 Course Outcomes (COs) for each subject.

- Mid Term Question Papers are to be submitted as per Course Outcomes (COs) which should be divided equally in Part A, Part B and Part C according to Mid Term Examination and Credit Point.
- In Mid Term-1, the questions are to be given from CO1 and CO2. In Mid Term-2, the questions are to be given from CO3 and CO4. Similarly, in Mid Term-3, the questions are to be given from CO5 and CO6.
- FACULTY MEMBERS, PLEASE ENSURE EXCEPT ABOVE LISTED SUBJECTS, NO THEORITICAL ELABORATIVE QUESTION SHOULD BE GIVEN IN PART 'C' OF QUESTION PAPER

# INSTRUCTION FOR STUDENTS

• STUDENT IS ALLOWED TO ENTER LATE NOT MORE THAN 15 MIN AFTER STARTING OF EXAM, AND MAY LEAVE THE EXAM HALL ON EXPIRY OF ATLEAST OF 1 Hr FROM THE STARTING TIME OF EXAMINATION.

## **Question Paper & Student Details**

Type of Exam	Mid Term 3	Date of Submission	18/08/2021
Name of Faculty	Sukumar Dhanapalan	Date of Examination	23/08/2021
Course	B.Tech (Aeronautical Engineering)	Semester	SEMESTER:6
Batch	Combined Batches 15, 16, 17, SF 1	Subject	6 AN5 - 12 Aircraft Rules and Regulation (Cr 2)

## COURSE OUTCOMES FOR REFERENCE TO FRAME QUESTION PAPER

(Faculties are required to mention relevant Course Outcome number against the respective question in QP)

Course Outcome	6 AN5 - 12: COURSE OBJECTIVE  1. To make the students familiarize with Regulatory Framework:  2. To familiarize students with CAR-66, CAR-145 & CAR-145.  3. To impart knowledge on Aircraft Certification.  4. To acquaint students' knowledge with Applicable National and International Requirements.  5. To make the students learn Continuing Airworthiness.  6. To acquire knowledge on Safety Management System.  COURSE OUTCOME  Upon completion of the course, Students will be able to  CO 1. Interpret the Regulatory Framework.  CO 2. Illustrate the importance of CAR-66, CAR-145 & CAR-145.  CO 3. Explain the Procedure of Aircraft Certification.  CO 4. Compare the features of National and International Requirements.  CO 5. Describe the Continuing Airworthiness in an aircraft.  CO 6. Identify the various Safety Management System and its operation in an aircraft.			
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Student Name		Student Reg No.		
Part A				
INSTRUCT	TIONS FOR PART A: ALL THE	QUESTIONS ARE COMPULSORY TO ATTEND		
1. CHOOS PER INST	E COURSE OUTCOME (CO) RUCTIONS ABOVE.	NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS	5	
Question : 1	Define Special Flight Permit.			
Lesson Plan No. - 17	Topic - CAR Sec-2	Source - CAR-Section 2	CO No	
Question : 2	Define Airworthy according to CAR.			
Lesson Plan No. - 18	Topic - CAR Sec-2 Series I	Source - CAR-Section 2	CO No	
Question : 3	Define Fleet Performance?			
Lesson Plan No 19	Topic - CAR Sec-2 Series I	Source - CAR-Section 2	CO No	
Question : 4	Define ACAS.			
Lesson Plan No 20	Topic - CAR Sec-2 Series I	Source - CAR-Section 2	CO No	
Question : 5	List down the requirements of ACAS.			
Lesson Plan No 21	Topic - CAR Sec-2 Series I	Source - CAR-Section 2	CO No	
	E COURSE OUTCOME (CO) RUCTIONS ABOVE.	NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS	6	
Question : 6	Define Major damage.			
Lesson Plan No 24	Topic - CAR Sec-2 Series X	Source - CAR-Section 2	CO No	
Question : 7	Define Certificate of complian	Define Certificate of compliance.		
Lesson Plan No 25	Topic - CAR Sec-2 Series X	Source - CAR-Section 2	CO No	
Question : 8	Define SSID & CPCP	Define SSID & CPCP		
Lesson Plan No 26	Topic - CAR Sec-2 Series X	Source - CAR-Section 2	CO No	
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Question : 9	List down the License categories in accordance with CAR 66.					
Lesson Plan No 27	Topic - CAR 66	Source - CAR-Section 2	CO No			
Question : 10	Define Pre-flight inspection					
Lesson Plan No 28	Topic - CAR Sec-2 Series X	Source - CAR-Section 2	CO No			
Part B						
FOR MIDTERM 1 - Part B: Total number of questions to be given are six (3 from CO1 and 3 from CO2), out of which student has to answer four (2 from CO1 and 2 from CO2).  FOR MIDTERM 2 - Part B: Total number of questions to be given are six (3 from CO3 and 3 from CO4), out of which student has to answer four (2 from CO3 and 2 from CO4).  FOR MIDTERM 3 - Part B: Total number of questions to be given are six (3 from CO5 and 3 from CO6), out of which student has to answer four (2 from CO5 and 2 from CO6)						
	E COURSE OUTCOME (CO) RUCTIONS ABOVE.	NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS	5			
Question : 1	Explain the procedure of Change of Owner / Operator / Amendment of C Of R.					
Lesson Plan No 18	Topic - C of R	Source - CAR-Section 2	CO No			
Question : 2	Discuss in detail about the need of Registration Certificate and Validity of Registration of Aircraft.					
Lesson Plan No 20	Topic - C of R	Source - CAR-Section 2	CO No			
Question : 3	List the Conditions for the issuance of a special flight permit.					
Lesson Plan No 22	Topic - Special Flight Permit	Source - CAR-Section 2	CO No			
	4. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.					
Question : 4	Discuss about the Review of D	Defects Reported on aircraft.				
Lesson Plan No 24	Topic - Defects	Source - CAR-Section 2	CO No			
Question : 5	Explain about the Investigation	n of Delays & Defects.				
Lesson Plan No 26	Topic - Defects	Source - CAR-Section 2	CO No			
Question : 6	Explain the Operational Requirements of ACAS					
Lesson Plan No 28	Topic - ACAS	Source - CAR-Section 2	CO No			
Part C	Part C					
FOR MIDTERM 1 - Part C: Total number of questions to be given are four (2 from CO1 and 2 from CO2), out of which student has to answer two (1 from CO1 and 1 from CO2).  FOR MIDTERM 2 - Part C: Total number of questions to be given are four (2 from CO3 and 2 from CO4), out of which student has to answer any two (1 from CO3 and 1 from CO4).  FOR MIDTERM 3 - Part C: Total number of questions to be given are four (2 from CO5 and 2 from CO6), out of which student has to answer any two (1 from CO5 and 1 from CO6).						
5. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.						
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Question : 1	xplain about the Operational Aspects of Powered Hang Gliders in accordance with CAR				
Lesson Plan No. - 19	Topic - Powered Hang Gliders	Source - CAR-Section-2.	CO No		
Question : 2	Explain about the Manufacture	Explain about the Manufacture of Powered Hang Gliders in accordance with CAR.			
Lesson Plan No. - 21	Topic - Powered Hang Gliders	Source - CAR-Section-2.	CO No		
	6. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.				
Question : 3	List down the Instruments and equipment's required for the registration of gliders in accordance with CAR Section 2 Series F				
Lesson Plan No. - 25	Topic - Instruments and equipment's	Source - CAR-Section-2.	CO No		
Question : 4	List the requirement of Aircraft Operated in accordance with Visual Flight Rules (VFR)				
Lesson Plan No 27	Topic - VFR	Source - CAR-Section-2.	CO No		
of Numeri The Abo question r	Upload Scanned Document In Case of Numerical or Diagram For Any of The Above Questions. (Mention question number with relevant fig / numerical / equations. Max 150 KB)				
I have scrutinized the question paper. There is no spelling mistake or any type of irrelevant question.		A			
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