

School of Aeronautics (Neemrana)

Question Paper For Back / Re-back Internal Assessment Examination (Theory) - Old Scheme i.e 2012 Syllabus

Instructions For Students / Faculty

Back / Re-back Internal Examination (Total 60 Marks, 2 Hrs, Syllabus From Beginning of The Session)

Total number of questions to be given are 10, each carrying 10 marks and it is compulsory to attend 2 questions from Part A and 4 questions from Part B. There is a choice of two questions out of four in part A and 4 questions out of 6 in Part B. Part A will be theoretical or derivation type (**Not More Than 70 Words For Question**). Part B will be fully numerically oriented questions (**Not More Than 70 Words For Question**), except for the list of subjects given below. No objective type or fill in the blanks shall be given, but subpart of question can be given for both Part A & B.

* **LIST OF ELABORATIVE THEORY QUESTION SUBJECTS:** Aircraft Materials, Aircraft System, Aircraft Rules & Regulation-I, Mechanics of Composite Materials, Aircraft Design, Aircraft Rules & Regulation-II, Avionics-I, Helicopter Theory, Maintenance of Airframe and System Design, Avionics-II, Airlines and Airport Management, Maintenance of Power Plant & Systems

FACULTY MEMBERS, PLEASE ENSURE EXCEPT ABOVE LISTED SUBJECTS, NO THEORETICAL ELABORATIVE QUESTION SHOULD BE GIVEN IN PART 'B' OF QUESTION PAPER

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

Name of Faculty*	<input type="text" value="SUKUMAR DHANAPALAN"/>	Date of Submission of QP	<input type="text" value="28/11/2020"/>
Subject*	<input type="text" value="6AN5 - Aircraft Design (Old)"/>	Date of Examination*	<input type="text" value="05/12/2020"/>
Email Id of Faculty:*	<input type="text" value="sukumar@soaneemrana.org"/>	Course*	<input type="text" value="B.Tech (Aeronautical Engineering)"/>
Phone Number of Faculty*	<input type="text" value="790 425 6314"/>	Semester*	<input type="text" value="Semester : 6"/>

Student Name	<input type="text"/>	Student Reg No.	<input type="text"/>
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Part A

Question : 1*

1. Write about the Aerodynamic and Structural Consideration in aircraft design.

Lesson Plan*

Topic*

Source*

Question : 2*

2. Write about the Velocity - Load factor diagram, gust load and its estimation.

Lesson Plan*

12

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 3*

3. Explain about the Weight estimation based on mission requirements

Lesson Plan*

23

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 4*

4. Describe about Selection of airfoil selection and its influencing factors.

Lesson Plan*

34

Topic*

Aircraft Design

Source*

A Conceptual Approach

Part B

Question : 1*

1. Explain about the Different kinds of landing gears, and associated arrangement for civil and military airplanes.

Lesson Plan*

7

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 2*

2. Write about the Estimation of Horizontal and Vertical tail volume ratios.

Lesson Plan*

13

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 3*

3. Write short notes on controlled configured vehicles, V/STOL aircraft.

Lesson Plan*

20

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 4*

4. Discuss about the Design and layout of flying controls.

Lesson Plan*

26

Topic*

Aircraft Design

Source*

A Conceptual Approach

Question : 5

5. Discuss about the Design and layout of engine controls.

Lesson Plan

32

Topic

Aircraft Design

Source

A Conceptual Approach

Question : 6

6. Write about the Supercritical Wings, relaxed static Stability.

Lesson Plan

38

Topic

Aircraft Design

Source

A Conceptual Approach

Upload Scanned Document In Case of Numerical or Diagram for any of the above question

Mention question number with relevant fig / numerical / equations.
Max 150 KB

Choose files or drag here

I have scrutinized the question paper. There is no spelling mistake or any type of irrelevant question.

