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 THEORITICAL 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* CH.P.RUDESH

Date of Submission of QP 26/03/2021

Subject* 5AN5-12- Aircraft Maintenance Practices (New)

Date of Examination* 26/03/2021

Email Id of Faculty:* prudesh@soanemrana.org

Course* B.Tech (Aeronautical Engineering)

Phone Number of Faculty* 832 860 7582

Semester* Semester : 5

Student Name

Student Reg No.

Part A

Question : 1* Write purpose and function of inside & out side caliper with neat sketch.

Lesson Plan* 17   **Topic*** Maintenance Practices tools.   **Source*** Maintenance practice

Question : 2*

Write a short note on marking and measuring tools.

Lesson Plan* 19   **Topic*** Maintenance Practices tools.   **Source*** Maintenance practice

Question : 3*

Discuss about the inspection of bearings? and how lubrication requirements of bearings?

Lesson Plan* 20   **Topic*** Aircraft Hardware.   **Source*** Maintenance practice

Question : 4*

Discuss about the Inspection and testing of control cables used in aircraft?

Lesson Plan* 18   **Topic*** Transmissions.   **Source*** Maintenance practice

Part B

Question : 1*

Name the operations performed in metal tubing fabrication.

Lesson Plan* 22   **Topic*** Material Bonding.   **Source*** Maintenance practice

Question : 2*

a)Discuss about workmanship standards.
b)Write a short note on rules for workshop safety.

Lesson Plan* 25   **Topic*** safety precautions of aircraft a   **Source*** Maintenance practice

Question : 3*

Explain Bonding method & inspection carried out on various bonded joint.

Lesson Plan* 27   **Topic*** Welding   **Source*** Maintenance practice

Question : 4*

Explain general requirement & condition for store.

Lesson Plan* 29   **Topic*** Store procedure   **Source*** Maintenance practice

Question : 5

Explain the steps involved in cable system inspection.

Lesson Plan 19   **Topic** Transmissions.   **Source** Maintenance practice

Question : 6

Write a note on Inspection and testing of springs.

Lesson Plan 15   **Topic** Aircraft Hardware.   **Source** Maintenance practice

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

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Question Paper & Student Details

Name of Faculty*	Varsha	**Date of Submission of QP**	20/03/2021
Subject*	5AN5-13- Fatigue and Fracture (New)	**Date of Examination***	21/03/2021
Email Id of Faculty:*	varsha@soaneemrana.org	**Course***	B.Tech (Aeronautical Engineering)
Phone Number of Faculty*	935 106 2262	**Semester***	Semester : 5

Student Name		**Student Reg No.**	

Part A

Question : 1* Define elasticity and Show the yield point, ultimate strength , fracture point in the diagram?

Lesson Plan*	2	**Topic***	Element of solid mechanics	**Source***	Element of fracture mec

Question : 2*   Give two difference between ductile and brittle failure?

Lesson Plan*   4   **Topic***   Failure   **Source***   Element of fracture mec

Question : 3*   Explain in two lines the different mechanical properties considered Fracture mechanics?

Lesson Plan*   7   **Topic***   Fracture properties   **Source***   Element of fracture mec

Question : 4*   Explain the Anelastic Deformation at Crack tip?

Lesson Plan*   13   **Topic***   Anelastic Deformation   **Source***   Prashant kumar, Elemer

Part B

Question : 1*   Derive Available Energy for specimen with fixed grip?

Lesson Plan*   15   **Topic***   Available Energy   **Source***   Element of Fracture Mec

Question : 2*   Determine the energy release rate for an edge crack loaded by moment at the end of Cantilever Beam having width B and height 2h and crack length is "a"?

Lesson Plan* 13   **Topic*** Energy release rate   **Source*** Element of Fracture Me

Question : 3*

Describe three modes of failure in detail with neat diagram?

Lesson Plan* 4   **Topic*** Modes of failure   **Source*** Element of Fracture Me

Question : 4*

Explain J- integeral with the help of example?

Lesson Plan* 16   **Topic*** J- integeral   **Source*** Element of Fracture Me

Question : 5

Explain Griffith's criteria in detail and derive formula for it?

Lesson Plan 11   **Topic** Griffith's criteria   **Source** Element of Fracture Me

Question : 6

Why are thin plate tougher in comparison to thick plate?

Lesson Plan 10   **Topic** Energy release rate   **Source** Element of Fracture Me

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

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