School of Aeronautics (Neemrana)

I-04, RIICO Industrial Area, Neemrana, Dist. Alwar, Rajasthan

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 3

Instructions For Students / Faculty
Mid Term I (Total 60 Marks, 2 HRS. Syllabus From Beginning Of Session)

- Part A: Total number of questions to be given are five, each carrying 3 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 15 marks.
- Part B: Total number of questions to be given are six, out of which student has to answer any four. They are long answer type (**Not More Than 50 Words For Question)**, each carrying 6 marks. Total 24 marks.
- Part C: Total number of questions to be given are four, out of which student has to answer any three. They are numerical answer type / fully elaborative type (**Not More Than 70 Words For Question)***, each carrying 7 marks. Total 21 marks.

Mid Term II & III (Total 90 Marks, 2.5 HRS. Syllabus From Beginning Of Session)

- Part A: Total number of questions to be given are ten, 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 seven, out of which student has to answer any five. They are long answer type (**Not More Than 50 Words For Question)**, each carrying 6 marks. Total 30 marks.
- Part C: Total number of questions to be given are five, out of which student has to answer any four. They are numerical answer type / fully elaborative type (**Not More Than 70 Words For Question)***, each carrying 10 marks. Total 40 marks.

*** LIST OF ELABORATIVE THEORY QUESTION SUBJECTS**: 3 MH4 - 07 Manufacturing Process, 4 AN4 - 06 Aircraft Materials and Processes (Cr 3), 5 AN4 - 05 Aircraft System (Cr 3), 6 AN4 - 05 Avionics-I (Cr 3), 6 MH4 - 03 Applied Hydraulics & Pneumatics (Cr 3), 6 MH5 - 11 Principles of Management (Cr 3), 6 MH5 - 13 Aircraft Electronics System (Cr 3), 7 AN5 - 12 Maintenance of Airframe and System (Cr 3), 7 AN5 - 13 Helicopter Theory (Cr 3), 7 AG6 - 60.1 Human Engineering and Safety (Cr 3), 7 ST - 01 Avionics II (Special Theory Subject) (Cr 3), 7 MH5 - 11 Design of Mechatronics Systems (Cr 3), 7 MH5 - 12 Robotics and Machine Vision System (Cr 3), 7 MH6 - 13 Medical Electronics (Cr 3), 7 AN6 - 60.1 Aircraft Avionic System (Cr 3), 8 AN5 - 12 Maintenance of Power Plant and System (Cr 3), 8 AN5 - 13 Unmanned Aerial Vehicles & Systems (UAV) (Cr 3), 8 MH5 - 13 Product Development & Launching (Cr 3), 8 EC6 - 60.2 Robotics and control (Cr 3)

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

Question Paper & Student Details

QUESTION PAPER SET NUMBER

Mid Term*	Mid Term 2	**Date of Submission of QP**	01/09/2020
Name of Faculty*	Dr. Birendra Rai	**Date of Examination***	10/09/2020

Refresh Form To Get Correct Course Outcome Results, If You Have Chosen Wrong Course / Semester / Subject.

Course* B.Tech (Aeronautical Engineering) **Semester*** SEMESTER : 7

Batch Combined Batches 12, 13, 14 **Phone No. of Faculty*** 759 795 8368

Email Id of Faculty* principal@soaneemrana.org **Subject Sem 7 (A)** 7 AG6 - 60.1 Human Engineering...

COURSE OUTCOMES FOR REFERENCE TO FRAME QUESTION PAPER

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

7 AG6 - 60.1 Human Engineering and Safety (Cr 3)

Subject: 7AG6-60.1: Human Engineering & Safety
COURSE OBJECTIVE:
1. To impart the fundamental knowledge to the

Copy Paste Course Outcomes Here From Above Field*

CO1: Explain the importance of human engineering and safety in the industrial/organizational field and its machinery/equipment used.
CO2: Demonstrate human capabilities and limitations in the areas of perception, attention, reasoning and decision making in system development and environment influences in decision making and system performance
CO3: Describe the basic concepts of system, basic processes in system development

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Student Name **Student Reg No.**

Part A

Question : 1* What is the purpose of measurement of energy in a man?

Lesson Plan No.* 11 **Topic*** Measurement of **Source*** "Measurement of humar **CO No.** 4

Question : 2* Name three principal approaches to the measurement of energy expenditure in man by direct calorimetry

Lesson Plan No.* 13 **Topic*** Measurement of **Source*** "Measurement of humar **CO No.** 4

Question : 3 What are the sources of dietary energy?

Lesson Plan No. 16 **Topic** Measurement of **Source** Evaluation of Work Requ **CO No.** 4

Question : 4 Name the various units used in noise measurement.

Lesson Plan No. 19 **Topic** Performance reli **Source** "Human Factor Engineer **CO No.** 5

Question : 5 What is anthropometry?

Lesson Plan No. 21 **Topic** Anthropometry **Source** Human Engineering and **CO No.** 6

Question : 6 Explain the basic idea of human measurement with its prime motive.

Lesson Plan No. 25 **Topic** Anthropometry a **Source** "Human Engineering anc **CO No.** 6

Question : 7 Define thermal comfort conditions of human being.

Lesson Plan No. 27 **Topic** Anthropometry: / **Source** "Human Engineering anc **CO No.** 6

Question : 8 Define heat exchange process.

Lesson Plan No. 28 **Topic** Heat exchange p **Source** "Human Engineering anc **CO No.** 6

Question : 9 What do you mean by dry-bulb temperature?

Lesson Plan No. 26 **Topic** Anthropometry: / **Source** HUMAN FACTORS ENGIN **CO No.** 6

Question : 10 What are the instruments used for measuring noise?

Lesson Plan No. 20 **Topic** Noise and Vibrati **Source** "Handbook of Noise Mea **CO No.** 5

Part B

Question : 1* Mention the names of various form of energy with examples.

Lesson Plan No.* 11 **Topic*** Measurement of **Source*** "Measurement of humar **CO No.** 4

Question : 2*

Explain the mechanism of indirect calorimetry.

Lesson Plan No* 14 **Topic*** Indirect Methods **Source*** “Measurement of humar **CO No.** 4

Question : 3*

What makes a seat comfortable?

Lesson Plan* 22 **Topic*** Anthropometry a **Source*** Human Engineering and **CO No.** 6

Question : 4

Describe the various stages of noise control program

Lesson Plan No. 20 **Topic** Noise and Vibrati **Source** “Handbook of Noise Mea **CO No.** 5

Question : 5

Explain the factors affecting energy expenditure

Lesson Plan No. 17 **Topic** Energy cost of dif **Source** Human Engineering and **CO No.** 4

Question : 6

Explain in detail the basic theory of noise measurement.

Lesson Plan No. 19 **Topic** Noise and Vibrati **Source** “Human Factor Engineer **CO No.** 5

Question : 7

Explain in detail the safety, comfort and convenience in the design, location and construction of the operator’s workplace.

Lesson Plan No. 24 **Topic** Arrangement and **Source** Human Engineering and **CO No.** 6

Part C

Question : 1*

A lady is of 47 year-old, 5'5" tall and having weight 147 pounds. What is her BEE?

Lesson Plan No.* 12 **Topic*** Measurement of **Source*** "Measurement of humar **CO No.** 4

Question : 2*

Explain the mechanism of test of DLW method.

Lesson Plan No.* 15 **Topic*** Basic issues and **Source*** "Measurement of humar **CO No.** 4

Question : 3

Enlist the few examples of different activities for energy costing.

Lesson Plan No.* 17 **Topic*** Energy cost of dif **Source*** "Human energy requirer **CO No.** 4

Question : 4

What do you mean by thermal environment? Explain in detail each environment factor.

Lesson Plan No.* 27 **Topic*** Anthropometry: / **Source*** Human Engineering and **CO No.** 6

Question : 5

What are the fundamental differences between direct and indirect calorimetry?

Lesson Plan No. 13 **Topic** Measurement of **Source** "Measurement of humar **CO No.** 4

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.