

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 2 / 89

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 THEORETICAL 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	09/03/2021
Name of Faculty	Mr. Kuldeep	Date of Examination	09/03/2021
Course	B.Tech (Aeronautical Engineering)	Semester	SEMESTER : 1
Batch	Twentieth (20)	Subject	1 FY3 - 08 Basic Electrical Engineering (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	CO 1. Explain the Electrical circuit elements of DC circuits & its functioning. CO 2. Exemplify the operation of AC Circuits and its different connections in the practical applications. CO 3. Demonstrate about the Transformers and its application in society. CO 4. Summarize the working and construction of different types of Electrical Machines in various engineering disciplines. CO 5. Attribute the different types of Power Converters and the semiconductors used in the engineering field. CO 6. Explain the Electrical Installations procedures practiced in an aircraft.
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Email I'd	kuldeep@soaneemrana.org		Phone No.	809-489-6388
Student Name			Student Reg No.	
Part A				
INSTRUCTIONS FOR PART A: ALL THE QUESTIONS ARE COMPULSORY TO ATTEND				
1. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.				5
Question : 1	Describe the most commonly used semiconductor.			
Lesson Plan No. - 21	Topic - Semiconductor.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 2	Describe the semiconductor material.			
Lesson Plan No. - 22	Topic - Semiconductor.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 3	Define the applications of semiconductor diode.			
Lesson Plan No. - 22	Topic - Semiconductor.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 4	Define the power transistor.			
Lesson Plan No. - 23	Topic - Power transistor.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 5	Describe the single phase rectifier.			
Lesson Plan No. - 24	Topic - Rectifier.	Source - BEE by dr. R. Gupta.	CO No. -	
2. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.				6
Question : 6	Describe the purpose of switches.			
Lesson Plan No. - 25	Topic - Switches.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 7	Describe the various types of switches.			
Lesson Plan No. - 25	Topic - Switches.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 8	Define and explain the MCB.			
Lesson Plan No. - 26	Topic - Circuit protecting device	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 9	Explain the earthing.			
Lesson Plan No. - 27	Topic - Earthing.	Source - BEE by dr. R. Gupta.	CO No. -	
Question : 10	Define and explain the earthing.			
Lesson Plan No. - 27	Topic - Earthing.	Source - BEE by dr. R. Gupta.	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)

3. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.

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Question : 1 Define and explain the application of high power transistor

Lesson Plan No. - 22	Topic - Transistor	Source - BEE by R. Gupta.	CO No. -
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Question : 2 Define and explain single phase inverter.

Lesson Plan No. - 23	Topic - Phase inverter.	Source - BEE by R. Gupta.	CO No. -
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Question : 3 Define and explain controlling parameter in power transistor.

Lesson Plan No. - 24	Topic - Transistor	Source - BEE by R. Gupta.	CO No. -
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4. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.

6

Question : 4 Define and explain ELCB and MCCB.

Lesson Plan No. - 26	Topic - MCB	Source - BEE by R. Gupta.	CO No. -
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Question : 5 Define and explain switch fuse unit in detail.

Lesson Plan No. - 27	Topic - Switch.	Source - BEE by R. Gupta.	CO No. -
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Question : 6 Define and explain elementary calculation for energy consumption.

Lesson Plan No. - 28	Topic - Energy consumption.	Source - BEE by R. Gupta.	CO No. -
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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.

5

Question : 1 Explain the P type and N type semiconductor.

Lesson Plan No. - 22	Topic - Semiconductor.	Source - BEE by R. Gupta.	CO No. -
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Question : 2 Define and explain the single phase inverter with application.

Lesson Plan No. - 23	Topic - Phase inverter	Source - BEE by R. Gupta.	CO No. -
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6. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.

6

Question : 3 Define and explain importance of elementary calculation for energy consumption.

Lesson Plan No. - 28
Topic - Energy consumption.

Source - BEE by R. Gupta.

CO No. -

Question : 4 Explain the industrial use of MCB, MCCB.

Lesson Plan No. - 26
Topic - MCB

Source - BEE by R. Gupta.

CO No. -

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.



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