

# 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 / 66

### 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 1	Date of Submission	28/12/2020
Name of Faculty	Mr. Deepak Tomar	Date of Examination	02/01/2021
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 & their functioning. CO 2. Exemplify the operation of AC Circuits and their different connections in practical applications.		
Email I'd	deepaktomar@soaneemrana.org	Phone No.	965-454-4096
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.**

1

**Question : 1**  
Define KCL.

Lesson Plan No. - 2    Topic - KCL    Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja    CO No. -

**Question : 2**  
Define KVL.

Lesson Plan No. - 2    Topic - KVL    Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja    CO No. -

**Question : 3**

Lesson Plan No. -    Topic -    Source -    CO No. -

**Question : 4**

Lesson Plan No. -    Topic -    Source -    CO No. -

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

2

**Question : 5**

Lesson Plan No. -    Topic -    Source -    CO No. -

**Question : 6**  
Define RMS value in ac sinusoidal wave.

Lesson Plan No. - 6    Topic - RMS value    Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja    CO No. -

**Question : 7**  
What is a star connection?

Lesson Plan No. - 9    Topic - Star connection    Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja    CO No. -

**Question : 8**

Lesson Plan No. -    Topic -    Source -    CO No. -

**Question : 9**

Lesson Plan No. -    Topic -    Source -    CO No. -

**Question : 10**

Lesson Plan No. -    Topic -    Source -    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.**

1

**Question : 1** Explain the series and parallel connection of resistors with an example.

Lesson Plan No. - 3	Topic - Series and parallel connection	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 2** Discuss the superposition theorem with an example.

Lesson Plan No. - 4	Topic - Superposition theorem	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 3** Explain KVL law with an example.

Lesson Plan No. - 2	Topic - KVL law	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**4. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.**

2

**Question : 4** Explain the AC circuit consisting of RL combination.

Lesson Plan No. - 7	Topic - AC circuit	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 5** Explain the reactive power, apparent power, and form factor.

Lesson Plan No. - 6	Topic - Reactive power	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 6** Write the difference between star and delta connection.

Lesson Plan No. - 9	Topic - Star and delta connection	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	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.**

1

**Question : 1** Find the equivalent Thevenin's voltage, Resistance between nodes A and B, and also find the current flowing through 24  $\Omega$  resistor and also draw the equivalent circuit diagram for the same.

Lesson Plan No. - 5	Topic - Thevenin's voltage	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 2** Find the average value of ac voltage whose waveform is shown in the figure given in the diagram sheet.

Lesson Plan No. - 4	Topic - Average value of ac	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**6. CHOOSE COURSE OUTCOME (CO) NUMBER ACCORDING TO THE TYPE OF MIDTERM, AS PER INSTRUCTIONS ABOVE.**

2

**Question : 3** Find the voltage  $V_{ab}$  in the given figure Using Kirchhoff's voltage law.

Lesson Plan No. - 3	Topic - Kirchhoff's voltage law	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
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**Question : 4** Explain the maximum power theorem with its derivation.

Lesson Plan No. - 5	Topic - Maximum power theorem	Source - A Textbook of Electrical Technology by A.K.Theraja B.L. Theraja	CO No. -
<b>Upload Scanned Document In Case of Numerical or Diagram For Any of The Above Questions.</b> <i>(Mention question number with relevant fig / numerical / equations. Max 150 KB)</i>		<a href="https://form.123formbuilder.com/upload_dld.php?fileid=f5b7fc112906fc063567d799c4b5e397">https://form.123formbuilder.com/upload_dld.php?fileid=f5b7fc112906fc063567d799c4b5e397</a>	
I have scrutinized the question paper. There is no spelling mistake or any type of irrelevant question.			
<b>Corporate Office: H 974, Palam Extension, Part 1, Sector 7, Dwarka, New Delhi 110077</b>			

The message has been sent from 157.47.245.48 (India) at 2020-12-28 07:13:35 on Chrome 87.0.4280.101  
Entry ID: 66

# School of Aeronautics (Neemrana)

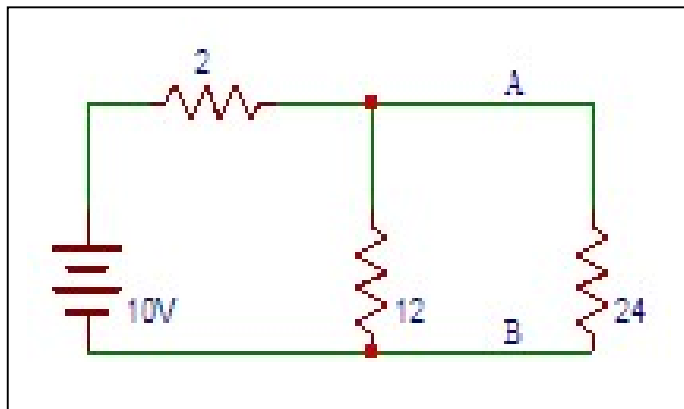
Question Paper For Internal Assessment Examination (Theory) Diagram Sheet

Faculties preparing Question Paper for various examinations, need to draw or insert diagrams as per requirement of questions in the below format and upload the same in upload documents column of the question paper.

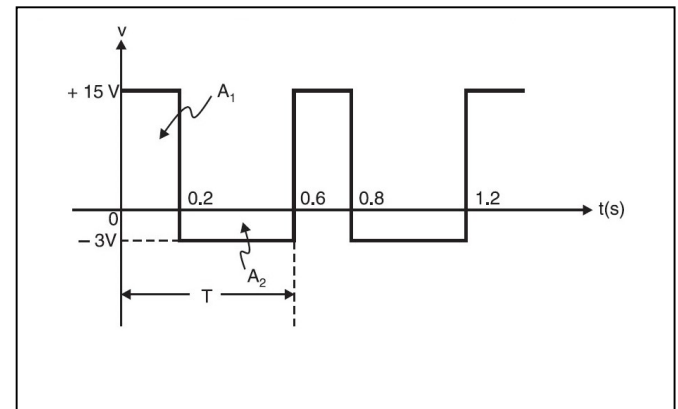
## Question Paper & Student Details

Mid Term *	1	Date of Submission of QP	12/29/2020
Name of Faculty *	Deepak Tomar	Date of Examination *	01/02/2021
Subject *	1FY3 -08 Basic Electrical Engineering	Course*	B.Tech
Batch	20	Semester *	1
Email Id of Faculty:*	Deepaktomar@soaneemrana.org	Phone Number of Faculty*	9654544096
Student Name		Student Reg No.	

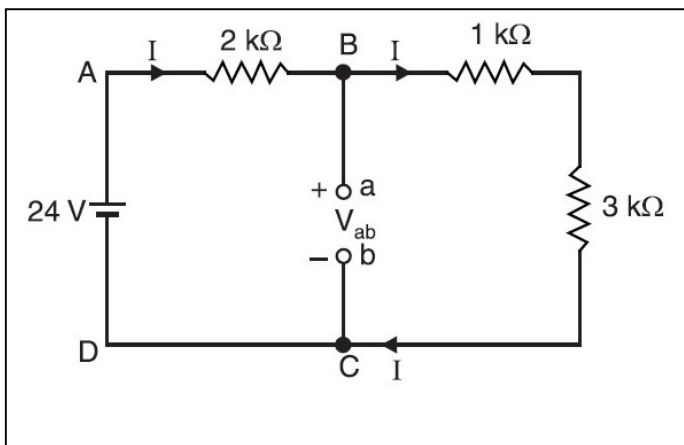
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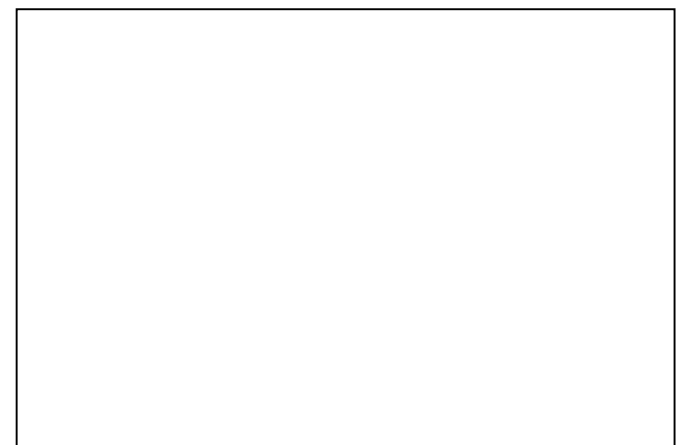
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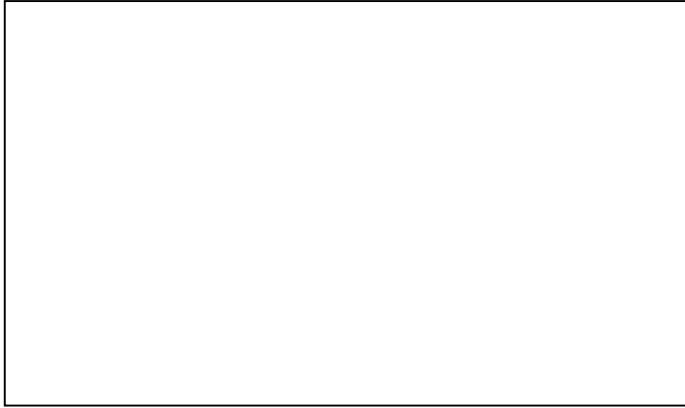
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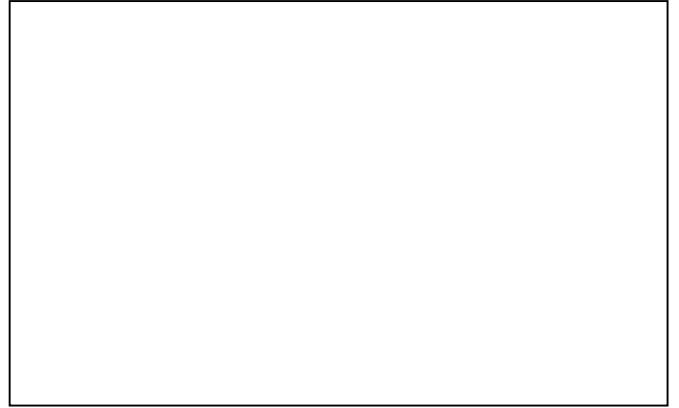
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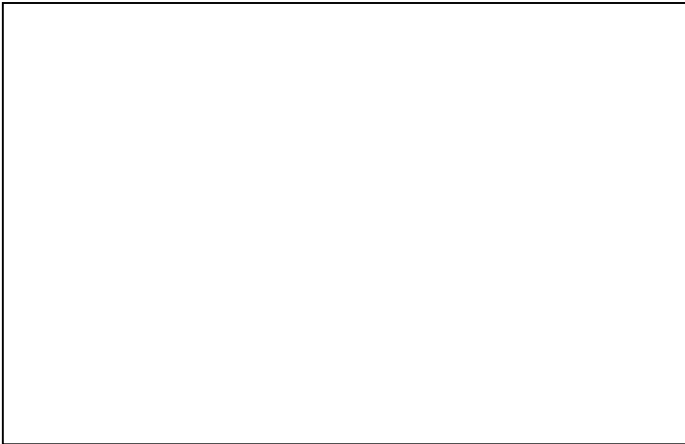
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Part No. \_\_\_\_, Question Number \_\_\_\_ .



Part No. \_\_\_\_, Question Number \_\_\_\_ .



Part No. \_\_\_\_, Question Number \_\_\_\_ .

