

SHRI MATA VAISHNO DEVI UNIVERSITY, KATRA
School of Electrical Engineering
B. Tech. (Branch) Minor -I Examination (Odd) 2023-24

Entry No:

Date: 26-02-2024

Total Number of Pages: [02]

Total Number of Questions:[04]

Course Title: Electrical Wiring
 Course Code: EEL SE 102(Common for All)

Time Allowed: 1.0 Hours

Max Marks: [20]

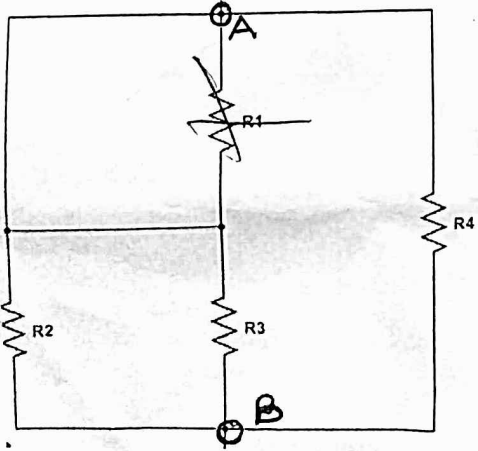
Instructions / NOTE

- i. Attempt All Questions.
- ii. Support your answer with neat freehand sketches/diagrams, wherever appropriate.
- iii. Assume an appropriate data / information, wherever necessary / missing.

Section – A(two mark each)

Q1.	(I) What is the difference between series and parallel electrical wiring connections?	[02]	CO1
	(II) Explain the concept of voltage drop in electrical wiring systems.	[02]	CO1
	(III) Discuss the factors influencing the selection of electrical conduit types in wiring installations and provide examples of different conduit materials.	[02]	CO2
	(IV) Explain the concept of harmonics in electrical systems and discuss their impact on electric wiring installations.	[02]	CO4
	(V) Draw single line diagram of power system in electrical wiring.	[02]	CO2

Section – B

Q2.	<p>What factors should be considered when selecting the size of electrical wires for a particular application? Find equivalent resistance in A-B for the electric circuit shown below. If all resistance has 1 ohm.</p> 	[04]	CO2
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Q3.	Discuss the importance of proper grounding and bonding in electric wiring installations and provide examples of grounding and bonding techniques. Grounding electrode system.	[03]	CO3
Q4.	<p>You are designing the electrical wiring for a residential building. The total connected load in the building is as follows:</p> <ul style="list-style-type: none"> • Lighting load: 10 kW • HVAC load: 15 kW • Kitchen appliances load: 8 kW • Miscellaneous load: 5 kW <p>Calculate the total connected load for the building. If it has 100kVA of total power then find pf.</p>	[3]	CO1