

Reg. No.:



Name:

University of Kerala

U8748

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

ELECTRONICS

UK2DSCELE101 - Electronic Technology

Academic Level: 100-199

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

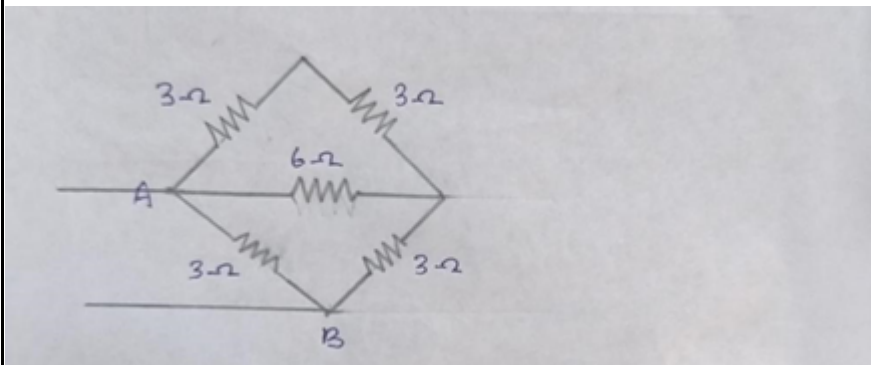
Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark
Each.Answer all questions

Qn No.	Question	CL	CO
1	Name the terminals of FET	RE	1
2	In a decoder ,if the input lines are 4 then number of maximum output lines will be	RE	4
3	Classify the following elements into active and passive components:Transistor, inductor, transformer, switch, LED, resistor, diode	UN	1
4	Explain briefly decoder	UN	4
5	Name an active component	UN	1
6	Interpret the term Data Distributer	UN	4

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Explain the Difference of flipflops and latches	UN	3
8	Compare the Efficiencies of half wave and full wave rectifiers	UN	2
9	Implement a series circuit with $8K\Omega$, $2K\Omega$, $6K\Omega$ resistors and find the effective resistance	AP	1
10	Use different logic gates to design 2 input multiplexer	AP	4

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A) Implement a full adder circuit with truth table and logic diagram OR B) Find the equivalent resistance between A and B 	AP	3, 1
12	A) Differentiate between positive edge triggering and Negative edge triggering Explain the operation of a positive edge triggered JK Flip flop with Logic Diagram and Timing diagrams OR B)	AN	4, 2

Qn No.	Question	CL	CO
	Examine the difference between a BJT and an FET in terms of their operations, control mechanism and charge carriers		
13	A) Evaluate the working of a bridge rectifier with circuit diagram and wave forms. Compare the operation of a half wave rectifier with Bridge rectifier OR B) Judge which transistor is more efficient FET or BJT ? Justify your answer with necessary diagrams and comparisons	EV	2, 1
14	A) Discuss different types of encoders OR B) Discuss various types of comparators	CR	4, 4