A1034

Name..........................
Register No.................

NAIPUNNYA INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY (AUTONOMOUS)

FIRST SEMESTER (FYUG) DEGREE EXAMINATION NOVEMBER 2025

ELECTRONICS

ELE1MN101 - ELECTRONIC FUNDAMENTALS

Time:Two Hours | Maximum:70 marks

Section A

Answer all questions.
Each question carries 3 marks. Ceiling 24 marks

1. Draw the symbol for resistor, capacitor, and inductor.	CO1
2. What is a rectifier?	CO5
3. Comment on barrier potential.	CO3
4. Write a note on the use of amplifier.	CO5
5. Define ripple factor.	CO5
6. Write Kirchhoff's Current Law (KCL).	CO2
7. What is the function of the base in a transistor?	CO4
8. Describe the function of a Zener diode.	CO3
9. Sketch the circuit diagram of a half-wave rectifier.	CO5
10. Draw and explain voltage gain of CE amplifier.	CO5

Section B

Answer all questions.
Each question carries 6 marks. Ceiling 36 marks

11. Compare half-wave and full-wave rectifiers.	CO5
12. Describe the output characteristics of CE configuration.	CO4
13. Compare FET and BJT with respect to input impedance and noise.	CO4
14. Draw and explain a basic CE amplifier.	CO4
15. Compare intrinsic and extrinsic semiconductors.	CO3
16. Illustrate the concept of dynamic resistance.	CO3
17. Analyze the effect of filter capacitor in rectifier circuit.	CO5
18. Discuss DC output of rectifiers.	CO5

Turn Over

Section C

Answer any one question

The question carries 10 marks.

19. Describe in detail a transistor's behavior in different bias conditions. CO4
20. Evaluate a given circuit using KVL and calculate unknown current. CO2

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