(For candidates admitted from 2010–2015 Batch)

B.Sc. DEGREE EXAMINATION, APRIL 2022

Part III - Allied

DIGITAL ELECTRONICS

Time: Three hours

Maximum: 75 marks

PART A —  $(10 \times 2 = 20)$ 

Answer ALL questions.

- 1. Write notes on binary codes.
- 2. List out the types of number system.
- 3. Define Boolean algebra.
- 4. Define max term.
- 5. Define sum of product.
- 6. Write about don't care conditions.
- 7. Define Multiplexer.
- 8. Define Encoder.

- 9. Define counters.
- 10. Define Flip Flop.

PART B — 
$$(5 \times 5 = 25)$$

Answer ALL questions, choosing either (a) or (b).

(a) Write short notes on number system.

Or

- (b) Explain about Decimal to binary conversion.
- (a) Write short notes on laws and theorems of Boolean algebra.

Or

- (b) Write short notes on Integrated circuits.
- (a) Explain about Karnaugh maps.

Or

- (b) Discuss about Product of sum.
- (a) Explain about Encoders.

Or

(b) Describe about BCD Adder.

15. (a) Write short notes on counters.

Or

(b) Explain about shift register.

PART C —  $(3 \times 10 = 30)$ .

Answer any THREE questions.

- 16. Explain the binary multiplication and binary division with suitable examples.
- 17. Explain about logic gates with suitable truth table.
- 18. Explain about simplification of logic circuits.
- 19. Explain about the Full Adder with logic diagram and truth table.
- 20. Explain in detail about Flip Flop and its types.