- 18. Explain the various process involved in Pulse Coded Modulation.
- Discuss the various categories involved in multiplexing.
- 20. Discuss briefly about virtual circuit network.

## S.No. 5174

RCCSCA 8

(For candidates admitted from 2008–2009 Batch)

B.C.A. DEGREE EXAMINATION, APRIL 2022

Part III – Computer Applications – Major

DATA COMMUNICATION NETWORKS

Time: Three hours Maximum: 75 marks

PART A —  $(10 \times 2 = 20)$ 

Answer ALL questions.

- 1. Mention any for Network Topologies.
- 2. Expand DNS and HTTP.
- 3. What is Protocol? Give Example.
- 4. Define Encoding and Decoding.
- 5. Define Frequency Modulation.
- 6. Define Composite Signal.
- 7. What do you mean by Nyquist Signaling rate.

- 8. Define Bit Rate and Baud Rate.
- 9. Define Datagram and Packets.
- 10. What is DSL?

PART B — 
$$(5 \times 5 = 25)$$

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

11. (a) Explain the Network Criteria.

Or

- (b) Write short notes on categories of Network.
- 12. (a) Explain the role of following network devices.
  - (i) Hub
  - (ii) Switch
  - (iii) Router
  - (iv) Bridge
  - (v) Repeater

Or

(b) Write short notes on Digital Signals.

13. (a) Write short notes on PCM.

Or

- (b) Write short notes on Parallel Transmission.
- 14. (a) Write short notes on Spread Spectrum.

Or.

- (b) What is Guided Media? Explain.
- 15. (a) Explain Circuit Switching.

Or

(b) Write short notes on Telephone Networks.

PART C — 
$$(3 \times 10 = 30)$$

Answer any THREE questions.

- Explain OSI reference model with Neat Diagram.
   Mention the function of each layer.
- 17. Explain briefly about the factors involved in influencing Performance.