

Bachelor Level / Second Year/ Forth Semester/ Science  
**Computer Science and Information Technology (CSC 263)**  
(Computer Networks)  
**(NEW COURSE)**

Full Marks: 60  
Pass Marks: 24  
Time: 3 hours.

*Candidates are required to give their answers in their own words as far as practicable.*  
All figures in the margin indicate full marks.

**Section A**

**Long Answer Questions.**

Attempt any **TWO** questions.

[2 × 10 = 20]

1. A bit stream 1101011011 is transmitted using the standard CRC method. The generator polynomials is 10011, what is the actual bit transmitted. [10]
2. What are the features of application layer? Why DNS is required? Explain about recursive, non-recursive and iterative DNS queries. [2+2+6]
3. Provide reasons for transitions from IPv4 to IPv6. Describe IPv6 datagram format. [4+6]

**Section B**

**Short Answer Questions.**

Attempt any **EIGHT** questions.

[8 × 5 = 40]

4. Explain about connection oriented network services. [5]
5. Illustrate the functionality of Media Access Control. [5]
6. Why do you think Network Functions Virtualization architecture is required? Explain. [5]
7. Assume a class C network and divide it into three subnets. What is the value of the new subnet? [5]
8. Differentiate between web server and proxy server. [5]
9. Explain the working mechanism of token bucket. [5]
10. What do you understand by PPP protocol? Explain its link setup process. [1+4]
11. Explain any two wireless transmission medias. [5]
12. Write short notes on: [2×2.5=5]
  - a. IMAP
  - b. ICMP