ourdiu.com | Shared by FAYEK AHANAF

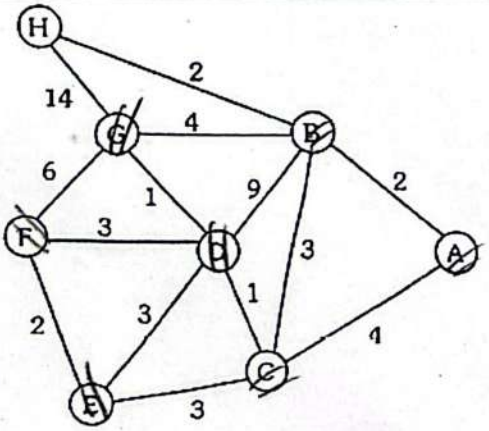
# Daffodil International University

**Faculty of Science & Information Technology**
**Department of Computing and Information System**
**Final Examination, Fall-2025**
**Course Code: CIS211, Course Title: COMPUTER NETWORKS**
**Level: 2 Term: 2**

**Exam Duration: 2 Hours** **Marks: 40**

## Answer ALL Questions

***[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]***

| | | | | |
|---|---|---|---|---|
| 1. | a) | **Explain** Loss, Delay, and Throughput of any computer network | [Marks 5] | CO3 |
| | b) | **Suppose** we have an IP address 192.168.16.0/24. Now create 4 subnets using following host requirements:<br><br>1st subnet= 130, 2nd subnet = 80, 3rd subnet = 60, 4th subnet = 30 | [Marks 5] | |
| 2. | | A hospital's new system handles two critical data flows: **Flow A**, which requires the real-time, low-delay transmission of live patient vital signs; and **Flow B**, which involves the complete, error-free transfer of sensitive Electronic Health Records (EHRs), where reliability is mandatory. | | |
| | a) | **Determine** the best suitable transport layer protocols for Flow A and Flow B and **Show** the header architecture of both protocols. | [Marks 6] | CO4 |
| | b) | **Differentiate** between Go-back-n and selective repeat ARQ protocols in terms of working procedure and efficiency. | [Marks 4] | |
| 3. | a) | <br>**Create** the routing table of **A** using Link State routing protocol. | [Marks 5] | CO4 |

ourdiu.com | Shared by FAYEK AHANAF

| | | | | |
|---|---|---|---|---|
| | *b)* | Suppose the following data is transmitted through the transport layer using 8-bit segmentation. Now **Apply** the UDP Checksum Error Detection on the data,<br>153 \| 226 \| 36 \| 132 | **[Marks 5]** | |
| **4.** | *a)* | Differentiate between Ad-Hoc and Infrastructure communication mode of Wireless Communication System. | **[Marks 5]** | **CO5** |
| | *b)* | What could be the possible application of IEEE 802.11? Apply your understanding of wireless communication to briefly explain the architecture of IEEE 802.11, including key components. | **[Marks 5]** | |

ourdiu.com