Roll No.												

PRESIDENCY UNIVERSITY
BENGALURU

Department of Research & Development
Mid - Term Examinations - SEPTEMBER 2024

Odd Semester: Ph.D. Course Work	**Date**: 27 /09/2024
Course Code: CSE860	**Time**: 10:00am – 11:30am
Course Name: **Advanced Computer Networks**	**Max Marks**: 50
Department: SOCSE	**Weightage**: 25%

Instructions:

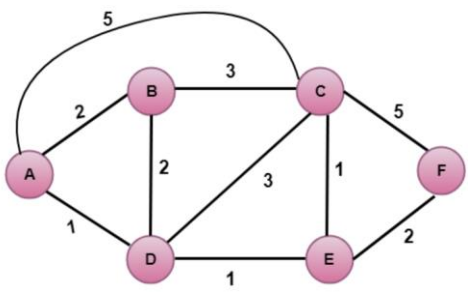
(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 5 marks.		**4Qx5M=20M**
1	Compare TCP/IP and OSI model	**5 Marks**
2	What is the need for multiple access protocols? Explain controlled access protocols in detail.	**5 Marks**
3	Explain the process of congestion control using fair queuing	**5 Marks**
4	What are the address types supported by IPv6? Explain the IPv6 address format and identify the components in the given address 2001:0db8:3c4d:0015:0000:0000:1a2f:1a2b	**5 Marks**

Part B

Answer ALL Questions. Each question carries 15 marks.		**2QX15M=30M**
5	Write an algorithm and explain the working of CRC. Consider a 7-bit message consisting of the bits 1010000 and the polynomial $x^3 + 1$. What is the transmitted message? Show the process of error detection at the receiver end.	**15 Marks**
6	Explain link state routing algorithm. In the given network, find the suitable path for transmission using link state routing protocol. 	**15 Marks**