**BRAHMA VALLEY COLLEGE OF TECHNICAL EDUCATION**

# Course Name: Information Technology Semester: Sixth for IF

**Subject: Data communication System & Networking (12267) Date:-**

**Marks: 100 Preliminary Test -I Time: 3 HOUR**

1. A) Attempt **any three** of the following: **12**

a) Define reflection and refraction of light propagation with ray diagram.

b) Describe the term BSS with diagram.

c) Define Protocol. State the need for standard.

d) How the frame relay works?

B) Attempt **any one** of the following: **6**

a) Explain the concept of working CRC with suitable example.

b) Explain the concept of file transfer protocol. & its application

2. Attempt **any two** of the following: **16**

a) Explain the packet switching for datagram approach.

b) What is HTTP? List its features .Explain the role of HTTP in electronic mail

**c**) Explain the different modes of fiber optic cable.

3. Attempt **any four** of the following:

a) Define the following terms for transmission errors:

i) Delay Distortion ii) Attenuation

iii) Noise

b) Draw the components of data communication system and state the function

of each component.

c) State any four differences between circuit switching and message switching

d) State the need of frame relay.

e) Describe various advantages of fiber optic cable.

4. A) Attempt any **three** of the following: **12**

a) State the meaning of following terms

i) Protocol ii) Bandwidth iii) Bit Rate iv) Baud Rate

b) Describe the ATM cell.

c) Sketch the Bluetooth layer with appropriate lable

d) Explain the construction of fiber optic cable with proper diagram.

B) Attempt **any one** of the following: **6**

a) Describe stop and wait technique for the recovery from error

b) Explain the term FHSS.

5 Attempt any **two** of the following: **16**

a) Explain the Bluetooth architecture (piconet, scatternet).

b) Explain the working of SNMP.

**c**) Explain the term URL.

6. Attempt **any four** of the following: **16**

a) Explain the different sources of light.

b) Explain analog and digital signal.

c) Name the different types of fiber cable losses. Explain Rayleigh’s Scattering & absorption loss.

d) Explain the functions of ATM layers.

e) Explain the working of ATM switching.