

**B.Tech. SEM -V Bio Medical 2014 Course (CBCS) : SUMMER - 2019**  
**SUBJECT : PRINCIPLES OF COMMUNICATION AND TELEMEDICINE**

Day : Saturday  
Date : 11/05/2019

S-2019-2696

Time : 10.00 AM TO 01.00 PM  
Max. Marks : 60

---

**N. B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagram **WHEREVER** necessary.
  - 4) Assume suitable data, if necessary.
- 

**Q. 1**      What is telemetry system? How physiological signals are transmitted over telephone lines?      **(10)**

**OR**

Elaborate multichannel wireless telemetry systems.      **(10)**

**Q. 2**      Describe the block diagram of typical telemedicine system.      **(10)**

**OR**

Discuss the use of digital communication systems and internet resources in telemedicine.      **(10)**

**Q. 3**      Describe frequency modulation with waveform and derive mathematical representation of FM.      **(10)**

**OR**

How unwanted sideband is suppressed using phase shift method?      **(10)**

**Q. 4**      What are the drawbacks of delta modulation? Explain adaptive delta modulation.      **(10)**

**OR**

How PWM wave is generated? Compare PWM and PPM.      **(10)**

**Q. 5**      Write in brief about Public Switch Telephone Networks and electronic exchange.      **(10)**

**OR**

Describe each layer in detail of OSI architecture used for computer networks.      **(10)**

**Q. 6**      What is principle of light transmission in fiber? Describe the types and modes of fiber.      **(10)**

**OR**

Write a note on following in satellite communication      **(10)**

- a) Transponder
- b) Orbital aspects

\* \* \* \* \*

---