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Question Paper Code: 59B14

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

Elective

Biomedical Engineering

15UBM914- TELEMEDICINE

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. _____ is the use of medical information exchanged from one site to another via electronic communications to improve patients' health status. CO1- R
(a) Skype (b) Emergency (c) Video conferencing (d) Telemedicine
2. Telemedicine is the use of medical information exchange from one site to another via CO1- R
(a) Print communication (b) Electronic communication
(c) Verbal communication (d) Written communication
3. _____ configuration provides a data B channel & 64 CO2- R
(a) BRI (b) MRI (c) ISDN (d) ISDN C
4. _____ which allows instant transmission to text & graphics. CO2- R
(a) GST (b) Internet (c) REDIF (d) Network
5. H.324 is an ITU-T recommendation for _____ CO3- R
(a) Voice (b) Video (c) Data Transmission (d) All the above
6. H7 standards focus on the application layer, which is _____ CO3- R
(a) "layer 7" (b) "layer 7.5" (c) "layer 8" (d) "layer 9"
7. Teleradiology is the transmission of radiological patient images, such as _____ CO4- R
(a) X-rays (b) CTs (c) MRIs (d) All the above

8. _____ is the study of the neural mechanisms involved in emotion CO4- R
- (a) Neuroscience (b) Nervous system (c) Human mechanism (d) All the above
9. Electronic Health Record includes _____ CO5- R
- (a) Demographics (b) Medical history (c) Allergies (d) All of the above
10. Legal issue is also called as? CO5- R
- (a) Interpretation (b) Court's decision (c) Issue of law (d) Issues

PART – B (5 x 2= 10 Marks)

11. Explain public key and secret key. CO1- U
12. Define PSTN. CO2- R
13. Define Data security. CO3- R
14. How do you mean by image acquisition system. CO4- U
15. What is mean by Intellectual Property Rights? CO5- R

PART – C (5 x 16= 80 Marks)

16. (a) Explain the origin and development of telemedicine. CO1- U (16)
- Or
- (b) Brief notes of History and evolution of telemedicine. CO1- U (16)
17. (a) Discuss in detail about the modulation techniques used in telemedicine. CO2- U (16)
- Or
- (b) Explain in detail about the various wireless communication systems and their scope in telemedicine. CO2- U (16)
18. (a) Explain in detail the standards to be followed while using DICOM and HL7. CO3- U (16)
- Or
- (b) Define Cryptography . Explain in detail about Cryptography . CO3- U (16)

19. (a) Discuss in detail about Robotics surgery and its application. CO4- U (16)
- Or
- (b) Give a brief account of Telecardiology & its application. CO4- U (16)
20. (a) Analyze the role of Internet in Telemedicine & explain the Ethical & legal aspects of internet. CO5- Ana (16)
- Or
- (b) Categorize the causes of Telemedical malpractice in consent treatment & jurisdictional issues. CO5- Ana (16)

