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Question Paper Code : X10337

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2021

Sixth Semester

Electronics and Communication Engineering

EC 8004 – WIRELESS NETWORKS

(Regulations 2017)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. What is Zigbee ?
2. What are the benefits of Bluetooth over other wireless technologies ?
3. What are the differences between IPV6 and IPV4 ?
4. What is IOT ?
5. What are the benefits of 3G over 2G ?
6. What are the limits of 3G technology ?
7. What are the requirements for internetworking ?
8. What is session mobility ?
9. What are 4G features ?
10. What are the challenges that designers have to confront while designing 4G systems ?

PART – B

(5×13=65 Marks)

11. a) Describe about protocol architecture for IEEE 802.11.

(OR)

- b) Explain fully about WPAN.



12. a) Describe about the Routing techniques used in Mobile Ad-Hoc network.
(OR)
b) Explain fully about the following : (i) IP packet delivery (ii) agent discovery and (iii) tunneling and encapsulation.
13. a) Explain about (i) TD-CDMA and (ii) TD-SCDMA.
(OR)
b) Explain fully about the UMTS core network architecture.
14. a) Elaborate on the 'Internetworking architecture' used for connecting WLAN with GPRS system.
(OR)
b) Explain about the following : (i) Session mobility (ii) Local Multipoint distribution service and (iii) Multichannel multipoint distribution system.
15. a) Explain fully about (i) Multi carrier modulation and (ii) Smart antenna techniques.
(OR)
b) Explain fully about (i) IMS architecture and (ii) MVNO.

PART – C**(1×15=15 Marks)**

16. a) Assume that Ambani appointed you as the CEO of the Reliance cellular company after completion of your B.E. Ambani has instructed you that Reliance has to become the No. 1 cellular company in the entire world. He also instructed you that for every Re. 1 you spend as the investment, you have to get back Rs. 1,00,000 in return. Then, how will you satisfy him technically ? Which of the requirements you propose to your engineers to design the next generation cellular system ?
Explain about minimum of 10 requirements
(Think logically. Based on your logical thinking and explanation only, marks will be allotted for you).
(OR)
b) You live in village. Your friend 'A' lives in normal city like Warangal. Your other friend 'B' stays in metropolitan city Delhi. What do you think are the differences in the design of cellular systems in all those different regions ? Explain. Explain about minimum of 10 differences. (Based on your logical thinking and explanation only, marks will be allotted for you).
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