

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2023 Semester End Main Examinations

Programme: B.E.

Semester: VII

Branch: Electronics & Telecommunication Engineering

Duration: 3 hrs.

Course Code: 19ET7PCSTN

Max Marks: 100

Course: Sustainable Telecom Networks

Date: 05.03.2023

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may be suitably assumed.

UNIT - I

- 1 a) Discuss the feasible solutions proposed for the Telecommunications Sustainability? **08**
b) Analyse the strategies adopted by JIO to sustain their operations **06**
c) Explain any three Drivers of sustainability **06**

UNIT - II

- 2 a) List the various measures to increase energy efficiency in wireless networking. And explain any two of them in brief **08**
b) What is meant by "GREEN" in telecommunication networks? Explain. What are the levels at which it is achieved? **06**
c) Discuss the environmental impact of ICT **06**

UNIT - III

- 3 a) What are Points of Interconnect (PoI)? Explain the role of TRAI in amicably resolving the PoI dispute between Reliance Jio and the incumbent operators? **08**
b) Discuss the Mobile number portability regulations **06**
c) What are the powers and responsibilities of DoT (Department of Telecommunications)? **06**

OR

- 4 a) Define Interconnection usage charges. Discuss any three types **08**
b) Discuss the Principles set by TRAI for Efficient Interconnection Price Structure **06**
c) Discuss the criteria of Mobile Number Portability Request **06**

UNIT - IV

- 5 a) Define SAR. Explain its significance with respect to telecommunication networks. How are SAR levels tested? **08**

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

- b) Discuss the effect of radiation on human body 06
- c) Is it safe to live or work on the top floor of a building that has a mobile phone base station antenna on it? Explain 06

UNIT - V

- 6 a) Explain the price equation in detail with the proposed framework block diagram. 08
- b) What is a dynamic pricing model? Why is it needed?. 06
- c) Write a note on Marketing and Pricing Strategies of Jio? 06

OR

- 7 a) Explain different Pricing Approaches in the Telecom Sector. 08
- b) What is a Revenue Model? How is it different from business model? 06
- c) Discuss the three transformation goals of Vodafone 06

B.M.S.C.E. - ODD SEM 2022-23