

Code: 19HS5501C

III B.Tech - I Semester – Regular Examinations – JANUARY 2022**ENGINEERING FOR COMMUNITY SERVICE**
(Common for IT, ME)

Duration: 3 hours

Max. Marks: 70

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- Note: 1. This question paper contains two Parts A and B.
2. Part-A contains 5 short answer questions. Each Question carries 2 Marks.
3. Part-B contains 5 essay questions with an internal choice from each unit. Each question carries 12 marks.
4. All parts of Question paper must be answered in one place.
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PART – A

1. a) Define code of ethics.
b) Describe sustainability.
c) Explain the concept of smart city.
d) What is meant by ethical dilemma?
e) Describe social justice.

PART – B**UNIT – I**

2. a) Describe profession. Explain the characteristics of a profession. 6 M
b) Discuss the technical expertise and ethical obligations of professional engineers. 6 M

OR

3. a) Explain the benefits and limitations in implementing the code of ethics. 6 M
b) Examine the organization of professional engineering. 6 M

UNIT – II

4. a) Explain the types of communities with suitable examples. 6 M
- b) Examine the tools that help to understand a sustainable community. 6 M

OR

5. a) Elucidate the engineer's beliefs about community development. 6 M
- b) What do engineer's do while designing solutions to problems? 6 M

UNIT-III

6. a) Analyze the common causes of engineering disasters. 6 M
- b) Elucidate the importance of technology for community development. 6 M

OR

7. a) Examine the implications of renewable sources of energy in future. 6 M
- b) Discuss the benefits of green and smart cities in community development. 6 M

UNIT – IV

8. a) Define whistleblowing. Why does whistleblowers suffer with serious consequences? 6 M
- b) Explain how the value of life is calculated with an example. 6 M

OR

9. a) Analyze the ethical dilemmas faced by engineers. 6 M

- b) Explain the need of trusting the experts in determining public safety. 6 M

UNIT – V

10. a) Analyze the utility of social sciences for engineers. 6 M
b) Explain how social justice can be made visible and valued. 6 M

OR

11. a) Discuss the social justice issues emerging as core components of engineering sciences. 6 M
b) Examine the need of transforming engineering education to suit the present needs of society. 6 M