Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | | | **19CE2001** | **Duration :** | | | **3hrs** | |
| **Sub. Name :** | | | **CIVIL ENGINEERING – SOCIETAL AND GLOBAL IMPACT** | **Max. Marks :** | | | **100** | |
| **Q. No.** | **Questions** | | | | **Course**  **Outcome** | **Marks** | |
| **PART-A(10X1=10 MARKS)** | | | | | | | |
| 1. | | What is India’s human development index value as given by UNDP? | | | CO4 | 1 | |
| 2. | | List the impact of global warming to environment. | | | CO3 | 1 | |
| 3. | | List few ancient marvel buildings in India. | | | CO1 | 1 | |
| 4. | | Name some modern green buildings. | | | CO1 | 1 | |
| 5. | | Mention the Indian codes for infrastucture development. | | | CO4 | 1 | |
| 6. | | Hydro electric power is renewable energy resource. Justify. | | | CO2 | 1 | |
| 7. | | Acceptable air quality index ranges from to . | | | CO3 | 1 | |
| 8. | | Name few building materials which are manufactured from solid waste. | | | CO5 | 1 | |
| 9. | | Human ear can stand a maximum of decibel as an average noise level. | | | CO5 | 1 | |
| 10. | | What do you understand by facilities management? | | | CO6 | 1 | |

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| **PART – B (6 X 3 = 18 MARKS)** | | | |
| 11. | Write the applications of GIS in engineering. | CO1 | 3 |
| 12. | Frame a vision statement for sustainable construction practices. | CO6 | 3 |
| 13. | Identify the restructure methods for converting metrocities to energy efficient cities. | CO2 | 3 |
| 14. | Differentiate between stationarity and nonstationarity assessment. | CO3 | 3 |
| 15. | Highlight the role of recycling in achieving sustainability. | CO4 | 3 |
| 16. | Comment the role of civil engineers to reduce greenhouse gas emissions. | CO5 | 3 |

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| **PART – C (6 X 12 = 72 MARKS)**  **(Answer any five Questions from Q.no 17 to 23. Q.No 24 is a Compulsory Question)** | | | | | |
| 17. | a. | Outline the recent major civil engineering breakthroughs and innovations. | | CO1 | 6 |
| b. | Discuss the ecological footprint of India. | | CO4 | 6 |
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| 18. | a. | Explain the role of civil engineering in shaping and impacting the world. | | CO6 | 6 |
| b. | Frame your future vision for civil engineering with respect to sustainable development. | | CO4 | 6 |
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| 19. | a. | Identify the elements of smart cities. Explain in brief. | | CO2 | 6 |
| b. | Discuss the significances of telecommunication needs. | | CO2 | 6 |
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| 20. | a. | Describe the atmospheric pollution caused by civil industries. | | CO5 | 6 |
| b. | Explain how multi-purpose water projects will reduce environmental disasters. | | CO6 | 6 |
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| 21. | a. | Illustrate the characteristics of intelligent and smart buildings. | | CO1 | 6 |
| b. | Describe few innovative methodology -for ensuring sustainability in civil engineering practices. | | CO6 | 6 |
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| 22. | a. | Discuss the importances of wastewater treatment. | | CO5 | 6 |
| b. | Outline the various pollution mitigation measures. | | CO5 | 6 |
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| 23. | a. | Expound the term futuristic visions in detail. | | CO1 | 6 |
| b. | Why climate control is essential and enlist its effects. | | CO2 | 6 |
|  |  | **Compulsory:** | | |  |
| 24. | a. | Elaborate some advanced construction techniques for better sustainability. | CO1 | | 6 |
| b. | Explain the environmental impact analysis procedures. | CO5 | | 6 |