

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-IV (NEW) EXAMINATION – SUMMER 2022****Subject Code:3140609****Date:29-06-2022****Subject Name:Civil Engineering - Societal & Global Impact****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

MARKS

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|------------|--|-----------|
| Q.1 | (a) What is pre-industrial society? What are its features? | 03 |
| | (b) Write a brief note on “Green revolution in India”. | 04 |
| | (c) Describe recent major civil engineering breakthroughs and innovations. | 07 |
| Q.2 | (a) What is GIS? What are its causes and effects? | 03 |
| | (b) Write a brief note on future vision for Civil Engineering. | 04 |
| | (c) Describe the importance of civil engineering in shaping the world. | 07 |
| | OR | |
| | (c) Describe any three Modern Civil Engineering Marvels and Wonders. | 07 |
| Q.3 | (a) Write short note on: Hyper loops. | 03 |
| | (b) Describe impact of smart cities on Indian infrastructure. | 04 |
| | (c) Discuss Codes and Standards Governing Infrastructure Development. | 07 |
| | OR | |
| Q.3 | (a) What is your vision for future Airports? | 03 |
| | (b) Enlist futuristic energy sources and describe Hydropower. | 04 |
| | (c) Describe Indian Government Initiatives for Water Conservation. | 07 |
| Q.4 | (a) Explain sanitary land filling method. | 03 |
| | (b) What is solid waste management? What are its objectives? | 04 |
| | (c) Write short note on: EIA | 07 |
| | OR | |
| Q.4 | (a) Give Classification of air pollution. | 03 |
| | (b) Explain global warming phenomena. What are its effects? | 04 |
| | (c) Discuss innovation techniques for ensuring environmental sustainability. | 07 |
| Q.5 | (a) Enlist various civil engineering projects. | 03 |
| | (b) Discuss contribution of civil engineering to GDP in India. | 04 |
| | (c) Explain methods for the reduction of green house gas emissions in civil engineering in civil engineering projects. | 07 |
| | OR | |
| Q.5 | (a) Give benefits trends of Lean construction. | 03 |
| | (b) Discuss contribution of civil engineering in employment in India. | 04 |
| | (c) Give various measures for waste avoidance and reduction in construction. | 07 |
