

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 4 – EXAMINATION – SUMMER 2026

Subject Code: 3144201

Date: 02/06/2026

Subject Name: Engineering Economics

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.**

- Q.1**
- (a)** Define Economics why is the study of economics useful for engineers? **03**
 - (b)** Explain recurring and non-recurring costs. **04**
 - (c)** Explain types of elasticity demand with example. **07**

- Q.2**
- (a)** Define break-even point. **03**
 - (b)** Discuss the important of the rate of return method in investments with example. **04**
 - (c)** Discuss with example, present worth method and future worth method of comparison of alternatives. **07**

OR

- Q.2**
- (c)** Explain cash flow diagram in details. **07**
- Q.3**
- (a)** Explain different types of price indexes. **03**
 - (b)** what are the method to control the infletion? Explain any one. **04**
 - (c)** what do you mean by infletion? What are the causes of infletion with provide example. **07**

OR

- Q.3**
- (a)** What is the end of year conversion? **03**
 - (b)** Discuss the Borrowed money view point in details. **04**
 - (c)** Analyze present worth analysis technique with suitable example **07**

- Q.4**
- (a)** How is the economic life of an asset determined? **03**
 - (b)** write a short notes on economic life of an equipment. **04**
 - (c)** Compare different types of maintenance in engineering. **07**

OR

- Q.4**
- (a)** List the different methods of depreciation. **03**
 - (b)** Explain sinking fund method of depreciation with suitable example. **04**
 - (c)** Explain different types of replacement problems. **07**

- Q.5**
- (a)** Ethical behaviour is doing what is morally right. Justify it. **03**
 - (b)** Explain sum of year digits method of depreciation with suitable example. **04**
 - (c)** Compare CSR and ESG in terms of their goals and implementation. **07**

OR

- Q.5**
- (a)** List the key ESG factors considered in business evaluations. **03**
 - (b)** write about revenue dominated cash flow diagram and cost dominated cash flow diagram. **04**
 - (c)** Explain environmental, social and governance (E.G.) factors and measurement criteria. **07**
