Seat No./Enrollment No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BACHELOR OF ENGINEERING – SEMESTER 7 – EXAMINATION – SUMMER 2026

Subject Code: 3171311 **Date: 20/05/2026**

Subject Name: Environmental Impact Assessment

Time: 02:30 PM TO 05:00 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)**	Explain the concept of sustainable development.	**03**
	(b)	Enlist the Sustainable Development Goals.	**04**
	(c)	Enlist and explain the four stages Environmental Clearance process for new projects under the EIA Notification, 2006.	**07**
Q.2	**(a)**	Explain the concept of Environmental Impact Assessment (EIA).	**03**
	(b)	Analyze probable impacts of construction and operation phase of a thermal power plant near a small village.	**04**
	(c)	Evaluate the effectiveness of public consultation in improving the quality of EIA reports.	**07**
		OR	
Q.2	**(c)**	Explain 4 step Environmental Impact Assessment process.	**07**
Q.3	**(a)**	List any three types of projects that fall under each Category in the EIA Notification, 2006.	**03**
	(b)	Highlight the purpose of EIA Notification, 2006.	**04**
	(c)	Compare the EIA Notification of 1994 with the EIA Notification of 2006 in terms of screening, appraisal process, and decentralization of authority.	**07**
		OR	
Q.3	**(a)**	What are environmental attributes? Enlist the eight categories of attributes.	**03**
	(b)	Enlist the categories under EIA Notification, 2006 and regulatory authority for each.	**04**
	(c)	Enlist and explain the topics to be included in Generic structure of EIA.	**07**
Q.4	**(a)**	Evaluate the use meteorological data during the air quality baseline study of an industrial project.	**03**
	(b)	Differentiate between primary and secondary data sources used for baseline environmental studies.	**04**
	(c)	How would you use baseline environmental data to predict the impacts of a construction of project?	**07**
		OR	
Q.4	**(a)**	Analyze the relationship between noise levels and the presence of sensitive receptors like hospitals and schools.	**03**
	(b)	Why is there a need for sustainable development in today's world?	**04**

	(c)	What are salient features of Matrix method? Explain Leopold matrix methodology.	**07**
Q.5	**(a)**	Prepare a list of EIA methodologies and explain Adhoc method.	**03**
	(b)	Explain scaling- weighing checklist methods.	**04**
	(c)	Write a brief note on Battelle Environmental Evaluation system method.	**07**

OR

Q.5	**(a)**	Analyze Cost Benefit Analysis to assess the feasibility of a hydroelectric dam project	**03**
	(b)	Compare the matrix and network methodologies for EIA.	**04**
	(c)	Critically evaluate the role of subjective judgment in matrix scoring with example and its implications on EIA results.	**07**

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