

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular & Supplementary Winter Examination – 2024

Course: B. Tech.

Branch: Mechanical Engineering/Mechanical Engineering (Sandwich)/Mechatronics

Semester : VII

Subject Code & Name: BTMOE704A, Sustainable Development

Max Marks: 60

Date:12/02/2025

Duration: 3 Hr.

Instructions to the Students:

1. Each question carries 12 marks.
2. Question No. 1 will be compulsory and include objective-type questions.
3. Candidates are required to attempt any four questions from Question No. 2 to Question No. 6.
4. The level of question/expected answer as per OBE or the Course Outcome (CO) on which the question is based is mentioned in () in front of the question.
5. Use of non-programmable scientific calculators is allowed.
6. Assume suitable data wherever necessary and mention it clearly.

		(Level/CO)	Marks
Q. 1	Objective type questions. (Compulsory Question)		12
1	Question: Which of the following energy resources seems inexhaustible? a. Natural gas b. Coal c. Sun d. Petrol		1
2	Question: What are the three pillars of sustainable development? a. Energy, economy and ergonomics b. Environment, economy and evolution c. Energy and evolution d. Energy, economy and environment.		1
3	Question: What is the term for the gradual increase in the Earth's average surface temperature? a. Global warming b. Climate change c. Greenhouse effect d. Ozone depletion		1
4	Question: What is the main contributor to deforestation globally? a. Urbanization b. Agriculture c. Mining d. Industrialization		1
5	Question: Sustainability Science is the application of concepts such as ___ and sustainable development. a. Environmental science b. Science in general c. social science d. Geoscience		1

6	Question: How many ways to achieve sustainability					1
	a.3	b. 8	c.4	d.9		
7	Question: When was the National Environmental Policy Act signed into law?					1
	a. 1974	b. 1969	c. 1970	d. 2000		
8	Question: what is EIAS?					1
	a. environmental impact assessment statement	b. environmental Indian association statement	c. environmental international assess state	d. none of the above		
9	Question: In which of the following sector NGOs are playing an important role?					1
	a. In governing the police force	b. In framing the policy related to laws	c. In framing the environmental policy	d. In deforestation		
10	Question: Which of the following is an example of a sustainability issue?					1
	a. Pollution	b. Overfishing	c. Climate change	d. All of the above		
11	Question: Which of the following is not a key dimension of sustainability?					1
	a. Social	b. Ethical	c. Ecological	d. Economic		
12	Question: Which of the following nonrenewable energy is not classified under a fossil fuel?					1
	a. Nuclear	b. Petroleum	c. oil	d. Natural gas		
Q. 2 Solve the following.						12
A)	What is a sustainability? How sustainable development helps to balance between Environmental, Social and Economic issues.				CO1	6
B)	How there is change in global warming and climate since industrial revolutions.				CO2	6
Q.3 Solve the following.						12
A)	Explain various ways to use renewable energy with high efficiency.				CO2	6
B)	What is sustainable development? Explain how it protects the future of next generation.				CO1	6

Q. 4	Solve Any Two of the following.		12
A)	What are the governing factors of sustainable development? Explain their role.	CO3	6
B)	Explain the mechanism and importance of Materials and energy flows in sustainable development.	CO3	6
C)	Explain the advantages and disadvantages of greenhouse effect.	CO2	6
Q.5	Solve Any Two of the following.		12
A)	Why there is a need for indicators in sustainable development? Brief about different methods to do it.	CO4	6
B)	What is an Environmental impact assessment process? Explain basic steps.	CO4	6
C)	How sustainability is achieved by different ways? Explain.	CO1	6
Q. 6	Solve Any Two of the following.		12
A)	How will be the Institutional framework for environmental management? Explain.	CO5	6
B)	What is the role of NGOs in environmental management? Explain.	CO5	6
C)	Write scope of National environmental policy act of 1969.	CO4	6
	*** End ***		

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