Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, Dec 2021

Course/ Program: B.Tech (FSE) **Semester : VII**
Course Code: HSFS4007 **Time : 03 hrs.**
Subject: Fundamental of Sustainable Development **Max. Marks: 100**
No. of page/s:4

SECTION A

S. No.	Answer all the question	Marks	CO
Q 1	What are the eight international development goals that were established following the Millennium Summit of the United Nations in 2000, following the adoption of the United Nations Millennium Declaration? Explain those.	**4**	**CO1**
Q 2	Define carbon footprint and write importance of carbon footprint in sustainable development.	**4**	**CO1**
Q 3	Already in the 70s it was perceived that the classical concept of development, that considered only economic growth, within short would cause a total collapse of all natural systems. A new development model was needed, which would take into account both economic growth and equitable distribution of resources. Economic growth in itself is not sufficient, the development is only real if it increases the quality of life in a long-lasting way. Outline the various dimensions of sustainable development. What are its fundamental principles?	**4**	**CO3**
Q 4	A misunderstanding of the difference between sustainability versus energy efficiency is preventing practitioners from reaching their goals of helping the environment. What do you understand by energy efficiency and certified emission reduction ?	**4**	**CO2**
Q 5	Project proponent needs to prepare a project design document (PDD) in order to register for project under CDM .Write briefly on common components of PDD.	**4**	**CO2**

SECTION B

	Answer four questions.		CO
Q 6	The view that human activities are likely responsible for most of the observed increase in global mean temperature ("global warming") since the mid-20th century is an accurate reflection of current scientific thinking. Human-induced warming of the climate is expected to continue throughout the 21st century and beyond. Explain Kyoto Protocol and its impact on sustainable development.	**10**	**CO2**
Q 7	Outline the various dimensions of sustainable development and analyze their interlinking .	**10**	**CO3**
Q 8	Explain in detail a) Measurement of durability index (D) for an ecosystem b) Guiding principle for sustainable development	**10**	**CO 2**

	c) Sustainability planning d) Project life cycle for sustainability **OR** Illustrate following and also emphasize their impact on sustainable development i. UNCED & its principle ii. Vienna Convention **iii.** Steps for Sustainable eco-system management **iv.** Inputs for Sustainability Reporting		
Q 9	The origins of the term "carrying capacity" are uncertain, with researchers variously stating that it was used "in the context of international shipping" or that it was first used during 19th-century laboratory experiments with micro-organisms.A recent review finds the first use of the term in an 1845 report by the US Secretary of State to the US Senate. List down the factors which effect carrying capacity and differentiate between Inter and Intra generational equity and justice?	**10**	**CO 3**
SECTION-C			
	Answer two questions.		
Q 10	Ecolabelling is increasing awareness among the consumers towards reducing environmental impact, product categorization and the development of standards for products. Discuss objective, criteria and mechanism of Ecolabelling scheme. **OR** Describe the following in detail a) Comprehensive efficiency b) Due diligence audit c) Cost component of CBA d) Green House effect	**20**	**CO4**
Q 11	The CDM Executive Board was established as the UNFCCC secretariat to oversee the CDM process. In order to be registered as a CDM project activity, project proponents need to go through project cycle. How will you incorporate CDM in a construction project and what are the steps you will consider in project life cycle assessment.	**20**	**CO5**