



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

END SEMESTER EXAMINATION, DECEMBER 2021

Course: Sustainable Habitat

Semester: VII

Program: B. Tech-Electrical Engg.

Time 03 hrs.

Course Code: EPEG 4017

Max. Marks: 100

SECTION A

(5Q x 4M = 20 Marks)

S. No.		CO
Q1	Define sustainability and list the pillars of sustainability.	CO1
Q2	Briefly describe the critical materials and their impacts on economy.	CO2
Q3	List the main components of particular transport modes and their systems.	CO3
Q4	Define ecology and differentiate among population, habitat and ecosystem.	CO4
Q5	State the outcomes of environment impact assessment and relevant benefits.	CO1

SECTION B

(4Qx10M = 40 Marks)

Q6	Outline the key factors covered in Brundtland report and discuss suggestion given in the report.	CO1
Q7	Explain in detail how human activities has affected the natural ecosystem by giving relevant examples.	CO2
Q8	Discuss the impacts of using materials on environment and differentiate between conventional and critical materials.	CO3
Q9	I. Justify how ECBC code is useful in reducing the energy intensity in building sector of India.	CO4
	OR	
	II. Explain the concept of net zero energy buildings with the help of one case study.	CO4

Section C

(2Qx 20M= 40 Marks)

Q10	With the help of case study, explain in detail the procedure of conducting Environment Impact Assessment (EIA) and list down the outcomes of EIA that is useful for the project developers, policymakers and government.	CO1
Q11	(A) Sketch the Green Building showing various measures which should be taken in order to get 5 star rating from LEED India rating system by justifying each criterion and impact on EPI of the Building OR (B) Explain the trip generation concept in transportation system, discuss various types of trips and describe the methods used to determine the number of trips.	CO4 CO4