

Reg. No.:



Name:

University of Kerala

U9079

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

ENVIRONMENTAL SCIENCES

UK2DSCENS102 - Environmental Meteorology

Academic Level: 100-199

Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	Define climate change.	RE	5
2	Which gas is most abundant in Earth's atmosphere?	RE	1
3	What is Stefan-Boltzmann law?	UN	2
4	Observe the role of climate change in habitat loss	UN	5
5	Discuss why northern and southern hemisphere experience different climate.	UN	4
6	What are isotherms?	UN	4

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	Explain how the greenhouse effect helps maintain Earth's temperature.	UN	1
8	What causes the variation in global pressure belts?	UN	2
9	Narrate the latitudinal distribution of temperature.	AP	4
10	A weather forecast predicts a low-pressure system with warm air rising. What type of weather can you expect?	AP	1

Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer:7 marks each.Answer all 4 Questions choosing among options * within each question

Qn No.	Question	CL	CO
11	A)	AP	1, 1

Qn No.	Question	CL	CO
	Explain the structure and composition of the atmosphere OR B) How can the study of weather elements be applied in planning agricultural activities for maximum crop yield?		
12	A) Compare the climates of the Northern and Southern Hemispheres and explain the factors responsible for their differences. OR B) Analyze the role of extreme weather events (e.g., heatwaves, droughts) in accelerating biodiversity loss on land.	AN	4, 5
13	A) Debate on how climate change differ from climate variability? OR B) Explain the potential consequences of an intensified greenhouse effect on global climates.	EV	3, 5
14	A) Design an experimental study to analyze the impact of atmospheric changes on weather patterns. OR B) Design the properties and components of electromagnetic radiation.	CR	5, 2