

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Program Name: B.Sc. (H) Physics
Course Name: Weather Forecasting
Course Code: PHYS 2021
Nos. of pages: 2

Semester: III
Time: 03 hrs.
Max. Marks: 100

Instructions: 1) Mention Roll No at the appropriate place in the question paper.
2) Answers should be brief and concise.

SECTION A (20 marks)
All question of section A are compulsory

S. No.		Marks	CO
Q 1	What do you mean by Atmospheric Pressure? Write its unit.	4	CO1
Q2	Differentiate the cyclone and anticyclones?	4	CO1
Q3	Discuss the difference between Humidity and relative humidity with its definition?	4	CO2
Q4	What do you mean by weather Forecasting?	4	CO4
Q 5	What are the different uncertainties absorbed during the forecasting of Weather	4	CO4

SECTION B (40 marks)
Question 9 consist of an internal choice

Q 6	What are the different type of temperature sensors used for the temperature measurement? Discuss the importance of temperature measurement in weather Forecasting.	10	CO1
Q 7	How the Sun radiations interact with Atmosphere. Discuss in details about absorption and scattering.	10	CO2
Q 8	What are the different methods and criteria for choosing weather Station?	10	CO4
Q 9	Explain the term thunderstorm and its various type on the basis of their formation. <p style="text-align: center;">Or</p> What do you mean jet streams? Explain the different type of Jet Streams.	10	CO3

SECTION-C (40 marks)
(Q10 is compulsory. Attempt any set of Q11 & 12)

Q 10	a) How the temperature and pressure varied with Altitude? Discuss the variation of atmospheric pressure with the change in temperature of air?	10	CO1
	b) Explain the concept of traditional knowledge on weather forecast and their validation	10	CO4

Q 11	<p>a) What do you mean by Climate? What does Climate change represent? Explain major causes of Climate change.</p> <p>b) What do you mean by aerosols? Explain different types of Aerosol?</p>	<p>10</p> <p>10</p>	<p>CO3</p> <p>CO3</p>
Q12	<p>a) What do you mean by air pollution? Discuss its causes and its impacts.</p> <p>b) Write a brief note on the following terms: a) tornadoes, b) Ozone depletion.</p>	<p>10</p> <p>10</p>	<p>CO3</p> <p>CO3</p>