

U.G. 3rd Semester Examination - 2024**GEOGRAPHY****[HONOURS]****Course Code : GEO-H-CC-T-05****(Climatology)****[CBCS]**

Full Marks : 60

Time : $2\frac{1}{2}$ Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I****(Elements of the Atmosphere)****(Marks : 20)**

1. Answer any three from the following questions:

 $2 \times 3 = 6$

- a) What is *insolation*?
- b) What is *albedo*?
- c) Why are high latitudinal areas colder than the areas of low latitudes?
- d) Define *inversion of temperature*.
- e) What is *greenhouse effect*?

[Turn over]

2. Answer any one from the following questions:

4×1=4

- a) How does angle of incidence affect the distribution of insolation?
- b) What is the significance of ozone layer in atmosphere?

3. Answer any one from the following questions:

10×1=10

- a) Discuss the nature and composition of atmosphere with necessary illustrations.
- b) Discuss the layered structure of the atmosphere with necessary illustrations.

UNIT-II

(Atmospheric Phenomena, Climate Change and Climatic Classification)

(Marks : 40)

4. Answer any seven from the following questions:

2×7=14

- a) Define *doldrums*.
- b) Differentiate *wind* from *air*.
- c) Define *jet stream*.

d) What is *barometric pressure*?

e) What is *potential evapotranspiration*?

f) What is *waterspout*?

g) What is *coriolis force*?

h) What are called *planetary winds*?

i) What is the *eye* of tropical cyclone?

j) What is *potential evapotranspiration*?

k) Mention the consequences of storm surges.

5. Answer any four from the following questions:

4×4=16

a) Highlight the characteristics of tropical air mass.

b) State the advantages of climatic classifications.

c) Bring out the salient features of 1931 climatic classification after Thornthwaite.

d) Differentiate adiabatic processes from non-frontolysis.

e) Mention the characteristics of the Indian monsoon.

f) Bring out the significance of Himalaya mountain range on Indian monsoon.

6. Answer any one from the following questions:

10×1=10

- a) Discuss the characteristics of different forms of condensation.
 - b) Analyse the differences between tropical and mid-latitude cyclones with necessary illustrations.
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