

U.G. 3rd Semester Examination - 2020**GEOGRAPHY****[HONOURS]****Course Code : GEO-H-CC-T-05****(Climatology)****New Syllabus under CBCS**

Full Marks : 60

Time : 2½ 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** of the following questions:

2×3=6

- State the importance of ozone layer.
- Differentiate insolation from radiation.
- What is temperature anomaly?
- What is meant by tropopause?
- what is a albedo?

*[Turn over]*2. Answer any **one** of the following questions : 4×1=4

- Explain the greenhouse effect in brief.
- Highlight the salient characteristics of frontal inversion.

3. Answer any **one** of the following questions :

10×1=10

- Elucidate the major controlling factors of insolation.
- Make a detail account of the horizontal distribution of temperature of earth's atmosphere.

UNIT-II**(Atmospheric Phenomena, Climate Change and Climatic Classification)****(Marks : 40)**4. Answer any **seven** of the following questions:

2×7=14

- What is eye of the cyclone?
- What is smog?
- Define coriolis force.
- What is cloud burst?
- Define moisture index.

- f) Differentiate the dry from wet adiabatic lapse rate.
- g) Distinguish between cyclone and anti-cyclone.
- h) What is monsoon trough?
- i) Define baroclinic conditions.
- j) What is hygroscopic nuclei?
- k) Why is horse latitude dry and calm?

5. Answer any **four** of the following questions :

4×4=16

- a) Discuss the determining factors of condensation process.
- b) Explain the collision-coalescence mechanism of precipitation in brief.
- c) Highlight the salient features of atmospheric instability.
- d) State the influence of front on weather.
- e) Mention the major preconditions for the formation of tropical cyclone.
- f) Specify the effect of EI-Nino on Indian monsoon.

6. Answer any **one** of the following questions :

10×1=10

- a) Critically evaluate the global climatic classification after Köppen.
- b) Give an account of air mass classification mentioning their bases.

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