2023/01

SET А

MA / M.Sc. GEOGRAPHY FIRST SEMESTER APPLIED CLIMATOLOGY

MGE - 103[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 1.30 hrs.

Full Marks: 35

(Objective)

Time: 15 min.

Marks: 10

Choose the correct answer from the following:

1X10 = 10

- 1. Normal Lapse rate is supposed to be
 - a. 6.5° C per 1000 m c. 6.5° C per 100 m
- b. 6.50 K per 1000 m

- d. 6.50 K per 100 m
- 2. The average height of the troposphere over the poles is around
 - a. 16 km

b. 14 km

c. 8 km

- d. 6 km
- 3. The position when the earth is nearest to the sun is called
 - a. Insolation

b. Perihelion

c. Aphelion

- d. Revolution
- 4. The portion of incident radiation energy reflect back from the surface is called
 - a. Heat Budget

b. Photons

c. Absorption

- d. Albedo
- Tropical rainforest (wet) climate is represented by
 - a. Aw

b. Am

c. BSk

- 6. Am refers to the
 - a. Tropical monsoon climate
- b. Mid-latitude desert climate
- c. Temperature oceanic climate
- d. Subtropical humid climate
- 7. Who among the following presented a new concept of climatic classification in 1948 and termed it as "Potential Evapo-Transpiration"?
 - a. Trewartha

b. Thornwaite

c. Koeppen

- d. Thornburry
- 8. Doldrum is a zone of
 - a. Intertropical convergence
- b. Local wind
- c. Intertropical divergence
- d. Frontolysis
- 9. Horse latitude is found between the latitudes
 - a. 50 N to 50 S

- b. 30° 45° in both the hemisphere
- c. 250 350 in both the hemisphere
- d. None of the above

- 10. Climate change involve factors both internal and external. External ones include

 a) Feedback between the ocean and land surface
 b) Solar variability
 c) Earth's orbit alteration
 d) Variability within the climate system
 e) Volcanic activity
 a. a, b and c only
 b. b, c and e only
 c. c, d and e
 d. a, b and e only

$\left(\underline{\text{Descriptive}} \right)$

Time: 1 hr. 15 mins. Marks: 25

[Answer question no.1 & any two (2) from the rest]

1.	Briefly explain about the heat budget of the earth.	5
2.	What do you mean by planetary wind? Briefly explain different wind belts.	2+8=10
3.	Discuss the factors controlling the distribution of temperature.	10
4.	Explain briefly Koppen's classification of world climates. Mention the difference between Koppen's and Thornwaite's climatic classification.	5+5=10
5.	Write Short notes on: (Any two) a. Agroclimatology	10

b. Water Budget

c. Rainwater Harvesting

d. Global Warming

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