

MA/ M.Sc. GEOGRAPHY  
FOURTH SEMESTER  
HYDROMETEOROLOGY  
MGE – 401B [SPECIAL REPEAT]  
[USE OMR FOR OBJECTIVE PART]

**SET  
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

( Objective )

Marks: 20

*Choose the correct answer from the following:*

**1X20=20**

1. What is the size of a raindrop?
  - a. Greater than 8mm
  - b. Between 0.5mm and 6mm
  - c. Less than 0.5mm
  - d. Between 8mm and 10mm
2. Which is not a form of precipitation?
  - a. Hail
  - b. Water vapour
  - c. Snow
  - d. Drizzle
3. What is the unit of intensity of rainfall?
  - a. cm
  - b. cm\*hr
  - c. cm/hr
  - d. hr/cm
4. What is sleet?
  - a. Water vapor only
  - b. Thin layer of ice
  - c. Rainwater containing some solid particles
  - d. Water droplets of larger diameter
5. What is the intensity of moderate rain?
  - a. Less than 2.5mm/hr
  - b. Between 2.5mm/hr - 7.5mm/hr
  - c. 3.5mm/hr
  - d. Greater than 7.5mm/hr
6. What is meant by Front?
  - a. Hot air mass
  - b. Cold air mass
  - c. Interface between two distinct air masses
  - d. Adiabatic expansion of hot air mass
7. The type of rainfall which occurs due to localized heating of air is called as  

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  - a. Convective rainfall
  - b. Cyclonic rainfall
  - c. Orographic rainfall
  - d. Frontal rainfall
8. What is the areal extent of convective rainfall?
  - a. Diameter of 20km
  - b. Diameter of 15km
  - c. Diameter of 10km
  - d. Diameter of 8km

9. What percentage of the regions of India receives the major portions of the annual rainfall from south - west monsoon?
  - a. Over 60%
  - b. Over 75%
  - c. Over 65%
  - d. Over 70%
10. Which part of India does not receive rainfall from south - west monsoon?
  - a. South - eastern part of the peninsula
  - b. Southern Part of India
  - c. North - western part of India
  - d. Western part of India
11. Where does the south - west monsoon winds originate from?
  - a. Pacific Ocean
  - b. Atlantic Ocean
  - c. Arctic Ocean
  - d. Indian Ocean
12. What are the branches through which south - west monsoon winds advance across the country?
  - a. Arabian sea branch
  - b. Arabian sea branch and Bay of Bengal branch
  - c. Bay of Bengal branch
  - d. Mediterranean sea branch
13. During which time in a year does south - west monsoon winds result in rainfall in India?
  - a. March to May
  - b. June to September
  - c. October to November
  - d. December to February
14. According to the climatic conditions prevailing in the Indian subcontinent, which period is known as Transition - II?
  - a. South - west monsoon
  - b. Winter season
  - c. Summer season
  - d. Post monsoon
15. By mid - December, the disturbances which are of extra tropical origin and travel eastwards across Afghanistan and Pakistan are called?
  - a. Eastern disturbances
  - b. Northern disturbances
  - c. Southern disturbances
  - d. Western disturbances
16. The main constituents of the atmosphere are
  - a.  $N_2$  and  $O_2$ .
  - b.  $CO_2$  and  $N_2$ .
  - c. CO and  $CO_2$ .
  - d.  $O_3$  and SO
17. If an object is present at a distance of 5 km from the surface of the earth, it is present in
  - a. Troposphere
  - b. Thermosphere
  - c. Mesosphere
  - d. Stratosphere
18. The horizontal distribution of pressure is studied by drawing
  - a. Isotherms
  - b. Isobars
  - c. Isoheights
  - d. Isochores

19. The weight of a column of air contained in a unit area from the mean sea level to the top of the atmosphere is called
- a. Atmospheric pressure
  - b. Typhoons
  - c. Isobars
  - d. Coriolis force
20. Monsoon is
- a. Local winds
  - b. Seasonal winds
  - c. Planetary winds
  - d. Periodic winds

**( Descriptive )**

Time : 2 hrs. 30 mins.

Marks : 50

**[ Answer question no.1 & any four (4) from the rest ]**

1. Write about composition and characteristics of different layers of the atmosphere. 10
2. What do mean by precipitation? Describe various forms of precipitation. 3+7=10
3. Describe different factors affecting precipitation. 10
4. Describe Factors Affecting Evaporation. 10
5. Write a note on Water Budget Method. 10
6. Discuss pattern and working of general atmospheric circulation. 10
7. Differentiate between weather and climate. Write factors which affect weather. 10
8. Write short notes on *(any two)* 5+5=10
  - a. Measurement of precipitation
  - b. Estimation of evaporation
  - c. Equations of Infiltration

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