Time: 15 mins.

MA/M.Sc. GEOGRAPHY THIRD SEMESTER FUNDAMENTALS OF HYDROLOGY

MGE - 303B [SPECIAL REPEAT] [USE OMR FOR OBJECTIVE PART]

USE OMR FOR OBJECTIVE PART Duration: 1:30 hrs.

Objectiv

(Objective)

Full Marks: 35

Marks: 10

2024/07

SET

| Choose | the correct | answer | from the | fol | lowing: |
|--------|-------------|--------|----------|-----|---------|
|--------|-------------|--------|----------|-----|---------|

1×10=10

| The word hydrology is derived from the a. Greek, Hydor | ewords b. Roman, Hydor |
|--|--|
| c. Greek, Hyder | d. Roman, Hyder |
| . Out of total fresh water in the world, g | |
| a. 2.3% | b. 0.61% |
| c. 0.01% | d. 0.001% |
| . India has% fresh water of the earth. | |
| a. 3 | b. 4 |
| c. 10 | d. 18 |
| . The instrument used to measure wind s | speed is? |
| a. Anemometer | b. Barometer |
| c. Hydrometer | d. Hygrometer |
| . Convert a temperature measurement o | of 250 deg C into Kelvin. |
| a523 K | b250 K |
| c. 250 K | d. 523K |
| . Absolute zero on Kelvin scale is equal | to |
| a. 0 K | b. 100 K |
| c. 273 K | d. 373 K |
| . Using which parameters hydrographs a | re constructed? |
| a. Stream discharge vs Time | b. Time vs Area |
| c. Distance vs Time | d. Stream discharge vs area |
| A watershed got transformed from r urbanization on storm runoff hydrogra | rural to urban over a period of time. Effect of aph from the watershed is to |
| a. Decrease the volume of runoff | b. Increase the time to peak discharge |
| c. Decrease the time base | d. Decrease the peak discharge |
| . Which methods are used for estimating | the magnitude of flood peak? |
| a. Rational method | b. Empirical method |
| c. Flood-frequency studies | d. All of the above |

(<u>Descriptive</u>)

Time: 1hr 15mins.

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

1. Write a note on global water budget 5

2. Describe the processes of the hydrologic cycle with neat sketch

3. Discuss measurement of rainfall and temperature. 5+5=10

4. Explain about the probabilistic treatment of hydrological data. 10

5. What are the methods of estimating flood peaks? Explain merits and demerits of each method

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Marks: 25