

**M.Sc. ENVIRONMENTAL SCIENCE
SECOND SEMESTER
ENVIRONMENTAL GEOSCIENCES & METEOROLOGY
MEV-202**

Duration: 3 Hrs.

Marks: 70

{ PART : A (OBJECTIVE) = 20
PART : B (DESCRIPTIVE) = 50 }

[PART-B:Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

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

1. What is Plate tectonic theory? How does the theory overcome drawbacks of continental drift hypothesis? Explain. (4+6=10)
2. What is glacier? What are the conditions of glacier formation? Write about different types of glaciers. Why are glaciers important? (2+2+3+3=10)
3. Explain the terms: folds, faults, foliation, cleavage and joints. (10)
4. Write about thermal structure of the atmosphere and its composition. (10)
5. Discuss different environmental problems associated with extraction of minerals. (10)
6. Write about different hazards in India? What are the causes and impacts of floods in northeast India? (4+6=10)
7. What are the major weather elements? What do you mean by climate controls? Explain. (5+5=10)
8. Write short notes on : (5+5=10)
(a) Earth's energy budget
(b) Indian Monsoon

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[PART-A :Objective]

Choose the correct answer from the following:

1X20=20

1. The super continent consisting of Earth's all landmasses was named:

- a. Plate tectonic
- b. Pangaea
- c. Laurasia
- d. Gondwanaland

2. The hotter and weaker region in the mantle that lies below the lithosphere is called:

- a. Asthenosphere
- b. Rift
- c. Core
- d. None of above

3. What is the age of the Earth?

- a. 4.6 billion years
- b. 4.6×10^9 billion years
- c. 5.6 million years
- d. None of above

4. How many major plates are there on earth?

- a. 5
- b. 7
- c. 10
- d. 21

5. Sea floor spreading was proposed by:

- a. Wegener
- b. Harry Hess
- c. Antonio Snider
- d. None of above

6. Major hazard in India:

- a. Earthquake
- b. Flood
- c. Drought
- d. Cyclone

7. P wave and S waves are two divisions of:

- a. Ocean wave
 - b. Seismic surface wave
 - c. Seismic body wave
 - d. All of above
-

8. The value of planetary albedo is:

- a. 100%
 - b. 67%
 - c. 35%
 - d. 2%
-

9. Composition of the atmosphere:

- a. Varies with seasons
 - b. Varies with altitude
 - c. Remains constant in the lower layers
 - d. Varies from place to place
-

10. To reach the earth's surface the rays of the sun take about:

- a. 5 minutes
 - b. 8 minutes
 - c. 10 minutes
 - d. 18 minutes
-

11. The highest temperatures are recorded:

- a. At midday
 - b. In the afternoon
 - c. In the late evening
 - d. In the morning
-

12. The normal lapse rate of temperature per kilometer is:

- a. 6.4°C
 - b. 10°C
 - c. 5°C
 - d. 1°C
-

13. Isotherms are used to show the horizontal distribution of:

- a. Salinity
 - b. Temperature
 - c. Pressure
 - d. Rainfall
-

14. The immediate cause of wind is:

- a. Humidity differences
 - b. Temperature differences
 - c. Rotation of the earth
 - d. Pressure differences
-

15. Foliation is a characteristic feature of:

- a. Igneous rocks
- b. Sedimentary rocks
- c. Metamorphic rocks
- d. All

16. The process of horizontal heating or cooling of atmosphere is;

- a. Conduction
- b. Convection
- c. Radiation
- d. Latent heat

17. Vapour pressure/ Saturation vapour pressure) x100 is the expression for:

- a. Absolute humidity
- b. Relative humidity
- c. Specific humidity
- d. All of above

18. Wind velocity is measured by:

- a. Barograph
- b. Wind vane
- c. Cup anemometer
- d. Barometer

19. The most important factor in thunderstorm development is:

- a. Atmospheric stability
- b. Atmospheric instability
- c. Abundance of moisture
- d. Temperature inversion

20. The World Meteorological Organization is based in:

- a. Washington
- b. Geneva
- c. Moscow
- d. London

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UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



Question Paper CUM Answer Sheet

[PART (A) : OBJECTIVE]

Serial no. of the main
Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2016-17 Date :

Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- The student shall write the answer in the box where it is provided.
- The student shall not overwrite / erase any answer and no mark shall be given for such act.
- Hand over the question paper cum answer sheet (Objective) within the allotted time (20 minutes / 10 minutes) to the invigilator.

Full Marks	Marks Obtained	Remarks
20		

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature