

**MA DISASTER MANAGEMENT**  
**First Semester**  
**Situating Disaster: Basics of Earth Science**  
**(MDM-01)**

**Duration: 3Hrs.**

**Full Marks: 70**

**Part-A (Objective) =20**

**Part-B (Descriptive)=50**

**(PART-B: Descriptive)**

**Duration: 2 hrs. 40 mins.**

**Marks: 50**

**1. Write short notes on :( any five)**

**2×5=10**

- (a) Beaufort scale      (b) Mass wasting      (c) Atoll      (d) Bays  
(e) Coral reef      (f) Soil      (g) Guyots

**2. Answer the following: (any five)**

**3×5=15**

- (a) Write a note on “Cybernetic system” or “Self regulating system” of Biosphere.  
(b) Write a note on radiation and earth’s energy budget. Give diagram in support.  
(c) Write about types of fronts with required diagrams.  
(d) Prepare a note on soil texture.  
(e) What is hydrological cycle? Give diagram in support.  
(f) What is the Pacific Ring of Fire? Explain.  
(g) Prepare a note on Global warming and its impact on the earth.

**Answer the following questions: (any five)**

**5×5=25**

- (a) Discuss the importance of Biodiversity.  
(b) Define Biodiversity. What are the types of diversity?  
(c) Discuss about human interventions with lithosphere.  
(d) Write a note on Eustatic changes.  
(e) Discuss about Fresh water supply and its importance on lithosphere. Give diagram in support.  
(f) Write about the concept of sea-floor spreading. Give evidences in support.  
(g) Critically analyse the Continental Drift theory.

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*(The figures in the margin indicate full marks for the questions)*

**Duration: 20 minutes**

**Marks – 20**

**PART A- Objective Type**

**Write the correct answer:**

**1×20=20**

1. The distance between Earth and the Sun is-

- a) 150,000,000kms                      b) 240,000kms                      c) 385,000kms                      d) None of these

2. The four inner terrestrial planets are-

- a) Saturn, Jupiter, Uranus                      b) Jupiter, Uranus, Neptune  
c) Mercury, Venus, Earth, Mars                      d) Jupiter, Saturn, Uranus, Neptune

3. The diameter of Earth is –

- a) 13,000kms                      b) 385,000kms                      c) 150,000,000kms                      d) None of these

4. Frost wedging is an important agent of –

- a) Biological weathering                      b) Mechanical weathering  
c) Chemical weathering                      d) Mass wasting

5. The Beaufort scale was devised in –

- a) 1830s by Sir Francis Beaufort                      b) 1805 by Sir Francis Beaufort  
c) 1923 by Sir Francis Beaufort                      d) 1946 by Sir Francis Beaufort

6. Ozone layer exists-

- a) 15 to 30kms above the earth                      b) 6 to 10kms above the earth  
c) 5 to 30kms above the earth                      d) None of the above

7. Parts of dead plants accumulated at the soil surface, are referred to collectively as-

- a) Humus                      b) Litter                      c) Regolith                      d) Bed rock

8. Soil functions as a fundamental interface where-----, -----, -----and biosphere meet.
- a) Hydrosphere, atmosphere, lithosphere                      b) Core, mantle, lithosphere  
c) Ecosystem, mangrove, lithosphere                      d) None of these
9. Clay is usually a combination of ----- and-----of aluminum and iron.
- a) oxygen, CO<sub>2</sub>                      b) carbon di oxide, H<sub>2</sub>O                      c) Silica, oxides                      d) None of these
10. "World ocean" has a surface area of-----km.
- a) 360 million square miles                      b) 260 million square miles  
c) 150 million square miles                      d) None of these
11. The----- of the Moon and Sun causes the greatest movements of all; the----.
- a) Deflection, tide                      b) Attraction, tide                      c) Deflection, tsunami                      d) Attraction, tsunami
12. Tsunamis are triggered by-
- a) Tides                      b) Cyclones                      c) Sub-marine earthquakes                      d) Shrinking of the earth's crust
13. Which one of the following characteristics separates GIS from the other systems-
- a) Map making and generalised output                      b) Linking spatial and non-spatial data  
c) Map designing and layout                      d) All of these
14. Alkaline water is simply water with-
- a) A pH higher than 7                      b) A pH lower than 7                      c) A pH between 2 to 7                      d) None of these
15. Eustatic changes indicates-
- a) Changes in the sea level                      b) Changes in the landforms  
c) Changes in the climate                      d) Changes in the atmosphere
16. In Modern Beaufort scale no. 2 indicates-
- a) Calm                      b) Light air                      c) Light breeze                      d) Gentle breeze
17. When the sun and moon are located at right angles to one another with respect to earth, the pulling results-
- a) High tide                      b) Neap tide                      c) Ebb tide                      d) Normal tide
18. The term Biota refers to-
- a) The total complex of plant and animal life                      b) Only flora or plants  
c) Only fauna or animals                      d) None of these
19. The apparent deflection of objects such as airplane, wind etc. moving in a straight path relative to the earth's surface is termed as-
- a) Gravity                      b) Coriolis force                      c) Centrifugal force                      d) None of these
20. The term used to describe a roughly equal concentration of sand, silt and clay is –
- a) Silt                      b) Clay                      c) Loam                      d) Sand

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