

MA / M.Sc. GEOGRAPHY  
FIRST SEMESTER  
ADVANCED GEOMORPHOLOGY  
MGE – 101  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET  
A**

Duration : 3 hrs.

Full Marks : 70

[ Objective ]

Time: 30 min.

Marks: 20

*Choose the correct answer from the following:*

*1X20=20*

1. Who postulated the concept of 'Uniformitarianism'?
  - a. Leonardo da Vinci
  - b. James Hutton
  - c. W.M Davis
  - d. A.K Lobeck
2. 'Landscape is a function of structure, process and time' is a statement related with
  - a. Concept of Equilibrium
  - b. Landscape cycle
  - c. Geographical Cycle
  - d. Morphological system
3. 'Concept of Equilibrium' is one of the major components related with Geomorphic theory of
  - a. G.K Gilbert
  - b. W.M Davis
  - c. James Hutton
  - d. W. Penck
4. The 'cyclic model of pediplanation' was propounded by
  - a. W.M Davis
  - b. L.C King
  - c. W.Penck
  - d. James Hutton
5. Which of the following is unrelated to the denudation action of Mass Movement?
  - a. Basal sapping
  - b. Exfoliation
  - c. Landslide
  - d. Mud flow
6. Which one of the following features is formed when the roof of a limestone cavern collapses?
  - a. Tarn
  - b. Polje
  - c. Swallow hole
  - d. Doline
7. Caverns are the landform of
  - a. Running water
  - b. Karst
  - c. Wind
  - d. Glacier
8. Erosion of loose rock particles by wind is known as:
  - a. Abrasion
  - b. Attrition
  - c. Corrosion
  - d. Deflation

9. The plates and the upper part of the mantle combine to form a layer known as:
- atmosphere
  - troposphere
  - exosphere
  - lithosphere
10. The process of collision of two plates with different densities is known as
- Abduction
  - Subduction
  - Prediction
  - Production
10. A river flowing over alternating hard and soft rocks results into:
- Incised meanders
  - Meanders and Ox-bow lakes
  - Rapids and cataracts
  - Waterfall and nick-point
12. The transporting power of a river depend on the following factors:
- The volume and velocity of its water
  - The river gradient
  - The transportability of its load
  - All of them
13. Identify the correct sequence of terminology used for denoting different parts along a sloping and from top to bottom:
- Debris slope
  - Waning slope
  - Waxing slope
  - Free face
- 2,3,1,4
  - 3,4,2,1
  - 3,2,4,1
  - 3,4,1,2
14. The slope replacement model was propounded by \_\_\_\_\_
- Penck
  - Strahler
  - Davis
  - Wood
15. Stability of hill slopes depend upon \_\_\_\_\_
- Nature of the slope
  - Angle of the slope
  - Geological conditions
  - All of the above
16. Slope length is most closely related to:
- Stream width
  - Drainage area
  - Tectonic uplift
  - Drainage density
17. Which one of the following is most associated with concave slope profiles?
- Episodic erosional activity
  - Creep, rain splash and gelifluction
  - Mass movements
  - Rill wash and fluvial processes
18. In terms of slope profiles, a free face does not have which of the following characteristics?
- Exists below upper concavity
  - Consists of scree or talus
  - Bedrock Slope up to 70°
  - Stepped if there are rock layers of different resistance.

19. Which of the following is not a reason why remote sensing is ideal for use in geomorphology?

- a. It will always be more reliable than field work studies
- b. It can be applied at any scale
- c. It minimizes the need for fieldwork in dangerous, isolated and sensitive areas.
- d. It can monitor changes over time.

20. Geomorphological analysis of surface forms of the earth is a \_\_\_\_\_ form of interpretation from space images.

- a. Direct
- b. Indirect
- c. Synthesis
- d. Visible

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**( Descriptive )**

Time : 2 hrs. 30 mins.

Marks : 50

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

1. Discuss the meaning and scope of Geomorphology. Give an account of the recent trends in Geomorphology. 5+5=10
2. Discuss the concept of Landform evolution theory proposed by W.M Davis. Write the difference between the theory proposed by L.C King and W. Penck. 6+4=10
3. Define Plate Tectonics? Discuss the kinds of Plate Margins and their Characteristic Features? Give support of suitable diagrams. 3+7=10
4. Explain the fluvial process in a river profile. Give support of suitable diagrams. 10
5. Compare and contrast the role of surface and subsurface processes in Hillslope development. 5+5=10
6. What is slope profile? Explain the theory of parallel retreat of slopes 3+7=10
7. Define applied geomorphology. Discuss the application of geomorphology in various fields with examples. 2+8=10
8. Short Notes: 5+5=10
  - a. Concept of Uniformitarianism
  - b. Periglacial process

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