REV-01
MGE/05/10

2023/01

SET A

MA / M.Sc. GEOGRAPHY
FIRST SEMESTER
ADVANCED GEOMORPHOLOGY
MGE – 101 [REPEAT]

[USE OMR SHEET FOR OBJECTIVE PART]

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:
   a. atmosphere
   b. troposphere
   c. exosphere
   d. lithosphere

10. The process of collision of two plates with different densities is known as
   a. Abduction
   b. Subduction
   c. Prediction
   d. Production

10. A river flowing over alternating hard and soft rocks results into:
   a. Incised meanders
   b. Meanders and Ox-bow lakes
   c. Rapids and cataracts
   d. Waterfall and nick-point

12. The transporting power of a river depend on the following factors:
   a. The volume and velocity of its water
   b. The river gradient
   c. The transportability of its load
   d. All of them

13. Identify the correct sequence of terminology used for denoting different parts along a sloping and from top to bottom:
   1. Debris slope
   2. Waning slope
   3. Waxing slope
   4. Free face

   a. 2,3,1,4
   b. 3,4,2,1
   c. 3,2,4,1
   d. 3,4,1,2

14. The slope replacement model was propounded by_____
   a. Penck
   b. Strahler
   c. Davis
   d. Wood

15. Stability of hill slopes depend upon _____
   a. Nature of the slope
   b. Angle of the slope
   c. Geological conditions
   d. All of the above

16. Slope length is most closely related to:
   a. Stream width
   b. Drainage area
   c. Tectonic uplift
   d. Drainage density

17. Which one of the following is most associated with concave slope profiles?
   a. Episodic erosional activity
   b. Creep, rain splash and gelifluction
   c. Mass movements
   d. Rill wash and fluvial processes

18. In terms of slope profiles, a free face does not have which of the following characteristics?
   a. Exists below upper concavity
   b. Consists of scree or talus
   c. Bedrock Slope up to 70°
   d. 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 ofgeomorphology 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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