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63/2 (SEM-1) GGY 101

2021

(held in 2022)

GEOGRAPHY

(Theory Paper)

Paper Code : GGY-101

(Geomorphology)

Full Marks – 80

Time – Three hours

The figures in the margin indicate full marks
for the questions.

1. Choose the correct option : $1 \times 10 = 10$

(a) Which of the following was advocate of
dynamic equilibrium theory ?

(i) J. Hutton

(ii) J. T. Hack

(iii) W. M. Davis

(iv) W. Penck

[Turn over

(b) Pangea broke up into Lawasia and Gondwanaland in

- (i) Permian period
- (ii) Triassic period
- (iii) Jurassic period
- (iv) Cretaceous period

(c) Which of the following is a sedimentary rock ?

- (i) Gabro
- (ii) Pumice
- (iii) Slate
- (iv) Conglomerate

(d) Ludwig von Bertalanffy is known for

- (i) Concept of threshold
- (ii) Dynamic equilibrium
- (iii) General system theory
- (iv) Catastrophism

(e) Which of the following is the slowest mass movement process ?

- (i) Creep
- (ii) Solifluction
- (iii) Earthflow
- (iv) Mudflow

(f) An example of transform plate boundary is between

- (i) North American plate and Pacific plate
- (ii) Pacific plate and Eurasian plate
- (iii) South American plate and Nazcaplate
- (iv) Indo-Australian plate and Eurasian plate

(g) 'Zone of isostatic compensation' is a concept put forwarded by

- (i) J. H. Pratt
- (ii) Hayford and Bowic
- (iii) G. Airy
- (iv) Joly

(h) 'Blowouts' in deserts are formed by the process of

- (i) abrasion
- (ii) deflation
- (iii) attrition
- (iv) corrosion

(i) Which of the following is not in-channel deposition ?

- (i) Levee
- (ii) Alluvial fan
- (iii) Sand bar
- (iv) Delta

(j) In which of the following environment, the process of selifluction occurs ?

- (i) Arid
- (ii) Fluvial
- (iii) Marine
- (iv) Periglacial.

2. Answer any *four* questions in brief: $2 \times 4 = 8$

- (a) What is recumbent fold ?
- (b) Define lithosphere.
- (c) What is contact metamorphism ?
- (d) Define Morphogenetic Region.
- (e) What is placer deposit ?
- (f) What are the major differences between orogenic and epeirogenic movements ?

3. Answer any *four* questions in brief: $5 \times 4 = 20$

- (a) Explain the concept of uniformitarianism. How is it different from catastrophism ?
- (b) What are the causes of formation of river terraces ? Explain.
- (c) What are the evidences of sea floor spreading ?

(d) What is threshold ? Explain its different types.

(e) Describe the glacial processes of landform development.

(f) Explain the processes of chemical weathering.

4. Answer any *two* questions in detail: $9 \times 2 = 18$

- (a) Explain the concept of system. What are different types of geomorphic systems ?
- (b) Illustrate the concept of isostasy with suitable diagrams.
- (c) What are different types of palaeolandforms ? Write the significance of palaeogeomorphology.
- (d) Describe the origin and landscape of deccan plateau.

5. Answer any *two* questions in detail: $12 \times 2 = 24$

- (a) Give an account of the development of fundamental concepts in geomorphology.

- (b) Define mass movement. Give a classification of it and describe the characteristics and necessary conditions of each type.

$$2+3+7=12$$

- (c) Explain the processes of landform development at divergent, convergent and collision plate boundaries with examples, according to the plate tectonic theory.

$$4+4+4=12$$

- (d) Discuss meaning, scope and significance of environmental geomorphology.

$$2+5+5=12$$