

2021

GEOGRAPHY — HONOURS

Paper : DSE-A-1

(Fluvial Geomorphology)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Category - A

Answer **any five** questions (each within **50** words).

2×5

1. Define wetted perimeter.
2. What is meant by sinuosity index?
3. What is helical flow?
4. What does minimum ecological flow mean?
5. What is bifurcation ratio?
6. Give the definition of bed rock terraces.
7. What are the main sources of river pollution?

Category - B

Answer **any four** questions (each within **150** words).

5×4

8. Explain briefly the formation of gullies.
9. Identify the stages of run-off cycle.
10. Discuss the types of alluvial fans.
11. Explain the concept of spatial scale and temporal scale in fluvial morphology.
12. What are the limitations of the Hjulström curve?
13. How does basin shape affect run-off characteristics?

Please Turn Over

Category - C

Answer *any two* questions (each within **600** words).

10×2

14. Critically evaluate the classification scheme of the streams by Rosgen.
 15. Describe the mechanism of river bank erosion and analyze the human impact of such erosion.
 16. State the principles and significance of Integrated Watershed Management Programme.
 17. Explain the accretional features that can be observed in floodplain topography.
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