

M.A. Examination, 2015
Semester-IV
Geography
Special Paper – XXI
(Fluvial Geomorphology)

Time: 3 Hours

Full Marks: 40

Questions are of value as indicated in the margin.
Answer *three* questions, selecting *one* from each unit.

Unit-I

(Hydrological Characteristics of River Basin)

1. What are the major components of fluvial system? State the major characteristics of the different types of channel flow. How does the velocity of a stream vary within open channel flow? 4+5+5=14
2. What do you mean by *stream competency* and *stream capacity*? Enumerate and discuss the factors responsible for the formation of a braided channel. Bring out the major characteristics of a braided channel. 4+5+5=14

Unit-II

(Morphometric Properties of River Basin)

3. Assess the role of drainage basin as a fundamental geomorphic unit. Explain the cross grading concept of Horton in channel initiations. 8+5=13
4. Make a critical appreciation of the different concepts of graded stream. Find out the major criteria to delineate a graded stream. 8+5=13

Unit-III

(River Basin Management Issues)

5. Distinguish between *river dam* and *river embankment*. Analyze the hydro-geomorphological consequences of constructing river dams citing examples from India. 4+9=13
 6. What are the factors responsible for river bank erosion? Discuss the morphological consequences of such erosion along the rivers of Southern part of West Bengal. 5+8=13
-