

**M.A. Examination, 2019**  
**Semester-IV**  
**Geography**  
**Course – XXI (Special Paper)**  
**(Fluvial Geomorphology)**

**Time : Three 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 different types of channel flow? Identify and discuss the factors influencing the channel flow. How does the velocity of a stream vary within the channel? 3+6+5=14
2. What do you understand by 'Pool' and 'Riffle' of a channel? How do their movements control the channel pattern? Give an account of the processes of Braided channel development. 3+5+6=14

**Unit – II**

**(Morphometric Properties of River Basin)**

3. Evaluate the different models of channel initiation. How does the drainage pattern evolve on the folded structure? 8+5=13
4. Specify and discuss the different Methods of Stream Ordering. What do you mean by 'equilibrium profile' of a stream. 8+5=13

**Unit – III**

**(River Basin Management Issues)**

5. Examine the multi-dimensional impact of dam construction on river channel morphology citing suitable examples from India. Suggest other effective alternatives of big dam. 9+4=13
  6. What are the factors responsible for river bank erosion? Discuss its geohydrological consequences along the rivers flowing through the southern part of West Bengal. 5+8=13
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