

**Geography (P.G.)**

**[CBCS]**

**M.Sc. Third Semester End Examination-2024**

**(Regular & Supplementary Paper)**

**PAPER-GEO 303**

**Full Marks: 40**

**Time: 02 Hrs**

*The figures in the right hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**[USE SEPARATE ANSWER SCRIPT FOR EACH UNIT]**

**Unit -29**

**F.M. - 20**

**[Process-Form Relationship in Fluvial System]**

**Group - A**

**Answer any one question of the following: 1x8= 8**

1. Examine various forms of resistance to flow in an open channel.
2. Describe the various impacts of channel shifting with special reference to the Ganga river in West Bengal.

(2)

**Group - B**

**Answer any two questions:**

**2x4= 8**

3. Write a short note on favorable places for deposition of sediment.
4. Briefly discuss several factors which influence the bank erosion along a river.
5. Assess the importance of integrated river basin management.
6. Give an account of the in-stream geomorphic features.

**Group - C**

**Answer any two questions**

**2x2= 4**

7. What is meant by impelling force?
8. What is meant by Climate modification?
9. What is meant by hydraulic radius?
10. What is meant by paired terraces?

**Unit -30**

**F.M. - 20**

**[Applied Techniques in Fluvial Geomorphology]**

**Group - A**

**Answer any one question of the following:**

**1x8= 8**

1. Discuss the techniques for dam site selection. How do dams help in reducing floods?

**4+4**

(3)

**Group - B**

**Answer any two questions:**

**2x4= 8**

3. Write the relationship between bed roughness, and sediment transport.
4. How do you estimate bed load and suspended load of a river?
5. Enumerate expected impacts of a large dam on both upstream and downstream of a channel.
6. Write the significance of DEM for watershed deliniation.

**Group - C**

**Answer any two questions**

**2x2= 4**

7. What is channel avulsion?
8. What do you mean by sinuosity Index?
9. What is meant by hydraulic gradient?
10. Define rating curve.