

2024
SRMUJ
1st Semester Examination
M.Sc.
GEOGRAPHY
GEO-195
Geological and Topographical Mapping

Full Marks: 40**Time: 4 Hours**

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

1. Answer all of the following questions: 10x3

a) Draw a Geological section along the line AB on the given Geological map and interpret the same on the following heads:
 (i) Succession of rock beds.
 (ii) Topographic relation with the geological structure.
 (iii) What is a stratum contour? (5+2+2)+1

b) Construct a hypsometric curve using the delineated river basin on the SOI topographical map, and elucidate the geomorphic evolution of the basin landforms. Calculate the hypsometric integral and interpret the result. Why is 'local relief' important in morphometric analysis? (6+3)+1

c) Determine the Braiding Index (J.C. Brice, 1964) and Sinuosity Index (S.A. Schumm, 1963) from the river channel marked on the given SOI topographical map and interpret the results. Measure the radius of curvature of the same river channel, and calculate the angle of curvature and the bend tightness index (BTI). (2+2+1)+(2+1+2)

2. Practical Notebook. 5

3. Viva-voce. 5

Qs. 1. a)

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