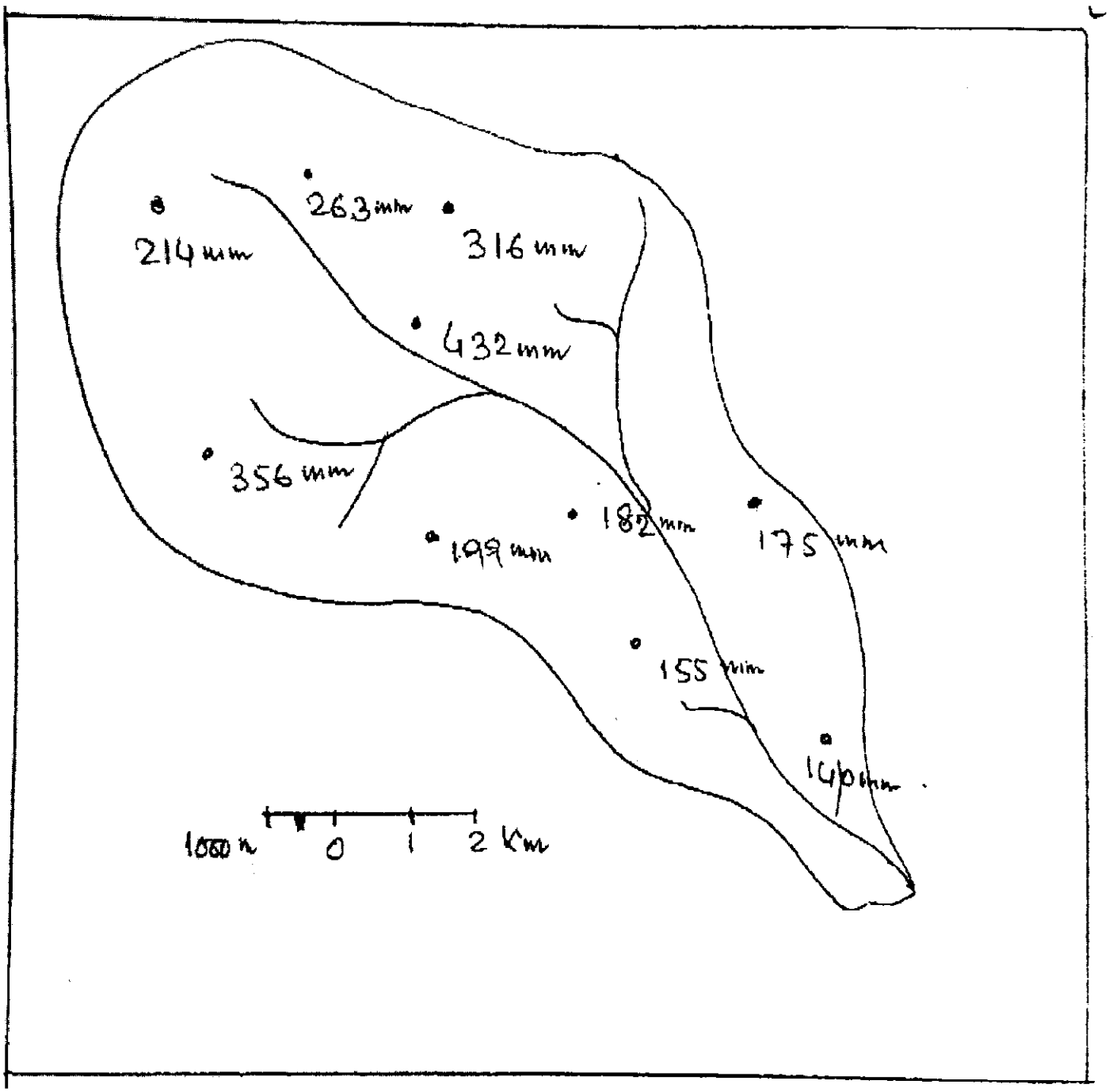
Geography (P.G.)
[CBCS]
M.Sc. First Semester End Examination-2023
(Regular & Supplementary Paper)
PAPER-106

Full Marks: 25 ***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.

Unit: 11
Basic Statistics in Geography

1) Calculate rainfall input on the given watershed following isohyetal method based on the rainfall records (mm) at different gauge station. 8



2) Draw a unit hydrograph from the discharge data given below for a watershed of 10km^2 arising out of one hour rainfall

Time (hr)	Discharge (cumecs)
01	148
02	165
03	284
04	452
05	520
06	445
07	323
08	223
09	204
10	195
11	184
12	175
13	170
14	161
15	151

8

3) What is the total infiltration depth for a uniform storm event lasting 10 hours, given that Horton's infiltration equation parameters were fitted to data, with an initial infiltration capacity of 20 mm/h, a final infiltration capacity of 5 mm/h, and an exponential decay constant of 0.5h^{-1}? 4

4) Practical Note Book Viva voce 5