2013

M.Sc.

2nd Semester Examination

REMOTE SENSING AND GIS

PAPER—RSG-207

(PRACTICAL)

Full Marks : 25

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

(Geodesy, GPS and Mobile Mapping)

Answer *all* questions.

1. Find out the radii of parallel and meridian at the point P (30°N, 30°E) laying on globe surface, given that the semi-major axis = 6377.3 km and $e^2 = 1/150.4$. Also calculate the corresponding value of radii assuming the globe to be a sphere with R = 6368 km. 5

2. Determine the shortest distance between Islamabad (33°37′N & 73°06′E) from Kolkata (22°34′N & 88°24′E) and also the direction of Islamabad & vice-versa. 5

3. The co-ordinate of Base Station is 22°25′50.75″N : 87°18′3.84″E. Locate the Base Station in the field.

   Find corrected GPS observations of four corners of the University playground.

   Plot the playground using any GIS S/W.

   Compute area and perimeter of the playground.

   Tabulate the data sheet showing computational steps of base station correction. 10

4. Practical note book and Viva voce. 5

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