2018

M.Sc.

2nd Semester Examination

REMOTE SENSING AND GIS

PAPER—RSG-208

Subject Code—34

(PRACTICAL)

Full Marks : 25

Time : 4 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)

Answer *all* questions.

1. (a) Polar to Rectangular.

r = 40 m	Q = 210°	X, Y = ?
r = 65 m	Q = 150°	X, Y = ?

(b) Rectangular to Polar.

X = 50 m Y = – 45 m r, Q = ?

X = – 30 m Y = 40 m r, Q = ?

(c) Ellipsoidal to cartesian.

Q = 30° 34' N, λ = 86°20' E and

h = 3500 m, x, y, z = ?

When e^2 = 0.0067 and a = 6378137 m. 2+2+4

2. The radii of curvature on two pointer on the same meridian at Lat 50°N and 60°N are 6372.956 and 6383.454 respectively. Mention the name of the ellipsoid by calculating semi major axis semi minor axis and eccentricity. 6

3. A satellite picture shown that the shadow cast by a cloud on earth surface with a shape of a spherical triangle. The vertices A (80°N 70°E), B(65°N 60°E) and C(60°N 80°E). Determine the area of the shadow on earth = surface, if R = 6368 km. 6

4. Laboratory Note Book and Viva-Voce. 5

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