

Total No. of Questions : 5

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B.E. (Vth Sem.) (CGPA) Civil Engg. Exam.-2015

SURVEYING-II

Paper : CE-504

Time Allowed : Three Hours

Maximum Marks : 60

Note : Attempt all five questions by selecting any two parts from each.

All questions carry equal marks.

Q.I (a) Explain construction and working of digital planimeter.

(b) Explain functioning and applications of total station.

(c) Differentiate between digital level and digital theodolite ?

Q.II (a) Define the following terms—

(i) Celestial sphere

(ii) Latitude and longitude

(2)

(iii) Zenith and wadir

- (b) Find the shortest distance between two points A and B. If their latitude are $32^{\circ} 30' N$ and $62^{\circ} N$, and longitudes are $24^{\circ} 30'E$ and $44^{\circ} E$. respectively.
- (c) What are the various equational coordinate systems for locating heavenly bodies.

Q.III (a) What is map datum ? Differentiate between horizontal datum and vertical datum.

(b) Explain space segment, user segment and control segment with respect to GPS.

(c) Explain various GPS based surveying techniques.

Q.IV (a) What is terrestrial photogrammetry. Explain picture plane and focal plane.

(b) Explain how terrestrial photographs can be used to find co-ordinates of a point.

(c) Explain the method of determining scale of an aerial photograph.

(3)

- Q.V. (a) What are the elements of satellite imagery ?
(b) Explain in details various components of GIS.
(c) Give detailed scenario of IRS.