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JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT

TEST-1 EXAMINATION- Feb2019
B Tech IVSemester (Civil Engineering)

Course Code: 10 B11CE412
Course Name: Surveying
Course credit: 4

Max. Marks: 15
Max. Time: 1 hrs

Note: All questions are compulsory. Assume suitable data if required.

Q1. Answer the following briefly.

(a) A line of 10 cm shrinks to 9 cm. Determine the shrinkage factor. Also determine the correct area corresponding to a measured area of 800 m². [1]

(b) Differentiate between BS, IS and FS. [0.5]

(c) Why we perform reciprocal leveling? [0.5]

(d) Differentiate between Quadrantal bearing system and whole circle bearing system. [0.5]

Q2. The following slope distance was measured along a chain line with a 30 m chain. It was noted further that chain was 3 decimeter too long. Calculate the true horizontal distance. [2]

Sloping distance	28.7 m	23.4m	20.9 m
Angle of slope	5°	7°	10°

Q3. How will you perform a chaining operation if a river interrupts the chaining operation? Explain the procedure. [2.5]

Q4. The following are the observed fore bearing of a traverse *ABCDE*

Line AB 142° 30′   Line BC 223°15′   Line CD 287° 00′   Line DE 12° 45′
Line EA 60°

Find interior angles of traverse. [4]

Q5. The following readings were taken at different locations on the ground with a level and 4 m staff at different stations. The instrument was shifted after 5th and 9th reading. Enter the data into page of level book. Work out RL of all the stations. RL of bench mark is 110 m. [4]

2.55 (BM) 0.905, 2.565, 2.450, 2.05, 0.567, 1.888, 1.180, 3.75, 0.610, 1.705, 3.810.