SRINIX COLLEGE OF ENGINEERING

1ST INTERNAL EXAMINATION-2018-19

Subject-**SURVEYING-I**   Semester-**3RD**   Branch-**CIVIL**

Full Marks-**50**   Time-**2.00Hrs**

ANSWER ALL QUESTIONS (PART-A)   **[2X5=10]**

1. Hydrographic survey deals with the mapping of

 a. large water bodies

b. heavenly bodies

c. mountaineous region

d. canal system

e. movement of clouds

2. The real image of an object formed by the objective must lie

a. in the plane of cross hair

b .at the center of the telescope

c. at the optical centre of the eyepiece.

d. anywhere inside the telescope.

3. The intercept of a staff

a. is maximum if the staff is held truly normal to the line of sight.

b. is minimum if the staff is held truly normal to the line of sight

c .decreases if the staff is tilted away from normal.

d. increases if the staff is tilted towards normal.

4. An ideal transition curve is

a. cubic parabola   b. cubic spiral

c. clothoid spiral   d. true spiral.

5.If the angular measurements of a traverse are more precise than its linear measurements, balancing of the traverse, is done by

a.	Bowditch's rule	b.	Transit rule
c.	Empirical rule	d.	all of the above.

ANSWER ALL QUESTIONS (PART-B)   **[2X10=20]**

1. Name the various types of chains used in practice. State the length of each one?

2. State different types of corrections used for tapes. Mention the positive and negative types separately?

3. If the whole circle bearing of a line is 260°, what is the value of quadrantal bearing?

4. How can you detect a local attraction in a Compass survey?

5. Distinguish between back sight and fore sight?

6. What is the object of surveying?

7. What is meant by geodetic surveying?

8. What do you mean by reciprocal ranging?

9. What do you understand by the term traversing?

10. What are the different sources of errors in chain surveying?

ANSWER ANY TWO QUESTIONS (PART-B) [10X2=20]

1. The following consecutive readings were taken with a level and 5 meter leveling staff on a continuous sloping ground at a common interval of 25 meters.
.450, 1.120, 1.875, 2, 905, 3.685, 4.500,.520,2.150,3.205 and 4.485m given. The reduced level of the change point was 250m
Rule out a page of a level field book and enter the above readings. Calculate the reduced levels of the points by rise and fall method.

2. Define local attraction. The following bearings were observed while traversing an area with a compass. Find the corrected bearings of the line

Line	F.B	B.B
AB	S37 30E	N37 30 W
BC	N 43 15 W	N 44 15 E
CD	N 73 00 W	S 72 15 E
DE	N 12 45 E	S 13 15W
EA	N 60 00 E	S 59 15 W

3. The following are bearings taken on a closed compass traverse.

Line	FB	BB
AB	80 10	259 0
BC	120 20	301 50
CD	170 50	350 50
DE	230 10	49 30
EA	310 20	130 15

Compute the interior angles and correct them from observational errors. Assuming the bearing of the line CD to be correct adjust the bearing of the remaining side?