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**4th Sem / Civil Engineering**  
**Subject : Surveying - II**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Accurate included angle is measured by

- a) Deflection angle method
- b) Repetition method
- c) Reiteration method
- d) Clamp screw

Q.2 Size of theodolite is determined by

- a) Dia. of horizontal size
- b) Length of telescope
- c) Height of stand
- d) No one of these

Q.3 Remote sensing is defined as the collection of information about a subject

- a) With direct physical contact
- b) Without direct physical contact
- c) Either (A) and (B)
- d) None of the above

Q.4 The electronic total station is a combination of

- a) Tachometric theodolite and EDMI
- b) Vernier theodolite and EDMI
- c) Digital theodolite and EDMI
- d) None of the above

Q.5 The radius of one degree curve is

- a) 200 m
- b) 1760 m
- c) 1719 m
- d) 50 m

Q.6 The vertical curve is considered as

- a) Circular Curve
- b) Elliptical Curve
- c) Parabolic Curve
- d) Square Curve

**SECTION-B**

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 A single curve of a circle connecting two straights is called \_\_\_\_\_ curve.

Q.8 EDM stands for \_\_\_\_\_.

Q.9 Tacheometer is used at \_\_\_\_\_?

Q.10 The line of collimation should be perpendicular to \_\_\_\_\_ axis.

Q.11 Direct vernier is based on \_\_\_\_\_ principle.

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Q.12 The curve of varying radius is known as \_\_\_\_\_ curve.

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Define tachometer ? What are the Instruments to be used ?

Q.14 Name the various parts of theodolite ? Explain any one ?

Q.15 Write the requirement of an ideal transition curves ?

Q.16 Write a short note on super elevation.

Q.17 Define super-Elevation?

Q.18 Find the length of vertical curve connecting two uniform grades of -0.4 % and 1.0 %. The rate of change of grade is 0.09 % per 30 m

Q.19 Write a short note on planimeter.

Q.20 write a short note on Total station.

Q.21 Define the following terms:

- a) Swinging
- b) Face left
- c) Changing face
- d) Transiting

Q.22 Write a short on DGPS.

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Enumerate various type of curves of curves and explained any one with diagram.

Q.24 Explain the procedure with sketch for setting out curve by the method of offsets from the chord produced.

Q.25 Following observations of lengths and bearings were recorded for a closed traverse. Calculate the length and bearing of line DA.

Line.	Length (m)	Bearings
AB.	75 <sup>0</sup>	100 <sup>0</sup>
BC.	180 <sup>0</sup>	45 <sup>0</sup>
CD.	60 <sup>0</sup>	320 <sup>0</sup>
DA.	?	?

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