

No. of Printed Pages : 4                    180744/170744/120744  
Roll No. .....                                /030744

**4th Sem. Branch: Civil, Constr. Mgmt., Highway Engg.**  
**Sub : Surveying-II**

Time : 3 Hrs.                                M.M. : 100

**SECTION-A**

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

**Q.1** Which method of contouring is most suitable for hilly terrain\_\_\_\_\_.

- a) Cross-section method
- b) Square method
- c) Tachnometric method
- d) Direct method

**Q.2** The Horizontal Distance between two points on consecutive contours is Known as \_\_\_\_\_.

- a) Horizontal equivalent
- b) Contour elevation
- c) Contour interval
- d) Both A & C

**Q.3** A series of closed lines on map represents a depression if \_\_\_\_\_.

- a) Lower values are outside
- b) Lower values are inside
- c) Higher values are inside
- d) None of the above

**Q.4** The axis of telescope and the line of collimation are \_\_\_\_\_.

- a) One and the same
- b) Different
- c) Perpendicular
- d) None of these

**Q.5** For balancing the traverse, Correction values are determined by \_\_\_\_\_.

- a) Transit Method
- b) Swing Method
- c) Parallax method
- d) None of these

**Q.6** During temporary adjustment of a level \_\_\_\_\_ is used to eliminate parallax error.

- a) Focusing
- b) Centering
- c) Swinging
- d) Leveling

**Q.7** The multiplying constant in tachometry is

- a)  $f/I$
- b)  $(f+d)$
- c)  $(f/d)$
- d)  $f+i$

**Q.8** The necessity of providing a simple circular curve on the route is to change the \_\_\_\_\_.

- a) Direction
- b) Grade
- c) Both A & B
- d) None of the above

**Q.9** Total Station can be used for \_\_\_\_\_.

- a) Elevation measurement
- b) Linear measurement
- c) Angular Measurement
- d) All of the above

**Q.10** EDM is used for the measurement of \_\_\_\_\_ in primary triangulation and precise traversing.

- a) Long Distances
- b) Short Distances
- c) Medium Distances
- d) None of these

### **Section-B**

**Note: Objective type questions. All questions are compulsory.** (10x1=10)

- Q.11 Contour lines cross each other in the case of \_\_\_\_\_.  
Q.12 When several contours coincides, it shows as \_\_\_\_\_.  
Q.13 For measuring the angle\_\_\_\_ Clamp should be unclamped.  
Q.14 Define Orientation.  
Q.15 The raising of the outer rail is known as \_\_\_\_\_.  
Q.16 Tachometry is best suited to survey a \_\_\_\_ ground.  
Q.17 The angle between the back tangent and forward tangent of a curve is known as.  
Q.18 The shift of the curve is equal to \_\_\_\_\_.  
Q.19 E.D.M. Stands for \_\_\_\_\_.  
Q.20 Planimeter is used for \_\_\_\_\_.

### **Section-C**

**Note: Short answer type Question. Attempt any twelve questions out of fifteen Questions.** (12x5=60)

- Q.21 Explain indirect method of Contouring?  
Q.22 Define horizontal equivalent and contour interval.  
Q.23 Describe the process of measuring horizontal angle by repetition method.  
Q.24 List various sources of errors in Theodolite.  
Q.25 Describe the method of determining tachometric constants.

- Q.26 What is the difference between degree of curve and radius of curve? Explain.  
Q.27 What are various types of curves used in surveying? Explain.  
Q.28 Two tangents intersect at an angle of  $160^0$ . If they are to be connected by a  $10^0$  curve then, Calculate a) length of the curve b) Apex Distance c) Tangent Length.  
Q.29 Write the procedure of measuring magnetic bearing.  
Q.30 Explain the process of measuring vertical angle.  
Q.31 Describe the Principle of EDM.  
Q.32 Write the elements of simple circular curve.  
Q.33 Write a short note on PGS systems.  
Q.34 What are the characteristics of tachometry?  
Q.35 Define remote sensing and GIS.

### **Section-D**

**Note: Long answer questions. Attempt any two question out of three Questions.** (2x10=20)

- Q.36 What are the different methods of contouring? Explain in detail.  
Q.37 Give a list of permanent adjustment of Theodolite and explain the purpose of each.  
Q.38 Calculate tachometric constants if, Two distance of 90m and 250m wire accurately measured out and the intercepts on staff held vertical were 0.895 and 2.495 respectively.