

01. Which of the following errors is not eliminated by the method of repetition of horizontal angle measurement

- a. Error due to eccentricity of verifiers
- b. Error due to displacement of station signals
- c. Error due to wrong adjustment of line of collimation and trunion axis
- d. Error due to inaccurate graduation

02. The error due to eccentricity of inner and outer axes can be eliminated by

- a. Reading both verniers and taking the mean of the two
- b. Taking both face observations and taking the mean of the two
- c. Double sighting
- d. Taking mean of several readings distributed over different portions of the graduated circle

03. In the double application of principle of reversion, the apparent error is

- a. Equal to true error
- b. Half the true error
- c. Two times the true error
- d. Four times the true error

04. Which of the following errors can be eliminated by taking mean of both face observations ?

- a. Error due to imperfect graduations
- b. Error due to eccentricity of verniers
- c. Error due to imperfect adjustment of plate levels
- d. Error due to line of collimation not being perpendicular to horizontal axis

05. Which of the following errors cannot be eliminated by taking both face observations ?

- a. Error due to horizontal axis not being perpendicular to the vertical axis
- b. Index error i.e error due to imperfect adjustment of the vertical circle vernier
- c. Error due to non-parallelism of the axis of telescope level and line of collimation
- d. None of the above

06. If a tripod settles in the interval that elapses between taking a back sight reading and the following foresight reading, then the elevation of turning point will

- a. Increase
- b. Decrease
- c. Not change
- d. Either 'a' or 'b'

07. If altitude bubble is provided both on index frame as well as on telescope of a theodolite, then the instrument is leveled with reference to

- i) altitude bubble on index frame
 - ii) altitude bubble on index frame if it is to be used as a level
 - iii) altitude bubble on telescope
 - iv) altitude bubble on telescope if it is to be used as a level the correct answer as
- a. Only (i)
 - b. Both (i) and (iv)
 - c. Only (iii)
 - d. Both (ii) and (iii)

08. A 'level line' is a

- a. Horizontal line
- b. Line parallel to the mean spheroidal surface of earth
- c. Line passing through the centre of cross hairs and the centre of eye piece
- d. Line passing through the objective lens and the eye-piece of a dumpy or tilting level

09. The following sights are taken on a "turning point"

- a. Foresight only
- b. Backsight only
- c. Foresight and backsight
- d. Foresight and intermediate sight

10. The rise and fall method of leveling provides a complete check on

- a. Backsight
- b. Intermediate sight
- c. Foresight
- d. All of the above

11. If the R.L of a B.M is 100.00 m, the back-sight is 1.215 m and the foresight is 1.870 m, the R.L of the forward station is

- a. 99.345 m
- b. 200.345 m
- c. 100.655 m
- d. 101.870 m

12. In an internal focusing type of telescope, the lens provide

- a. Concave
- b. Convex
- c. Plano-convex
- d. Plano-concave

13. Which of the following errors can be neutralised by setting the level midway between the two stations ?

- a. Error due to curvature only
- b. Error due to refraction only
- c. Error due to both curvature and refraction
- d. None of the above

14. Height of instrument method of leveling is

- a. More accurate than rise and fall method
- b. Less accurate than rise and fall method
- c. Quicker and less tedious for large number of intermediate sights
- d. None of the above

15. The rise and fall method

- a. Is less accurate than height of instrument method
- b. Is not suitable for leveling with tilting levels
- c. Provides a check on the reduction of intermediate point levels
- d. Quicker and less tedious for large number of intermediate sights

16. If the staff is not held vertical at a leveling station, the reduced level calculated from the observation would be

- a. True R.L
- b. More than true R.L
- c. Less than true R.L
- d. None of the above

17. Station	B.S	I.S	F.S	Rise	Fall	R.L	Remarks
A	2.1		2.3		1.5	100.00	C.P
B		1.0		X		101.10	
C			1.3		0.3	100.80	

Above table shows a part of a level field book. What is value of X ?

- a. 0.5
- b. 1.0
- c. 1.1
- d. 2.1

18. The difference between a level line and a horizontal line is that

- a. Level line is a curved line while horizontal line is a straight line
- b. Level line is normal to plumb line while horizontal line may not normal to plumb line at the tangent point to level line
- c. Horizontal line is normal to plumb line while level line may not be normal to the plumb line
- d. Both are same

19. The sensitivity of a bubble tube can be increased by

- a. increasing the diameter of the tube
- b. Decreasing the length of bubble
- c. Increasing the viscosity of liquid
- d. Decreasing the radius of curvature of tube

20. With the rise of temperature, the sensitivity of a bubble tube

- a. Decreases
- b. Increases
- c. Remains unaffected
- d. None of the above

