The main difference between an optical square and a prism square is

a. Difference in principle of working
b. That optical square is more accurate than prism square
c. That no adjustment is required in a prism square the angle between the reflecting surfaces cannot be changed
d. All of the above

The angle of intersection of the two plane mirrors of an optical square is

a. 30^0
b. 45^0
c. 60^0
d. 90^0

The allowable length of an offset depends upon the

a. Degree of accuracy required
b. Method of setting out the perpendiculars and nature of ground
c. Scale of plotting
d. All of the above

Which of the following angles can be set out with the help of French cross staff ?

a. 45^0 only
b. 90^0 only
c. Either 45^0 or 90^0
d. Any angle

Which of the following methods of offsets involves less measurement on the ground ?

a. Method of perpendicular offsets
b. Method of oblique offsets
c. Method of ties
d. All involve equal measurement on the ground

The permissible error in chaining for measurement with chain on rough or hilly ground is

a. 1 in 100
b. 1 in 250
c. 1 in 500
d. 1 in 1000

The correction for sag is

a. Always additive
b. Always subtractive
c. Always zero
d. Sometimes additive and sometimes subtractive

Cross staff is an instrument used for

a. Measuring approximate horizontal angles
b. Setting out right angles
c. Measuring bearings of the lines
d. None of the above

Normal tension is the pull which

a. Is used the time of standardising the tape
b. Neutralizes the effect due to pull and sag
c. Makes the correction due to sag equal to zero
d. Makes the correction due to pull equal to zero

Which of the following is not used in measuring perpendicular offsets ?

a. Line ranger
b. Steel tape
c. Optical square
d. Cross staff

If the length of a chain is found to be short on testing, it can be adjusted by

a. Straightening the links
b. Removing one or more small circular
c. Closing the joints of the rings if opened out
d. All of the above

The maximum tolerance in a 20 m chain is

a. ±2 mm
b. ±3 mm
c. ±5 mm
d. ±8 mm

For accurate work, the steel band should always be used in preference to chain because the steel band

a. Is lighter than chain
b. Is easier to handle
c. Is practically inextensible and is not liable to kinds when in use
d. Can be easily repaired in the field

The length of a chain is measured from

a. Centre of one handle to centre of other handle
b. Outside of one handle to outside of other handle
c. Outside of one handle to inside of other handle
d. Insider of one handle to insider of other handle

Select the incorrect statement.

a. The true meridians at different places are parallel to each other
b. The true meridian at any place is not variable.
c. The true meridians converge to a point in northern and southern hemispheres.
d. The maps prepared by national survey departments of any country are based on true meridians.

If the true bearing of a line AB is 269^0 30, then the Azimuth of the line AB is

a. 0^0 30'
b. 89^0 30'
c. 90^0 30'
d. 269^0 30'

In the prismatic compass

a. The magnetic needle moves with the box
b. The line of the sight does not move with the box
c. The magnetic needle and graduated circle do not move with the box
d. The graduated circle is fixed to the box and the magnetic needle always remains in the N-S direction.

For a line AB

a. The forbearing of AB and back bearing of AB differ by 180^0
b. the forbearing of AB and back bearing of BA differ by 180^0
c. Both (a) and (b) are correct
d. None of the above

Local attraction in compass surveying may exist due to

a. Incorrect leveling of the magnetic needle
b. Loss of magnetism of the needle
c. Friction of the needle at the pivot
d. Presence of magnetic substances near the instrument

If the quadrantal bearing of a line is N 25^0 W, then the whole circle bearing of the line is

a. S 25^0 E
b. 205^0
c. 335^0
d. 295^0