

## Surveying

**Q1.** The fore bearing of a line is  $150^{\circ}40'$ . Its back bearing will be:-

- a)  $105^{\circ}50'$       b)  $330^{\circ}40'$       c)  $220^{\circ}30'$       d)  $209^{\circ}20'$

**Q2.** If the quadrantal bearing of a line is  $N 25^{\circ}W$ , then the whole circle bearing of line is:-

- a)  $S25^{\circ}E$       b)  $205^{\circ}$       c)  $335^{\circ}$       d)  $295^{\circ}$

**Q3.** The statement "included angle is affected by local attraction" is:-

- a) True      b) Partially      c) False      d) Partially false

**Q4.** If the magnetic quadrantal bearing of a line is  $S 46^{\circ} 30' W$  and magnetic declination at that place is  $2^{\circ}30'E$ , then true whole circle bearing of that line will be:-

- a)  $229^{\circ}$       b)  $224^{\circ}$       c)  $148^{\circ}$       d)  $48^{\circ}$

**Q5.** the standard meridian of India is:-

- a)  $35^{\circ}E$       b)  $82\frac{1}{2}^{\circ}E$       c)  $67\frac{1}{2}^{\circ}W$       d)  $120^{\circ}W$

**Q6.** Magnetic bearing of a line is the:-

- a) Horizontal angle which it makes with the magnetic meridian  
b) Vertical angle which it makes with the magnetic meridian  
c) Vectorial angle which it makes with the magnetic meridian  
d) Any of the above

**Q7.** The graduated ring of a prismatic compass starts with zero mark and it is marked at:-

- a) North side      b) South side      c) East side      d) West side

**Q8.** In the quadrantal bearing system, whole circle bearing of  $204^{\circ}-30'$  will be expressed as:-

- a)  $W65^{\circ}-30 S$       b)  $S 65^{\circ}-30'W$       c)  $S24^{\circ}-30'W$       d)  $S 24^{\circ} -30'E$

**Q9.** The fore bearing and back bearing of line AB in a compass survey are differing by  $180^{\circ}$ .

Then we may conclude the following:

- a) Station A may be affected by local attraction  
b) Station B may be affected by local attraction  
c) Station A and B both are not affected by local attraction  
d) Both the stations A and B are affected by local attraction

**Q10.** The optical square is based on the principle of optical:-

- a) Reflection            b) Refraction            c) Double reflection            d) Double refraction

**Q11.** From the following option, what does magnetic declination do?

- a) Removes same at different place            b) Varies from place to place  
c) Does not vary with temperature            d) None of these

**Q12.** In compass surveying:-

- a) The direction and lengths of survey line is measured by compass  
b) The direction of survey line is measured by compass  
c) The lengths of survey line is measured by chain or tape  
d) Both (b) and (c)

**Q13.** If whole circle bearing of a line is  $210^{\circ} 0' 0''$ , its value in quadrantal bearing system is:-

- a) S  $30^{\circ} 0' 0''$ W            b) N  $30^{\circ} 0' 0''$ E            c) S  $30^{\circ} 0' 0''$ E            d) N  $30^{\circ} 0' 0''$ W

**Q14.** The magnetic declination is the difference between:-

- a) True meridian and false meridian            b) False meridian and false meridian  
c) True meridian and magnetic meridian            d) Magnetic meridian and false meridian

**Q15.** In the quadrantal bearing system, a whole circle bearing of  $293^{\circ} 30'$  can be expressed as:

- a) N  $66^{\circ} 30'$ W            b) S  $113^{\circ} 30'$ N            c) N  $23^{\circ} 30'$ N            d) W  $23^{\circ} 30'$ N

**Q16.** When the magnetic bearing of the sun at noon is  $185^{\circ} 20'$ , the magnetic declination will be:-

- a)  $5^{\circ} 20'$  west            b)  $5^{\circ} 20'$  north            c)  $5^{\circ} 20'$  south            d)  $5^{\circ} 20'$  east

**Q17.** The fore bearing of the lines AB and BC are  $40^{\circ}$  and  $120^{\circ}$  respectively. The included angle between AB and BC is:-

- a)  $40^{\circ}$             b)  $60^{\circ}$             c)  $80^{\circ}$             d)  $100^{\circ}$

**Q18.** If in a closed traverse, the sum of the north latitudes is more than the sum of the south latitudes and also the sum of west departure is more than the sum of east departures, the bearing of the closing line is in the :-

- a) SE quadrant/SE            b) NE quadrant/NE            c) NW quadrant/NW            d) SW quadrant/SW

**Q19.** If the magnetic bearing of the sun at a place at noon in southern hemisphere is  $167^\circ$ , the magnetic declination at that place is:-

- a)  $77^\circ\text{N}/77$       b)  $23^\circ\text{S}/23$       c)  $13^\circ\text{E}/13$       d)  $13^\circ\text{W}/13$

**Q20.** The vertical angle between longitudinal axis of a freely suspended magnetic needle and a horizontal line at its pivot is known as:-

- a) Declination      b) Azimuth      c) Dip      d) Bearing

**Q21.** In prismatic compass:-

- a) Eyeline do not run parallel to the box  
b) The magnetic needle runs along with the box  
c) Magnetic needle and graduated circle do not run along with box  
d) Graduated is established with box and magnetic needle always remains in N-S direction

**Q22.** Correction for refraction is approximately:-

- a)  $+1/5^{\text{th}}$  curvature correction/ $+1/5$       b)  $-1/5^{\text{th}}$  curvature correction/ $-1/5$   
c)  $+1/7^{\text{th}}$  curvature correction/ $+1/7$       d)  $-1/7^{\text{th}}$  curvature correction/ $-1/7$

**Q23.** In a reverse curve, the super elevation provided at the point of reverse curvature is:-

- a) Minimum      b) Zero      c) Maximum      d) Depends upon the elements of curve

**Q24.** A back sight (B.S) is taken on stations 'A' and found of  $be=3.0$  m a foresight on station 'B' $=2.5$  w.r.t. station A. the R.L of station B is 100.00, then what is the R.L of stations A?

- a) 100.5      b) 101.5      c) 99.5      d) 98.5

**Q25.** The adjustment of horizontal cross hair is required particularly when instrument is used for:-

- a) Leveling      b) Prolonging a straight line  
c) Measurement of horizontal angle      d) All of the above