

Laxmi Narain Dubey College, Motihari

(a constituent unit of B.R.A. Bihar University, Muz.)

NAAC Accredited 'B+'

National Cadet Corps (NCC)

Topic: Cardinal Points and Types of North

NCC – Map Reading

B/C Certificate Examination

Instructor

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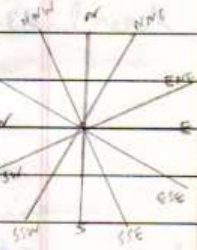
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[MR5: Cardinal Points and Types of North]

Cardinal Points

18. North, South, East and West are known as the Cardinal Points.
19. If the North point is taken as Zero degrees, the angle which East forms with it is 90 degrees or a right angle. The angle formed by the South Point is 180 degrees and the West Point forms an angle of 270 degrees. If the angle is measured all the way round the circle back again to North, it will be found to be 360 degrees.
20. In addition to this, there are Eight minor directions :-
- North North East - $22\frac{1}{2}$ degrees
 - East North East - $67\frac{1}{2}$ degrees
 - East South East - $112\frac{1}{2}$ degrees
 - South South East - $157\frac{1}{2}$ degrees
 - South South West - $202\frac{1}{2}$ degrees
 - West South West - $247\frac{1}{2}$ degrees
 - West North West - $292\frac{1}{2}$ degrees
 - North North West - $337\frac{1}{2}$ degrees



Types of North

21. There are three types of North :-
- True North - The direction of North Pole from the observer.
 - Magnetic North - It is the point to which a

magnetic needle points.

(c) Grid North. It is the direction to which the North South Grid lines on a map point.

Angles between Norths

22. Angle between three Norths are as under:-

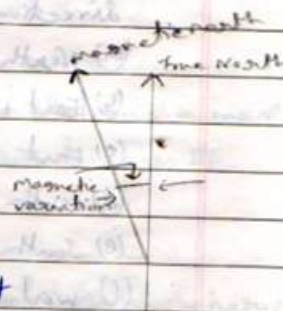
(a) Magnetic Declination. Angle between magnetic north and true north. Also known as magnetic variation.

(b) Grid Convergence. Angle between Grid North and True North.

(c) Grid Magnetic Angle. Angle between Grid north and magnetic north.

Magnetic variation

23. Magnetic north is the point to which the compass needle points. The needle does not point directly to true north, but a little way or east of true north.



24. This variation depends upon two factors - time and place.

Grid Convergence

25. The angular difference between Grid and True North is called the Angle of Convergence or Grid Convergence.