# NAT II Physical Science Mathematics

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Question Image | |
| 2 | Question Image | |
| 3 | The direction cosines of y-axis are | A. 1,0,0<br>B. 0,1,0<br>C. 0,0,1<br>D. 1,1,1 |
| 4 | Question Image | |
| 5 | Which of the vectors have opposite direction? | D. Both A and B |
| 6 | Question Image | |
| 7 | The magnitude of a vector can never be | A. Zero<br>B. Negative<br>C. Positive<br>D. Absolute |
| 8 | A vector of magnitude zero is called | A. Position vector<br>B. Null vector<br>C. Free vector<br>D. None of these |
| 9 | Unit vector in the positive direction of x-axis is | D. All |
| 10 | Question Image | A. Free vector<br>B. Null vector<br>C. Unit vector<br>D. None of these |
| 11 | The conic is a parabola if | A. e &lt; 1<br>B. e &gt; 1<br>C. e = 1<br>D. e = 0 |
| 12 | The perpendicular bisector of any chord of a circle | A. Passes through the centre of the cirle<br>B. Does not pass through the centre of the circle<br>C. May or may not pass through the centre of the cirlce<br>D. None of these |
| 13 | A line segment whose end points lie on a circle is called | A. The secant of the circle<br>B. The arc of the circle<br>C. The chord of the circle<br>D. The circumference of the circle |
| 14 | The equation of the normal to the circle $x^2 + y^2 = 25$ at(4, 3) is | A. 3x - 4y = 0<br>B. 3x - 4y = 5<br>C. 4x + 3y = 5<br>D. 4x + 3y = 25 |
| 15 | Question Image | D. None of these |