# ECAT Pre General Science Mathematics Online Test

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | If A is a set then any subset R of A x A is called | A. relation on A<br>B. relation on B<br>C. relation from A to B<br>D. relation from B to A |
| 2 | If A and B are two sets then any subset R of B x A is called | A. relation on A<br>B. relation on B<br>C. relation from A to B<br>D. relation from B to A |
| 3 | If A and B are two sets then any subset R of A x B is called | A. relation on A<br>B. relation on B<br>C. relation from A to B<br>D. relation from B to A |
| 4 | The number of subsets of a set having three elements is | A. 4<br>B. 6<br>C. 8<br>D. none of these |
| 5 | Question Image | |
| 6 | Question Image | |
| 7 | Question Image | |
| 8 | Question Image | |
| 9 | The multiplicative inverse of (a,b) is | |
| 10 | Question Image | A. (x, y)<br>B. (kx, y)<br>C. (x, ky)<br>D. (kx, ky) |
| 11 | Question Image | |
| 12 | Question Image | A. x<br>C. y |
| 13 | Every real number is | A. a positive integer<br>B. a rational number<br>C. a negative integer<br>D. a complex number |
| 14 | Question Image | |
| 15 | The product of complex numbers (a,b) and (c,d) is | A. (ac, bd)<br>B. (ac-bd, ad+bc)<br>C. (ab,cd)<br>D. (ac+bd,ad-bc) |
| 16 | The sum of complex number (a,b) and (c,d) is | |
| 17 | Question Image | A. 1<br>B. -1 |
| 18 | Question Image | B. 1<br>C. -1 |
| 19 | Question Image | A. real part of z<br>B. imaginary part of z<br>C. conjugate of z<br>D. modulus of z |
| 20 | Question Image | |
| 21 | Question Image | A. 0<br>B. 1<br>C. -1<br>D. 2 |
| | | A. real number |

| | | |
|---|---|---|
| 22 | Question Image | B. complex number<br>C. rational number<br>D. irrational number |
| 23 | Question Image | A. additive property<br>B. multiplicative property<br>C. additive inverse<br>D. additive identity |
| 24 | Question Image | A. additive property<br>B. multiplicative property<br>C. additive identity<br>D. multiplicative identity |
| 25 | Name the property used in a (b-c) = ab - ac | A. commutative property of multiplication<br>B. distributive property of multiplication<br>C. associative property of multiplication<br>D. multiplicative inverse |
| 26 | Name the property used in 1000 x 1 = 1000 | A. additive inverse<br>B. multiplicative inverse<br>C. additive identity<br>D. multiplicative identity |
| 27 | By expressing cos 113° in terms of trigonometrical ratios, answer will be | A. −cos 76° = -0.7093<br>B. −cos 65° = -0.4258<br>C. −cos 67° = -0.3907<br>D. −cos 62° = -0.8520 |
| 28 | By expressing sin 125° in terms of trigonometrical ratios, answer will be | A. sin 65° = 0.9128<br>B. sin 55° = 0.8192<br>C. sin 70° = 0.5384<br>D. sin 72° = 0.1982 |
| 29 | Sine rule for a triangle states that | A. a/sin A = b/sin B = c/sin C<br>B. sin A/a = sin B/b = sin C/c<br>C. a/sin A + b/sin B + c/sin C<br>D. 2a/sin A = 2b/sin B = 2c/sin C |
| 30 | Considering Cosine Rule of any triangle ABC, possible measures of angle A includes | A. Angle A is obtuse<br>B. Angle A is acute<br>C. Angle A is right-angle<br>D. All of above |