# Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Power set of X i.e P(X) _____ under the binary operation of union U | A. Forms a group<br>B. Does not form a group<br>C. Has no identity element<br>D. Infinite set although X is infinite |
| 2 | The symbol _____ shall be used both for equation and identity | A. <br> |
| 3 | Question Image | A. 3K<br>B. K2<br>C. K3<br>D. K |
| 4 | For any integer k, $w^n$= _____ when n = 3k | A. 1<br>B. 2<br>C. 0<br>D. -4 |
| 5 | 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 |
| 6 | p, q, r and s are integers. If the A.M. of the roots of x2- px + q2= 0 and G.M. of the roots of x2- rx + s2= 0 are equal, then | A. q is an odd integer<br>B. r is an even integer<br>C. p is an even integer<br>D. s is an odd integer |
| 7 | The set R is _____ w.r.t subtraction | A. Not a group<br>B. A group<br>C. No conclusion drawn<br>D. Non commutative group |
| 8 | Intersection of two parabolas | A. parabola<br>B. Two points<br>C. Four points<br>D. Hyperobla |
| 9 | A vector with magnitude one is called | A. constant vector<br>B. unit vector<br>C. zero vector<br>D. null vector |
| 10 | The line through the focus and perpendicular to the directrix is called _____ of the parabola | A. axis<br>B. focal chord<br>C. tangent<br>D. latus rectum |
| 11 | Question Image | A. -3 -2i<br>B. 3 +2i<br>C. 1 + 2i<br>D. 1 - 2i |
| 12 | The set of points {(x,y)\|y = f(x), ∀x∈} is called | A. Relation<br>B. Graph of f<br>C. Function<br>D. All are correct |
| 13 | Question Image | A. 2 and 9<br>B. 3 and 2<br>C. 2/3 and 9<br>D. 3/2 and 6 |
| 14 | If the vertex of the parabola is the origin and directrix is x+5 = 0 . then its latus rectum is: | A. 10<br>B. 5<br>C. 0<br>D. 20 |
| 15 | Such fraction which can not be written in the form ofp⁄q where p,q and q≠ 0,such fractions are called. | A. Fractinal numbers<br>B. Rational Numbers<br>C. Even Numbers<br>D. Whole Numbers |

| | | |
|---|---|---|
| | | D. Whole Numbers |
| 16 | Question Image | |
| 17 | The function whose range consists of just one element is called | A. One-One Function<br>B. Identity Function<br>C. Onto Function<br>D. Constant Function |
| 18 | If $a_1$, r and $a_n$are the first term, common ratio and the nth term respectively of a G. P. then $a_n$= | A. a<sub>1</sub>r<sup>n</sup><br>B. a<sub>1</sub>r<sup>n-1</sup><br>C. a<sub>1</sub>r<sup>n+1</sup><br>D. a<sub>1</sub>r |
| 19 | Question Image | |
| 20 | Question Image | A. 30°<br>B. 45°<br>C. 60°<br>D. 90° |