

Mathematics General Science Test Medium Mode

| Sr | Questions | Answers Choice |
|----|---|---|
| 1 | $\sqrt{23}$ is | A. A rational number B. A irrational number C. An even integer D. A factor of 36 |
| 2 | Two balanced dice are tossed once, the sample space when the integers on the faces of two dice are the same is | A. $\{(1, 1), (2, 2), (3, 3)\}$ B. $\{(4, 4), (5, 5), (6, 6)\}$ C. $\{(1, 1), (2, 2), (3, 3), (4, 4), (5, 5), (6, 6)\}$ D. None of these |
| 3 | Question Image | |
| 4 | Question Image | |
| 5 | A die is thrown 100 times. If getting an odd number is considered a success, the variance of the number of successes is | A. 50 B. 25 C. 10 D. 100 |
| 6 | Question Image | A. An upper triangular matrix B. A lower triangular matrix C. A diagonal matrix D. A null matrix |
| 7 | Question Image | |
| 8 | $\sin(a + \beta) + \sin(a - \beta) = \underline{\hspace{2cm}}$; | A. $2\cos a \cos \beta$ B. $2\sin a \cos \beta$ C. $2\cos a \sin \beta$ D. $-2\sin a \sin \beta$ |
| 9 | Question Image | |
| 10 | Question Image | A. A B. A' C. U D. U' |
| 11 | $f(x) = C$ is | A. identity function B. constant function C. linear function D. quadratic function |
| 12 | What is the conjugate of $-7 - 2i$? | A. $-7 + 2i$ B. $7 + 2i$ C. $7 - 2i$ D. None of these |
| 13 | Question Image | A. $\cos 2x = \sin 4y$ B. $\cos 4y = \cos 2x$ C. $\cos 3y = \sin 4x$ D. None of these |
| 14 | Question Image | |
| 15 | If $B = \{x/x \in \mathbb{Z} \wedge -3 < x < 6\}$, then $n(B) =$ | A. 5 B. $\{-3, -2, -1, 0, 1, 2, 3, 4, 5, 6\}$ C. 8 D. 9 |
| 16 | Question Image | |
| 17 | How many signals can be given by 5 flags of different colours, using 3 flags at a time | A. 120 B. 60 C. 24 D. 15 |
| 18 | Question Image | A. 0 B. 1 C. -A D. -1 |

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Question Image

- A. Square matrix
- B. Row matrix
- C. Symmetric matrix
- D. Null matrix

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The condition for polynomial equation $ax^2 + bx + c = 0$ to be quadratic is