

Mathematics General Science Test Medium Mode

Sr	Questions	Answers Choice
1	The intercepts of the plane $2x - 3y + 4z = 12$ on the co-ordinate axes are given by	A. 2, -3, 4 B. 6, -4, -3 C. 6, -4, 3 D. 3, -2, 1.5
2	The number of divisors of 1029, 1547 and 122 are in	A. A.P. B. G.P. C. H.P. D. None of these
3	The seventh term of an A.P whose first term is P and common difference is q. is	A. P-6q B. P+6q C. P-4q D. P-nq
4	Question Image	
5	$\cos(a + \beta) - \cos(a - \beta) = \underline{\hspace{2cm}}$;	A. $2\cos a \cos \beta$ B. $2\sin a \cos \beta$ C. $-2\sin a \cos \beta$ D. $-2\sin a \sin \beta$
6	If $x^3 + ax^2 - a^2x - a^3$ is divided by $x + a$, then the remainder is	A. 0 B. a^3 C. $2a^3$ D. $-2a^3$
7	$\sin(\alpha - \beta) =$	A. $\sin \alpha \cos \beta - \cos \alpha \sin \beta$ B. $\sin \alpha \cos \beta + \cos \alpha \sin \beta$ C. $\sin \alpha \sin \beta - \cos \alpha \cos \beta$ D. $\sin \alpha \sin \beta + \cos \alpha \cos \beta$

roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);"><i></i>

8	Question Image	
9	Area bounded between the curve $xy=2$ and the lines $x=1$ and $x=2$	A. $\ln 2$ square units B. $\ln \sqrt{2}$ square units C. $\ln 4$ square units D. Square units
10	Which of the following does not represent absolute value of a vector	A. magnitude B. length C. norm D. number
11	The point which divides the line joining the points (2, 4, 5) and (3, 5, -4) in the ratio -2 : 3 lies on	A. ZOY plane B. XOY plane C. YOZ plane D. None of these
12	Question Image	
13	Question Image	B. $a^x \ln a + c$ C. $a^x + c$ D. $x a^x + c$
14	Question Image	
15	Union of the sets of rational and irrational numbers is called 6th set of	A. Natural numbers B. Real numbers C. Whole numbers D. Prime numbers
16	When we expand $(a + 2b)^5$ then	A. $a^5 + 10a^4b + 40a^3b^2 + 80a^2b^3 + 80ab^4 + 32b^5$ B. $a^5 + a^4b + a^3b^2 + a^2b^3 + ab^4 + b^5$ C. $5a^5 + 4a^4b + 3a^3b^2 + 2a^2b^3 + ab^4 + b^5$ D. None
17	Express as a sum or difference: $2 \sin 5\theta \cos \theta$	A. $\cos 4\theta$ B. $\sin 4\theta$ C. $\cos 4\theta + \cos 2\theta$ D. $\sin 4\theta + \sin 2\theta$

\sin^2
<i></i>

18 Every set is an improper subset of

- A. Empty set
- B. Equivalent set
- C. *Itself*
- D. Singleton set

19 Find a if 1 is a root of the equation $x^2 + ax + 2 = 0$

- A. 3
- B. *-3*
- C. 2
- D. 0

20