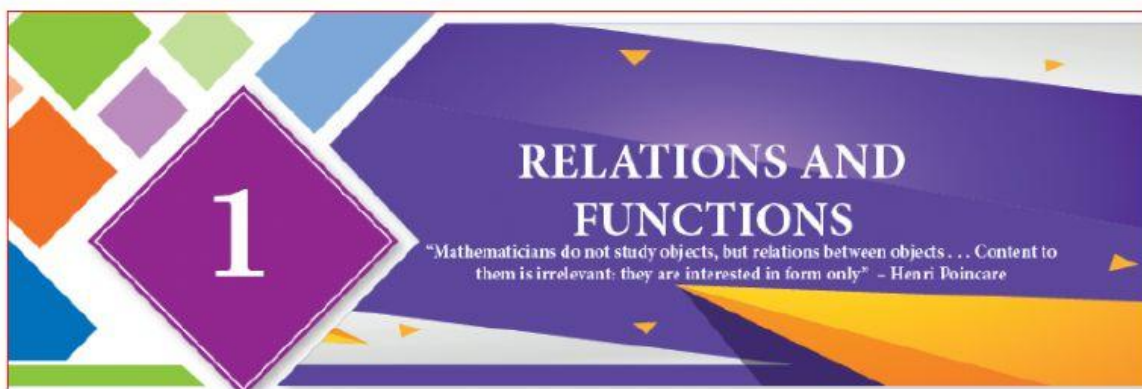




CLICK THE CORRECT "OPTION" FOR EACH QUESTION, AND CLICK THE "FINISH " BUTTON AT THE END OF THE TEST ,TO KNOW YOUR SCORE.



Multiple choice questions



1. If $n(A \times B) = 6$ and $A = \{1, 3\}$ then $n(B)$ is
 (A) 1 (B) 2 (C) 3 (D) 6
2. $A = \{a, b, p\}$, $B = \{2, 3\}$, $C = \{p, q, r, s\}$ then $n[(A \cup C) \times B]$ is
 (A) 8 (B) 20 (C) 12 (D) 16
3. If $A = \{1, 2\}$, $B = \{1, 2, 3, 4\}$, $C = \{5, 6\}$ and $D = \{5, 6, 7, 8\}$ then state which of the following statement is true.
 (A) $(A \times C) \subset (B \times D)$ (B) $(B \times D) \subset (A \times C)$
 (C) $(A \times B) \subset (A \times D)$ (D) $(D \times A) \subset (B \times A)$
4. If there are 1024 relations from a set $A = \{1, 2, 3, 4, 5\}$ to a set B , then the number of elements in B is
 (A) 3 (B) 2 (C) 4 (D) 8
5. The range of the relation $R = \{(x, x^2) \mid x \text{ is a prime number less than } 13\}$ is
 (A) $\{2, 3, 5, 7\}$ (B) $\{2, 3, 5, 7, 11\}$
 (C) $\{4, 9, 25, 49, 121\}$ (D) $\{1, 4, 9, 25, 49, 121\}$
6. If the ordered pairs $(a + 2, 4)$ and $(5, 2a + b)$ are equal then (a, b) is
 (A) $(2, -2)$ (B) $(5, 1)$ (C) $(2, 3)$ (D) $(3, -2)$
7. Let $n(A) = m$ and $n(B) = n$ then the total number of non-empty relations that can be defined from A to B is
 (A) m^n (B) n^m (C) $2^{mn} - 1$ (D) 2^{mn}
8. If $\{(a, 8), (6, b)\}$ represents an identity function, then the value of a and b are respectively
 (A) $(8, 6)$ (B) $(8, 8)$ (C) $(6, 8)$ (D) $(6, 6)$

9. Let $A = \{1, 2, 3, 4\}$ and $B = \{4, 8, 9, 10\}$. A function $f : A \rightarrow B$ given by $f = \{(1, 4), (2, 8), (3, 9), (4, 10)\}$ is a

- (A) Many-one function (B) Identity function
(C) One-to-one function (D) Into function

10. If $f(x) = 2x^2$ and $g(x) = \frac{1}{3x}$, then $f \circ g$ is

- (A) $\frac{3}{2x^2}$ (B) $\frac{2}{3x^2}$ (C) $\frac{2}{9x^2}$ (D) $\frac{1}{6x^2}$

11. If $f : A \rightarrow B$ is a bijective function and if $n(B) = 7$, then $n(A)$ is equal to

- (A) 7 (B) 49 (C) 1 (D) 14

12. Let f and g be two functions given by

$$f = \{(0, 1), (2, 0), (3, -4), (4, 2), (5, 7)\}$$

$$g = \{(0, 2), (1, 0), (2, 4), (-4, 2), (7, 0)\}$$
 then the range of $f \circ g$ is

- (A) $\{0, 2, 3, 4, 5\}$ (B) $\{-4, 1, 0, 2, 7\}$ (C) $\{1, 2, 3, 4, 5\}$ (D) $\{0, 1, 2\}$

13. Let $f(x) = \sqrt{1+x^2}$ then

- (A) $f(xy) = f(x) \cdot f(y)$ (B) $f(xy) \geq f(x) \cdot f(y)$
(C) $f(xy) \leq f(x) \cdot f(y)$ (D) None of these

14. If $g = \{(1, 1), (2, 3), (3, 5), (4, 7)\}$ is a function given by $g(x) = \alpha x + \beta$ then the values of α and β are

- (A) $(-1, 2)$ (B) $(2, -1)$ (C) $(-1, -2)$ (D) $(1, 2)$

15. $f(x) = (x+1)^3 - (x-1)^3$ represents a function which is

- (A) linear (B) cubic (C) reciprocal (D) quadratic

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விடைகளை எழுதிய பின் "FINISH" பொத்தானை அழுத்தி மதிப்பெண்ணை தெரிந்து கொள்ளவும் ..முழு மதிப்பெண் பெறும் வரை ,மீண்டும் மீண்டும் முயற்சி செய்யவும்