

Mathematics 10th Class English Medium Unit 5 Online Test

| Sr | Questions | Answers Choice |
|----|---|--|
| 1 | A collection of well-defined distinct object is called: | A. Subset B. Power set C. Set D. None of these |
| 2 | The relation $\{(a,b),(b,c),(a,d)\}$ is..... | A. A function B. Not a function C. Range D. Domain |
| 3 | if $A \cap B = \emptyset$, then set A and B aresets. | A. sub B. over kaououbg C. Disjoint D. Power |
| 4 | $A' = \underline{\hspace{2cm}}$ | A. $\{x x \in U \wedge x \notin A\}$ B. $\{x x \in A \wedge x \in U\}$ C. $\{x x \in A \wedge x \in B\}$ D. $\{x x \in A \wedge x \in B \wedge x \in C\}$ |
| 5 | Which of the following is associative law of Intersection? | A. $A \cup (B \cap C) = (A \cup B) \cap C$ B. $A \cap (B \cup C) = (A \cap B) \cup C$ C. $A \cap (B \cap C) = (A \cap B) \cap (A \cap C)$ D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$ |
| 6 | If f is a function from A to B , then f is one - one function if: | A. Range $f \neq A$ B. Range $f = B$ C. Dom $f = A$ D. Second element of all ordered pairs contained in f is not repeated. |
| 7 | Venn diagram was first used by..... | A. John Venn B. Netwon C. Arthur Cayler D. John Napier |
| 8 | The formula of group data of the median is: | A. $M_d = \frac{h}{f} (n/2 - c)$ B. $M_d = \frac{\sum f x_n}{\sum f}$, C. $M_d = l + \frac{f_m - f_{m-1}}{2f} (n/2 - c)$, D. $M_d = l + \frac{\sum f x_n}{\sum f}$ |
| 9 | If $f: A \rightarrow B$ and range of $f = B$, then f is an..... | A. into function B. onto function C. bijective function D. function |
| 10 | The point $(-5, -7)$ lies in quadrant. | A. I B. II C. III D. IV |
| 11 | If A is subset of U , then $(A^c)^c = \dots$ | A. A B. A^c C. U^c D. \emptyset |
| 12 | The set having only one element is called: | A. Null set B. Power set C. Singleton set D. Subset |
| | | A. Universal B. Finite C. Infinite D. Proper |

- 13 A and A^c are.....Set.
 B. Overlapping
 C. Disjoint
 D. Super
-
- 14 Formula to determine the size of a class is:
 A. $X_{\max} - X_{\min}$
 B. $X_{\max} + X_{\min}$
 C. Range/number of groups
 D. number of groups/Range
-
- 15 Point (-1,4) lies in quadrant:
 A. I
 B. II
 C. III
 D. IV
-
- 16 $W - N = \dots$
 A. \emptyset
 B. $\{\emptyset\}$
 C. N
 D. W
-
- 17 The set $\{x/x \in W \wedge x \leq 101\}$ is.
 A. Infinite set
 B. Sub set
 C. Null set
 D. Finite set
-
- 18 $A \cup A^c = \dots$
 A. U
 B. A
 C. A^c
 D. $\langle p class="MsoNormal"><!--[if gte msEquation 12]><m:oMathPara><m:oMath><i style="mso-bidi-font-style: normal"><m:r></m:r></i></m:oMath></m:oMathPara><![endif]--><!--[if !msEquation]--><!--[if gte vml 1]><v:shapetype id=" _x0000_t75" coordsize="21600,21600" o:spt="75" o:preferrelative="t" path="m@4@5l@4@11@9@11@9@5xe" filled="f" stroked="f"> <v:stroke joinstyle="miter"/> <v:formulas> <v:f eqn="if lineDrawn pixelLineWidth 0"/> <v:f eqn="sum @0 1 0"/> <v:f eqn="sum 0 0 @1"/> <v:f eqn="prod @2 1 2"/> <v:f eqn="prod @3 21600 pixelWidth"/> <v:f eqn="prod @3 21600 pixelHeight"/> <v:f eqn="sum @0 0 1"/> <v:f eqn="prod @6 1 2"/> <v:f eqn="prod @7 21600 pixelWidth"/> <v:f eqn="sum @8 21600 0"/> <v:f eqn="prod @7 21600 pixelHeight"/> <v:f eqn="sum @10 21600 0"/> </v:formulas> <v:path o:extrusionok="f" gradientshapeok="t" o:connecttype="rect"/> <o:lock v:ext="edit" aspectratio="t"/> </v:shapetype><v:shape id=" _x0000_i1025" type="#_x0000_t75" style="width:6.75pt; height:14.25pt"> <v:imagedata src="file:///C:/Users/Softsol/AppData/Local/Temp/msohtmlclip1/01/clip_image001.png" o:title="" chromakey="white"/> </v:shape><!--[endif]--><!--[if !vml]--><!--[endif]--><!--[endif]--><o:p></o:p></p>$
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- 19 If $A \subseteq B$ then $A \cap B = \dots$
 A. A
 B. B
 C. \emptyset
 D. $A \cup B$
-
- 20 The set $\{x/x \in A \text{ and } x \notin B\}$ is.....
 A. $A \cup B$
 B. $A \cap B$
 C. $A - B$
 D. $B - A$
-
- 21 If A and B are two disjoint sets then $A \cup B = \dots$
 A. A
 B. B
 C. \emptyset
 D. $B \cup A$
-
- 22 The formula of grouped data of the arithmetic mean is:
 A. $\bar{X} = \frac{\sum X}{n}$
 B. $\bar{X} = \frac{A + \sum fX}{\sum f}$
 C. $\bar{X} = \frac{\sum fX}{n}$
 D. $\bar{X} = I + \frac{n}{f} (n/2 - c)$
-
- 23 If $x \in U$ and $x \notin A$, then $\{x\}$ is equal to
 A. U^c
 B. A^c
 C. \emptyset
 D. $A - U$
-
- 24 A set with no element is called.
 A. Subset
 B. Empty set
 C. Singleton set
 D. Super set
-
- 25 Which of the following is distributive property of union over intersection?
 A. $A \cup (B \cup C) = A \cup (B \cap C)$
 B. $A \cap (B \cap C) = (A \cap B) \cap C$
 C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
 D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
-
- 26 Which of the following is distributive property intersection over union?
 A. $A \cup (B \cup C) = A \cup (B \cap C)$
 B. $A \cap (B \cap C) = (A \cap B) \cap C$
 C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
 D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

- 27 The relation $R = \{(1,2),(2,3),(3,3),(3,4)\}$ is:
- A. Not a function
B. Onto function
C. One-One function
D. Into function
-
- 28 If $A = \{1,2,3\}$, $B = \{4,5\}$ and $R = \{(1,4),(2,5),(3,4)\}$ then R is _____
- A. One - one function from A to B
B. A function A to A
C. Not a function
D. An onto function from A to B
-
- 29 Formula of variance is group data is:
- A. central value;
B. A.M
C. measures of dispersion;
D. median
-
- 30 The measures that are used to determine the degree or extent of variation in a data set are called:
- A. $(A \cup B) \cup C = A \cup (B \cup C)$
B. $(A \cap B) \cup C = A \cup B \cap C$
C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
-
- 31 Which of the following is De-Morgan's law?
- A. U'
B. A'
C. A'
D. \emptyset
-
- 32 $U' = \dots$
- A. Onto function
B. In to function
C. Not a function
D. One-one function
-
- 33 The relation $\{(1, 2), (2, 3), (3, 3), (3, 4)\}$ is:
- A. Set of natural numbers
B. Set of whole numbers
C. Set of prime numbers
D. Set of integers
-
- 34 the set $\{0, \pm 1, \pm 2, \pm 3, \dots\}$ is:
- A. $\{0, 3, 4\}$
B. $\{0, 2, 3\}$
C. $\{0, 2, 4\}$
D. $\{2, 3, 4\}$
-
- 35 The domain of $R = \{(0,2), (2,3), (3,3), (3,4)\}$ is.
- A. +ve
B. -Ve
C. zero
D. 1
-
- 36 y co-ordinate of every point on x-axis is.
- A. \emptyset
B. O
C. E
D. Z
-
- 37 $O \cup E = \dots$
- A. 4
B. 6
C. 8
D. 9
-
- 38 Number of elements in power set of $\{1,2,3\}$
- A. $\bar{X} = \sum f_i X_i / \sum f_i$
B. $\bar{X} = \sum f_i D_i / \sum f_i$
C. $\bar{X} = A + \sum f_i u_i / \sum f_i h_i$
D. $\bar{X} = A + \sum f_i u_i / \sum f_i$
-
- 39 Coding formula of group data of the arithmetic mean is:
- A. 4
B. 8
-
- 40 The number of element in power set $\{1,2,3\}$ is.
- C. 6
D. 9
-
- 41 The harmonic mean of the observation 0,15,12, is:
- A. 3.7
B. 7.3
C. 6.7
D. no harmonic mean
-
- 42 $N \cup W = \dots$
- A. \emptyset
B. $\{\emptyset\}$
C. N
D. W
-
- 43 By definition, which of the following is a set?
- A. $\{a,b,c,d\}$
B. $\{1,2,3,2\}$
C. $\{l,m,n,o\}$
D. $\{0,1,2,3,1\}$
-
- 44 If set A has all its elements common with set B then set A is called.....set.
- A. Sub
B. Overlapping
C. Disjoint
D. Super
-
- 45 If $B = \{1,2,100\}$ and $C = \{2,100\}$, then $B \cap C =$
- A. $\{1,2\}$
B. $\{1,2,100\}$

- 45 _____ C. {2} D. {2,1}
- 46 The total of frequency up to an upper class limit or boundary is called:
A. frequency; B. class frequency; C. cumulative frequency; D. relative frequency;
- 47 $A \cup (B \cap C) =$ A. $(A \cup B) \cap (A \cup C)$
B. $A \cap (B \cap C)$
C. $(A \cap B) \cup (A \cap C)$
D. $A \cup (B \cup C)$
- 48 The relation $\{(1,2),(2,3),(3,3),(3,4)\}$ is:
A. Onto function
B. Into function
C. Not a function
D. One-One function.
- 49 A set with no element is called:
A. Subset
B. Empty set
C. Singleton set
D. Super set
- 50 x-coordinate of every point on x-axis is:
A. +ve
B. -ve
C. zero
D. 1
- 51 If number of elements in set A is 3 and in set B is 4 then number of elements in $A \times B$ is:
A. 3
B. 4
C. 12
D. 7
- 52 If $A \subseteq B$ then $A \cup B =$ A. A
B. B
C. \emptyset
D. None of these
- 53 A set Q = $\{a/b | a, b \in \mathbb{Z} \wedge b \neq 0\}$ is called a set of:
A. Whole numbers
B. Natural number
C. Irrational numbers
D. Rational numbers
- 54 $(A \cup B) \cup C$ is equal to
A. $A \cap (B \cup C)$
B. $(A \cup B) \cap C$
C. $A \cup (B \cup C)$
D. $A \cap (B \cap C)$
- 55 The complement of U is.....
A. U
B. \emptyset
C. impossible
D. Union
- 56 The Range of R is, if $R = \{(1,3),(2,2),(3,1),(4,4)\}$.
A. {1,2,4}
B. {3,2,4}
C. {1,2,3,4}
D. {1,3,4}
- 57 If $x \in A$ and $x \in B$, then $\{x\}$ is equal to .
A. $A - B$
B. A^c
C. $A \cap B$
D. B^c
- 58 The date presented in the form of frequency distribution is called:
A. distribution
B. grouped data
C. range data
D. regrouped data
- 59 The different number of ways to describe a set are.
A. 1
B. 2
C. 3
D. 4
- 60 $(A \cup B) \cap C =$ A. $A \cap (B \cup C)$
B. $(A \cup B) \cap C$
C. $A \cup (B \cap C)$
D. $A \cap (B \cap C)$
- 61 The number of elements in the power set of {1,2,3,4}.
A. 4
B. 8
C. 16
D. 0
- 62 If f is a function from A to B, then f is onto function if:
A. Range $f \neq A$
B. Range $f = B$
C. Dom f = A
D. Second element of all ordered pairs contained in f is not repeated.

- 63 When the number of observations or a set of data is even then the median formula is:
- 64 If $R = \{(0,0), (8,2), (10,3), (14,12)\}$, then $\text{Dom } R =$
- 65 If $A \subseteq B$ and $B \subseteq a$, then
- 66 The number of elements in power set $\{1,2,3\}$:
- 67 If union and intersection of two sets are equal then sets are.....sets.
- 68 Power set of empty set.
- 69 $N \cap W =$
- 70 The point $(4,-6)$ lies in.....quadrant.
- 71 If $A \subseteq B$ then $A \cup B$ is equal to
- 72 $O \cap E =$
- 73 Which of the following is true?
- 74 If number of elements in set A is 3 and in set B is 2, then number of binary relations in $A \times B$ is:
- 75 A subset of $A \times A$ is called..... in A.
- 76 The different number of ways to describe a set are:
- 77 If variance is equal to 36 then the standard deviation will be:
- 78 Collection of distinct objects.
- 79 If number of elements in set, A is 3 and in set B is 2 then number of binary relations in $A \times B$ is:
- 80 A collection of well-defined distinct objects is called.
-
- A. {0,8,10,14}
B. {0,2,3,12}
C. {8,10,4}
D. {0,10}
-
- A. $A = B$
B. $A \neq B$
C. $A \cap B = \emptyset$
D. $A \cup B = \emptyset$
-
- A. 4
B. 6
C. 8
D. 9
-
- A. Disjoint
B. Overlapping
C. Equal
D. Super
-
- A. \emptyset
B. {a}
C. $\{\emptyset, \{a\}\}$
D. $\{\emptyset\}$
-
- A. \emptyset
B. $\{\emptyset\}$
C. N
D. W
-
- A. I
B. II
C. III
D. IV
-
- A. A
B. B
C. \emptyset
D. None of these
-
- A. \emptyset
B. O
C. E
D. Z
-
- A. $W \subseteq N$
B. $Z \subseteq W$
C. $N \subseteq P$
D. $P \subseteq W$
-
- A. 3
B. 4
C. 7
D. 12
-
- A. Set
B. Relation
C. Function
D. Info function.
-
- A. 1
B. 2
C. 3
D. 4
-
- A. 36
B. 6
C. -6
D. none of these
-
- A. Subset
B. Power set
C. Set
D. None of the
-
- A. 2^{3^2}
B. 2^{6^2}
C. 2^{8^2}
D. 2^{2^2}
-
- A. subset
B. Power set
C. Set
D. None of these
-
- A. {0, 3, 4}

- 81 The domain of R = {(0, 2), (2, 3), (3, 3), (3, 4)} is:
A. {0, 2, 3}
B. {0, 2, 4}
C. {2, 3, 4}
- 82 Sum of the deviations of values x from its mean is always "i.e $\sum(x-\bar{x})$ " is to equal:
A. itself
B. zero
C. median
D. mode
- 83 $A \cap A^c = \dots$
A. U
B. A^c
C. \emptyset
D. A
- 84 Power set of an empty set is:
A. {a}
B. {}
- 85 If A = {0, 1, 2}, B = {2, 3, 4, 5}, then $A \cup B$ are:
A. Empty sets
B. Equal sets
C. Overlapping sets
D. Disjoint set
- 86 If A has two elements and B has 3 elements, then number of binary relations in $A \times B$ is _____
A. 2×3
B. 2^3
C. 2^6
D. 2^2
- 87 The complement of \emptyset is.....
A. U
B. \emptyset
C. Impossible
D. Union
- 88 E - O =
A. \emptyset
B. O
C. E
D. Z
- 89 If A and B are disjoint sets then $A \cup B$ is equal to:
A. A
B. B
C. BUA
- 90 If R = {(0,2), (2,3), (3,4)} then Dom (R) is:
A. {0,3,4}
B. {0,2,3}
C. {0,2,4}
D. {2,3,4}
- 91 The Range of R = {(1,3), (2,2), (3,1), (4,4)} is.
A. {1,2,4}
B. {3,2,4}
C. {1,2,3,4}
D. {1,3,4}
- 92 If set a has 3 elements and B has 4 then $A \times B$ has _____ elements.
A. 3
B. 4
C. 12
D. 7
- 93 The set having only one element is called.
A. Null set
B. Power set
C. Singleton set
D. Subset
- 94 The range of {(a,a), (b,b), (c,c)} is
A. {a,b}
B. {a,b,c}
C. {a}
D. \emptyset
- 95 Point (-1, 4) lies in the quadrant:
A. I
B. II
C. III
D. IV
- 96 Which of the following is associative law of union?
A. $A \cup (B \cup C) = (A \cup B) \cup C$
B. $A \cap (B \cap C) = (A \cap B) \cap C$
C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 97 If $\{x | x = p/q, q \neq 0, p, q \in \mathbb{Z}\}$ then this is a _____
A. Set of even numbers
B. Set of rational numbers
C. Set of irrational numbers
D. Set of integers
- 98 if A and B are disjoint sets, then $A \cup B$ is equal to.
A. A
B. B
C. \emptyset
D. $B \cup A$
- 99 $(A \cap B)' = \dots$
A. $A' \cup B'$
B. $A' \cap B'$
C. $A \cap B$
D. $A \cup B$

- 100 A set having only one member.
 A. Empty set
 B. Power set
 C. Singleton set
 D. Sub set
-
- 101 The formula of range is:
 A. $X_{\max} - X_{\min}$
 B. $X_{\max} + X_{\min}$
 C. groups/wight;
 D. none of these
-
- 102 $O - E = \dots$
 A. \emptyset
 B. O
 C. E
 D. Z
-
- 103 Point (-1,4) , lies in the quadrant.
 A. I
 B. II
 C. III
 D. IV
-
- 104 The number of elements of the power set {a,b} are.
 A. 1
 B. 2
 C. 3
 D. 4
-
- 105 A histogram is g group/ set of adjacent:
 A. squares;
 B. circles;
 C. rectangle;
 D. cube;
-
- 106 A set containing no element is called.
 A. subset
 B. Empty set
 C. Singleton set
 D. Super set
-
- 107 If $R = \{(a,2),(b,3),(c,3)\}$, then Dom R =
 A. {1,2}
 B. {1,2,3}
 C. {a,b,c}
 D. {a,c}
-
- 108 If $A \subseteq B$ then $A - B$ is equal to
 A. A
 B. B
 C. \emptyset
-
- 109 Which of the following is commutative law?
 A. $A \cup (B \cup C) = (A \cup B) \cup C$
 B. $A \cap (B \cap C) = (A \cap B) \cap C$
 C. $A \cup B = B \cup A$
 D. $(A \cup b) \cap c = A \cap c \cap B \cap c$
-
- 110 If $x \subseteq A$ and $x \notin b$, then { x } is equal to.....
 A. A - B
 B. B - A
 C. $A \cap B$
 D. $A \cap c$
-
- 111 Which of the following is complete description of Real numbers?
 A. $N \cup W = R$
 B. $O \cup E = R$
 C. $P \cup Q = R$
 D. $Q \cup Q' = R$
-
- 112 If two sets have some elements common but not all are called..... sets
 A. Sub
 B. OVERLAPPING
 C. Disjoint
 D. Super
-
- 113 If set has 3 and B has 2 elements then number binary relations of $A \times B$.
 A. 2^{2^2}
 B. 2^{2^8}
 C. 2^{2^6}
 D. 2^{2^3}
-
- 114 $A \subseteq B$ then $A - b = \dots$
 A. A
 B. B
 C. \emptyset
 D. $B - A$
-
- 115 The domain of $\{(a,b),(b,c),(c,d)\}$ is.....
 A. {a,b,c}
 B. {b,c,d}
 C. {a,b}
 D. {a,b,c,d}
-
- 116 Power set of an empty set is.
 A. \emptyset
 B. {a}
 C. $\{\emptyset, \{a\}\}$
 D. { \emptyset }
-
- 117 The geometric mean of the a observations 2,4,8, is:
 A. 2
 B. 8
 C. 4

D. no geometric mean

- 118 The range of $R = \{(1, 3), (2, 2), (3, 1), (4, 4)\}$ is:
- A. {1, 2, 4}
 - B. {3, 2, 4}
 - C. {1, 2, 3, 4}
 - D. {1, 3, 4}
-