

Mathematics 10th Class English Medium Unit 5 Online Test

Sr	Questions	Answers Choice
1	The date presented in the form of frequency distribution is called:	A. distribution B. grouped data C. range data D. regrouped data
2	The formula of range is:	A. $X_{\max} - X_{\min}$ B. $X_{\max} + X_{\min}$ C. groups/wight; D. none of these
3	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;
4	A histogram is g group/ set of adjacent:	A. squares; B. circles; C. rectangle; D. cube;
5	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;
6	The formula of grouped data of the arithmetic mean is:	A. $\bar{X} = \frac{\sum X}{n}$ B. $\bar{X} = A + \frac{\sum f(X - A)}{\sum f}$ C. $\bar{X} = \frac{\sum fX}{n}$ D. $\bar{X} = l + n/f (n/2 - c)$
7	Coding formula of group data of the arithmetic mean is:	A. $\bar{X} = \frac{\sum fX}{\sum f}$ B. $\bar{X} = \frac{\sum fD}{\sum f}$ C. $\bar{X} = A + \frac{\sum fu}{\sum f h}$ D. $\bar{X} = A + \frac{\sum fu}{\sum f}$
8	The formula of group data of the median is:	A. $l + h/f (n/2 - c)$ B. $l + \sum fx/\sum f x n$, C. $l + f₁ - f₁/2f_m - f₁$ D. $A + \sum fu/\sum f x n$
9	The geometric mean of the a observations 2,4,8, is:	A. 2 B. 8 C. 4 D. no geometric mean
10	The harmonic mean of the observation 0,15,12, is:	A. 3.7 B. 7.3 C. 6.7 D. no harmonic mean
11	The measures that are used to determine the degree or extent of variation in a data set are called:	A. central value; B. A.M C. measures of dispersion; D. median
12	If variance is equal to 36 then the standard deviation will be:	A. 36 B. 6 C. -6 D. none of these;
13	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
14	When the number of observations of a set of data is even then the median formula is:	
15	Formula of variance is group data is:	
16	A collection of well-defined distinct objects is called.	A. subset B. Power set C. Set

	D. None of these
17	The different number of way to describe a set are. A. 1 B. 2 C. 3 D. 4
18	A set with no element is called. A. Subset B. Empty set C. Singleton set D. Super set
19	The set $\{x/x \in W \wedge x \leq 101\}$ is. A. Infinite set B. Sub set C. Null set D. Finite set
20	The set having only one element is called. A. Null set B. Power set C. Singleton set D. Subset
21	Power set of an empty set is. A. \emptyset B. $\{a\}$ C. $\{\emptyset, \{a\}\}$ D. $\{\emptyset\}$
22	The number of element in power set $\{1,2,3\}$ is. A. 4 B. 8 C. 6 D. 9
23	If $A \subseteq B$ then $A \cup B$ is equal to A. A B. B C. \emptyset D. None of these
24	If $A \subseteq B$ then $A - B$ is equal to A. A B. B C. \emptyset
25	$(A \cup B) \cup C$ is equal to A. $A \cap (B \cup C)$ B. $(A \cup B) \cap C$ C. $A \cup (B \cup C)$ D. $A \cap (B \cap C)$
26	if A and B are disjoint sets , then $A \cup B$ is equal to. A. A B. B C. \emptyset D. $B \cup A$
27	If number of elements in se A is 3 and in set B is 2, then number or binary relations in $A \times B$ is. A. 3 B. 4 C. 7 D. 12
28	The domain of R = $\{(0,2),(2,3),(3,3)(3,4)\}$ is. A. $\{0,3,4\}$ B. $\{0,2,3\}$ C. $\{0,2,4\}$ D. $\{2,3,4\}$
29	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. $\{1,3,4\}$
30	Point (-1,4) , lies in the quadrant. A. I B. II C. III D. IV
31	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.
32	if $A \cap B = \emptyset$, then set A and B aresets. A. sub B. over kaououbg C. Disjoint D. Power
33	If $A \subseteq B$ and $B \subseteq a$, then A. $A = B$ B. $A \neq B$ C. $A \cap B = \emptyset$ D. $A \cup B = \emptyset$
34	The complement of U is..... A. U B. \emptyset C. impossible

- 35 The complement of \emptyset is.....
A. U
B. \emptyset
C. Impossible
D. Union
- 36 $A \cap A^c = \dots$
A. U
B. A^c
C. \emptyset
D. A
- 37 $A \cup A^c = \dots$
A. U
B. A^c
C. A
D. A^c
- 38 The set $\{x \mid x \in A \text{ and } x \notin B\}$ is.....
A. $A \cup B$
B. $A \cap B$
C. $A - B$
D. $B - A$
- 39 The point $(-5, -7)$ lies in quadrant.
A. I
B. II
C. III
D. IV
- 40 The point $(4, -6)$ lies in.....quadrant.
A. I
B. II
C. III
D. IV
- 41 y co-ordinate of every pint on x-axis is.
A. +ve
B. -ve
C. zero
D. 1
- 42 x-coordinate of every pint on x-axis is.
A. +ve
B. -ve
C. zero
D. 1
- 43 The domain of $\{(a,b), (b,c), (c,d)\}$ is.....
A. $\{a,b,c\}$
B. $\{b,c,d\}$
C. $\{a,b\}$
D. $\{a,b,c,d\}$
- 44 The range of $\{(a,a), (b,b), (c,c)\}$ is
A. $\{a,b\}$
B. $\{a,b,c\}$
C. $\{a\}$
D. \emptyset
- 45 Venn diagram was first used by.....
A. John Venn
B. Netwon
C. Arthur Cayler
D. John Napier
- 46 A subset of $A \times A$ is called..... in A.
A. Set
B. Relation
C. Function
D. Info function.
- 47 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

- 48 The relation $\{(a,b), (b,c), (a,c)\}$ is.....
 D. NOT a function
 C. Range
 D. Domain
- 49 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. $\{0,1,2,3,1\}$
- 50 Which of the following is true?
 A. $W \subseteq N$
 B. $Z \subseteq W$
 C. $N \subseteq P$
 D. $P \subseteq W$
- 51 $N \cap W = \dots$
 A. \emptyset
 B. $\{\emptyset\}$
 C. N
 D. W
- 52 $N \cup W = \dots$
 A. \emptyset
 B. $\{\emptyset\}$
 C. N
 D. W
- 53 $W - N = \dots$
 A. \emptyset
 B. $\{\emptyset\}$
 C. N
 D. W
- 54 $O \cap E = \dots$
 A. \emptyset
 B. O
 C. E
 D. Z
- 55 $O \cup E = \dots$
 A. \emptyset
 B. O
 C. E
 D. Z
- 56 $E - O = \dots$
 A. \emptyset
 B. O
 C. E
 D. Z
- 57 $O - E = \dots$
 A. \emptyset
 B. O
 C. E
 D. Z
- 58 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. $Q \cup Q' = R$
- 59 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
- 60 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^c
- 61 If $x \in U$ and $x \notin A$, then $\{x\}$ is equal to ..
 A. U^c
 B. A^c
 C. \emptyset^c
 D. $A - U$
- 62 Which of the following is De-Morgan's law?
 A. $(A \cup B) \cup C = A \cup (B \cup C)$
 B. $(A \cap B)^c = A^c \cap B^c$
 C. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
 D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 63 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. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 64 Which of the following is associative law of Intersection?
 A. $A \cap (B \cap C) = (A \cap B) \cap C$
 B. $A \cup (B \cup C) = (A \cup B) \cup C$
 C. $A \cap (B \cap C) = (A \cap B) \cap (A \cap C)$
 D. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 65 Which of the following is distributive property of union over intersection?
 A. $A \cup (B \cap C) = A \cup (B \cup C)$
 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. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$

- 66 Which of the following is distributive property intersection over 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. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 67 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. $(A \cup B) \cap C = A \cap C \cup B \cap C$
- 68 If two sets have some elements common but not all are called..... sets
A. Sub
B. OVERLAPPING
C. Disjoint
D. Super
- 69 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
- 70 A and A^c are.....Set.
A. Universal
B. Overlapping
C. Disjoint
D. Super
- 71 If union and intersection of two sets are equal then sets are.....sets.
A. Disjoint
B. Overlapping
C. Equal
D. Super
- 72 If A is subset of U, then $(A^c)^c = \dots$
A. A
B. A^c
C. U
D. \emptyset
- 73 A set Q = {a/b} a, b $\in Z$ ^ $b \neq 0$ is called a set of.
A. Whole numbers
B. Natural number
C. Irrational numbers
D. Rational numbers
- 74 The number of elements in the power set of {1,2,3,4}.
A. 4
B. 8
C. 16
D. 0
- 75 The number of elements of the power set {a,b} are.
A. 1
B. 2
C. 3
D. 4
- 76 Collection of distinct objects.
A. Subset
B. Power set
C. Set
D. None of the
- 77 A set containing no element is called.
A. subset
B. Empty set
C. Singleton set
D. Super set
- 78 A set having only one member.
A. Empty set
B. Power set
C. Singleton set
D. Sub set
- 79 Power set of empty set.
A. \emptyset
B. {a}
C. $\{\emptyset, \{a\}\}$
D. $\{\emptyset\}$
- 80 Number of elements in power set of {1,2,3}
A. 4
B. 6
C. 8
D. 9
- 81 If $A \subseteq B$ then $A \cup B = \dots$
A. A
B. B
C. \emptyset
D. None of these
- 82 If $A \subseteq B$ then $A \cap B = \dots$
A. A
B. B
C. \emptyset
D. $A \cup B$
- 83 $A \subseteq B$ then $A - b = \dots$
A. A
B. B
C. \emptyset
D. $B - A$

- 84 $(A \cup B) \cup C = \underline{\hspace{2cm}}$ A. $A \cap (B \cup C)$
 B. $(A \cup B) \cap C$
 C. $A \cup (B \cup C)$
 D. $A \cap (B \cap C)$
- 85 $A \cup (B \cap C) = \underline{\hspace{2cm}}$ A. $(A \cup B) \cap (A \cup C)$
 B. $A \cap (B \cap C)$
 C. $(A \cap B) \cup (A \cap C)$
 D. $A \cup (B \cup C)$
- 86 If A and B are two disjoint sets then $A \cup B = \underline{\hspace{2cm}}$ A. A
 B. B
 C. \emptyset
 D. $B \cup A$
- 87 If set A has 3 elements and B has 4 then $A \times B$ has $\underline{\hspace{2cm}}$ elements. A. 3
 B. 4
 C. 12
 D. 7
- 88 If set has 3 and B has 2 elements then number of binary relations of $A \times B$. A. $2^{²}$
 B. $2^{⁸}$
 C. $2^{⁶}$
 D. $2^{³}$
- 89 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}
- 90 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}
- 91 Point (-1,4) lies in quadrant: A. I
 B. II
 C. III
 D. IV
- 92 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
- 93 the set $\{0, \pm 1, \pm 2, \pm 3, \dots\}$ is: A. Set of natural numbers
 B. Set of whole numbers
 C. Set of prime numbers
 D. Set of integers
- 94 If $R = \{(a,2), (b,3), (c,3)\}$, then Dom R = $\underline{\hspace{2cm}}$ A. {1,2}
 B. {1,2,3}
 C. {a,b,c}
 D. {a,c}
- 95 If $B = \{1,2,100\}$ and $C = \{2,100\}$, then $B \cap C = \underline{\hspace{2cm}}$ A. {1,2}
 B. {1,2,100}
 C. {2}
 D. {2,1}
- 96 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
- 97 If $\{x | x = p/q, q \neq 0, p, q \in \mathbb{Z}\}$ then this is a $\underline{\hspace{2cm}}$ A. Set of even numbers
 B. Set of rational numbers
 C. Set of irrational numbers
 D. Set of integers
- 98 $U' = \underline{\hspace{2cm}}$ A. U
 B. A
 C. A'
 D. \emptyset
- 99 If $A = \{1,2,3\}$, $B = \{4,5\}$ and $R = \{(1,4), (2,5), (3,4)\}$ then R is $\underline{\hspace{2cm}}$ 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
- 100 If A has two elements and B has 3 elements, then number of binary relations in $A \times B$ is $\underline{\hspace{2cm}}$ A. 2×3
 B. $2^{³}$
 C. $2^{⁶}$
 D. $2^{²}$
- 101 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. |
| 102 | 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. |
| 103 | If $R = \{(0,0), (8,2), (10,3), (14,12)\}$, then Dom R = _____ | A. $\{0,8,10,14\}$
B. $\{0,2,3,12\}$
C. $\{8,10,4\}$
D. $\{0,10\}$ |
| 104 | $(A \cap B)' = \underline{\hspace{2cm}}$ | A. $A' \cup B'$
B. $A' \cap B'$
C. $A \cap B$
D. $A \cup B$ |
| 105 | $A' = \underline{\hspace{2cm}}$ | A. $\{x x \in U \wedge x \notin A\}$
B. $\{x x \in U \wedge x \in A\}$
C. $\{x x \in A\}$
D. $\{x x \in A \wedge x \in U\}$ |
| 106 | A collection of well-defined distinct object is called: | A. Subset
B. Power set
C. Set
D. None of these |
| 107 | The different number of ways to describe a set are: | A. 1
B. 2
C. 3
D. 4 |
| 108 | A set with no element is called: | A. Subset
B. Empty set
C. Singleton set
D. Super set |
| 109 | The set having only one element is called: | A. Null set
B. Power set
C. Singleton set
D. Subset |
| 110 | Power set of an empty set is: | B. $\{a\}$ |
| 111 | The number of elements in power set $\{1,2,3\}$: | A. 4
B. 6
C. 8
D. 9 |
| 112 | If A and B are disjoint sets then $A \cup B$ is equal to: | A. A
B. B
C. $B \cup A$ |
| 113 | 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 |
| 114 | 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: | A. 2^{3^2}
B. 2^{2^3}
C. 2^{3^2}
D. 2^{2^3} |
| 115 | The domain of $R = \{(0, 2), (2, 3), (3, 3), (3, 4)\}$ is: | A. $\{0, 3, 4\}$
B. $\{0, 2, 3\}$
C. $\{0, 2, 4\}$
D. $\{2, 3, 4\}$ |
| 116 | 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. $\{1, 3, 4\}$ |
| 117 | Point $(-1, 4)$ lies in the quadrant: | A. I
B. II
C. III
D. IV |

C. III
D. IV

118 The relation $\{(1, 2), (2, 3), (3, 3), (3, 4)\}$ is:

- A. Onto function
- B. In to function
- C. Not a function
- D. One-one function