

Paper: MathematicsTotal Marks: 48Month Test: May

Obt. Marks: _____

Theme/Unit 1, 2, 3Grand Total: 100

Objective/Subjective:

ID: _____

Time: _____

Name: _____

class: 8th

Section: _____



Q#1: Circle the correct option

1.5*32=48

1. A collection of well-defined distinct objects or symbols.

- a) Set b) Subset c) Power set d) Improper set

2. If $A = \{a, b\}$ then all its subset are,

- a) $\phi, \{a\}, \{a, b\}$ b) $\phi, \{a\}, \{a, b\}$ c) $\phi, \{a\}, \{b\}, \{a, b\}$ d) $\{a\}, \{b\}, \{a, b\}$

3. The subset of ϕ is,

- a) 0 b) 1 c) 2 d) 3

4. Who formulated De Morgan's law?

- a) August De Morgan b) Newton c) John Venn d) Thomas

5. In Venn diagram, A universal set is represented in form of:

- a) Rectangle b) Square c) Circle d) Oval

6. $A \cup (B \cap C) = (A \cup B) \cap C$ is

- a) Associative law of union c) Associative law of intersection
b) Commutative law of union d) Commutative law of intersection

7. A set consist of all subsets of set X is called:

- a) Subset b) Universal set c) Power set d) Super set

8. For any two sets A and B, $A - B^c$ is equal to,

- a) $A \cap B^c$ b) $A^c \cap B$ c) $A \cap B$ d) $A \cup B$

9. If ϕ is an empty set then $(\phi^c)^c$ is equal to,

- a) X b) O c) ϕ d) $\{0\}$

10. Which of the following is not set?

- a) $\{1, 2, 3\}$ b) $\{a, b, c\}$ c) $\{2, 3, 4\}$ d) $\{1, 2, 3, 4\}$

11. The tabular form of set $C = \{x/x \in N \wedge 8 \leq x \leq 18\}$ is

- a) $\{8, 9, 10, \dots, 18\}$ c) $\{9, 10, 11, \dots, 17\}$
b) $\{1, 2, 3, \dots, 18\}$ d) $\{10, 11, 12, 13\}$

12. The number which cannot be written in the form of $\frac{p}{q}$ where $p, q \in Z$ and $q \neq 0$ are called

- a) Irrational numbers b) Rational numbers c) Natural numbers d) Real numbers

13. We define the set of real number as:

- a) $Q \cup Q' = R$ b) $Q \cup Q' = N$ c) $Q \cap Q' = \phi$ d) $Q \cap Q' = R$

14. Which of the following is irrational number?

- a) $\sqrt{2}$ b) 2 c) $\frac{3}{2}$ d) $\sqrt{1}$

15. $1+2+3+2+1$ is summation pattern of square number.

- a) 2^2 b) 3^2 c) 4^2 d) 5^2

16. The square root of 225 is

- a) 5 b) 15 c) 25 d) 30

17. The square root of 1.21 is

- a) 1.1 b) 1.2 c) 0.1 d) 11
18. The cube root of 125 is
a) 5 b) 10 c) 25 d) 35
19. Which of the following is not true about $\sqrt{81}$?
a) Natural number b) Whole number c) Rational number d) Irrational number
20. $\sqrt{\frac{a}{b}} = ?$
a) $\frac{a}{b}$ b) ab c) $\sqrt{\frac{b}{a}}$ d) $\frac{\sqrt{a}}{\sqrt{b}}$
21. If the side length of a square is 0.5m then its area is
a) $0.50m^2$ b) $2.5m^2$ c) $25m^2$ d) $0.25m^2$
22. $\sqrt{1^2 \times 4^2} = ?$
a) 4 b) 14 c) 41 d) 2
23. The number of digits involved in a number system is called,
a) Base of number system c) Exponent of number system
b) Index of number system d) None
24. Only 0, 1, 2, 3 and 4 are used in
a) Binary system c) Decimal system
b) Octal system d) System with base 5
25. $(100)_2$, in decimal system is written as
a) 2 b) 4 c) 7 d) 10
26. $(11)_2 + (10)_2 = ?$
a) $(22)_5$ b) $(110)_2$ c) $(101)_2$ d) $(111)_2$
27. 17 into system with base 5 is
a) $(32)_5$ b) $(23)_5$ c) $(31)_5$ d) $(21)_5$
28. The equality of two ratios is called _____.
a) ratio b) proportion c) equality d) All
29. Which is the symbol of proportion?
a) : b) :: c) / d) &
30. If the price of 12 eggs is Rs.96, how many eggs can be bought with Rs.80?
a) 5 eggs b) 10 eggs c) 12 eggs d) 15 eggs
31. What is the share of widow in this husband property?
a) $\frac{1}{8}$ b) $\frac{1}{4}$ c) $\frac{1}{2}$ d) 1
32. The decimal number system has base
a) 10 b) 5 c) 2 d) 8

Q#2: (a) Convert the rational number into decimal fraction $\frac{8}{9}$. Also describes it is repeating or non-repeating. (3)

(b) Write summation pattern of the number 8^2 . (2)

(c) Find square root by prime factorization of 7744. (5)

Q#3: (a) Find the square root by division method of 20.5209. (6)

(b) The area of circular region is 616 sq. decimeter. Find its radius. ($\pi = \frac{22}{7}$) (4)

Q#4: (a) Find cube of 0.4 (2)

(b) Convert into decimal system $(1101110)_2$.

(3)

(c) Solve $635 - \{(2244)_5 - (1243)_5 - (110111)_2\}$.

(5)