# MATHSARC Education 

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TEST SERIES - CLASS 7 ${ }^{\text {TH }}$

## TEST \# VII - 02, July 2023

NAME: $\qquad$ Total. Time: $1: 30 \mathrm{Hr}$
M.M: 150

## INSTRUCTIONS

1. The paper consists of two sections A \& B. Section A - Mathematics \& Section B - Science.
2. The objective paper is designed by considering School Exam, NTSE \& IIT Foundation.
3. The marking system is given just before the start of the Part in each section.
4. Blank papers, clipboards, log tables, slide rules, calculators, cameras, cellular phones, pagers and electronic gadgets are NOT allowed during exam.
5. The maximum mark allotted to the paper is 150 .
6. Total time allotted for the exam is $1: 30$ Hours.
7. SECTION - A (MATHEMATICS) Questions No's: 1 - 15.

SECTION - B (SCIENCE) Questions No’s 16 - 45.

## Mathsarc Test Series

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## Invigilator Sign

## SECTION - A (MATHEMATICS)

## PART - I

## SINGLE OPTION CORRECT ( $+4,-1,0$ )

1. find the value of $124 \times 4-3+118 \div 2$ ?
(A) 552
(B) 496
(C) 553
(D) - 553
2. What is the nature of the product of a negative number by itself even number of times?
(A) Negative
(B) 0
(C) positive
(D) Non negative
3. Find successor of -15
(A) - 17
(B) -16
(C) 15
(D) None of these
4. which of the following statements is wrong?
(A) When a positive integer and negative integer are added, we always get negative integer
(B) Additive inverse of 8 is ( -8 )
(C) For subtraction, we add the additive inverse of the integer that is being subtracted, to the other integer.
(D) none of these
5. which of the following is true?
(A) $(-8)+(-4)>(-8)-(-4)$
(B) $(-8)+(-4)<(-8)-(-4)$
(C) $(-8)+(-4)=(-8)-(-4)$
(D) $(-8)+(4)>(8)-(-4)$
6. $45-[38-\{60 \div 3-(6-9 \div 3) \div 3\}]$
(A) 45
(B) 26
(C) 37
(D) 0
7. find the value of $2487 \times 645+(-487) \times 645$
(A) 645000
(B) 64500
(C) 129000
(D) 315115
8. when product of two fractions is unity, each is called the
(A) denominator of the other
(B) numerator of the other
(C) additive inverse of the other
(D) reciprocal of the other
9. A car runs 20 km using 1 liter of petrol. How much distance will it cover in $1(1 / 4)$ liter of petrol?
(A) 25 km
(B) 30 km
(C) 36 km
(D) 40 km
10. 5 cm is equal to
(A) 0.005 km
(B) 0.00005 km
(C) 0.000005 km
(D) none of these
11. the place value of 2 in 25.67 is
(A) 1
(B) 2
(C) 20
(D) 0.2
12. $1.44 \div 1.2$ is equal to
(A) 1.2
(B) 12
(C) 0.12
(D) 120
13. Simplify: $3^{1 / 4}+1 / 2 \div 3 / 4-1 / 2 \times 31 / 2$
(A) $2 \frac{1}{6}$
(B) $3 \frac{1}{6}$
(C) $2 \frac{1}{5}$
(D) $3 \frac{1}{5}$
14. $(2-1 \div 3) \times(2-3 \div 5) \times(2-5 \div 7) \times(2-17 \div 19)$
(A) $\frac{21}{9}$
(B) $\frac{23}{3}$
(C) $\frac{19}{17}$
(D) None of these
15. $2.2 \times 0.2 \times 0.001$ is equal to
(A) 0.00044
(B) 4.4
(C) 4.04
(D) None of these

ROUGH SPACE

## SECTION - B (SCIENCE)

PART - I (PHYSICS)

## SINGLE OPTION CORRECT (+ $3,-1,0$ )

16. If we add a lump of ice to a tumbler containing water:
(A) heat flows from water to ice
(B) heat flows from ice to water
(C) heat flows from water to ice if water is more
(D) heat flows from ice to water if ice is more
17. The temperature of pure melting ice is:
(A) $0^{\circ} \mathrm{C}$
(B) $100^{\circ} \mathrm{C}$
(C) $95^{\circ} \mathrm{C}$
(D) $98.6^{\circ} \mathrm{F}$
18. A thermometer uses:
(A) water
(B) mercury
(C) air
(D) None of these
19. Which statement is correct:
(A) Iron rims are cooled before they are placed on cart wheels
(B) A glass stopper gets tight on warming the neck of the bottle
(C) Telephone wires sag in winter, but become tight in summer
(D) A little space is left between two rails on a railway track
20. Heat in a liquid is transferred by:
(A) conduction
(B) convection
(C) radiation
(D) conduction and radiation
21. In the process of convection, heat travels:
(A) sideways
(B) downwards
(C) upwards
(D) in all direction

ROUGH SPACE
22. The vacuum kept in between the walls of a thermos flask reduces the heat transfer by:
(A) conduction only
(B) convection only
(C) radiation only
(D) conduction and convection
23. Select the Wrong statement
(A) Water is a bad conductor of heat
(B) Liquids are heated by conduction and radiation
(C) Solids expand the least and gases expand the most on being heated
(D) Kerosene expand on heating
24. Metals are $\qquad$ of heat.
(A) Insulator
(B) Conductors
(C) Bad Conductors
(D) None of these
25. Still air is $\qquad$ of heat.
(A) Conductor
(B) Insulator
(C) conduction
(D) convection

PART - II (CHEMISTRY)

## SINGLE OPTION CORRECT (+ 3, - 1, 0)

26. Which of the following substances turns blue litmus paper red?
(A) Acid
(B) Base
(C) Salt
(D) None of these
27. Which of the following is a strong base?
(A) Sodium hydroxide (NaOH)
(B) Ammonium hydroxide $\left(\mathrm{NH}_{4} \mathrm{OH}\right)$
(C) Aluminum hydroxide $\left(\mathrm{Al}(\mathrm{OH})_{3}\right)$
(D) Carbonic acid $\left(\mathrm{H}_{2} \mathrm{CO}_{3}\right)$
28. What is the pH value of a neutral solution?
(A) 0
(B) 7
(C) 14
(D) None of these
29. Which of the following substances is commonly used as an antacid?
(A) Hydrochloric acid ( HCl )
(B) Sodium hydroxide $(\mathrm{NaOH})$
(C) Calcium carbonate $\left(\mathrm{CaCO}_{3}\right)$
(D) Sulfuric acid $\left(\mathrm{H}_{2} \mathrm{SO}_{4}\right)$
30. Which of the following is NOT a characteristic of bases?
(A) Bitter taste
(B) Slippery feel
(C) Turn red litmus paper blue
(D) React with metals to produce hydrogen gas
31. Which of the following substances is a salt?
(A) Sodium chloride $(\mathrm{NaCl})$
(B) Hydrochloric acid (HCl)
(C) Sulfuric acid $\left(\mathrm{H}_{2} \mathrm{SO}_{4}\right)$
(D) Nitric acid $\left(\mathrm{HNO}_{3}\right)$
32. A solution with a pH value of 3 is:
(A) Acidic
(B) Basic
(C) Neutral
(D) None of these
33. Which of the following substances is a common household acid?
(A) Sugar
(B) Vinegar
(C) Salt
(D) Soap
34. Which of the following substances is a common household base?
(A) Lemon juice
(B) Milk
(C) Ammonia
(D) Coffee
35. What is the color of litmus paper in a basic solution?
(A) Blue
(B) Red
(C) Green
(D) Yellow

PART - III (BIOLOGY)

## SINGLE OPTION CORRECT (+ 3, - 1, 0)

36. The type of teeth used for biting and cutting the food
(A) Incisors
(B) Canines
(C) Premolars
(D) Molars
37. The temporary stomach in Amoeba is:
(A) Cytoplasm
(B) Pseudopodia
(C) Nucleus
(D) Vacuole
38. The type of teeth used for chewing and grinding the food in a child
(A) Incisors
(B) Canines
(C) Premolars
(D) Molars
39. The process of taking in food by an animal and its utilization in the body is called:
(A) Ingestion
(B) Digestion
(C) Nutrition
(D) egestion
40. The site of complete digestion and absorption is:
(A) Stomach
(B) small intestine
(C) large intestine
(D) rectum
41. The type of teeth used for piercing and tearing the food
(A) Incisors
(B) Canines
(C) Premolars
(D) Molars
42. Which part of alimentary canal is involved in killing of bacteria
(A) Mouth
(B) Stomach
(C) Large intestine
(D) Rectum
43. Which part of alimentary canal is involved in formation of faeces
(A) Mouth
(B) Stomach
(C) Large intestine
(D) Rectum
44. Which of the following carbohydrate can be digested by a cow but not by a man:
(A) Glucose
(B) Cellulose
(C) Starch
(D) Cane sugar
45. The digestion of a particular food in a small intestine produces amino acids. This food must contain mainly:
(A) Fats
(B) vitamins
(C) Carbohydrates
(D) Proteins

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