NARAYANA
IIT-JEE / NEET / FOUNDATIONS
(A Unit of NSPIRA Management Services Pvt. Ltd.)

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43 YEARS OF EXCELLENCE

N-SCORE-2022

CLASS – VIII: - (Mental Ability, Mathematics & Science)
(Class VII Moving to VIII)

(SET-2)
N-SCORE TEST

Time Duration: 1 Hour   *Maximum marks: 140*

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

INSTRUCTIONS:

1. This question paper contains **35** questions: **Mental Ability (Q. No. 1 to Q. No. 7), Mathematics (Q. No. 8 to Q. No. 14), Physics (Q. No. 15 to Q. No. 21), Chemistry (Q. No. 22 to Q. No. 28) & Biology (Q. No. 29 to Q. No. 35)**

2. There will be individual qualifying cut-offs for all sections.

3. **For Each correct answer 4 marks will be awarded. No Negative Marking.**

4. Use OMR-Sheet for answering

5. Use HB Pencil / Pen to darken the circles.

6. If you wish to change your answer, erase the already darkened circle completely and then darken the appropriate circle.

7. Use of a calculator and mobile phone is strictly prohibited during the exam.

MENTAL ABILITY (MAT)

1.   Find the missing number in the following series?
     4, 18, ?, 100,180,294,448
   (A) 48   (B) 50   (C) 58   (D) 60

2.   Find the missing number in the following series?
     3, 5, 5, 19, 7, 41, 9, ?
     (A) 71   (B) 61   (C) 79   (D) 69

3.   If × stands for 'addition' ÷ stands for 'subtraction', + stands for 'multiplication' and – stands for 'division', then $20 \times 8 \div 8 - 4 + 2 = ?$
     (A) 80   (B) 25   (C) 24   (D) 5

4.   Which number replaces the equation mark?
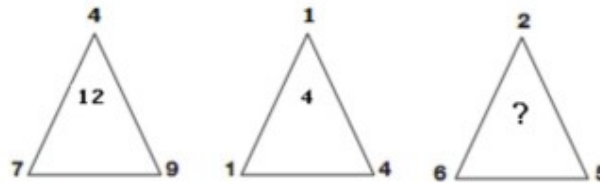
     (A) 7   (B) 8   (C) 9   (D) 10

5.   Pointing to a person, a man said to a woman, "His mother is the only daughter of your father. " How was the woman related to the person?
     (A) Aunt   (B) Mother   (C) Wife   (D) Daughter

6.   One morning after sunrise, Suresh was standing as facing a pole. The shadow of the pole fell exactly to his right. In which direction was he facing?
     (A) East   (B) West   (C) South   (D) Data is inadequate

7.   Find the missing character in the following questions.
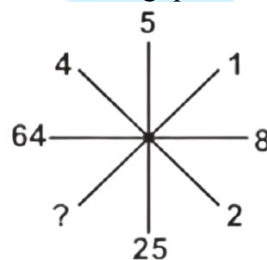
     (A) 1   (B) 2   (C) 3   (D) 4

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MATHEMATICS

8.   The exponential form of 125 is

A) 5^4 B) 5^3 C) 5^2 D) none of these

9.   For what smallest value of n, $2n+1$ is not a prime number is

(A) 3   (B) 4   (C) 5   (D) 1

10.   Which of the following has the largest value?

(A) $\dfrac{32}{0.05}$ (B) $\dfrac{0.320}{50}$ (C) $\dfrac{3.2}{0.05}$ (D) $\dfrac{3.2}{50}$

11.   If $m = \dfrac{3x-4}{5}$; $n = \dfrac{x-7}{3}$ and $3(m+n) = 13$ then the value of x is ?

(A) 6   (B) 8   (C) 10   (D) 16

12.   The median of following series 520, 20, 340, 190, 35, 800, 1210, 50, 80 is

(A) 1210   (B) 520   (C) 190   (D) 35

13.   Which is smaller out of $\dfrac{5}{-6}$ and $\dfrac{-7}{12}$?

(A) $\dfrac{5}{-6}$ (B) $\dfrac{-7}{12}$

(C) Cannot be compared   (D) None of these

14.   In the given figure, if $PQ \parallel BC$, angle $B = 80^0$, angle $C = 40^0$ then the values of x, y, z are

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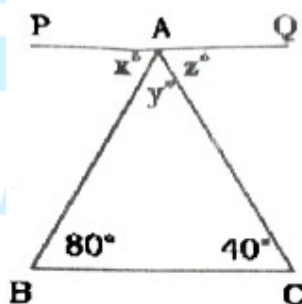
(A) $x = 80^0, y = 40^0, z = 60^0$ 　　　　　(B) $x = 80^0, y = 60^0, z = 40^0$

(C) $x - y = 20^0$ 　　　　　(D) $x + y = 100^0$

PHYSICS

15. The diagram ⎯⊙⎯ is a symbol of

(A) Battery 　　　(B) Electric cell 　　　(C) Electric bulb 　　　(D) Voltmeter

16. The wire which melts and breaks the circuit when large current is flow through it is called
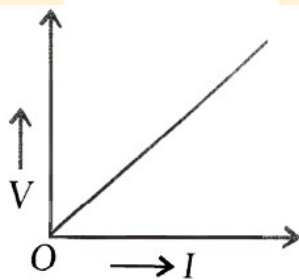
(A) A fuse wire 　　　(B) Electric wire 　　　(C) Connecting wire 　　　(D) Filament

17. The slope voltage (V) versus current (I) is called

(A) Charge 　　　(B) Resistance 　　　(C) Current 　　　(D) None of these

18. The mirror formula is _____.

(A) $1/u - 1/v = 1/f$ 　(B) $1/f - 1/u = 1/v$ 　(C) $f = uv/(u+v)$ 　(D) $f = (u+v)/u+v$

19. The velocity of light in vacuum is _____ ms^{-1}.

(A) 3×10^6 　　　(B) 3×10^8 　　　(C) 6×10^4 　　　(D) 4×10^9

20. Tropical cyclones that originate in the U.S.A.

(A) Tornado 　　　(B) Cyclones 　　　(C) Typhoons 　　　(D) Hurricanes

21. Choose the correct relation

(A) $S = \left(\dfrac{u+v}{2}\right) \times t$ 　(B) $S = \left(\dfrac{u+t}{2}\right) \times v$ 　(C) $S = \left(\dfrac{v+t}{2}\right) \times u$ 　(D) $S = \left(\dfrac{2}{u+v}\right) \times t$

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CHEMISTRY

22. The changes in state from solid to liquid and again from liquid to solid are:
(A) Physical change   (B) Chemical change
(C) Periodic changes   (D) Non-periodic changes

23. Which of the following is a chemical change?
(A) Bursting of a firecracker   (B) Germination of seed
(C) Coal formation from buried trees   (D) All of these

24. $Acid + Base \longrightarrow$ _____ $+ water$
(A) Indicator   (B) Salt   (C) Atom   (D) Molecule

25. The silkworm is
(A) A caterpillar   (B) A larva
(C) A caterpillar as well as larva   (D) Neither caterpillar nor larva

26. Which type of wool is common in Tibet and Ladakh.
(A) Yak wool   (B) Sheep wool   (C) Angora wool   (D) Pashmina wool

27. Which of the following compounds is present in an antacid?
(A) Calcium hydroxide   (B) Sodium hydroxide
(C) Magnesium hydroxide   (D) Barium hydroxide

28. When an ant stings a person, it injects a liquid into the skin of the person which contains
(A) Acetic acid   (B) Calcium hydroxide
(C) Formic acid   (D) Potassium hydroxide

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BIOLOGY

29. Which bacterium takes atmospheric nitrogen and converts it into a usable form?
   (A) *Bacillus*   (B) *Streptococcus*   (C) *Rhizobium*   (D) *Vibrio*

30. The mode of nutrition in which organisms take in nutrients from dead and decaying matter is called
   (A) Autotrophic nutrition   (B) Parasitic nutrition
   (C) Symbiotic nutrition   (D) Saprophytic nutrition

31. Which one is not the part of the alimentary canal?
   (A) Buccal cavity   (B) Kidney   (C) Stomach   (D) Intestine

32. Bile juice is stored in
   (A) Gall bladder   (B) Urinary bladder   (C) Stomach   (D) Buccal cavity

33. Which one is not correct for anaerobic respiration?
   (A) It is partial oxidation of glucose   (B) Products are CO_2 and ethyl alcohol
   (C) It occurs in the presence of oxygen   (D) Energy is liberated

34. After fertilization, the zygote develops into
   (A) Ovule   (B) Ovary   (C) appendix   (D) Embryo

35. Which organ beats continuously to act as a pump for the transport of blood?
   (A) Brian   (B) Heart   (C) Kidney   (D) Lungs

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