WISDOM WORLD SCHOOL, KURUKSHETRA

Wisdom Aptitude Test (WAT)

for

Admission to Grade IX (Aadhar Batch)
Date : 15 January 2023 | Time : 10:30 am to 1:00 pm

PATTERN OF WAT

Multiple choice questions with single correct option type.
Each question carry 2 marks and there is no negative marking.
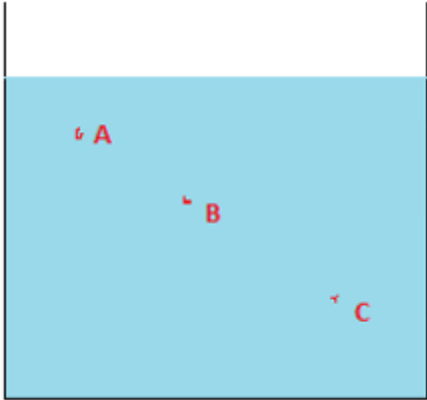
Syllabus for WAT (Grade IX)

Science	Metal and Non-Metals, Cell Structure and its Functions Reaching the age of Adolescence, Force & Pressure, Sound, Friction
Mathematics	Rational Numbers, Exponents and Powers, Squares and Square Roots, Cubes and Cube Roots, Algebraic Expressions and Identities, Linear Equations in one Variable, Comparing Quantities, Understanding Quadrilaterals, Mensuration
Reasoning	**Verbal :** Number and Alphabet Series, Alphabet Test, Coding-Decoding, Analogy, Blood Relation, Number Ranking **Non-Verbal :** Cubes and Dices, Counting figures, Paper Folding & Cutting, Mirror & Water Images

Marking Scheme

Subjects	No. of Questions	Total Marks
Physics	10	20
Chemistry	10	20
Biology	10	20
Mathematics	30	60
Reasoning	20	40
Total	**80**	**160**
Time Allowed : 2 hours 30 minutes		

Sample Questions for WAT (Grade IX)

PHYSICS

1. When the amplitude is small, the sound produced is:

   (a) Feeble   (b) Loud   (c) Low Pitched   (d) None of these

2. Calculate the pressure exerted by an object having weight 2020 N on an area of dimension 5m by 2m.

   (a) 200 Pa   (b) 1010 Pa   (c) 202 Pa   (d) 404 Pa

3. The below figure shows a container filled with water. Which of the following statements is correct about pressure of water?

   (a) Pressure at A > Pressure at B > Pressure at C

   (b) Pressure at A = Pressure at B = Pressure at C

   (c) Pressure at A < Pressure at B > Pressure at C

   (d) Pressure at A < Pressure at B < Pressure at C

4. In a periscope how are the reflecting mirrors arranged?

   (a) Perpendicular to each other   (b) Parallel to each other

   (c) At an angle of 90 degree   (d) At an angle of 60 degree

5. Myopia is corrected by:

   (a) Convex mirror   (b) Concave lens

   (c) Concave mirror   (d) Convex lens

CHEMISTRY

6. Which one of the following four metals would be displaced from the solution of its salt by the other three metals?

   (a) Zn   (b) Ag   (c) Cu   (d) Mg

7. In electrolysis of water, which gas is liberated at anode?

   (a) Chlorine   (b) Oxygen   (c) Hydrogen   (d) Nitrogen

8. Choose the metals in the increasing order of their reactivity.

   (a) Ag, Cu, Ca, K   (b) Cu, Ag, K, Ca   (c) K, Cu, Ag, Ca   (d) Ca, K, Ag, Cu

9. Who proposed the laws of electrolysis?

   (a) Michael Faraday   (b) J.J. Thomson   (c) Proust   (d) Lavoisier

10. Which non-metal is used for disinfection of water?

    (a) Bromine   (b) Fluorine   (c) Chlorine   (d) Iodine

BIOLOGY

11. All viruses consist of:
    (a) Protein coat
    (b) Nucleic Acid
    (c) Both (a) and (b) are correct
    (d) None of the above

12. Which of the following glands produces more than one hormone?
    (a) Pancreas
    (b) Liver
    (c) Pituitary
    (d) Thyroid

13. Chromosome carry _____ which transfers characters from parents to offspring
    (a) Ribosome
    (b) Genes
    (c) Plastid
    (d) Mitochondri

14. Micro-organisms were first observed by
    (a) Robert Hooke
    (b) Anton Van Leeuwenhoek
    (c) Charles Darwin
    (d) Camillo Golgi

15. The smallest cell in the human body is
    (a) Bacteria
    (b) PPLO
    (c) RBC
    (d) Platelets

MATHEMATICS

16. If $3^{(x-y)} = 27$ and $3^{(x+y)} = 243$, then x is equal to _____.
    (a) 0
    (b) 2
    (c) 4
    (d) 6

17. If $1800 = 2^a \times 3^b \times 5^c$, then the value of a + b + c is _____.
    (a) 9
    (b) 7
    (c) 8
    (d) 10

18. A watch worth Rs. 2424 is offered for sale at Rs. 2020. What percent discount is offered during the sale?
    (a) $\frac{49}{3}\%$
    (b) $\frac{50}{3}\%$
    (c) $\frac{25}{3}\%$
    (d) $\frac{34}{3}\%$

19. The solution of $\frac{x-5}{2} - \frac{x-3}{5} = \frac{1}{2}$ is _____.
    (a) x = 7
    (b) x = 9
    (c) x = 8
    (d) x = 5

20. The value of $\frac{2^{2020} + 2^{2018}}{2^{2019} - 2^{2017}}$ is:
    (a) 2
    (b) $\frac{10}{3}$
    (c) $2^{2020} + 1$
    (d) 10

21. Find the product of $(x^2 + x + 1)$ and $(x^2 - x + 1)$:
    (a) $x^4 - x^2 + 1$
    (b) $x^4 + x^2 + 1$
    (c) $x^4 + x^2 - 1$
    (d) $x^4 - x^2 - 1$

3

22. Fifteen years from now Ravi's age will be four times the age 15 years ago from now. His present age is:

    (a) 40 years   (b) 10 years   (c) 25 years   (d) 75 years

23. The length of the longest pole that can be put in a room of dimensions 10m × 10 m × 5 m is:

    (a) 16 m   (b) 15 m   (c) 10 m   (d) 12 m

24. The diagonals of a rhombus are 24 cm and 10 cm. What is the perimeter of the rhombus?

    (a) 13 cm   (b) 52 cm   (c) 25 cm   (d) 72 cm

25. A rectangular paper for length 30 cm and width 44 cm is rolled along its width and a cylinder is formed. Find the volume of the cylinder.

    (a) 462000 cm^3 (b) 462 cm^3 (c) 46200 cm^3 (d) 4620 cm^3

26. Two cylinders of equal volume have their heights in ratio 2 : 1. What is the ratio of their radii?

    (a) 4 : 1   (b) 1 : 4   (c) $\sqrt{2}:1$ (d) $1:\sqrt{2}$

27. What is the total length of edges of the cube of edge 2.5 cm?

    (a) 30 cm   (b) 36 cm   (c) 48 cm   (d) None of these

28. The area of an isosceles triangle having base x cm and one side y cm is:

    (a) $\dfrac{x}{2}\sqrt{y^2 + \dfrac{x^2}{4}} \text{ cm}^2$ (b) $\dfrac{x}{2}\sqrt{\dfrac{4y^2 - x^2}{4}} \text{ cm}^2$ (c) $\dfrac{x^2 - y^2}{4} \text{ cm}^2$ (d) None of these

29. Area of a Rhombus is 2020 m^2 and its altitude is 101 m, then the perimeter of the Rhombus is

    (a) 100 m   (b) 200 m   (c) 120 m   (d) 80 m

30. Number of vertices of a tetrahedron is
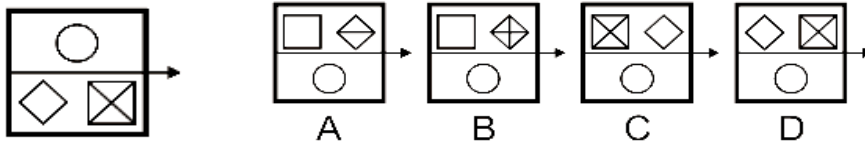
    (a) 4   (b) 6   (c) 8   (d) 12

REASONING

31. Find the next term in the given series: 2, 3, 10, 15, 26, …

    (a) 34   (b) 35   (c) 36   (d) 37

32. If Q means add to, J means multiply by, T means subtract from and K means divide by then find out the value of:

    30 K 2 Q 3 J 6 T 5

    (a) 18   (b) 28   (c) 31   (d) 103

33. What will come in the blanks of the given series: _ _ aba _ _ ba _ ab

    (a) abbba   (b) abbab   (c) baabb   (d) bbaba

34. In a certain code language CHILD is written as IMOQJ. How will BABE be written in the same language?

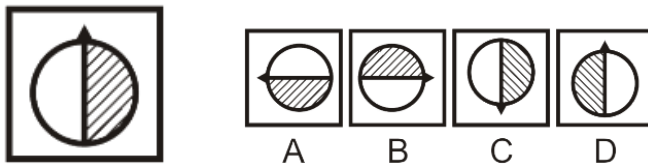   (a) HFHJ   (b) FGFK   (c) FFGJ   (d) HFGJ

35. Among five children T, Q, H, J and F each having a different height. T is taller than only J and H is shorter than only F. Who among them is the third in order of height?

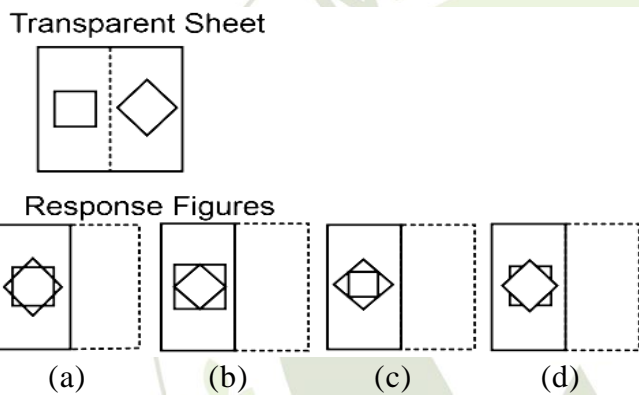   (a) F   (b) Q   (c) H   (d) J

36. Find the water image of the given image out of the given alternatives.

37. Find the mirror image of the given image out of the given alternatives.

38. Find out among the four alternatives (a), (b), (c), (d), how the pattern would appear when the transparent sheet (X) is folded at the dotted line.

Transparent Sheet

Response Figures

    (a)   (b)   (c)   (d)

39. Find the number of triangles in the given figure.

    (a) 5   (b) 6   (c) 10   (d) 8

40. What will come next in the given alphabetical series: BYDW, FUHS, JQLO, NMPK,

    (a) RITG   (b) RJGH   (c) IRGT   (d) HPIN

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