ISAT
INFINITY SCHOLAR'S HUB
SCHOLASTIC APTITIUDE TEST

Practice Test - 2

Class - VIII

(For students moving to Class IX)

SUBJECTS

Science
- Physics
- Chemistry
- Biology

Mathematics

Mental Ability

ISAT Practice Test ②

Time: 1 Hr 15 Min
Maximum Marks: 168

CLASS-8

General Instructions

1. There are a total of **42** multiple choice questions.
2. This test contains 5 section (Physics, Chemistry, Biology, Mathematics & Mental Ability).
3. **Marking Scheme:**
   +4 Correct Response, **-1** Incorrect Response, **0** No response

DATE: _____/_____/_____

NAME: ....

PHYSICS

(1) Boojho and Paheli performed experiments taking similar bulbs and cells but two different solutions A and B as shown in Fig.

Boojho's Experiment
(A)

Paheli's Experiment
(B)

Solution A

Solution B
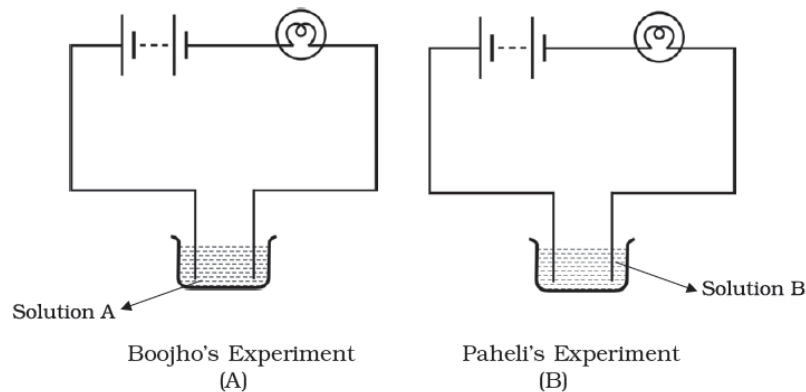
They found that the bulb in the setup A glows more brightly as compared to that of the setup B. You would conclude that
(a) higher current is flowing through the circuit in setup A.
(b) higher current is flowing through the circuit in setup B.
(c) equal current is flowing through both the circuits.
(d) the current flowing through the circuits in the two setups cannot be compared in this manner.

(2) A brick is kept in three different ways on a table as shown in Fig. The pressure exerted by the brick on the table will be


A   B   C
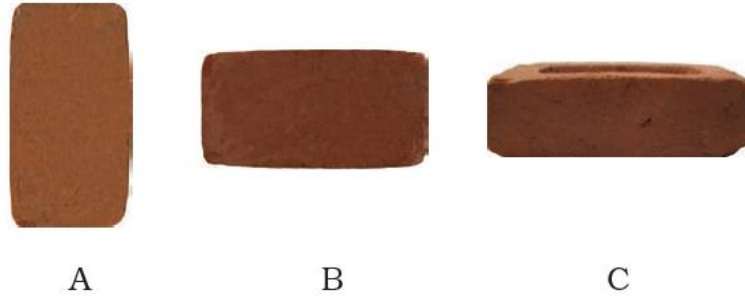
(a) maximum in position A   (b) maximum in position B

(c) maximum in position C   (d) equal in all cases.

(3) In a large commercial complex there are four ways to reach the main road. One of the path has loose soil, the second is laid with polished marble, the third is laid with bricks and the fourth has gravel surface. It is raining heavily and Paheli wishes to reach the main road. The path on which she is least likely to slip is

(a) loose soil.   (b) polished marble.

(c) bricks.   (d) gravel.

(4) Which of the following figures depicts the position of pole star correctly?

(a)   (b)

(c)   (d)
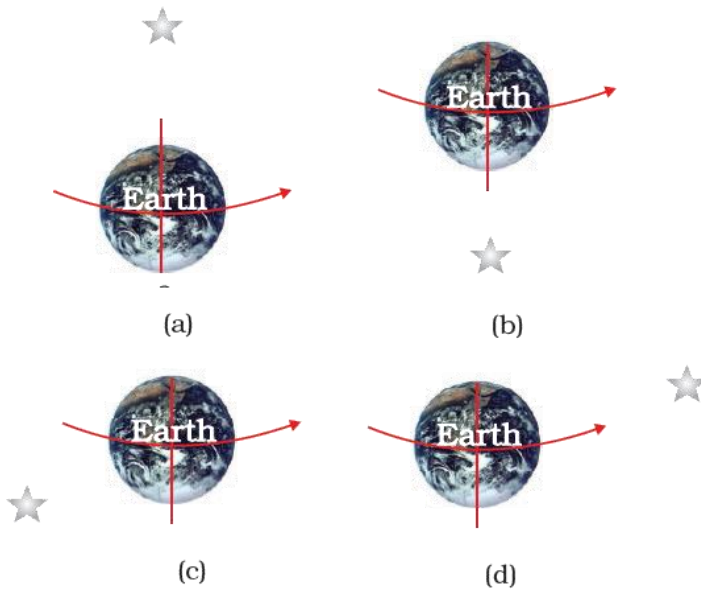
(5) Which of the following statements are correct?

(i) Sound is produced by vibrations.

(ii) Sound requires a medium for propagation.

(iii) Light and sound both require a medium for propagation.

(iv) Sound travels slower than light.

(a) i & ii only   (b) i, ii & iii only   (c) ii, iii & iv only   (d) i, ii & iv only

(6) Two charged objects are brought close to each other. Choose the most appropriate statement from the following options:

(a) they may attract

(b) they may repel

(c) they may attract or repel depending on the type of charges they carry

(d) there will be no effect

(7) Light is falling on surface S_1, S_2, S_3 as shown in Fig.

Surface S_1 Surface S_2 Surface S_3
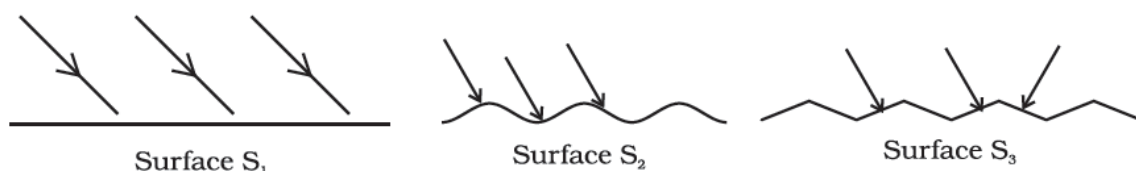
Surfaces on which the angle of incidence is equal to the angle of reflection is/are

(a) S_1 only   (b) S_1 and S_2 only

(c) S_2 and S_3 (d) all the three surfaces

CHEMISTRY

(8) Synthetic fibre is preferred over natural fibre due to

(a) Durability   (b) Easy availability

(c) Cheap   (d) All of these

(9) Galvanization is a method of protecting iron from rusting by coating with a thin layer of

(a) silver   (b) gallium   (c) zinc   (d) aluminium

(10) Which of the following does not compose?

(a) jute   (b) cotton   (c) plastic   (d) wool

(11) The metal which is liquid at room temperature is

(a) sodium   (b) bromine   (c) calcium   (d) mercury

(12) The substance added to detect the leakage of LPG is

(a) methyl mercaptan   (b) ethyl mercaptan

(c) both (a) and (b)   (d) none of these

(13) Neutralization reaction is an example of-

(a) Exothermic reaction   (b) Endothermic reaction

(c) Oxidation   (d) None of these

(14) Removing of silk fibre from cocoons is-

(a) shearing   (b) reeling   (c) sericulture   (d) None of these

BIOLOGY

(15) The process of loosening and turning of soil is called

(a) irrigation and manuring   (b) digging and winnowing

(c) tilling and ploughing   (d) harvesting and storage

(16) The organism which act as indicators of air pollution are

(a) protozoa   (b) alga   (c) bacteria   (d) Lichen

(17) The characteristic of a nerve cell that relates directly to its function is its

(a) Long extensions   (b) Flat shape

(c) Ability to change shape   (d) Ability to engulf bacteria

(18) The longest cell is

(a) Mycoplasma   (b) Neuron   (c) PPLO   (d) Ostrich egg

(19) Functional segments of DNA are called

(a) Genes   (b) Chromosomes   (c) Chromatin   (d) Centrosome

(20) Cell wall of plants is made up of

(a) starch   (b) lignin   (c) cellulose   (d) protein

(21) Organisms which prepare food for themselves using simple naturally available raw materials are referred to as

(a) heterotrophs   (b) autotrophs   (c) parasites   (d) saprophytes

MATHEMATICS

(22) The numerical expression $\dfrac{3}{8} + \dfrac{(-5)}{7} = \dfrac{-19}{56}$ shows that

(a) rational numbers are closed under addition.

(b) rational numbers are not closed under addition.

(c) rational numbers are closed under multiplication.

(d) addition of rational numbers is not commutative.

(23) The value of $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$ is

(a) 14   (b) 12   (c) 16   (d) 13

(24) Which of the following numbers is not a perfect cube?

(a) 216   (b) 567   (c) 125   (d) 343

(25) The shifting of a number from one side of an equation to other is called

(a) Transposition   (b) Distributivity   (c) Commutativity   (d) Associativity

(26) The digit in the tens place of a two digit number is 3 more than the digit in the units place. Let the digit at units place be b. Then the number is

(a) 11b + 30   (b) 10b + 30   (c) 11b + 3   (d) 10b + 3

(27) If the diagonals of a quadrilateral bisect each other at right angles, it will be a

(a) rhombus   (b) trapezium   (c) rectangle   (d) kite

(28) Which of the following figures do not satisfy any of the following properties?
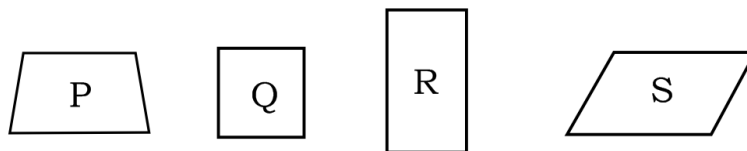
– All sides are equal.

– All angles are right angles.

– Opposite sides are parallel.

(a) P   (b) Q   (c) R   (d) S

(29) If $\dfrac{7}{3}\%$ of a number is 42, then the number is

(a) 9800   (b) 8   (c) 1800   (d) 180

(30) Rs 1600 lent at a compound interest of 5% per annum, compounded half yearly for one year will amount to:

(a) Rs 1640   (b) Rs 1680   (c) Rs 1681   (d) Rs 1764

(31) One packet of biscuits requires $2\frac{1}{2}$ cups of flour and $1\frac{2}{3}$ cups of sugar. Estimated total quantity of both ingredients used in 10 such packets of biscuits will be

(a) less than 30 cups   (b) between 30 cups and 40 cups

(c) between 40 cups and 50 cups   (d) above 50 cups

(32) $[(-8) \times (-3)] \times (-4)$ is not equal to

(a) $(-8) \times [(-3) \times (-4)]$ (b) $[(-8) \times (-4)] \times (-3)$

(c) $[(-3) \times (-8)] \times (-4)$ (d) $(-8) \times (-3) - (-8) \times (-4)$

(33) If the sides of a parallelogram are increased to twice its original lengths. How much will the perimeter of the new parallelogram?

(a) 1.5 times   (b) 2 times   (c) 3 times   (d) 4 times

(34) In Fig., PA || BC || DT and AB || DC. Then, the values of a and b
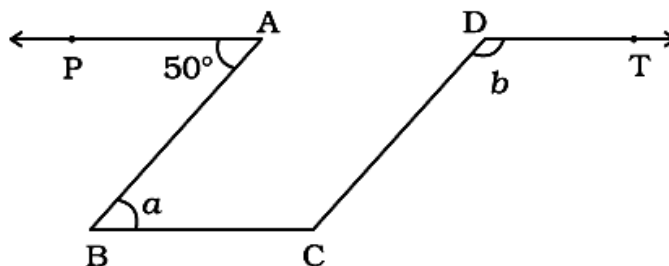
(a) 60°, 120°   (b) 50°, 130°   (c) 70°, 110°   (d) 80°, 100°

(35) Value of $\dfrac{10^{22} + 10^{20}}{10^{20}}$ is

(a) 10   (b) 10^{42} (c) 101   (d) 10^{22}

MENTAL ABILITY

(36) AZ, GT, MN, ... , YB

(a) KF   (b) RX   (c) SH   (d) TS

(37) Choose the missing term from the given options. KM5, IP8, GS11, EV14, ...

(a) BX17   (b) BY17   (c) CY18   (d) CY17

(38) Arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence.

1. Wrinkle 2. Wriggle 3. Writhe 4. Wretch 5. Wrath

(a) 4, 5, 1, 2, 3   (b) 5, 4, 2, 1, 3   (c) 4, 2, 5, 1, 3   (d) 5, 2, 1, 3, 4

(39) If in a certain code language, TWENTY is coded as 863985 and ELEVEN is coded as 323039, how will TWELVE be coded?

(a) 863903   (b) 86365   (c) 863203   (d) 683583

(40) If in a certain language, 'IMAGE' is written as '571319', then 'SMALL' will be written as

(a) 212113191   (b) 211211391   (c) 191311212   (d) 39421919

(41) A watch reads 4.30 If the minute hand points East, in what direction will the hour hand point?

(a) North   (b) North-west   (c) South-east   (d) North-east

(42) From the positions in original figure, C and A move diagonally to opposite corners and then one side each clockwise and anti-clockwise respectively. B and D move two sides each clockwise and anti-clockwise respectively. Where is A now?
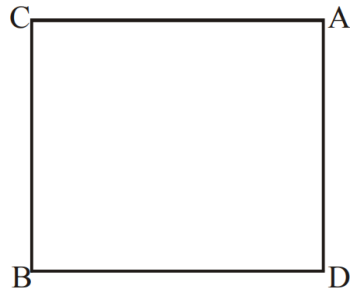
(a) At the south-west corner   (b) At the north-east corner

(c) At the south east corner   (d) At the south-west corner

CONGRATULATIONS
ISAT 2022
Toppers

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CLASS-8-ISAT-PRACTISE TEST-2-ANSWER KEY

1.	(a)	2.	(a)	3.	(d)	4.	(a)	5.	(d)	6.	(c)	7.	(d)	8.	(d)
9.	(c)	10.	(c)	11.	(d)	12.	(b)	13.	(a)	14.	(b)	15.	(c)	16.	(d)
17.	(a)	18.	(b)	19.	(a)	20.	(c)	21.	(b)	22.	(a)	23.	(c)	24.	(b)
25.	(a)	26.	(a)	27.	(a)	28.	(a)	29.	(c)	30.	(c)	31.	(c)	32.	(d)
33.	(b)	34.	(b)	35.	(c)	36.	(c)	37.	(d)	38.	(b)	39.	(b)	40.	(a)
41.	(d)	42.	(d)												