

SAMPLE PAPER



TALENT HUNT EXAM

2017

for Class VIII, IX & X Studying Students

Science, Mathematics & Mental Ability



Aakash

Medical | IIT-JEE | Foundations

(Divisions of Aakash Educational Services Pvt. Ltd.)

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Aakash National Talent Hunt Exam 2017

(For VIII Studying)

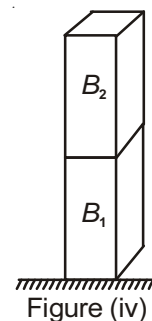
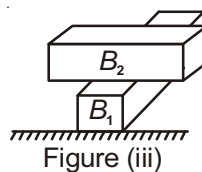
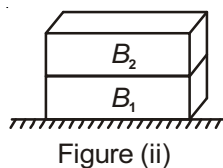
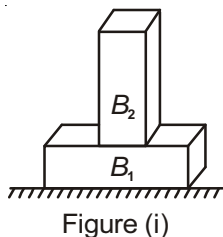
(The questions given in sample paper are indicative of the level and pattern of questions that will be asked in ANTHE-2017)

SECTION-A : SCIENCE

1. Choose the incorrect statement
 - (1) Friction can be reduced by converting sliding friction into rolling friction
 - (2) Friction does not depend on how hard the two surfaces are pressed against each other
 - (3) Walking is possible due to friction
 - (4) When the objects move in liquids, they lose energy because of fluid friction

2. When electricity is passed through water, bubbles of oxygen and hydrogen are respectively released at electrodes connected to _____ and _____ terminals of a cell.
 - (1) Negative, positive
 - (2) Positive, negative
 - (3) Positive, positive
 - (4) Negative, negative

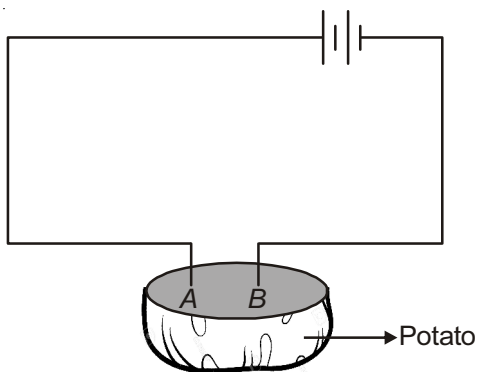
3. Two identical cuboidal shaped bricks, B_1 and B_2 , are arranged on the horizontal floor as shown in the following figures. The pressure exerted on the floor will be



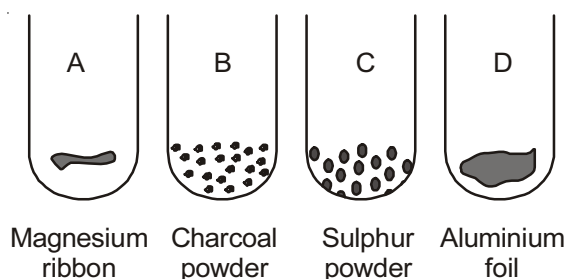
- (1) Maximum in figure (i) only
 - (2) Maximum in figure (ii) only
 - (3) Minimum in figure (iv) only
 - (4) Equal in the figures (i), (ii) and (iii)
-
4. An object oscillates 3600 times in 1 minute. The frequency of its oscillation is
 - (1) 60 Hz
 - (2) 3600 Hz
 - (3) $\frac{1}{60}$ Hz
 - (4) $\frac{1}{3600}$ Hz

Space for Rough Work

5. The terminals *A* and *B* of a copper wire are inserted into a piece of potato connected to a battery as shown below. The region of the potato around wire connected to positive terminal of the battery



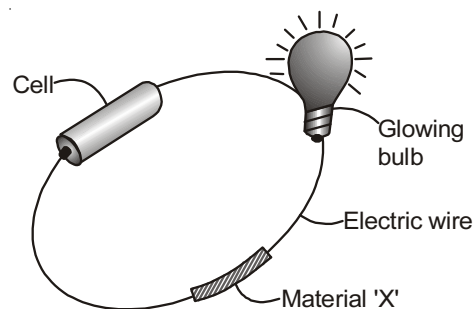
- (1) Becomes reddish blue
 (2) Becomes greenish blue
 (3) Shows no change of colour
 (4) Becomes black in colour
6. Consider the following figure



With the help of a dropper, a few drops of dilute hydrochloric acid were added to each of the given test tubes and warmed gently. Which of the given samples does not produce pop sound on bringing a burning matchstick near the mouth of each of the test tubes?

- (1) Only B (2) A, B & C
 (3) C & D (4) B & C

7. Which of the following sets contains only natural fibres?
- (1) Cotton, nylon, wool, silk
 (2) Cotton, jute, silk, wool
 (3) Cotton, rayon, silk, wool
 (4) Wool, silk, rayon, nylon
8. Which of the following materials is the best for making dress/apron that can be used while working in the kitchen or in the laboratory?
- (1) Polyester
 (2) Acrylic
 (3) Nylon
 (4) Cotton
9. Consider the given figure



Material 'X' cannot be

- (1) Graphite rod
 (2) Iron nail
 (3) Copper wire
 (4) Coal piece

Space for Rough Work

10. X is a thermosetting plastic which is commonly used for making floor tiles and kitchenwares. Plastic X is
- (1) Teflon
 - (2) PET
 - (3) PVC
 - (4) Melamine
11. Namita visited a very large area. Her father told that it is a protected area meant for conservation of wild life, plant and animal resources. She also saw some tribal people living there. This area is a
- (1) National park
 - (2) Sanctuary
 - (3) Forest
 - (4) Biosphere reserve
12. **Statement-1** : 2, 4-D is used to kill the weeds without damaging the crops.
- Statement-2** : The process of separating the grain seeds from the chaff is known as harvesting.
- (1) Only statement-1 is correct
 - (2) Both the statements are correct
 - (3) Only statement-2 is correct
 - (4) Both the statements are incorrect
13. Identify the cell structure based on the given information.
- It is generally spherical and located in the centre of the cell.
 - It acts as controlling centre of the activities of the cell.
- (1) Nucleus
 - (2) Ribosome
 - (3) Mitochondria
 - (4) Endoplasmic reticulum

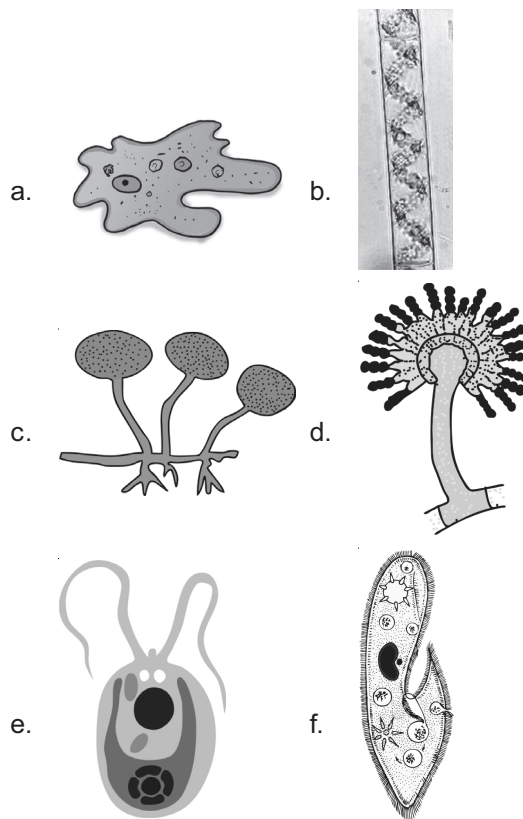
14. Match the following columns and select the correct option.

Column-I

Column-II

- | | |
|------------------|---------------|
| a. Rust of wheat | (i) Virus |
| b. Measles | (ii) Protozoa |
| c. Citrus canker | (iii) Fungi |
| d. Malaria | (iv) Bacteria |
- (1) a(iii), b(iv), c(i), d(ii) (2) a(iii), b(i), c(iv), d(ii)
 (3) a(iv), b(i), c(ii), d(iii) (4) a(i), b(iv), c(iii), d(ii)

15. Which of the given microorganisms belong(s) to group fungi?



- (1) a, b and f (2) c and d
 (3) c only (4) d and e

Space for Rough Work

SECTION-B : MATHEMATICS

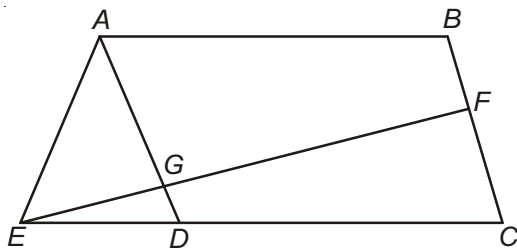
16. The solution of the equation $\frac{x-7}{8} + \frac{x+7}{6} = 0$ is given by

- (1) -0.5 (2) 0
(3) 0.5 (4) -1

17. Out of 253, 257, 11000, 225, 1100 and 256; how many are perfect square numbers?

- (1) 2 (2) 3
(3) 1 (4) 4

18. In the given figure, AED is an isosceles triangle with $AE = AD$. $ABCD$ is a parallelogram and EGF is a line segment. If $\angle DCF = 65^\circ$ and $\angle EFB = 100^\circ$, then the number of diagonals of a regular polygon having its each exterior angle equal to the measure of $\angle AEG$, is



- (1) 32 (2) 65
(3) 44 (4) 54

19. A bag has 4 red balls and x blue balls. If a ball is drawn from the bag without looking into it and the probability of getting a blue ball is $\frac{1}{2}$, then the value of x is

- (1) 2 (2) 4
(3) 8 (4) 12

20. If the difference between the smallest five-digit perfect cube and the greatest four-digit perfect cube is a , then $(a - 56)$ can be a cube of

- (1) 15
(2) 13
(3) 14
(4) 11

21. In a right angled isosceles triangle, if its sides are increased by 75%, then the percentage change in its area is

- (1) 306.25%
(2) 103.125%
(3) 206.25%
(4) 105.125%

22. If the distance of Uranus from Sun is 2870000000 km, then this distance in scientific notation is written as

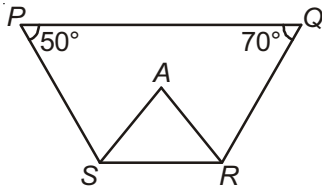
- (1) 2.87×10^{12} cm
(2) 2.87×10^{14} cm
(3) 2.87×10^{11} cm
(4) 2.87×10^{15} cm

23. If $x^x \cdot y^y \cdot z^z = x^y \cdot y^z \cdot z^x = x^z \cdot y^x \cdot z^y$ such that x , y and z are positive integers greater than 1, then which of the following cannot be true for any of the possible value of x , y and z ?

- (1) $xyz = 27$
(2) $xyz = 1728$
(3) $x + y + z = 32$
(4) $x + y + z = 12$

Space for Rough Work

24. In the given figure, if SA and RA are the bisectors of $\angle PSR$ and $\angle QRS$ respectively, then the measure of $\angle SAR$ equals



- (1) 120° (2) 30°
 (3) 80° (4) 60°
25. If a, b, c form a Pythagorean triplet such that $a = \sqrt{1225}$ and $a = 3b - 1$, then the value of c is equal to
- (1) 40 (2) 32
 (3) 38 (4) 37

SECTION-C : MENTAL ABILITY

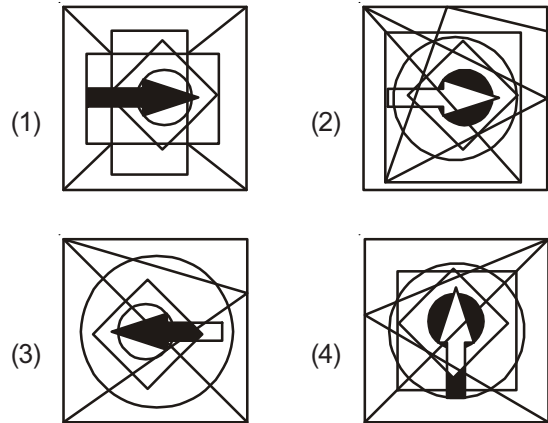
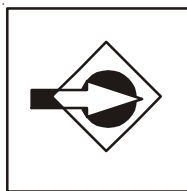
26. If in the word 'AMPLENESSES' all the vowels at even places are replaced by 1, all consonants at even places are replaced by 2, vowels at odd places are replaced by 3 and all consonants at odd places are replaced by 4, then the sum of all digits of the number obtained by replacing the letters in given word is

- (1) 31
 (2) 33
 (3) 34
 (4) 30

27. The next term of the following series is
 5, 7, 10, 26, 17, 63, 26, ?

- (1) 126
 (2) 215
 (3) 124
 (4) 217

28. In which figure, following figure is embedded?



29. $321 : 9 :: 512 : 15 :: 841 : 40 :: 751 : ?$
- (1) 24 (2) 42
 (3) 12 (4) 35
30. In his dream Ram saw that Sun was rising from the west and he was standing on the ground facing the sun. If in the same dream Ram also saw that his brother Laxman was standing left of him such that Laxman was facing him, then in the same dream the shadow of Laxman was lying
- (1) Behind Ram (2) In front of Ram
 (3) Behind Laxman (4) Left of Laxman



Space for Rough Work

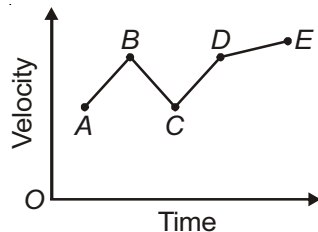
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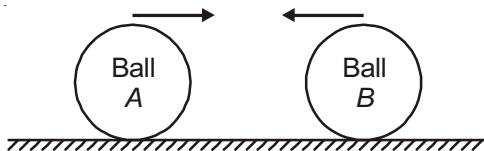
(The questions given in sample paper are indicative of the level and pattern of questions that will be asked in ANTHE-2017)

SECTION-A : SCIENCE

1. In the following velocity-time graph of an object



- (1) The acceleration is positive in part AB and in part CD only
 - (2) The acceleration is positive in part CD and in part DE only
 - (3) The acceleration is positive in part BC and in part DE only
 - (4) The acceleration is positive in part AB , in part CD and in part DE
2. Two balls, A and B are moving towards each other with some constant velocities on a smooth horizontal floor as shown. If they have different masses, then during collision

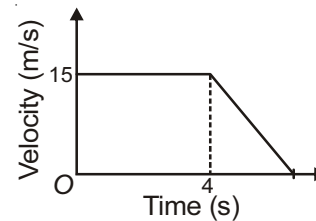


- (1) Rate of change of momentum of A is equal to rate of change of momentum of B in magnitude
- (2) Change of momentum of A is greater than the change of momentum of B in magnitude

- (3) Acceleration of A is always equal to acceleration of B in magnitude

- (4) Rate of change of momentum of A is greater than rate of change of momentum of B in magnitude

3. The given velocity-time graph depicts the motion of an object moving in a straight line. If total distance covered by object is 120 m, then the time duration for which the object has undergone retardation is



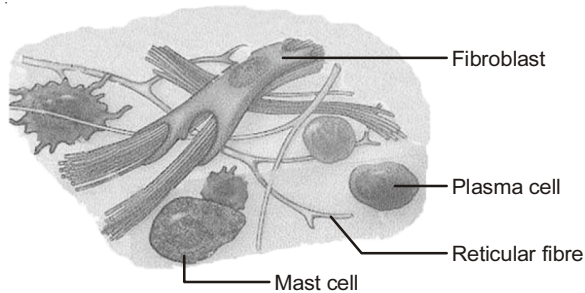
- (1) 4 s
 - (2) 12 s
 - (3) 8 s
 - (4) 10 s
4. An object is dropped from a height of 80 m. It will remain in air for time [Take $g = 10 \text{ m/s}^2$]
- (1) 4 s
 - (2) 8 s
 - (3) 10 s
 - (4) 12 s

Space for Rough Work

5. An object starts moving from rest on a straight line path with uniform acceleration and covers a distance of 100 m in first 10 s. The distance it covers in next 5 s is
- (1) 300 m (2) 125 m
(3) 225 m (4) 25 m
6. Which of the following states of matter has the least interparticle spaces?
- (1) Solid
(2) Liquid
(3) Gas
(4) Plasma
7. It is easy to compress a sponge because
- (i) It has minute holes in which air is trapped.
(ii) Its particles are loosely packed.
(iii) Its particles have weak inter-particle forces of attraction.
- (1) Only (iii)
(2) Only (ii)
(3) (ii) & (iii)
(4) Only (i)
8. Which of the following will not exhibit light scattering phenomenon?
- (1) Jelly
(2) Cloud
(3) Distilled water
(4) Foam
9. The best method used to separate two immiscible liquids from their mixture having boiling points 293 K and 313 K is
- (1) Filtration
(2) Using separating funnel
(3) Distillation
(4) Fractional distillation
10. The mixture of chalk in water possesses all the following properties, **except**
- (1) Their particles can be seen by naked eyes
(2) It can be separated by filtration
(3) It is stable
(4) It is heterogeneous
11. Select the correct option for plant tissues I, II and III w.r.t. the characteristics given below.
- | | |
|------------|--|
| Tissue-I | ❖ Thin cell wall.
❖ Large intercellular spaces. |
| Tissue-II | ❖ Flexibility in plants.
❖ Irregular thickenings at the corners of cell wall. |
| Tissue-III | ❖ Cell wall is thickened with lignin.
❖ Presence of pits. |
- | | Tissue-I | Tissue-II | Tissue-III |
|-----|--------------|--------------|--------------|
| (1) | Collenchyma | Parenchyma | Sclerenchyma |
| (2) | Sclerenchyma | Collenchyma | Parenchyma |
| (3) | Parenchyma | Collenchyma | Sclerenchyma |
| (4) | Parenchyma | Sclerenchyma | Collenchyma |
12. (i) help to keep the cell clean by digesting any foreign material and chlorophyll containing (ii) help in photosynthesis. Here, (i) and (ii) respectively are
- (1) Lysosomes and plastids
(2) Mitochondria and lysosomes
(3) Golgi apparatus and vacuoles
(4) Mitochondria and plastids

Space for Rough Work

13. Identify the tissue depicted below.



- (1) Adipose connective tissue
- (2) Areolar connective tissue
- (3) Blood
- (4) Hyaline cartilage

14. Which of the following characteristics are common to both bacterial cells and animal cells?

- a. They have an outer rigid wall called cell wall.
- b. Ribosomes are present.
- c. Nuclear region is well-defined and surrounded by nuclear membrane.
- d. They are surrounded by plasma membrane.
- e. Nuclear region is called nucleoid.

- (1) a, b and e
- (2) b and d only
- (3) b, d and e
- (4) a, c and e

15. The type of epithelial tissue which forms the ducts of salivary glands is

- (1) Cuboidal
- (2) Columnar
- (3) Squamous
- (4) Ciliated

SECTION-B : MATHEMATICS

16. The angles of a triangle are in the ratio 2 : 6 : 7. The complement of the smallest angle of the triangle is

- (1) 66°
- (2) 24°
- (3) 156°
- (4) 78°

17. If the area of an isosceles right angled triangle is 32 cm^2 , then the length of its longest altitude is equal to

- (1) 12 cm
- (2) 16 cm
- (3) 8 cm
- (4) 4 cm

18. Which of the following is not a factor of $x^4 - 4abx^2 - (a^2 - b^2)^2$?

- (1) $x - (a + b)$
- (2) $x + (a + b)$
- (3) $x^2 + (a + b)^2$
- (4) $x^2 + (a - b)^2$

19. The value of x which satisfies the equation

$$(343)^{-3} = \left(\frac{\sqrt[4]{7^{112/x}}}{\sqrt[9]{49^{45/x}}} \right)^{-1} \text{ is}$$

- (1) 3
- (2) $\frac{1}{3}$
- (3) 2
- (4) $-\frac{1}{2}$

Space for Rough Work

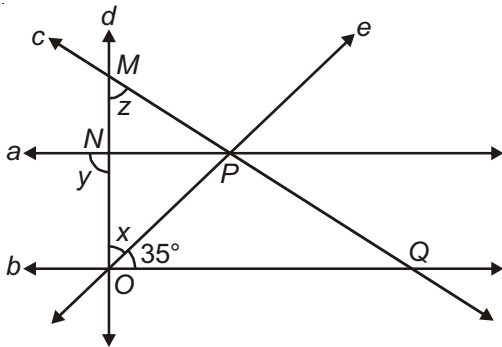
20. In $\triangle ABC$, E and D are two points lying on AB and AC respectively such that CE and BD intersect each other at O . If $\triangle AEC \cong \triangle CDB$, then $\triangle ABC$ will always be a/an

- (1) Obtuse-angled triangle
- (2) Scalene triangle
- (3) Isosceles right-angled triangle
- (4) Equilateral triangle

21. The expression $(a^2 + 4b^2 + 4ab + 6a + 12b + 9)$ equals

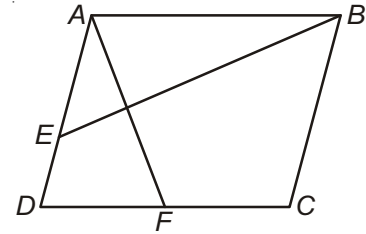
- (1) $(a + 4b + 3)(a + b + 3)$
- (2) $(a + b + 3)(a + 2b + 1)$
- (3) $(a + 3b + 1)(a + 3b + 9)$
- (4) $(a + 2b + 3)(a + 2b + 3)$

22. In the given figure, $a \parallel b$ and c, d, e are transversals. If $\angle MPN = \angle OPN$ and $3\angle OMP = \angle POM$, then the value of $(2y + x - z)$ is



- (1) 360°
- (2) 290°
- (3) 260°
- (4) 310°

23. In the given figure, $ABCD$ is a rhombus. If E and F lie on AD and CD respectively such that $ED = FC$ and $\frac{AF}{BE} = 1$, then the sum of measures of $\angle BED$ and $\angle AFD$ equals



- (1) 90°
- (2) 180°
- (3) 270°
- (4) 150°

24. Which of the following is not a factor of the polynomial $(x^2 + 7x + 9)^2 - 9$?

- (1) $x + 1$
- (2) $x + 3$
- (3) $x + 5$
- (4) $x + 6$

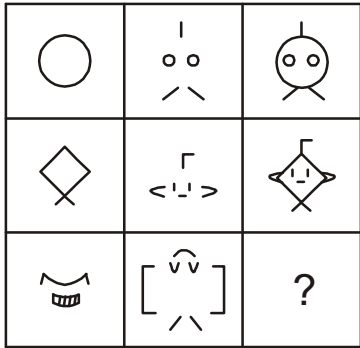
25. A triangle must have

- (1) Exactly two acute angles
- (2) At least two acute angles
- (3) Exactly three acute angles
- (4) At most one acute angle

Space for Rough Work

SECTION-C : MENTAL ABILITY

26. The figure which replaces the ? is

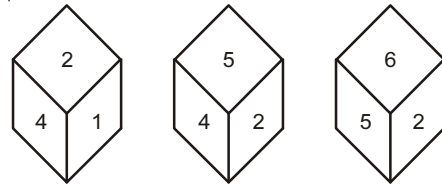


- (1)
- (2)
- (3)
- (4)

27. Four teams A, B, C and D participated in a tournament of kabaddi. Each team played two matches to each other team. D was defeated by C two times while C was defeated by A two times. B won one match each from A, C and D. D defeated A for once. D win only 2 matches in the whole tournament. Who was the winner of tournament?

- (1) A (2) B
- (3) D (4) C

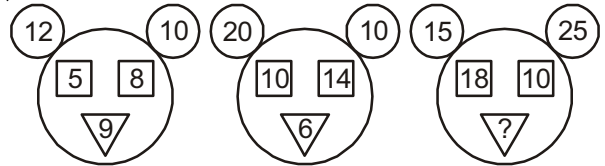
28. The three positions of a dice (not a standard dice) are given below.



The number opposite to the number 2 is

- (1) 1 (2) 4
- (3) 6 (4) 3

29.



- (1) 11
- (2) 14
- (3) 12
- (4) 15

30. $124 : 64 :: 123 : 27 :: 126 : 216 :: 122 : ?$

- (1) 16 (2) 343
- (3) 8 (4) 4



Space for Rough Work

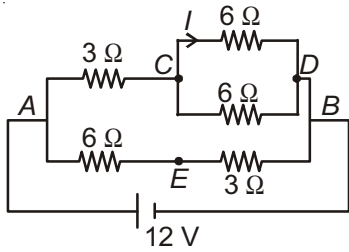
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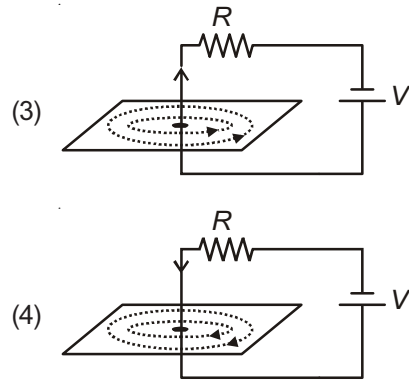
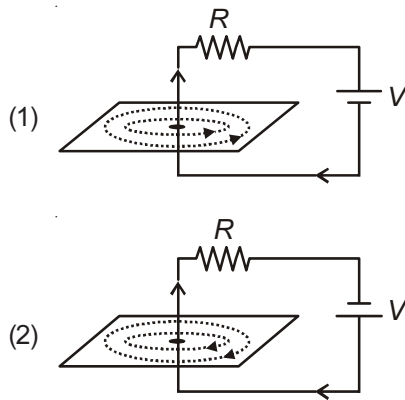
SECTION-A : SCIENCE

1. Find the net current I flowing in the branch CD in the circuit diagram shown below.



- (1) 3 A (2) 1 A
 (3) 2 A (4) $1\frac{1}{2}$ A

2. Choose the circuit diagram which correctly depicts the direction of flow of electric current and magnetic field lines produced by the wire in a horizontal plane.



3. From a dam, water is pouring down at the rate of 150 kg/s, on the blades of a turbine. If a ball dropped from the same dam takes $2\sqrt{5}$ s to hit the turbine, then the power delivered to the turbine is approximately equal to (Take $g = 10 \text{ m/s}^2$)
- (1) 15 W
 (2) 150 kW
 (3) 125 kW
 (4) 15.5 kW
4. While overloading, the fuse melts to protect the circuit because of
- (1) Joule's law of heating
 (2) Ohm's law
 (3) Faraday's law
 (4) Kepler's law of heating

Space for Rough Work

5. Time taken by the sunlight to pass through a window of thickness 4 mm whose refractive index is 1.5, is [Assuming sunlight falls perpendicularly on the window]

- (1) 2×10^{-11} s (2) 2×10^{11} s
(3) 2×10^8 s (4) 2×10^{-8} s

6. Consider the given table

Elements	Number of Protons	Number of Neutrons
Carbon	A	8
X	B	7
Y	8	8
Z	C	9

If carbon and element X are isobars while Y and Z are isotopes, then A, B, X and Z respectively represent

- (1) 6, 7, oxygen and fluorine
(2) 6, 6, nitrogen and fluorine
(3) 6, 7, nitrogen and oxygen
(4) 7, 7, oxygen and nitrogen
7. The number of moles of ammonia that have the same mass as that of 3 moles of carbon dioxide is
- (1) 0.19 mol
(2) 2.58 mol
(3) 9.04 mol
(4) 7.76 mol
8. Match the following and choose the correct option.

Chemical Reaction	Type
i. Slaking of lime	(a) Endothermic
ii. Respiration	(b) Combination
iii. Neutralisation	(c) Exothermic
iv. Decomposition of limestone	

- (1) i(b,c); ii(c); iii(c,a); iv(a,b)
(2) i(c); ii(b); iii(b,c); iv(a)
(3) i(a,b); ii(b,c); iii(c); iv(b)
(4) i(b,c); ii(c); iii(c); iv(a)

9. Which of the following reactions is responsible for the shiny finish of the walls after three to four days of white washing?

- (1) $\text{CaO(s)} + \text{H}_2\text{O(l)} \longrightarrow \text{Ca(OH)}_2\text{(aq)}$
(2) $\text{Ca(OH)}_2\text{(aq)} + \text{Cl}_2\text{(g)} \rightarrow \text{CaOCl}_2\text{(s)} + \text{H}_2\text{O(l)}$
(3) $\text{Ca(OH)}_2\text{(aq)} + \text{CO}_2\text{(g)} \rightarrow \text{CaCO}_3\text{(s)} + \text{H}_2\text{O(l)}$
(4) $\text{NaHCO}_3\text{(s)} + \text{HCl(l)} \rightarrow \text{NaCl(s)} + \text{H}_2\text{O(l)} + \text{CO}_2\text{(g)}$

10. Consider the given chemical equations

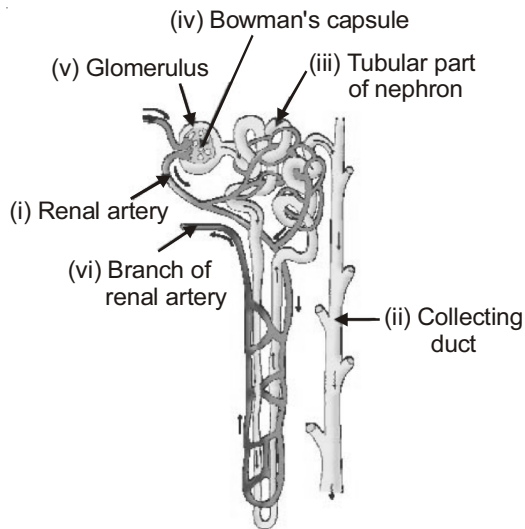
- (i) $\text{PSO}_4 + \text{Q} \rightarrow \text{QSO}_4 + \text{P}$
(ii) $\text{RSO}_4 + \text{P} \rightarrow \text{PSO}_4 + \text{R}$
(iii) $\text{QSO}_4 + \text{S} \rightarrow \text{SSO}_4 + \text{Q}$
(iv) $\text{RSO}_4 + \text{T} \rightarrow \text{No reaction}$

The least reactive and the most reactive metals respectively are

- (1) Q and T
(2) T and S
(3) S and T
(4) Q and P
11. The green coloured pigment present in chloroplast helps in
- (1) Absorption of phosphorus from the soil
(2) Absorption of light energy
(3) Removal of excess water through lenticels
(4) Exchange of respiratory gases

Space for Rough Work

12. In the following diagram, which labellings are correct?



- (1) (i), (ii) & (iv) (2) (ii), (v) & (vi)
 (3) (iv), (v) & (vi) (4) (i), (ii) & (iii)

13. 'X' and 'Y' are the two endocrine glands located in the brain. 'X' releases a hormone 'Z' which regulates growth in humans. 'X' and 'Y' are

- (1) X – Hypothalamus and Y – Pituitary gland
 (2) X – Thyroid gland and Y – Pineal gland

- (3) X – Pituitary gland and Y – Pineal gland
 (4) X – Pituitary gland and Y – Thyroid gland

14. **Statement I** : Reflex action shows quick response than the thinking process of brain.

Statement II : Dendrites of relay neuron are always towards the nerve endings of motor neuron.

- (1) Both the statements are correct
 (2) Both the statements are incorrect
 (3) Only statement I is incorrect
 (4) Only statement II is incorrect

15. Match the following columns and select the correct option.

Column-I	Column-II
a. Gibberellin	(i) Growth of stem
b. Cytokinin	(ii) Phototropic movement
c. Auxin	(iii) Inhibits growth
d. Abscisic acid	(iv) Promotes cell division
(1) a(i), b(ii), c(iv), d(iii)	
(2) a(iii), b(ii), c(iv), d(i)	
(3) a(i), b(iv), c(ii), d(iii)	
(4) a(i), b(ii), c(iii), d(iv)	

SECTION-B : MATHEMATICS

16. If $a - b = 3$ and $b - c = 5$, then the value of $a^2 + b^2 + c^2 - ab - bc - ca$ is

- (1) 34
 (2) 68
 (3) 49
 (4) 98

17. If the product of HCF and LCM of two natural numbers is 378000, then which of the following can be their HCF?

- (1) 66
 (2) 130
 (3) 34
 (4) 20

Space for Rough Work

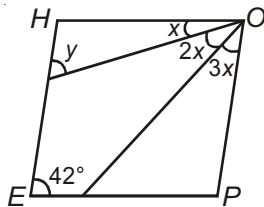
18. If $\frac{\cot \theta - \cos \theta}{\cot \theta + \cos \theta} = \frac{2 - \sqrt{3}}{2 + \sqrt{3}}$ and $0 < \theta < 90^\circ$, then the value of θ is

- (1) 0°
- (2) 60°
- (3) 30°
- (4) 45°

19. If the pair of linear equations $5x + (k - 4)y - 20 = 0$ and $3x + (k + 7)y - 12 = 0$ has infinitely many solutions, then k is a

- (1) Positive integer
- (2) Negative integer
- (3) Positive rational number
- (4) Negative rational number

20. HOPE is a parallelogram as shown in the given figure. The value of y is

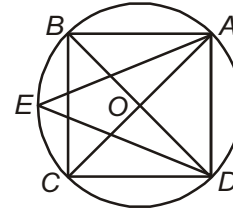


- (1) 21°
- (2) 14°
- (3) 35°
- (4) 27°

21. The ratio of the radius of the base of a cylinder to its height is $7 : 6$. If the volume of the cylinder is $294\pi \text{ cm}^3$, then its base diameter is

- (1) 1 cm
- (2) 14 cm
- (3) 7 cm
- (4) 12 cm

22. In the given figure, if ABCD is a rhombus, diagonals AC and BD intersect at O and E is a point lying on the circle with centre O, then the sum of the measures of $\angle BAE$ and $\angle EDC$ is equal to

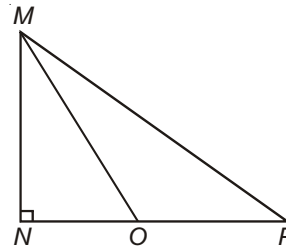


- (1) 180°
- (2) 60°
- (3) 90°
- (4) 45°

23. One of the roots of quadratic equation $2x^2 + x - 300 = 0$ is

- (1) 16
- (2) 18
- (3) 15
- (4) 12

24. In the given figure, MNP is a right triangle such that $\angle N = 90^\circ$. $MO^2 - NO^2$ is always equal to



- (1) $\frac{1}{4}(MP^2 - NP^2)$
- (2) $\frac{1}{2}(MP^2 - NP^2)$
- (3) $2(MP^2 - NP^2)$
- (4) $MP^2 - NP^2$

25. If a, b, c and d are natural numbers such that $a^2 + b^2 = 41$ and $c^2 + d^2 = 25$, then the polynomial whose zeroes are $(a + b)$ and $(c + d)$ can be

- (1) $x^2 - 9x + 12$
- (2) $x^2 - 16x + 63$
- (3) $x^2 - 2x + 14$
- (4) $x^2 - 7x + 9$

Space for Rough Work

SECTION-C : MENTAL ABILITY

26. If FINE is coded as IFFI, TASTE is coded as AETTE, then the code for TEACHER is

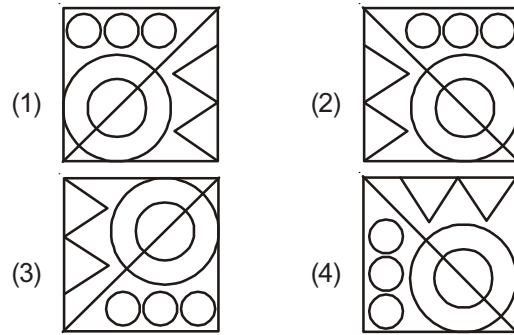
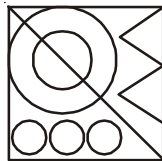
- (1) EHAREER (2) EHERERR
- (3) EHEREER (4) EHERRER

27. Find the missing term.

$$\frac{11}{19}, \frac{17}{29}, \frac{23}{37}, \frac{31}{43}, ?$$

- (1) $\frac{41}{47}$ (2) $\frac{37}{53}$
- (3) $\frac{41}{53}$ (4) $\frac{37}{47}$

28. If the following image is rotated by 180° anticlockwise, then new image will be



29. Choose the odd one, out of the following options.

- (1) Shanghai
- (2) New Delhi
- (3) Canberra
- (4) Paris

30. The numbers on the both side of ':' have a relation between them. If pair of numbers on both side of '::' follow the same relation, then the number which replace the ? is

$$354 : 4 :: 852 : 11 :: 794 : 12 :: 951 : ?$$

- (1) 15 (2) 13
- (3) 12 (4) 10



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Note : Answer key of Sample Paper is available at www.aakash.ac.in & www.anthe.in

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