

A Specially Designed Initiative
to Encourage Young Talent by



TALLENTEX 2017 : (23, October 2016)

PAPER CODE

E

TALLENTEX

ALLEN'S Talent Encouragement Exam

2017

CLASS - 10th (X)

Duration: 2 Hrs. | Maximum Marks : 320

Tallentex Roll No.

5

Answer Sheet No.

T

5

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

Things NOT ALLOWED in EXAM HALL : Blank Paper, clipboard, log table, slide rule, calculator, camera, mobile and any electronic or electrical gadget. If you are carrying any of these, then keep them at a place specified by invigilator at your own responsibility.

INSTRUCTIONS

1. This Booklet is your Question Paper. DO NOT break seal of Booklet until the invigilator instructs to do so.
2. Fill your TALLENTEx Roll No. & Answer Sheet No. in the space provided on the cover page.
3. Carefully fill your **PAPER CODE** and present **CLASS** in space provided (**Serial No. 6 & 12**) of optical response sheet.
4. Please make sure that paper you received is of your class only.
5. The Answer Sheet is provided to you separately which is a machine readable Optical Response Sheet (ORS). You have to mark your answers in the ORS by darkening bubble, as per your answer choice, by using black or blue ball point pen.
6. After breaking the Question Paper seal, check there are **16 pages** in the booklet. This Question Paper contains 80 MCQs with 4 choices (Subjects: Physics: 15, Chemistry: 15, Biology: 15, Maths: 15 & Mental ability: 20).
7. Think wisely before darkening bubble as **there is negative marking for wrong answer**. Answer once marked by pen cannot be cancelled.
8. Marking Scheme:
 - a. If darkened bubble is RIGHT answer : 4 Marks.
 - b. If darkened bubble is WRONG answer: -1 Mark (Minus One Mark).
 - c. If no bubble is darkened in any question: No Mark.
9. If you are found involved in cheating or disturbing others, then your ORS will be cancelled.
10. Do not put any stain on ORS and hand it over back properly to the invigilator.
11. You can take along the question paper after the test is over.

ALLEN RESULT: JEE ADVANCED-2016

4 in Top 10 | 12 in Top 50 | 25 in Top 100 AIR



AIR : 2	AIR : 3	AIR : 9	AIR : 18	AIR : 19	AIR : 23
Bhavesh Dhingra Classroom	Kunal Goyal Classroom	Gaurav Didwania Classroom	Rohan Garg Classroom	Animesh Bohra Distance	Ritesh Goenka Classroom
AIR : 27	AIR : 29	AIR : 33	AIR : 36	AIR : 48	
Vikrant Garg Classroom	Sharvik Mittal Classroom	Ishan Tarunesh Distance	Naman Jain Classroom	Sushil Khyalia Classroom	

Total Selections

3883

Classroom : 2857 | Distance : 1026

ALLEN RESULT: NEET (UG)-2016

7 in Top 10 | 35 in Top 50 | 58 in Top 100 AIR



AIR : 2	AIR : 3	AIR : 4	AIR : 6	AIR : 7	AIR : 10
Ekansh Goyal Classroom	Nikhil Bajiya Classroom	Ashank Khaitan Distance	Dyuti Shah Distance	Japnoor Kaur Distance	Uikarsh Anand Classroom
AIR : 12	AIR : 13	AIR : 15	AIR : 18	AIR : 19	AIR : 20
Prakhar Bansal Classroom	Lajjaben Patel Classroom	Gurasis Singh Distance	Swetank Anand Classroom	Mahak Kr. Surana Classroom	Prachi Singh Classroom

Total Qualified

33106

Classroom : 26198 | Distance : 6908

Authenticity of Result : Power of **ALLEN**

ALLEN RESULT: AIIMS-2016

8 in Top 10 | 25 in Top 36




























AIR : 3 Lajaben Patel Classroom	AIR : 4 Het Sanjay Shah Classroom	AIR : 5 Mridul Sharma Classroom	AIR : 6 Dyuti Shah Distance	AIR : 7 Aishvarya Gupta Classroom	AIR : 8 Kushagra Pandey Distance	AIR : 9 Ekansh Goyal Classroom
AIR : 11 Ira Pachori Distance	AIR : 12 Ritik M Goyal Classroom	AIR : 13 Amol Sood Classroom	AIR : 17 Ashank Khaitan Distance	AIR : 19 Dhruvil D. Shah Classroom	AIR : 20 Swetank Anand Classroom	AIR : 21 Ankush Garg Classroom
AIR : 23 Sanil Garg Distance	AIR : 25 Aditya Agarwal Distance	AIR : 27 Vishal Saini Distance	AIR : 28 Gurasis Singh Distance	AIR : 29 Manavi Gupta Classroom	AIR : 30 Anubhav Das Distance	AIR : 31 Prachi Singh Classroom
AIR : 32 Japnoor Kaur Distance	AIR : 33 Ayush Jain Classroom	AIR : 36 Sukriti Chaudhri Distance				

Total Qualified
602

Classroom : 405 | Distance : 197

ALLEN RESULT: JEE Main-2016

8 in Top 100 | 25 in Top 200 | 65 in Top 500 | 136 in Top 1000

AIR 30  Syamantak Kumar Classroom	AIR 45  Mudit Surana Classroom	AIR 47  Utkarsh G. Patel Classroom	AIR 57  Bhavishya Distance	AIR 68  Kapil Shobhnani Classroom	AIR 71  Aman Bansal Classroom	AIR 90  Ambatwar Ajinkya G. Distance	AIR 95  Surya Suresh Distance			
AIR-105  Megh V. Thakkar Classroom	AIR-112  Shashwat Agrawal Classroom	AIR -127  Rohan Garg Classroom	AIR -130  Amey Ravindra Patil Distance	AIR-132  Akash Bhardwaj Classroom	AIR-137  Rahul Agrawal Classroom	AIR-145  Sharvik Mital Classroom	AIR-151  Shashwat Shivam Distance	AIR-158  Ankit Dhankhar Classroom	AIR-168  Sukriti Gupta Distance	AIR-169  Georgi Joseph Boby Distance
AIR-171  Rushikesh Vitthal Distance	AIR-177  Koustav Yacha Classroom	AIR-178  Rahul M. Chanduka Classroom	<div>26660 Students secured JEE Main All India Ranks from all Courses of ALLEN</div>				AIR-185  Gavali H. Abhiman Distance	AIR-190  Atri Dutta Distance	AIR-197  Vansh J. Chiripal Classroom	

26660

Students secured JEE Main
All India Ranks from all Courses of ALLEN

Authenticity of Result : Power of **ALLEN**

TALLENTEX Success Power Session & Rewards Ceremony

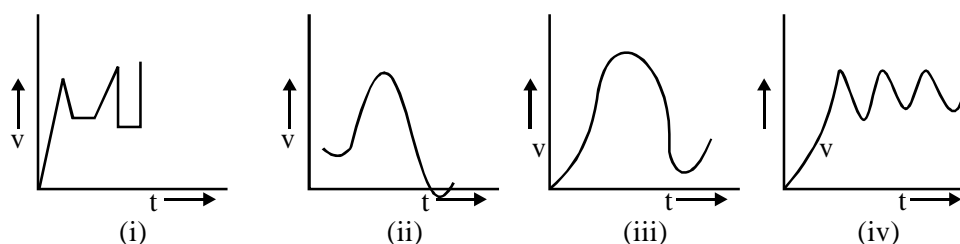
(29 November 2015)



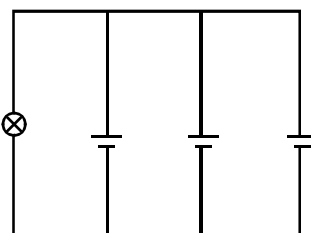
SECTION - A : PHYSICS

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

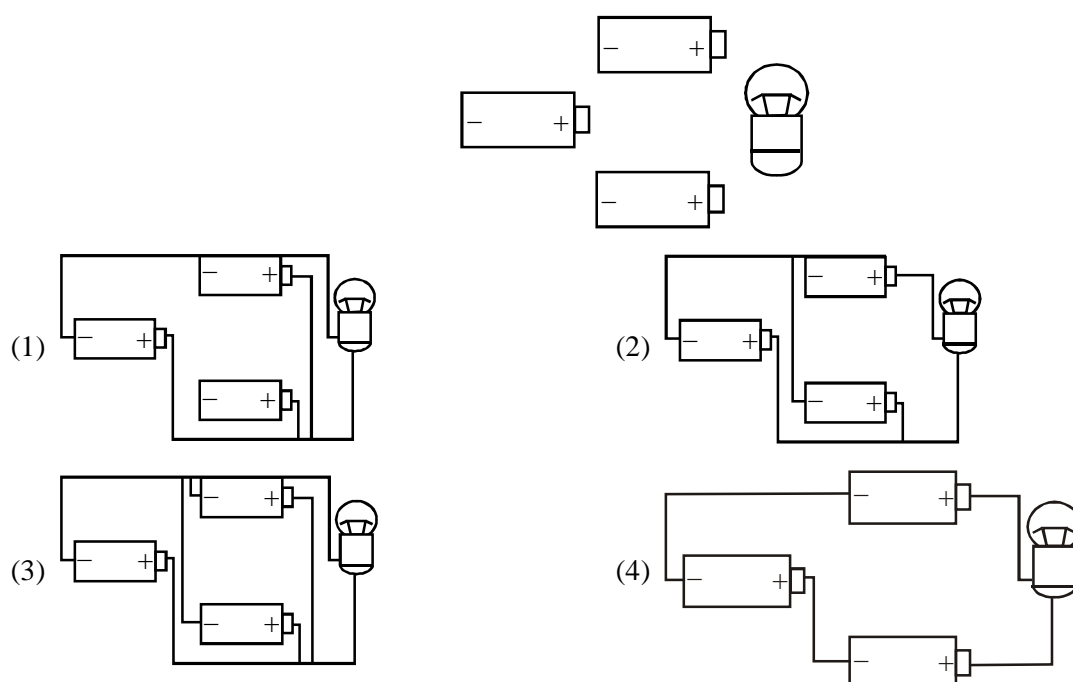
- Which of the following is the characteristic of sound wave?
 - It is non mechanical and longitudinal wave
 - It is mechanical and transverse wave
 - It is non mechanical and transverse wave
 - It is mechanical and longitudinal wave
- The following figures show velocity v versus time t curves. But only some of these can be realised in practice. These are



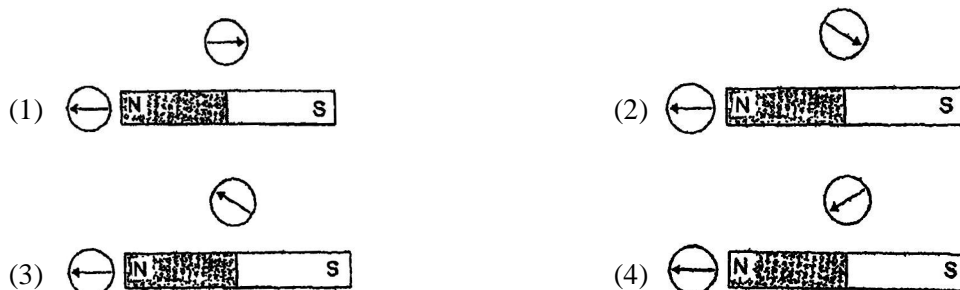
- (i), (ii) and (iv) only
 - (i), (ii) and (iii) only
 - (ii) and (iv) only
 - all
- Study the circuit diagram shown below.



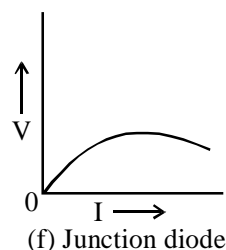
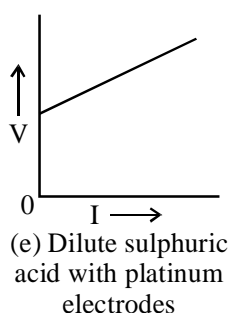
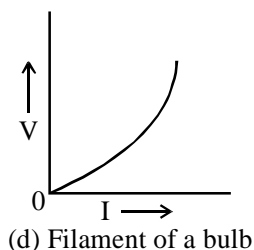
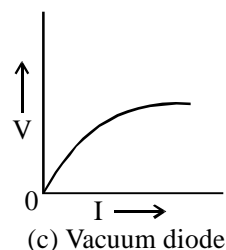
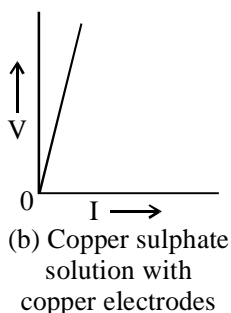
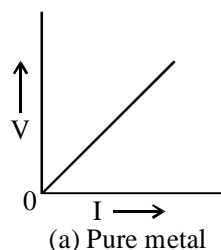
How should the batteries and the bulb shown below be connected to form the circuit represented by the circuit diagram shown above.



4. Which diagram correctly shows the directions of the plotting compasses placed around a bar magnet ?

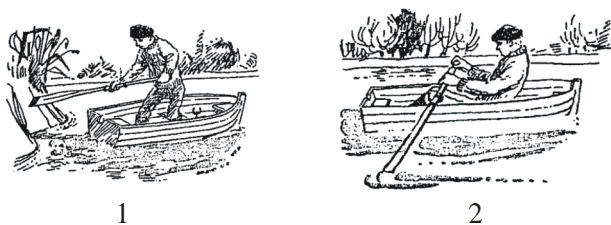


5. An electric kettle has two coils. When one coil is connected to ac mains, the water in the kettle boils in 10 minutes. When the other coil is used, the same quantity of water takes 15 minutes to boil. How long will take for the same quantity of water to boil if the two coils are connected in parallel?
 (1) 6 minutes (2) 12 minutes (3) 18 minutes (4) 24 minutes
6. The magnitude of force on a current carrying conductor placed in a magnetic field is
 (1) zero when current in conductor is in the direction of the magnetic field.
 (2) maximum when current in conductor is normal to the magnetic field.
 (3) minimum when current in conductor is normal to the magnetic field.
 (4) Both (1) and (2)
7. Figures show graphs experimentally obtained in different cases and following observations are made.

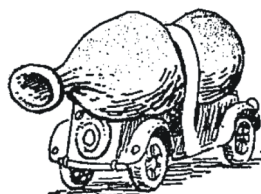


- (i) a and b are ohmic resistors (ii) c and d are non-ohmic resistors
 (iii) e and f are ohmic resistors (iv) d and f are non-ohmic resistors
- Which of the above observations are correct ?
- (1) (i), (ii) and (iv) are correct (2) (ii), (iii) and (iv) are correct
 (3) (ii), (iii) and (i) are correct (4) (i), (ii), (iii) and (iv) are correct

8. In drawing 1 below when the boatman pushes against the bank with one oar, the boat moves in the opposite direction. In drawing 2, when he rows the boat, the oars push against the water in one direction and the boat moves in the opposite direction.

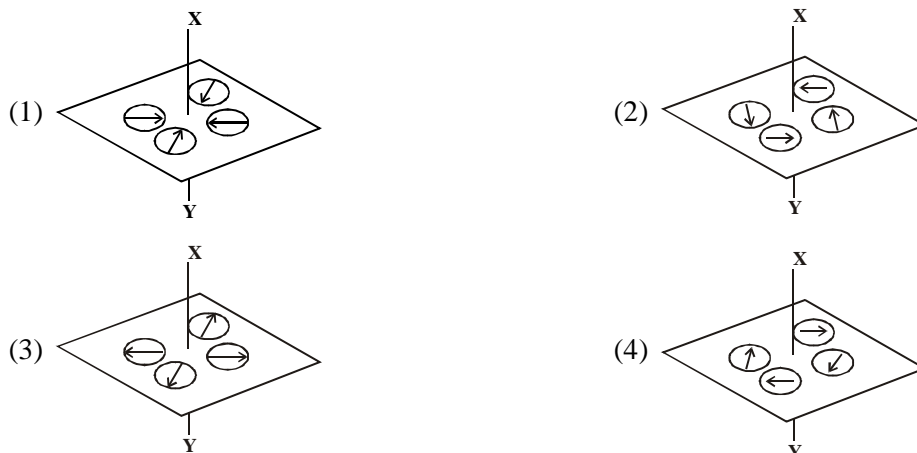


Use the above information to answer the question below. An inflated balloon is fastened to a car as shown below. The opening of the balloon is at the back of the car. What will happen when air escapes from the balloon? The car will...

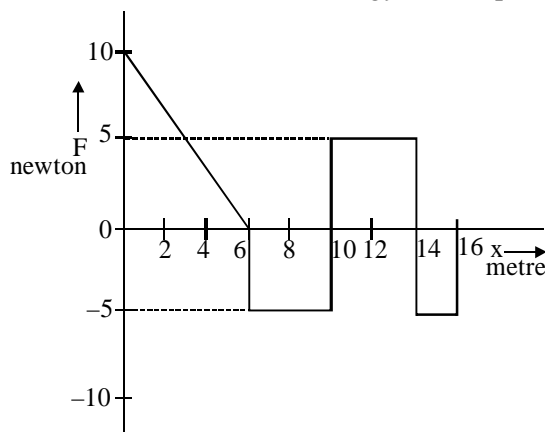


- (1) move backward (2) move sideways (3) not move (4) move forward

9. Which diagram correctly shows the direction of plotting compasses when current flows from X to Y?

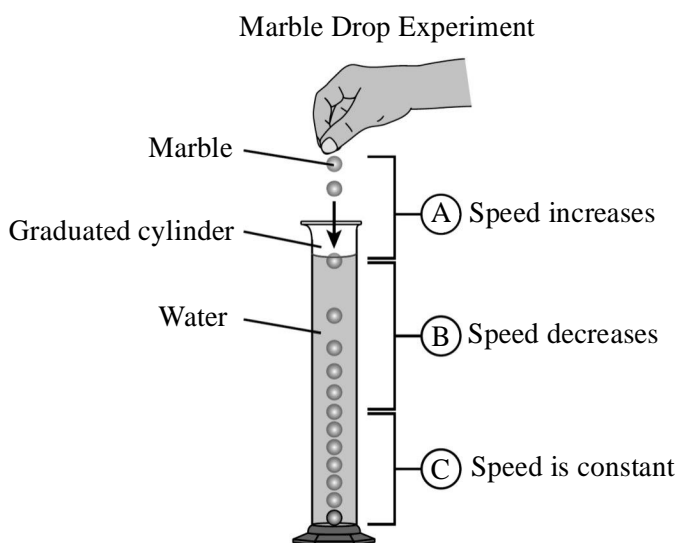


10. A particle is acted upon by a force F which varies with position x as shown in figure. If the particle at $x = 0$ has kinetic energy of 25 J, then the kinetic energy of the particle at $x = 16$ m is



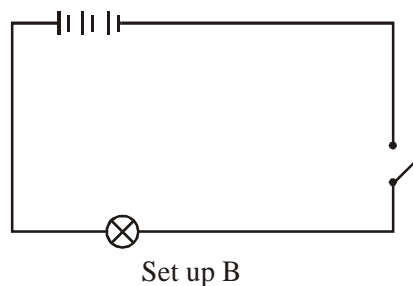
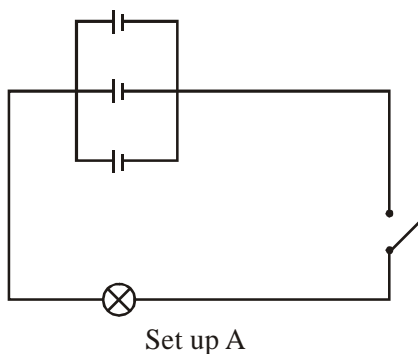
- (1) 45J (2) 30J (3) 70J (4) 135J

11. If suddenly the gravitational force of attraction between earth and a satellite revolving around it becomes zero, then the satellite will
- (1) continue to move in its orbit with same velocity
 - (2) move tangentially to the original orbit with the same velocity
 - (3) become stationary in its orbit
 - (4) move towards the earth.
12. A student used a video camera to record another student dropping a marble through water in a graduated cylinder. The students watched the video in slow motion and made the observations shown below.



During which part or parts of the marble's fall did the marble experience unbalanced forces?

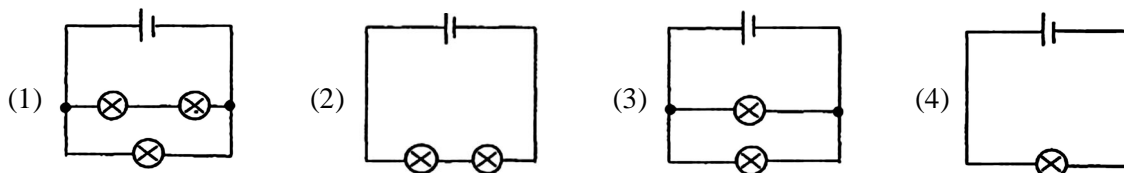
- (1) Part A only
 - (2) Parts A and B only
 - (3) Part C only
 - (4) Parts B and C only
13. Study the two set-up-ups shown below.



Each circuit uses three batteries and a bulb. The type of batteries and bulbs used for the two circuits are the same. When the switches are closed for both set-ups, which bulb will be brighter ?

- (1) Bulb A
- (2) Bulb B
- (3) Both will glow equally bright
- (4) Insufficient data

14. Each of the following circuit is driven by the same voltage supply and all the bulbs are identical. Which of the following circuit shows the correct arrangement of light bulbs which dissipates the greatest combined power?



15. A dam is situated at a height of 550 m above sea level and supplies water to a power house which is at a height of 50 m above sea-level. 2000 kg of water passes through the turbines per second. What would be the maximum electrical power output of the power house if the whole system were 80% efficient ?
- (1) 8 MW (2) 10 MW (3) 12.5 MW (4) 16 MW

SECTION-B : CHEMISTRY

This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

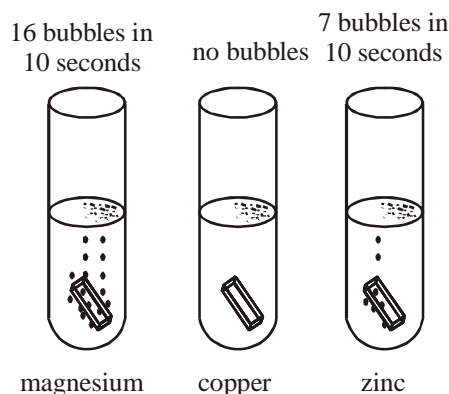
16. Silica is a _____.
(1) Monoatomic element (2) Diatomic compound
(3) Triatomic compound (4) Tetratomic compound
17. For the reaction,
 $2x + 3y + 4z \longrightarrow 5w$
Initially if 1 mole of x, 3 mole of y and 4 mole of z is taken and 1.25 mole of w is obtained then % yield of this reaction is _____.
(1) 30% (2) 50% (3) 100% (4) None of these
18. Two nuclides X and Y are isotonic to each other with mass numbers 70 and 72 respectively. If the atomic number of X is 34, then that of Y would be
(1) 32 (2) 34 (3) 36 (4) 38
19. The ratio of oxygen atoms present in one molecule of cupric nitrite and ferric sulphite is
(1) 4 : 9 (2) 2 : 3 (3) 1 : 2 (4) 1 : 3
20. On addition of which metal the blue coloured copper sulphate solution turns into colourless solution?
(1) Ag (2) Hg (3) Zn (4) Au
21. Four students observed the colour of acetic acid and odour of acetic acid and its reaction with sodium hydrogen carbonate. The observation as recorded by the four students A, B, C, D are given below:

Students	Colour	Odour	Reaction with sodium hydrogen carbonate
A	Pink	Rotten egg	No reaction
B	Colourless	Smell of vinegar	Gas evolves which burns with pop sound
C	Light Blue	Smell of vinegar	Gas evolves without bubbles
D	Colourless	Smell of vinegar	Brisk effervescence

The correct sets of observation are

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

22. On electrolysis of brine solution, the products formed are
 (1) Sodium and chlorine
 (2) Hydrogen, chlorine and oxygen
 (3) Hydrogen, chlorine and sodium hydroxide
 (4) Sodium hydroxide, chlorine and oxygen
23. The drying of milk of lime is due to the action of
 (1) Oxygen in air (2) Nitrogen in air (3) CO_2 in air (4) Hydrogen in air
24. Different metals react with hydrochloric acid at different rates as shown in the diagrams below. The order from least to most reactive metal is



- (1) zinc, magnesium copper (2) copper, zinc, magnesium
 (3) magnesium, zinc, copper (4) copper, magnesium, zinc
25. What happens when crystals of lead nitrate are heated strongly in a dry test tube?
 (1) Crystals immediately freeze (2) A brown residue is left
 (3) White fumes appear in the tube (4) A yellow residue is left
26. The charge to mass ratio of α -particles is approximately _____ the charge to mass ratio of protons
 (1) twice (2) half (3) four times (4) six times
27. Complete the following table.

	A	Z	n
$^{235}_{92}\text{U}$			
$^{238}_{92}\text{U}$			

Where A = mass number, Z = atomic number, n = number of neutron.

In two different forms of Uranium

- (1) Z is same and n is different. (2) Both Z and n are same.
 (3) A is same and n is different. (4) Z is different, A is same and n is different.
28. Which of the following is not correct statement ?
 (1) Mercuric oxide is reduced to mercury by heating.
 (2) Metals high up in the reactivity series cannot be obtained by heating.
 (3) Sulphide ore is concentrated by calcination method.
 (4) Roasting can convert sulphide into oxide and sulphide may also act as a reducing agent.
29. Which one of the following is a chemical change ?
 (1) Sublimation (2) Dissolution of common salt in water
 (3) Bursting of cracker (4) Evaporation

30. For the following reaction on heating.



$$\frac{\text{P} \times \text{R}}{\text{Q} + \text{Z}} \text{ is}$$

- (1) 3 (2) 4 (3) 1 (4) 5

SECTION-C : BIOLOGY

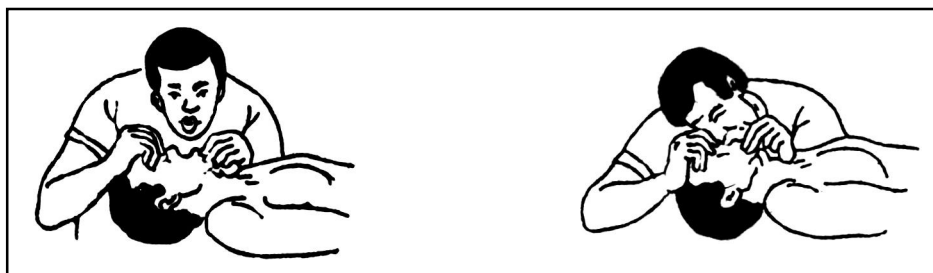
This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

31. The below picture shows two neurons. A nerve impulse moves from Neuron A to Neuron B because of



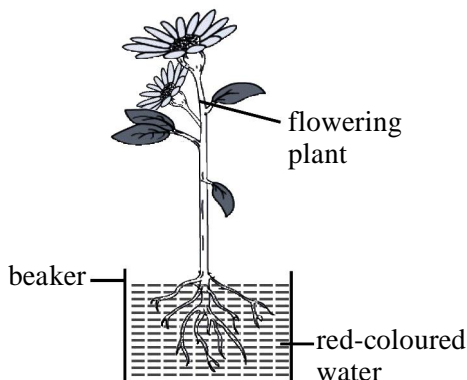
- (1) the release of various carbohydrates into the synapse.
(2) the release of chemicals called neurotransmitters.
(3) the dendrites that are connected.
(4) Neuron A hitting against Neuron B.

32. Which procedure is explained below ?



- (1) Pumping of heart (2) Cardiopulmonary resuscitation (CPR)
(3) Inhalation (4) Exhalation

33. Jacklyn placed a plant with white flowers into a beaker of red-coloured water.



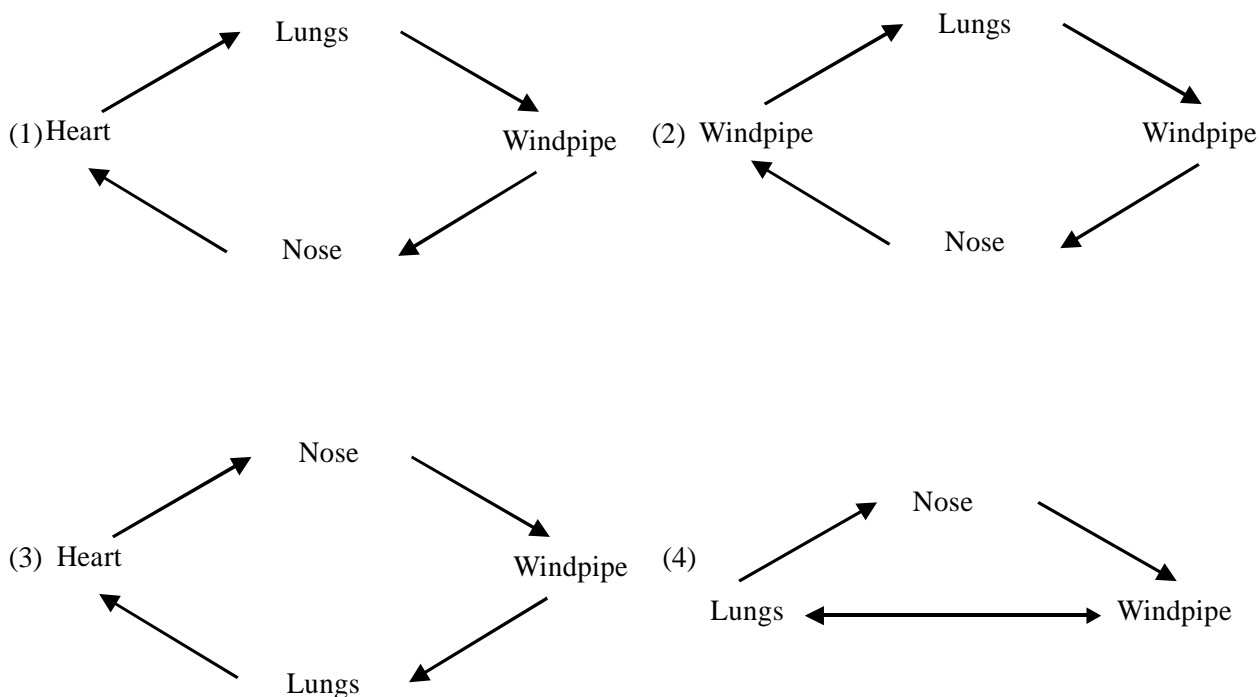
A few hours later, she observed that the flowers and leaves of the plant had turned slightly red. When she cut the stem of the plant, she found that some tubes within it were red. What does this experiment show?

- (1) Water is transported to the flower only.
(2) The plant is a living thing and therefore needs water to live.
(3) The plant is growing so the leaves and flowers change colours.
(4) Water is carried from the roots to all parts of the plant through the stem.

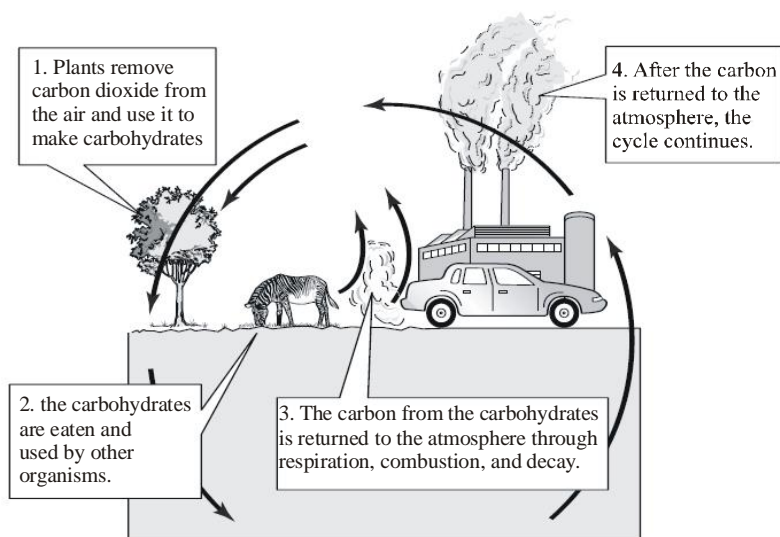
34. Match the terms given under Column 'A' with their functions given under Column 'B' and select the answer from the options given below.

	Column A		Column B
(A)	Lymphatic System	(i)	Carries oxygenated blood
(B)	Pulmonary vein	(ii)	Immune response
(C)	Thrombocytes	(iii)	To drain back the tissue fluid to the circulatory system
(D)	Lymphocytes	(iv)	Coagulation of blood

- (1) (A)-(ii), (B)-(i), (C)-(iii), (D)-(iv)
 (2) (A)-(iii), (B)-(i), (C)-(iv), (D)-(ii)
 (3) (A)-(i), (B)-(iii), (C)-(ii), (D)-(iv)
 (4) (A)-(ii), (B)-(i), (C)-(iii), (D)-(iv)
35. Feeling the tremors of an earthquake, a scared person of seventh floor of a multistoreyed building starts climbing down the stairs rapidly. Which hormone initiates this action?
- (1) Insulin (2) Adrenaline
 (3) Glucagon (4) Gastrin
36. Which of the following diagrams shows the flow of air in our body ?



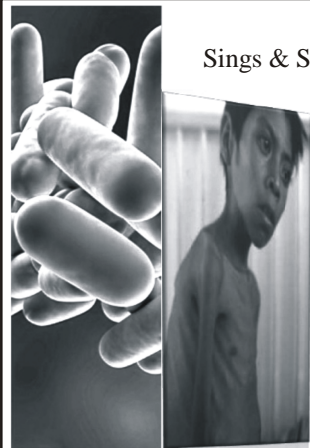
37. The diagram below shows the basic steps of the carbon cycle. At which step, light energy converted into chemical energy?



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

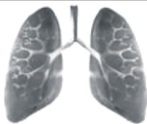
38. What will happen if ADH secretion increases
- (1) Volume of urine will increased.
 - (2) Volume of urine will decreased.
 - (3) Volume of urine will remain same.
 - (4) None of these
39. Euglena is a single celled photosynthetic organism. Clover is a multicellular green plant. Which of the following activities is carried by both Euglena and Clover?
- (1) Using light energy to produce carbohydrate.
 - (2) Producing sex cells for reproduction.
 - (3) Moving nutrients to specialised tissues.
 - (4) Transmitting impulses along nerve pathway.
40. Lichens indicate SO_2 pollution because they
- (1) Show association between algae and fungi
 - (2) Grow faster than others
 - (3) Are sensitive to SO_2
 - (4) Flourish in SO_2 rich environment
41. How does alveolar pressure compare to atmospheric pressure, during inspiration?
- (1) Alveolar pressure is greater than atmospheric pressure.
 - (2) Alveolar pressure is less than atmospheric pressure.
 - (3) Alveolar pressure is the same as atmospheric pressure.
 - (4) Abdominal pressure is lower than atmospheric pressure.

42. Which bacterial disease shows following symptoms ?



Sings & Symptoms

- Cough (that lasts 3 weeks or longer, and can bring up with blood).
- Chest pain
- Fever
- Fatigue
- Loss of appetite
- weight loss
- Chills and night sweats



(1) Liver cirrhosis

(2) Tuberculosis

(3) Mumps

(4) Amoebiasis

43. Match the Column I with Column II and choose the correct option.

Column I		Column II	
A	PCT	(I)	U shaped portion of tubule
B	DCT	(II)	Filtration of blood
C	Loop of Henle	(III)	Reabsorption of 70-80% glomerular filtrate
D	Counter-current mechanism	(IV)	Ionic balance
E	Renal corpuscle	(V)	Maintenance of concentration gradient in medulla

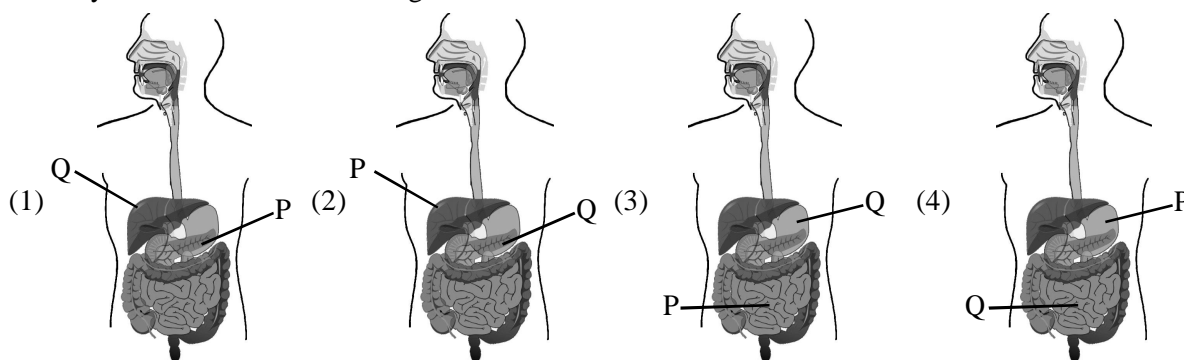
- | | A | B | C | D | E |
|-----|-----|-----|----|----|----|
| (1) | III | IV | I | V | II |
| (2) | III | V | IV | II | I |
| (3) | I | III | II | V | IV |
| (4) | III | I | IV | V | II |

44. A diagram of human digestive system is given below. In this model

'P' secretes a juice which helps in fat digestion.

'Q' secretes a hormone which regulates the sugar level of human blood.

Identify the correct labelled diagram.



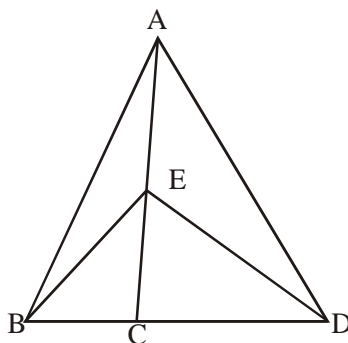
45. Which of the following animal is hermaphrodite?

- (1) Earthworm (2) Cockroach (3) Honeybee (4) Birds

SECTION-D : MATHEMATICS

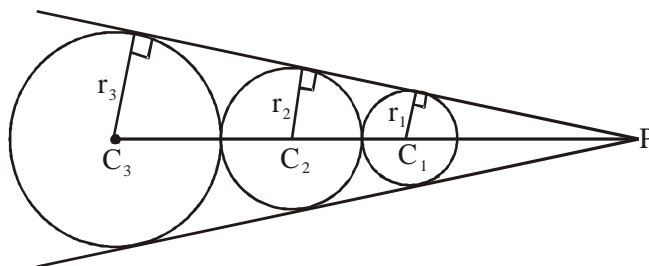
This section contains **15 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

46. The product of 2 whole numbers is 1000. If neither of the number is a multiple of 10. What is their sum ?
(1) 110 (2) 125 (3) 150 (4) 133
47. I have some tables and chairs. If I place two chairs at each table, I have one extra chair. If I place three chairs at each table, I have one table with no chairs. What is the sum of the total number of tables and chairs?
(1) 12 (2) 7 (3) 17 (4) 13
48. If $x^2 + x - 1$ is a factor of $x^4 + px^3 + qx^2 - 1$, then the values of p and q can be
(1) 2, 1 (2) 1, -2 (3) -1, -2 (4) -2, -1
49. The Euclid's postulate which led to the discovery of several other geometries called non-Euclidean geometries is
(1) 3rd postulate (2) 4th postulate (3) 5th postulate (4) 6th postulate
50. One of the exterior angles of an isosceles triangle is 150° . What is the ratio of its unequal interior angles in same triangle ?
(1) 1 : 4 (2) 5 : 2 (3) either (1) or (2) (4) Can't say
51. If $BC : CD = 2 : 3$, $AE : EC = 3 : 4$ and $BC : AE = 2 : 3$, then find the ratio of the area of $\triangle ECD$ to the area of $\triangle AEB$.



- (1) 2 : 1 (2) 2 : 3 (3) 3 : 5 (4) 4 : 3

52. Three Circles with centres C_1 , C_2 , C_3 and radii r_1 , r_2 , r_3 where $r_1 < r_2 < r_3$ are placed as shown in the figure.



Then $r_2 =$ _____

- (1) $\sqrt{r_3 - r_1}$ (2) $\sqrt{r_3 + r_1}$ (3) $\sqrt{r_3 r_1}$ (4) $\sqrt{r_3^2 - r_1^2}$

53. The perimeter of a right angled triangle is 450 m. If its sides are in the ratio 5 : 12 : 13, then the area of the triangle is
 (1) 9000 m² (2) 8765 m² (3) 6750 m² (4) 11750 m²
54. From each corner of a square sheet of side 10 cm, a square of side S cm is cut, when S is an integer. The remaining sheet is folded into a cuboid of volume C cubic cm. Which of the following cannot be a value of C?
 (1) 64 (2) 72 (3) 48 (4) 30
55. If $1 \leq x \leq 4$ and $2 \leq y \leq 6$, then find the probability that $x + y \geq 5$
 (1) $\frac{2}{3}$ (2) $\frac{3}{4}$ (3) $\frac{4}{5}$ (4) $\frac{17}{20}$
56. If $7\operatorname{cosec}\theta - 3\cot\theta = 7$, then the value of $7\cot\theta - 3\operatorname{cosec}\theta$ is
 (1) 1 (2) 2 (3) 3 (4) 4
57. If $\sin x + \sin^2 x + \sin^3 x = 1$ then $\cos^6 x - 4\cos^4 x + 8\cos^2 x$ is equal to
 (1) 3 (2) 4 (3) 2 (4) 1
58. In a class of 15 students, on an average, each student got 12 books. If exactly two students received same number of books, and remaining student books average be an integer then which of the following could be the number of books received by each of the two students who received same number of books?
 (1) 11 (2) 15 (3) 20 (4) 25
59. The vertices of a right angled triangle are on a circle of radius R and the sides of the triangle are tangent to another circle of radius r. If the length of the sides about the right angle are 16 and 30. Determine the value of $R + r$.
 (1) 20 (2) 31 (3) 27 (4) 23
60. One of the factor of $(a + 2b)^3 + (2a - c)^3 - (a + 2c)^3 + 3(a + 2b)(2a - c)(a + 2c)$ is
 (1) $2a + 2b - 3c$ (2) $2a - 2b + 3c$
 (3) $2a + 2b + 3c$ (4) $-2a - 2b - 3c$

SECTION-E : MENTAL ABILITY

This section contains **20 Multiple Choice Questions**. Each question has four choices (1), (2), (3) and (4) out of which **ONLY ONE** is correct.

61. Which interchange of sign will make the following equation correct ?
 $(16 - 4) \times 6 \div 2 + 8 = 30$
 (1) \div & \times (2) $-$ & \div (3) $-$ & $+$ (4) $+$ & \div
62. In a queue, Amrita is 10th from the front while Mukul is 25th from behind and Mamta is just in the middle of the two. If there be 50 persons in the queue, what position does Mamta occupy from the front ?
 (1) 20th (2) 19th (3) 18th (4) 17th
63. A watch which gains uniformly is 2 minutes slow at 4 am on Sunday and is 3 minutes 24 second fast at 10 pm on Wednesday. Find when was the clock correct ?
 (1) 40 minutes past 2 pm on Monday (2) 20 minutes past 1 pm on Monday
 (3) 20 minutes past 1 am on Monday (4) 10 minutes past 1 pm on Monday

64. Pick up from the answer figures, one which will continue the series to the problem figures.

Problem figures

↑	0	=	*	C
0	=	*	C	Δ
=	*	C	Δ	?

Answer figures

C	?	C	Δ
Δ	Δ	Δ	?
*	C	?	S

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

65. At what time between 5 and 6 o'clock are the hands of a clock 3 minutes apart ?

- (1) 20 min past 5 and $30\frac{6}{11}$ min past 5 (2) 24 min past 5 and $28\frac{3}{11}$ min past 5
(3) 20 min past 5 and 28 min past 5 (4) 24 min past 5 and $30\frac{6}{11}$ min past 5

66. Six girls are sitting in a circle facing to the centre of the circle. They are P, Q, R, S, T and V. T is not between Q and S but some other one. P is next to the left of V. R is 4th to the right of P. Which of the following statement is not true ?

- (1) S is just next to the right to Q
(2) T is just next to the right of V
(3) R is second to the left of T
(4) P is second to the right of R

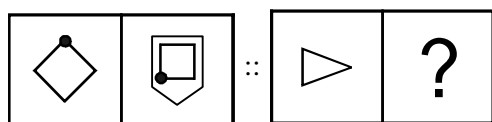
67. The following questions are based on the information given below:

1. A cuboid shaped wooden block has 4 cm length, 3 cm breadth and 5 cm height.
2. Two sides measuring 5 cm x 4 cm are coloured red.
3. Two faces measuring 4 cm x 3 cm are coloured blue.
4. Two faces measuring 5 cm x 3 cm are coloured green.
5. Now the block is divided into small cubes of side 1 cm each

How many small cubes will have no faces coloured ?

- (1) None (2) 2 (3) 4 (4) 6

68. There is some relationship between the two figures on the left of (::), the same relationship exists between the two figure on the right of which one is missing. Find the missing one from the given alternatives.



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

69. 729 smaller cubes of dimensions 1 cm × 1 cm × 1 cm are stacked together to form a larger cube, and then the cube is cut along two diagonals. How many of the smaller cube is cut into smaller pieces ?

- (1) 162 (2) 157 (3) 153 (4) 150

70. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically and definitely follows from the given statement disregarding commonly known facts.

Statements:

All fruits are leaves.

Some leaves are trees.

No tree is house.

Conclusions:

I. Some houses are fruits.

II. Some trees are fruits.

III. No house is fruit.

(1) Only I follows

(2) Only II follows

(3) Only III follows

(4) Only either I or III follows

71. Three ladies and four men are a group of friends, R, M, T, S, L, W and Z. Each one has a different profession, ie Lawyer, Travel Agent, Air-hostess, Doctor, Professor, Consultant and Jeweller and each one owns a different car, ie Alto, Corolla, Santro, Lancer, Ikon, Scorpio and Esteem, not necessarily in that order. None of the ladies is a Consultant or a Lawyer. T is an Air-hostess and she owns an Ikon car. R owns a Scorpio. M is not a Doctor. L is a Jeweller and he owns Corolla. W is a Lawyer and does not own Alto. Z is a Consultant and owns Santro. The Doctor owns Esteem car whereas the Professor owns Scorpio. The Travel Agent owns an Alto. None of the ladies own a Scorpio.

What car does S own ?

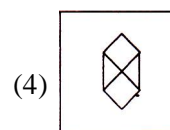
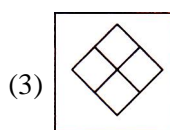
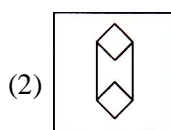
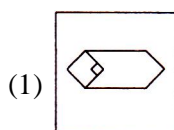
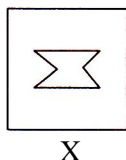
(1) Alto

(2) Santro

(3) Lancer

(4) Esteem

72. A figure (X) is given, followed by four figures in such a way that figure (X) is embedded in one of them. Choose that figure.



73. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically and definitely follows from the given statement disregarding commonly known facts.

Statements:

A. All flowers are trees

B. Some trees are houses

C. All houses are wheels

Conclusions:

1. At least some wheels are trees

2. Some trees are flowers

3. All wheels are flower is a possibility

(1) Either 1 or 2 and 3 follow

(2) Only 1 & 2 follow

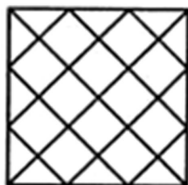
(3) Only 1 & 3 follow

(4) All follow

74. Pointing to a person in the photograph, a lady said, "Her sister is the daughter of my father's son's mother." How is the person related to the lady :

- (1) Aunt (2) Cousin (3) Sister (4) Mother

75. Find the number of triangles in the given figure :



- (1) 15 (2) 36 (3) 38 (4) 40

76. If, $P + Q$ means P is the brother of Q ;

$P \times Q$ means P is the father of Q ;

$P - Q$ means P is the sister of Q ;

which of the following represents S is the niece of T ?

- (1) $T \times M + S - K$ (2) $K - S \times M + T$
(3) $T + M \times S - K$ (4) $T \times S + M - K$

77. 28 May 1922 was Sunday, then what day of week will be on 28 May 2022 ?

- (1) Monday (2) Friday (3) Saturday (4) Wednesday

78. The positions of five points A, B, C, D and E are described below :

E is to the east of B. B is to the south of C. A is to the west of B. D is to the north of A and $\angle CDA = 90^\circ$. Then relative position of D to C is :

- (1) East (2) West (3) South (4) North

79. Find the missing number in the following question.

12	(47)	21
10	(52)	4
64	(?)	24

- (1) 16 (2) 40 (3) 62 (4) 83

80. Observe the following code.

Sentence

1. 'Ducks can swim fast'.

2. 'Swans will fly fast'.

3. 'Tortoise will swim far'.

4. 'Ducks should fly far'.

Code

'Train is carrying arms'.

'Arms are not good'.

'Men are carrying food'.

'Food is not needed'.

Match the following words with the correct code.

Swans

- (1) arms (2) carrying (3) good (4) needed

SPACE FOR ROUGH WORK

ALLEN System



Orientation Session



Classroom Session



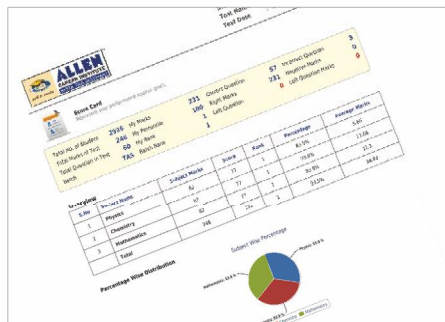
Prarthana



Open Session & Medal Distributions



Regular Test



Test Result - (CSAT)



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Expert Counselling



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48th International
Chemistry Olympiad
IChO-2016
TBILISI, GEORGIA



Silver Medal

SHARVIK MITTAL

International Physics Olympiad



47th International
Physics Olympiad
IPhO-2016
SWITZERLAND



Silver Medal

DIVYANSH GARG
(Classroom)

International Biology Olympiad



27th International
Biology Olympiad
IBO-2016
HANOI, VIETNAM



Gold Medal

LAJJA BEN PATEL
(Classroom)



Silver Medal

VIDUSHI VARSHNEY
(Classroom)

International Earth Science Olympiad



10th International
Earth Science Olympiad
(IESO) 2016
JAPAN



Silver Medal

AMARJIT VIKAS PANDE
(Classroom)

ALLEN Results : Pre-Nurture & Career Foundation (2015-16)

STAGES OF OFFICIAL OLYMPIADS MENTORED BY HBCSE

IJSO

STAGE 1

35 Selections in NSEJS
STAGE 2
16 Selections in INJSO
STAGE 3
3 Selections in OCSC
NISHANT ABHANGI
AYUSHMAN TRIPATHY
GAURANG
selected for IJSO 2016

International
Junior Science
Olympiad



IBO

STAGE 1

3 Selections in NSEB
STAGE 2
3 Selections in INBO
STAGE 3
3 Selections in OCSC
VIDUSHI VARSHNEY
Got Silver Medal In
IBO 2016

International
Biology
Olympiad

JEEVESH is the
youngest in the
country so far to
qualify stage-1 of
IBO

IChO

STAGE 1

1 Selection in NSEC
DHYEY SANKALP GANDHI
is the youngest in the
country so far to
qualify stage-1 of
IChO

International
Chemistry
Olympiad



IOAA

STAGE 2

RAYYAN SHAHID
selected in
INIAO 2016

International
Astronomy
Olympiad
Junior



IMO

STAGE 1

190 Selections
from Gujarat & 11 from
Maharashtra for RMO
through PRE RMO.
3 STUDENTS SECURED
100% MARKS
STAGE 2
14 Selections in RMO
for INMO

International
Maths
Olympiad



IESO

STAGE 1

NET – 6 Selections
Conducted by
Geological
Society of India

International
Earth Science
Olympiad



IJSO

IJSO-2015



12th International
Junior Science Olympiad
(IJSO) 2015
KOREA



Gold Medal

BHASKAR GUPTA
(Classroom)



Gold Medal

LAKSHYA SHARMA
(Classroom)



Silver Medal

VIDUSHI VARSHNEY
(Classroom)

International
Junior
Science
Olympiad

APTITUDE IN SCIENCE / MATHEMATICS

NSO

571 Selections in
NSO (Level-1)

NISHANT ABHANGI:
AIR-1 (Level-2)

NSO
National
Science
Olympiad

Conducted by
Science Olympiad
Foundation, New Delhi



STSE 2015

36 Selections for
Scholar Certificate

155 Selections for
Distinction Certificate

STSE
State Talent
Search
Examination

Conducted by
Rajasthan Board
of Secondary Education



NSTSE

232 Selections in
NSTSE (Level-1)

63 Selections in
NSTSE (Level-2)

NISHANT ABHANGI:
AIR-1 (Level-2)

NSTSE
National
Science Talent
Search
Examination

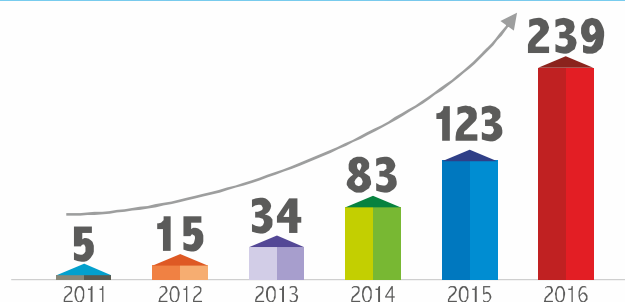
Conducted by
Unified Council, Hyderabad



NTSE

239 Students
Selected
From **ALLEN**

NTSE 2016 (STAGE-2)



APTITUDE IN MATHEMATICS

NMTC

274 Selections in
NMTC (Prelim)

17 Selections in
NMTC (Final)

NMTC
National
Mathematics
Talent
Contest

Conducted by
Association of Mathematics
Teachers of India, Chennai



IMO (SOF)

370 Selections in
IMO (Level-1)

IMO
International
Mathematics
Olympiad

Conducted by
Science Olympiad
Foundation, New Delhi



APTITUDE IN INFORMATION TECHNOLOGY

UCO

140 Selections in
UCO (Level - 1)

59 Selections in
UCO (Level - 2)

UCO
Unified
Cyber
Olympiad

Conducted by
Unified Council, Hyderabad



SCIENTIFIC APTITUDE

BALSHREE HONOUR

14 Selections in
Balshree in Local Round
Rajasthan-7 | Gujarat-5
Madhya Pradesh-2)

Consist of
Plaque,
Citation,
₹15000 &
Literature set

Conducted by **National Bal Bhavan**

LANGUAGE PROFICIENCY

TRINITY GESE

38 Selections in
TRINITY GESE
Distinction : 21
Merit : 17

GESE
Grade
Examination
for
Spoken
English

Conducted by **TRINITY**
COLLEGE LONDON

WORKSHOP/CONFERENCES

NMC

9 Selections in NMC
Including Ranks
1,2,3 & 4

NMC
National
Maths
Conference

Conducted by
Association of Mathematics
Teachers of India, Chennai



APTITUDE IN INTELLIGENCE QUATIENT (IQ)

TECHNOTHLON PRELIMS 2015

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Selected for Techniche

29 Selections for Silver Certificate
in Technothlon Prelims

Conducted by IIT Guwahati
Technothlon
the international school championship
...Inspiring Young minds!

TECHNICHE 2015

2 Students (1 Team)
KHUSHI TIBAREWAL
STUTI SHAH
won Junior Squad in Techniche

Conducted by IIT Guwahati
Techniche
Indian Institute of Technology Guwahati

TECHKRITI

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Selected in Techkriti

Conducted by IIT Kanpur
TSC

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Answer Key



Class- 10th (X)

Held on : 23 October 2016

Q. No.	Ans.
1	4
2	3
3	3
4	1
5	1
6	4
7	1
8	4
9	4
10	1
11	2
12	2
13	2
14	3
15	1
16	3
17	2
18	3
19	1
20	3

Q. No.	Ans.
21	4
22	3
23	3
24	2
25	4
26	2
27	1
28	3
29	3
30	2
31	2
32	2
33	4
34	2
35	2
36	2
37	1
38	2
39	1
40	3

Q. No.	Ans.
41	2
42	2
43	1
44	2
45	1
46	4
47	4
48	1
49	3
50	3
51	1
52	3
53	3
54	4
55	4
56	3
57	2
58	4
59	4
60	1

Q. No.	Ans.
61	2
62	3
63	2
64	4
65	4
66	3
67	4
68	3
69	3
70	4
71	4
72	2
73	4
74	3
75	2
76	3
77	3
78	2
79	4
80	3