

ALLEN

ALLEN DIGITAL

SCHOLARSHIP

ADMISSION TEST (ADSAT)



SYLLABUS & PATTERN CLASS-VI (MOVING TO CLASS VII)

PHYSICS

1. Motion and Measurement
2. Light, Shadows & Reflection
3. Electricity and Circuits
4. Fun with Magnets

CHEMISTRY

1. Sorting material into Groups
2. Separation of Substances
3. Air Around us

MATHEMATICS

1. Algebraic Expressions
2. Ratio and Proportion
3. Basic geometrical ideas
4. Integers
5. Decimals
6. Area and its Boundary
7. Fractions
8. Data Handling
9. Measurement
10. Mensuration
11. Number system
12. Understanding Elementary Shapes

BIOLOGY

1. Components of Food
2. Getting to Know Plants
3. Body Movements
4. The Living Organisms - Characteristics and Habitats

IQ

1. Alphabet Test
2. Series
3. Coding-Decoding
4. Sitting Arrangement
5. Direction Sense
6. Venn-Diagram
7. Non-Verbal Series
8. Mirror Image
9. Water Image

EXAM PATTERN

PAPER MODE: ONLINE

Part-1 Subject: IQ
Part-2 Subjects: Physics; Chemistry; Biology;
Mathematics

MARKING SCHEME

+4 for correct answer, -1 for wrong answer
No negative marking in Part-1

QUESTION DISTRIBUTION

IQ: 20, Physics: 20, Chemistry: 20, Biology: 20,
Mathematics: 40

QUESTION TYPE: Single Choice Questions

DURATION OF EXAM: 120 Minutes

CORPORATE OFFICE:

ALLEN DIGITAL, One Biz Square, A-12(a), Road No. 1, Indraprastha Industrial Area, Kota, Rajasthan-324005



SAMPLE QUESTIONS

ADSAT

(Allen Digital Scholarship Admission Test)

Pre-Nurture and Career Foundation Division

CLASS VI

(For Class VI moving to Class VII)


READ THE INSTRUCTIONS CAREFULLY





Paper Instructions:

1. This paper is divided into two sections: **Section-A & Section-B**.
2. The questions appearing in **Section-A** are based on **Mental Ability**.
The questions appearing in **Section-B** are based on **Physics, Chemistry, Biology and Mathematics**.
3. In **Section-A**, there are **4 marks** for each correct answer and **no negative marking**. There are **4 marks** for each correct answer and **-1 negative marking** for each wrong answer in **Section-B**.
4. Use of Calculator is Not Allowed.

Your Hard Work Leads to Strong Foundation

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IMPORTANT INSTRUCTIONS

A. Mandatory for the student to ensure the following for taking the test:

1. Keep your camera switched on at all times while you take the test. Failing to keep the camera on will lead to disqualification.
2. Face the camera while taking the exam and ensure your front profile, up till your shoulder at least is visible. The background should be plain with no photo frames or designs.
3. Ensure your microphone is on and there is no disturbance in the surrounding and you're sitting in a quiet room.
4. Other than one blank sheet of paper and a pen, there should not be any book or stationery in the area where exam is being attempted.

B. Ensure the following for a smooth exam taking experience

1. You have good internet speed- 521 kbps at least for a smooth network. In case of internet issues, the timer will not be paused. ADSAT is not responsible for any such issues.
2. Keep your device connected and ensure there is enough charge.
3. In case of a power outage, ensure the internet and device can still operate and not disconnect from the exam taking experience.

C. You can be disqualified if

1. Your microphone or camera is switched off.
2. The candidate appearing for the exam is not the same as the one registered.
3. Other than the candidate there are other people in the vicinity.
4. There is excessive background noise.
5. Student tries to connect a pen-drive or similar devices while taking the exam.
6. Student tries to browse other site or uses other devices.

D. General Instructions

1. Join the test link 30 mins prior to the exam time to avoid any technical issues and to read the instructions. Test link will be shared via Email and SMS.
2. Remember to submit the test at the end of the exam.
3. The test will be conducted in proctored mode. Ensure that all the above rules are strictly followed.

SECTION-A

MENTAL ABILITY

This section contains 11 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which ONLY ONE is correct. There are 4 marks each for correct answer and there is NO negative marking.

- 1 Arrange these words in alphabetical order and tick the one that comes last.
 1. Autopilot
 2. Autobiography
 3. Automobile
 4. Autofocus
 - (1) Autopilot
 - (2) Autobiography
 - (3) Automobile
 - (4) Autofocus
- 2 Find the missing term.
35, 48, 63, 80, 99, ?, 143
 - (1) 100
 - (2) 101
 - (3) 120
 - (4) 121
- 3 Find the next terms.
Z, S, W, O, T, K, Q, G, ?, ?
 - (1) N,C
 - (2) N,D
 - (3) O,C
 - (4) O,D
- 4 If NATION be coded as MBSJNO, how can be MENTION be coded?
 - (1) LFMUOHM
 - (2) LFMUPHM
 - (3) LFMUHOM
 - (4) LFMUHPM

Paragraph for Questions 5 - 6

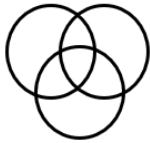
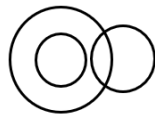
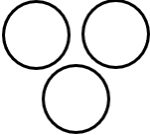
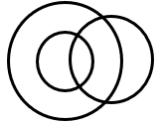
Read the following information carefully and answer the question that follow:

- I. Five friends P, Q, R, S and T travelled to five different cities of Chennai, Calcutta, Delhi, Bangalore and Hyderabad by five different modes of transport of Bus, train, aeroplane, Car and Boat from Mumbai.
- II. The person who travelled to Delhi, did not travelled by boat.
- III. R went to Bangalore by car and Q went to Calcutta by aeroplane.
- IV. S travelled by boat whereas T travelled by train.
- V. Mumbai is not connected by bus to Delhi and Chennai.

- 5 Which of the following combinations of person and mode is not correct?

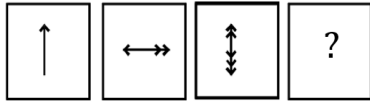
(1) P–Bus	(2) S–Boat
(3) R–Car	(4) T–Aeroplane
- 6 The person travelling to Delhi went by which of the following modes?

(1) Bus	(2) Train
(3) Aeroplane	(4) Car
- 7 Identify the Venn diagram that best represents the relationship between the given classes-
Painter, Lawyer, Singer

(1) 	(2) 
(3) 	(4) 
- 8 A man moves towards the east and then takes a left turn. After covering some distance in that direction, he takes a right turn and finally, takes another right turn. Which direction is the man facing now?

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

9 Select a figure from amongst the answer figures which will continue the same series as established by the problem figure.



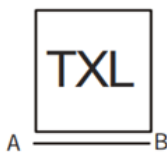
- (1) (2)
- (3) (4)

10 Find the correct option for the mirror image of the following given problem figure.



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

11 Find the correct option for the water image of the following given problem figure.



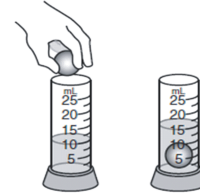
- (1) (2) (3) (4)

SECTION-B

PHYSICS

This section contains 6 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which ONLY ONE is correct. There are 4 marks each for correct answer and -1 for each incorrect answer.

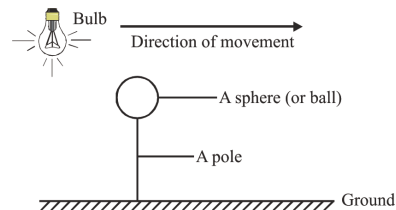
12 A student added a small ball to a graduated cylinder containing 10 millilitres of water as shown.



What is the volume of the ball?

- (1) 5 mL (2) 10 mL
(3) 15 mL (4) 20 mL

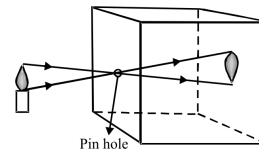
13



In the above diagram, the bulb is moved in the direction shown by the arrow. How does the shadow change, when bulb moves towards the pole?

- (1) Becomes shorter
(2) Becomes larger
(3) Becomes lighter
(4) Remains unchanged

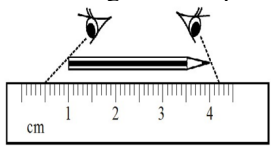
14 Figure below shows the image formed by pin hole camera.



How can this image be made smaller?

- (1) By increasing the distance between object and the hole.
(2) By decreasing the distance between object and the hole.
(3) By increasing the length of pin hole camera.
(4) None of these.

15 The length of a pencil is measured using a ruler as shown in the given figure. What is the apparent length of the pencil seen by the observer and the actual length of the pencil ?



	Apparent length	Actual length
(1)	42 mm	40 mm
(2)	5 mm	10 mm
(3)	37 mm	30 mm
(4)	37 mm	40 mm

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

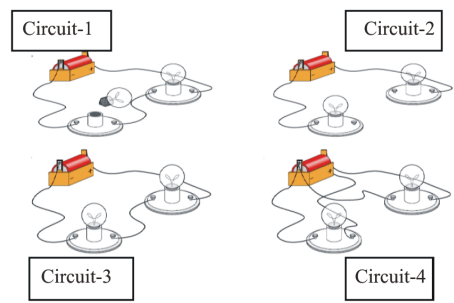
16



The picture shows a boy pulling the metal car with a wand. Which of these is probably inside the wand?

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

17 Which of the following circuit(s) will have the light bulb or bulbs lighting up?



- (1) Circuit 1 (2) Circuits 1 and 2
 (3) Circuits 2 and 4 (4) Circuits 3 and 4

CHEMISTRY

This section contains 6 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which ONLY ONE is correct. There are 4 marks each for correct answer and -1 for each incorrect answer.

18 The given figure is that of a bowl containing a mixture of iron filings, salt and sand.



Which of the following processes help in separating the three of them?

- (1) Magnetic separation, Filtration, Evaporation
 (2) Handpicking, Filtration, Condensation
 (3) Threshing, Filtration, Evaporation
 (4) Magnetic separation, Evaporation, Wincwing

19 A blurred view is obtained through a paper when a little amount of oil or grease is applied on it because the paper becomes _____

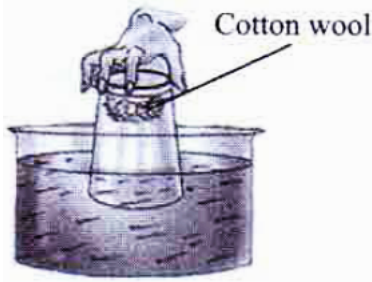


- (1) clear
 (2) transparent
 (3) translucent
 (4) opaque

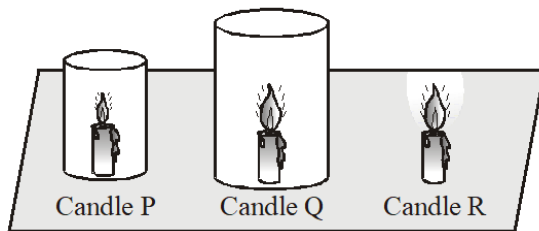
20 Air is a natural resource and cannot be exhausted by human activities. It is known as inexhaustible natural resource. Which of the following is another inexhaustible natural resource?

- (1) Coal
 (2) Petroleum
 (3) Sunlight
 (4) Minerals

- 21 An empty glass with a piece of cotton wool stuck into its bottom was lowered in an upside down position into a trough of water. In the experiment, the cotton wool did not get wet even when glass was fully submerged in water. The experiment demonstrates that



- (1) Air has mass
 (2) Air occupies space
 (3) Air cannot be compressed
 (4) Both B and C.
- 22 Given figure shows the situation at the start of an experiment.



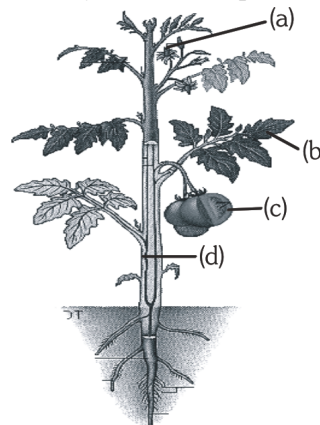
- Which of the following statements is correct regarding the observation of the experiment?
- (1) Flame of candle 'P' goes out at last.
 (2) Flame of candle 'Q' goes out first of all.
 (3) Flame of candle 'R' continues to burn.
 (4) Flames of candles 'P' and 'Q' go out simultaneously.
- 23 Which of the following is not a source of air pollution?
- (1) Automobile exhaust
 (2) Burning of firewood
 (3) Wind mill
 (4) Thermal power plant

BIOLOGY

This section contains 6 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which ONLY ONE is correct. There are 4 marks each for correct answer and -1 for each incorrect answer.

- 24 Which is the rich source of Vitamin C ?
- (1) Banana
 (2) Potato
 (3) Orange
 (4) Wheat

- 25 Identify the marked parts in the given figure.



	(a)	(b)	(c)	(d)
(1)	Flower	Leaf	Fruit	Stem
(2)	Leaf	Root	Stem	Flower
(3)	Fruit	Stem	Leaf	Flower
(4)	Flower	Stem	Leaf	Fruit

- 26 Which of these will thrive best in the desert ?



- (1) P only
 (2) R only
 (3) P and Q
 (4) Q and S

27 Kritika studied a group of living organisms having common features described as follows

- Streamlined body
- Hollow and light bones
- Strong breast muscles

To which group do these living organisms belong?

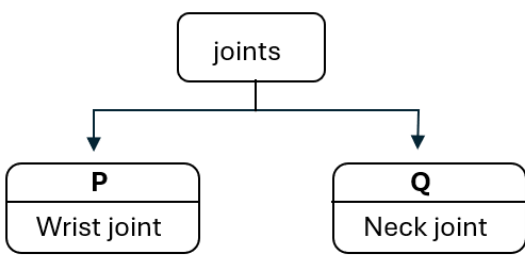
- (1) Fish (2) Insects
(3) Birds (4) Amphibians

28 Read the information given below and identify who I am ?

- I protect the brain.
- I consist of bones which are fused firmly together to form a shell like structure.

- (1) Ribcage (2) Vertebral column
(3) Skull (4) Ligament

29 Study the classification chart given below:-



What are P and Q ?

	P	Q
(1)	Gliding joint	Pivot joint
(2)	Hinge joint	Ball and socket joint
(3)	Pivot joint	Hinge joint
(4)	Hinge joint	Gliding joint

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

MATHEMATICS

This section contains 11 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which ONLY ONE is correct. There are 4 marks each for correct answer and -1 for each incorrect answer.

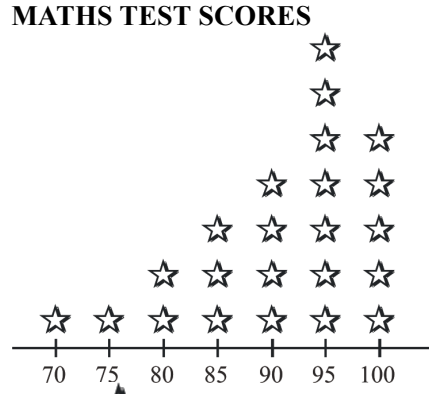
30 Two sides of a polygon having a common end point are called

(1) Diagonals (2) Adjacent sides
(3) Opposite sides (4) None of these

31 Aakash sold 144 refrigerators at Rs.9725 each. From the money he bought 150 T.V. sets. Find the cost of each T.V. set.

- (1) Rs. 9236
(2) Rs. 9326
(3) Rs. 9362
(4) Rs. 9336

32 The line plot below shows how students scored on last week's maths test.

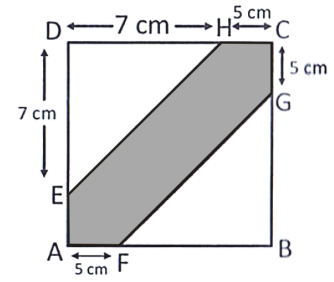


KEY : ☆ = 1 student

How many students scored 95 or higher on the test ?

- (1) 5 students (2) 7 students
(3) 12 students (4) 16 students

33 Find the area of the shaded portion in the given square.



- (1) 95 cm² (2) 98 cm²
(3) 99 cm² (4) 108 cm²

34 Find the value of (A + B - C)

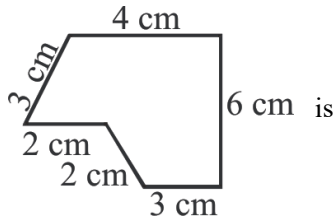
- (i) 1 million = A lakh
(ii) 1 crore = B ten lakh
(iii) 1 million = C hundred thousand

- (1) 20 (2) 0
(3) 10 (4) -10

35 If $x = (-25) + (23) + (-25) + (23) \dots$ (40 terms) and $y = 10 + (-8) + 10 + (-8) + \dots$ (20 terms) then $y - x$ is

- (1) 20
- (2) 40
- (3) 60
- (4) 80

36 The perimeter of the figure



- (1) 20 cm
- (2) 10 cm
- (3) 24 cm
- (4) 15 cm

37 If $35.4067 = \frac{3}{P} + 5Q + 4R + \frac{6}{S} + 7T$, the value of $2P + 4Q + 5R + 7S + 3T$ is

- (1) 74.003
- (2) 704.5003
- (3) 7004.703
- (4) 7004.7003

38 $\left(3\frac{1}{4} \div \left\{ 1\frac{1}{4} - \frac{1}{2} \left(2\frac{1}{2} - \frac{1}{4} - \frac{1}{6} \right) \right\} \right)$

- (1) 78
- (2) 88
- (3) 98
- (4) 108

39 Find value of $a^2 + b^2 + c^2 - ab - bc - ca$. If $a = 2$, $b = -2$, $c = 1$

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

40 In a school trip, Bus 1 has 4 teachers and 14 students. Bus 2 has 3 teachers and 7 students. Bus 3 has 4 teachers and 28 students. Which of the buses has the least teachers students ratio ?

- (1) Bus 1
- (2) Bus 2
- (3) Bus 3
- (4) Cannot say

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OBJECTIVE****ANSWER KEY**

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

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HINT – SHEET