iQuest
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iSMART
iQuest Scholastic & Mental Aptitude Reward Test

FOR CLASS 9TH (EXPLORE)
SAMPLE TEST

Time: 1 Hr		**Max Marks : 200**

The Test Consists of Four Sections : (TOTAL 50 QUESTIONS)		
Section	**No. of Questions**	**Syllabus**
Section A : Calculation	**10 Q.**	**No. specific preparation required**
Section B : Reasoning	**10 Q.**	
Section C : Comprehension	**5 Q.**	
Section D : Scholastic Aptitude	**25 Q.**	**General Maths & Science of Class 8**

INSTRUCTIONS TO CANDIDATE

➢ Each subject in this paper consists of multiple choice questions with only one correct answer. **+4 marks** will be awarded for correct answer and **–1 mark** for wrong answer.

➢ Please read the instructions given for each question carefully and fill the correct answer against the question numbers on the answer sheet in the respective subject.

➢ Use blue or black ball point pen to darken the appropriate circle & mark should completely fill the circle.

➢ The Question paper contains blank spaces for your rough work. No additional sheet will be provided for rough work.

➢ Blank papers, Clipboards, Log Tables, Slide rule, Calculators, Cellular phones, Pagers and Electronic gadgets in any form are not allowed.

➢ Write your Name, Student ID in the block at the top of the Answer Sheet. Also write your Name & Student ID in the space provided on this cover page of question paper.

➢ **This test paper is just an indicative of the actual test. Total number and type of questions in actual test may vary.**

Name:_____Student ID_____

Dear student, this sample test is an indicative of the actual test, in which you would be tested on various skills required to crack any competitive exam in the future.

After the actual test, you would be given a report indicating your strengths and weaknesses in each of the sections. This would be very useful to analyze your performance.

Space for Rough work

SECTION - A
CALCULATION

1. 64% of 842 – ?% of 426 = 334.4
(A) 34   (B) 38
(C) 42   (D) None of these

2. $180 \times 18 \times 8 - 8888 = ?$
(A) 14036   (B) 15048
(C) 16012   (D) 17032

3. $68.8 \times 14.7 \times 7.1 = ?$
(A) 7108.565   (B) 7018.665
(C) 7180.656   (D) 7081.556

4. $3.7 \times 8.2 \times 10.8 - 29.921 = ?$
(A) 287.951   (B) 307.951
(C) 297.751   (D) 317.951

5. $15.75 \div 2.25 = 0.7 \times ?$
(A) 7   (B) 10
(C) 0.07   (D) 1

6. $7432 \div 32 \times ? = 2787$
(A) 8   (B) 14
(C) 15   (D) 12

7. $(4.6 \times 2.8 \times 5.5) - (3.2 \times 4.5 \times 2.8) = ?$
(A) 36.28   (B) 30.42
(C) 28.35   (D) None of these

8. $\sqrt{2304} \times \sqrt{?} = 2832$
(A) 3249   (B) 3481
(C) 3721   (D) 3969

9. $4550 \div 25\%$ of ? = 130
(A) 145   (B) 140
(C) 125   (D) 160

10. $2110 \div 25 + 350 \div 50 = ?$
(A) 91.4   (B) 8.688
(C) 281.33   (D) 86.2

SECTION - B
REASONING

11. A rich merchant had collected many gold coins. He did not want anybody to know about them. One day, his wife asked, "How many gold coins do we have?"

After pausing a moment, he replied, "Well! If I divide the coins into two unequal numbers, then 45 times the difference between the two numbers equals the difference between the squares of the two numbers."

The wife looked puzzled. Can you help the merchant's wife by finding out how many gold coins they have?
(A) 45   (B) 25
(C) 55   (D) 85

12. Robert:
"When I add 2 times my age 2 years from now to 3 times my age 3 years from now, I get 6 times my current age. How old will I be 4 years from now?"
(A) 14   (B) 16
(C) 17   (D) 20

13. When the words COAT, CARD, BAKE, and TREE are written one below the other, the word that is formed diagonally from left to right is –
(A) cars   (B) care
(C) cart   (D) cake

14. There is a pole in a lake. One-half of the pole is in the ground, another one-third of it is covered by water, and 9 ft is out of the water. What is the total length of the pole in ft?
(A) 54   (B) 27   (C) 35   (D) 42

15. Find the logically consistent pair of sentences on the basis of the given information.
Porridge is not sweet when served without love
A. Porridge is sweet   B. Porridge is not sweet
C. Porridge is served with love
D. Porridge is served without love
(A) BC   (B) DA   (C) DB   (D) BD

Space for Rough work

16. In a code language, if BEAT is coded as 5642 and SWEET is coded as 66912, how would you code TEASE?

(A) 96162   (B) 56264

(C) 96625   (D) 55296

17. In a class, the names of boys are arranged alphabetically. Gaurav and Saurabh have 14 boys between them. If Gaurav is 37th from the bottom, Saurabh would be at what position from the top?

(A) 25th   (B) 28th

(C) 27th   (D) Can't be determined

Directions : (Q18)Following questions are based on the information given below:

1. 'P×Q' means 'P is the father of Q'

2. 'P–Q' means 'P is the sister of Q'

3. 'P+Q' means 'P is the mother of Q'

4. 'P÷Q' means 'P is the brother of Q'

18. Which of the following represents 'J is the son of F'?

(A) J ÷ R – T × F   (B) J + R – T × F

(C) J ÷ M – N × F   (D) None of these

Directions : (Q19)The question below consist of a question followed by two statements labelled as I and II. You have to decide if these statements are sufficient to conclusively answer the question. Give your answer as:

(A) if statement I alone is sufficient to answer the question;

(B) if statement II alone is sufficient to answer the question;

(C) if statement I and II together are needed to answer the question;

(D) if statement I or II alone are sufficient to answer the question;

19. Who is older – Ritu or Situ?

I. Situ was born in the year 1980 and is 5 years younger than Ritu's brother.

II. Ritu is twice as older as her brother.

Directions : (Q20)Each of the following questions has a matrix with a question mark in one block. Replace the question mark by chossing the correct response from amongst the alternatives given.

20.

6	8	?
9	3	13
10	14	1

(A) 11   (B) 9

(C) 7   (D) 5

Read the given passage carefully.

John Muir Trail

In 1892, the Sierra Club was formed. In 1908, an area of coastal redwood trees north of San Francisco was established as Muir Woods National Monument. In the Sierra Nevada mountains, a walking trail from Yosemite Valley to Mount Whitney was dedicated in 1938. It is called John Muir Trail.

John Muir was born in 1838 in Scotland. His family name means "moor", which is a meadow full of flowers and animals. John loved nature from the time he was small. He also liked to climb rocky cliffs and walls.

When John was eleven, his family moved to the United States and settled in Wisconsin. John was good with tools and soon became an inventor. He first invented a model of a sawmill. Later he invented an alarm clock that would cause the sleeping person to be tipped out of bed when the timer sounded.

Muir left home at an early age. He took a thousand-mile walk south to the Gulf of Mexico in 1867 and 1868. Then he sailed for San Francisco. The city was too noisy and crowded for Muir, so he headed inland for the Sierra Nevadas.

When Muir discovered the Yosemite Valley in the Sierra Navadas, it was as if he had come home. He loved the mountains, the wildlife, and the trees. He climbed the mountains and even climbed trees during thunderstorms in order to get closer to the wind. He put forth the theory in the late 1860's that the Yosemite Valley had been formed through the action of glaciers. People ridiculed him. Not until 1930 was Muir's theory proven correct.

Muir began to write articles about the Yosemite Valley to tell readers about its beauty. His writing also warned people that Yosemite was in danger from timber mining and sheep ranching interests. In 1901, Theodore Roosevelt became president of the United States. He was interested in conservation. Muir took the president through Yosemite, and Roosevelt helped get legislation passed to create Yosemite National Park in 1906.

Although Muir won many conservation battles, he lost a major one. He fought to save the Hetch Valley, which people wanted to dam in order to provide water for San Francisco. In the late 1913, a bill was signed to dam the valley. Muir died in 1914. Some people say losing the fight to protect the valley killed Muir.

Read the question given below and write the option the most appropriate in your answer sheet :

21. What happened first ?
    (A) The Muir family moved to the United States
    (B) Muir Woods was created
    (C) John Muir learned to climb rocky cliffs
    (D) John Muir walked to the Gulf of Mexico

22. When did Muir invent a unique form of alarm clock?
    (A) while the family still lived in Scotland
    (B) after he sailed to San Francisco
    (C) after he travelled in Yosemite
    (D) while the Muir family lived in Wisconsin

23. What did John Muir do soon after he arrived in San Francisco ?
    (A) He ran outside during an earthquake
    (B) He put forth a theory about how Yosemite was formed
    (C) He headed inland for the Sierra Nevadas
    (D) He began to write articles about the Sierra Nevadas

Read the given passage carefully and answer the questions that follow :

Which is the better pet, a cat or a dog ? Well, which is the better fruit, an apple or an orange ? Down through the years, those hairy littl entities have been parts of my life. I have predominantly fond thoughts about every one of them, except possibly smoky, who used to get lost and had to be bailed out of the pound all the time. You can't lump your pets together by their spe-

Space for Rough work

cies any more than you can your friends by their professions.

But I'll tell you one thing. A cat can't smile. Or won't'. A dog will smile. Romp with your dog for a while and he or she will beam. A dog will make eye contact. A cat will, too, but cat's eyes don't even look entirely warm-blooded to me, whereas a dog's eyes look human except less guarded.

A dog will look at you as if to say, "What do you want me to do for you ? I'll do anything for you".

The dog is willing. A cat will do something for you : a cat will catch mouse, maybe lift the receiver and meow into the mouthpiece but not because you want him to. I say that from experience and observation. When a cat makes eye contact with a person, the cat's expression twinkel, well up, express yearning.

Taking care of cats is less of a problem than taking care of dogs and cats are less demanding emotionally.

24. What is the meaning of the word 'predominantly' in the second sentence ?

(A) constantly   (B) cordially
(C) positively   (D) primarily

25. According to the author, what is the most important difference between the way a cat looks at its owner and the way a dog looks at its owner ?

(A) Cats refuse to smile

(B) Cats have a carefree expression

(C) Dogs make eye contact

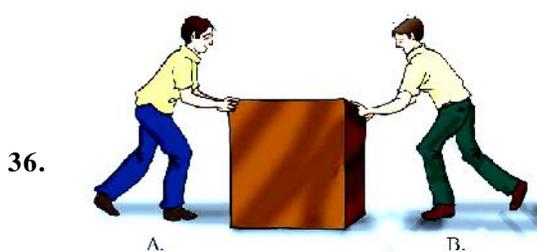(D) Dogs make an emotional appeal

SECTION - D
SCHOLASTIC APTITUDE

26. Which one of the following condition is not essential to grow maize?
(A) High temperature   (B) Humidity
(C) Low temperature   (D) Rainfall

27. Which of the following reproduces only inside a host cell?
(A) Bacteria   (B) Virus
(C) Amoeba   (D) Fungus.

28. Pick the synthetic fibre out of the following?
(A) Cotton   (B) Nylon
(C) Jute   (D) Wool

29. Which of the following is not a metal?
(A) copper   (B) sulphur
(C) aluminium   (D) iron

30. Various materials which are obtained from nature Are called natural resources. Which of the following is not a natural resource?
(A) minerals (B) water (C) soil (D) plastic

31. A substance which reacts with oxygen giving heat is called a combustible substance. Which, one of the following is a combustible substance?
(A) iron nail (B) glass (C) stone piece (D) wood

32. Wild buffalo is an endangered species because
(A) its population is diminishing
(B) it has become extinct
(C) it is found exclusively in a particular area
(D) its poaching is strictly prohibited

33. Choose the correct statement with respect to unicellular organisms :
(A) in unicellular organisms, tissues work in co-ordination to perform different functions.
(B) unicellular organisms do not require food.
(C) unicellular organisms respire and reproduce.
(D) all unicellular organisms move by cilia.

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34. Sets of reproductive terms are given below. Choose the set that has an incorrect combination.

(A) sperm, testis, sperm duct, penis

(B) menstruation, egg, oviduct, uterus

(C) sperm, oviduct, egg, uterus

(D) ovulation, egg, oviduct, uterus

35. The belief that the mother is completely responsible for the sex of the child is wrong because the child

(A) gets sex chromosome only from the mother.

(B) develops in the body of the mother.

(C) gets one sex chromosome from the mother and the other from the father.

(D) gets sex chromosome only from the father.

36.

In fig. two boys A and B are shown applying force on a block. if the block moves towards the right, which one of the following statements is correct?

(A) Magnitude of force applied by A is greater than that of B.

(B) Magnitude of force applied by A is smaller than that of B.

(C) Net force on the block is towards A.

(D) Magnitude of force applied by A is equal to that of B.

37. Whenever the surfaces in contact tend to move or move with respect to each other, the force of friction comes into play

(A) only if the objects are solid.

(B) only if one of the two objects is liquid.

(C) only if one of the two objects is gaseous.

(D) irrespective of whether the objects are solid, liquid or gaseous.

38. A list of mediums is given below.

(i) wood   (iii) air

(ii) water   (iv) vacuum

In which of these mediums can sound travel?

(A) i & ii only   (B) i, ii & iii only

(C) iii & iv only   (D) ii, iii & iv only

39. An electric current can produce

(A) heating effect only.   (B) chemical effect only.

(C) magnetic effect only.

(D) chemical, heating, and magnetic effects.

40. An electroscope is a device which is used to find if an object is

(A) charged   (B) magnetic

(C) free of cracks   (D) hot

41. Part of the eye which controls the light entering is called

(A) iris   (B) cornea   (C) lens   (D) retina

42. Morning star is the name given to

(A) pole star   (B) star sirius

(C) planet jupiter   (D) planet venus

43. Air is a mixture of various gases. One of the gases is 21% part of the air and is essential for the survival of human beings. This gas is

(A) nitrogen (B) oxygen   (C) ozone   (D) argon

44. With Rs. 1,000, one can buy 4 pairs of trousers or 8 shirts. What is the amount required to buy 3 pairs of trousers and 3 shirts ?

(A) Rs. 1125   (B) Rs. 1015

(C) Rs. 1115   (D) Rs. 1105

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Space for Rough work

45. If $a : b = 2 : 3$ and $x : y = 3 : 4$, the value of $\dfrac{4ay - 3bx}{5ax - 2by}$

is

(A) $\dfrac{5}{3}$ (B) $\dfrac{5}{6}$

(C) $\dfrac{4}{5}$ (D) $\dfrac{5}{4}$

46. The value of $(a^{1/8} + a^{-1/8})\, (a^{1/8} - a^{-1/8})\, (a^{1/4} + a^{-1/4})\, (a^{1/2} + a^{-1/2})$ is :

(A) $(a + a^{-1})$ (B) $(a - a^{-1})$

(C) $(a^2 + a^{-2})$ (D) $(a^2 - a^{-2})$

47. The sum of two numbers is 2490 and if 6.5% of one number is equal to 8.5% of the other, then numbers are :

(A) 1414, 1076   (B) 1411, 1079

(C) 1412, 1078   (D) none of these

48. The value of $\sqrt{7 + 2\sqrt{10}}$ is :

(A) $\sqrt{6} + \sqrt{1}$ (B) $\sqrt{4} + \sqrt{3}$

(C) $\sqrt{5} + \sqrt{2}$ (D) $2 + \sqrt{5}$

49. A general arranges his soldiers in rows to form a perfect square. He finds that in doing so, 60 soldiers are left out. If the total number of soldiers be 8160. Then the number of soldiers in each row is :

(A) 90   (B) 91

(C) 92   (D) 80

50. The unit digit in the product $(327)^{173}$ is :

(A) 9   (B) 7

(C) 1   (D) 3

ANSWER KEY

SECTION - A   CALCULATION

1.	(D)	2.	(D)	3.	(C)	4.	(C)	5.	(B)	6.	(D)
7.	(D)	8.	(B)	9.	(B)	10.	(A)				

SECTION - B   REASONING

11.	(A)	12.	(C)	13.	(D)	14.	(A)	15.	(C)	16.	(C)
17.	(D)	18.	(D)	19.	(C)	20.	(A)				

SECTION - C   COMPREHENSION

21.	(A)	22.	(D)	23.	(C)	24.	(D)	25.	(A)

SECTION - D   SCHOLASTIC APTITUDE

26.	(C)	27.	(B)	28.	(B)	29.	(B)	30.	(D)	31.	(D)
32.	(A)	33.	(C)	34.	(C)	35.	(C)	36.	(A)	37.	(D)
38.	(B)	39.	(D)	40.	(A)	41.	(A)	42.	(D)	43.	(B)
44.	(A)	45.	(B)	46.	(B)	47.	(B)	48.	(C)	49.	(A)
50.	(B)										