iQuest
An Initiative by IITians

iSAT

iQuest Scholarship Cum Admission Test

FOR CLASS 6th
MOVING TO CLASS 7th (NURTURE)
SAMPLE TEST

Time: 1.5 Hr		Max Marks : 280

The Test Consists of Two Sections : (TOTAL 70 QUESTIONS)		
Section	Type	No. of Questions
Section A :	Reasoning	15 Q.
Section B :	Scholastic Aptitude	55 Q.

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 there is no negative marking.

➢ 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 is a Sample Test Paper. The actual Paper Pattern may vary in terms of duration and sections. However the syllabus will be same.**

Name:_____Student ID_____

SECTION - A
REASONING

1. Find the next number in the series 3, 9, 10, 30, 31, _____ .

   (A) 93   (B) 96
   (C) 99   (D) 67

2. AIU, CKW, _____, GOA

   (A) EMY   (B) ENY
   (C) EKY   (D) EGS

3. Gum : Stick : : Needle : _____

   (A) Cloth   (B) Prick
   (C) Tailor   (D) Stitch

Directions (Q. 4): In the question below, two pairs of numbers are given but one number in the second pair is missing. Identify the relationship between the two numbers in the first pair and find the missing number in the second pair such that the numbers in the second pair also follow the same relationship.

4. 25 : 5 : : 36 : _____ .

   (A) 30   (B) 25
   (C) 20   (D) 6

5. Find the odd one among the following.

   (A) 17   (B) 27
   (C) 37   (D) 47

6. In a certain code language, if the word "CREATIVE" is coded as TIVECREA, then how is the word "ACTION" coded in that language ?

   (A) NOCIAT   (B) NOIACT
   (C) NOAICT   (D) IONACT

7. If "CARE" = 16 and "RESPECT" = 49, then what is the value of "NERVOUS" ?

   (A) 68   (B) 49
   (C) 40   (D) 64

8. In the following sequence, how many 7's are there which are immediately preceded by 5 and immediately followed by 4 ?

   1 5 7 3 4 7 5 7 4 8 5 7 4 3 2 1 7 7 1 5 7 9 1 7 4

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

9. Find the number which should come in place of the question mark (?).

 | 7 | 4 | 8 |
   |----|----|----|
   | 16 | 10 | ? |
   | 23 | 14 | 26 |

   (A) 26   (B) 18
   (C) 34   (D) 42

10. A person travels 12 km towards the east and then travels 5 km towards the left. How far and in what direction is he from the original point ?

    (A) 17 km, North-east   (B) 13 km, North-east
    (C) 17 km, South-west   (D) 17 km, South-east

11. How is my Father's sister's son's sister related to me ?

    (A) Niece   (B) Sister
    (C) Aunt   (D) Cousin

Directions (Q. 12-13): These questions are based on the following diagram. Study the diagram and its information given below it. Choose the correct alternative given below each question and mark the number of that choice as your answer.
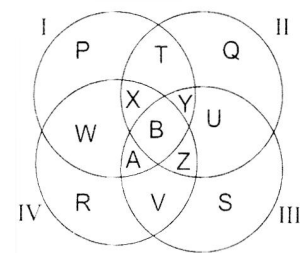
Space for Rough work

Circle I represents the people who eat Vanilla ice cream.

Circle II represents the people who eat Tuti-Fruity ice cream.

Circle III represents the people who eat Butter Scotch ice cream.

Circle IV represents the people who eat cornetto ice cream.

12. Which of the following represents the people who eat Vanilla ice cream as well as Tuti-Fruity but not any other ice cream ?

(A) T   (B) P
(C) Q   (D) P and Q

13. Which of the following represents the people who eat all the four ice cream ?

(A) A   (B) V
(C) B   (D) Z

Directions (Q. 14): In the following question, there are two sets of figures. The figures on the left are problem figures. (four figures and one question marked space) and those on right are answer figures indicated by numbers (A), (B), (C), (D). A series is established if one of the four answer figures is placed at the "question marked space". The number of the answer figure which should be placed in the question-marked space is the answer.

14. Problem figures

**Answer figures**

(A)   (B)   (C)   (D)
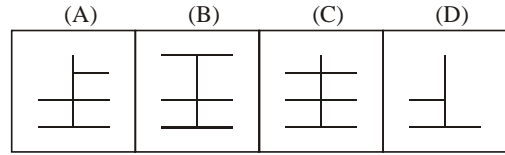
Directions (Q. 15):This question is designed to check the students ability of identifying different figures and quadrants in a figure. In these questions a problem figure is given out of which a portion or a quadrant is missing, followed by four Answer figuress (A), (B), (C), (D). The student has to complete that missing portion by selecting from the four Answer figures.
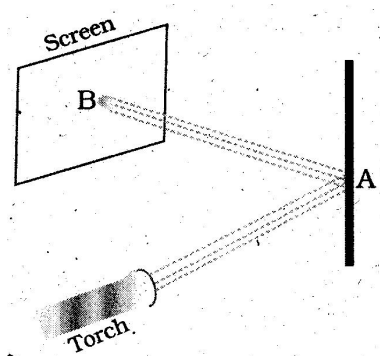
15. Problem figure

Answer figures

(A)   (B)   (C)   (D)
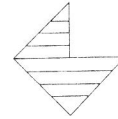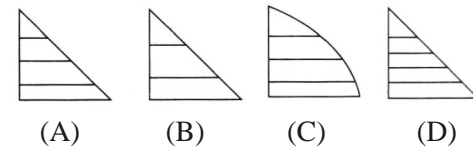
16. The distance between Delhi and Mumbai is usually expressed in units of

(A) decametre   (B) metre

(C) centimetre   (D) kilometre

17. Observe the picture given in Figure carefully.

A patch of light is obtained at B, when the torch is lighted as shown. Which of the following is kept at position A to get this patch of light?

(A) A wooden board   (B) A glass sheet

(C) A mirror

(D) A sheet of white paper

18. Choose from the options A, B, C and D given in figure the figure which shows the correct direction of current.

(A)   (B)

(C)   (D)
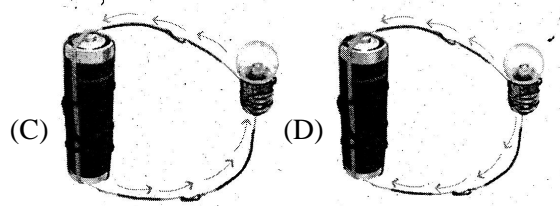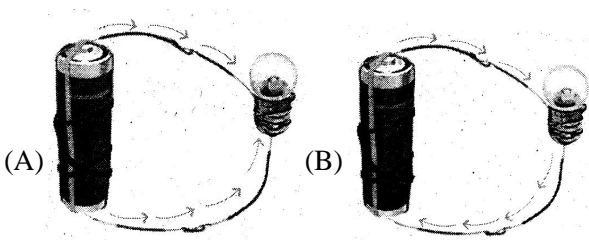
19. From the diagram below, given that PQ is a plane mirror, which is the incident ray and the angle of incidence?
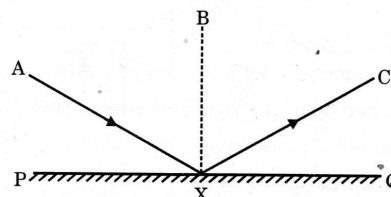
Incident ray Angle of incidence

(A) AX   AXP   (B) AX   AXB

(C) XC   BXC   (D) XC   CXQ

20. From the diagram below, what is the angle between the incident ray and the reflected ray?
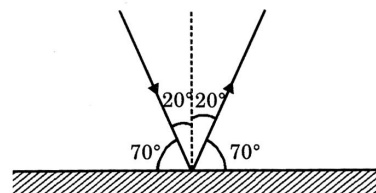
(A) 20°   (B) 40°

(C) 70°   (D) 90°

21. In lateral inversion:

(A) right side of the object will be right side of the image

(B) left side of the object will be left side of the image

iQuest

An Initiative by IITians

Space for Rough work

(C) upside of the object will be down side of the image

(D) right side of the object will be left side of the image

22. A cup of ice cubes becomes water at room temperature very soon. This is because:
(A) ice loses heat to the surroundings
(B) ice gains heat from the surroundings
(C) cup gains heat from the ice cubes
(D) cup loses heat to the surroundings

23. Increase in surface area of sheet on heating is called:
(A) linear expansion   (B) superficial expansion
(C) cubical expansion   (D) none of these

24. Increase in volume of a body on heating is called:
(A) linear expansion   (B) superficial expansion
(C) cubical expansion   (D) none of these

25. Copper wire are generally used for electrical power transmission instead of iron wires because
(A) copper is a better conductor than iron
(B) copper is cheaper than iron
(C) copper can take higher power than iron
(D) copper is lighter than iron

26. Tungsten is used for the manufacture of an electric bulb because
(A) it is malleable   (B) it is inexpensive
(C) it has a very high melting point
(D) it is a good conductor

27. In an electrical circuit, the switch is connected
(A) in the live wire   (B) in the neutral wire
(C) in the earth wire
(D) in the live or neutral wire depending on convenience

28. A bicycle increases its velocity from 10 km h^{-1} to 15 km h^{-1} in 6 seconds. The acceleration in m s^{-2} is:

(A) 3000   (B) $\dfrac{25}{108}$ (C) $\dfrac{5}{6}$ (D) 10

29. If the velocity of a body does not change with time, its acceleration is
(A) zero   (B) infinite
(C) unity   (D) none of these

30. If a student rides his bicycle on a straight road and does not speed up or slow down, he is travelling with a
(A) constant acceleration (B) constant velocity
(C) positive acceleration
(D) negative acceleration

31. The valency of sulphate radical is equal to the valency of
(A) phosphate radical
(B) hydrogen phosphate radical
(C) dihydrogen phosphate radical
(D) phosphide radical

32. Why rusting of iron is faster in coastal areas than in deserts ?
(A) Because air has more moisture in coastal areas than in desert areas
(B) Because air has less moisture in coastal areas than in desert areas
(C) None of these
(D) Both (A) and (B)

33. Select the correct alternative(s)
(i) Melting of ice is a physical change
(ii) A physical change is due to change in physical properties of a substance
(iii) A physical change is always irreversible in nature
(iv) burning of candle is an example of physical change
(A) (i) & (ii)   (B) (i) & (iv)
(C) (i), (ii) & (iv)   (D) (ii) & (iii)

34. A mixture of chalk powder and ammonium chloride can be separated by _____
(A) distillation   (B) evaporation
(C) filtration   (D) sublimation

Space for Rough work

35. Which among the following is a bad conductor of electricity?

(A) Zinc   (B) Copper

(C) Aluminium   (D) Phosphorus

36. Which among the following is an element?

(A) Calcium oxide   (B) Common salt

(C) Ozone   (D) Water

37. Acetic acid is used -

(A) as soda water   (B) for preparing soaps

(C) in flavouring food items

(D) to manufacture detergents

38. When magnesium oxide (MgO) react with water to form magnesium hydroxide $[Mg(OH)_2]$, a base, it turns _____ litmus to _____

(A) blue, red   (B) blue, colourless

(C) red, blue   (D) colourless, blue

39. Neutralization reaction is an example of -

(A) Exothermic reaction

(B) Endothermic reaction

(C) Oxidation   (D) None of these

40. _____ is used as one of the raw materials for making soft soap

(A) Sodium carbonate   (B) Alcohol

(C) Potassium hydroxide

(D) Finely ground pumice stone

41. Which of the following applications of copper require refining of copper instead of alloying?

(A) Making statues

(B) Making household utensils

(C) Making shells of ammunitions

(D) Making electric transmission cables

42. SI unit of atmospheric pressure is

(A) Newton   (B) Pascal

(C) Joule   (D) kg / m

43. A gas is collected by the upward displacement of air but cannot be collected either downward or upward displacement of water. Identify the probable characteristics of the gas

(A) It is heavier than air and insoluble in water

(B) It's vapour density is equal to air and it is highly soluble in water

(C) It is heavier than air and it is highly soluble in water

(D) It is lighter than air and water

44. The formula of a compound when a positive radical with valency 2 and negative radical with valency 1 combine is _____

(A) $_2A$ (B) A_2B

(C) AB_2 (D) AB

45. Which of the following water does not contain dissolved gases such as oxygen and carbon dioxide?

(A) Potable water   (B) Distilled water

(C) Saline water   (D) Soft water

46. Given below are names of some animals:

(i) Goat   (ii) Human beings

(iii) Cockroach   (iv) Eagle

Which of the above animals form a pair of omnivores?

(A) (i) and (ii)   (B) (ii) and (iii)

(C) (iii) and (iv)   (D) (ii) and (iv)

47. Honeybee makes honey from

(A) pollen   (B) petals

(C) nectar   (D) bub

48. Which one of the following food item does not provide dietary fibre?

(A) Whole grains   (B) Whole pulses

(C) Fruits and vegetables   (D) Milk

49. Which of the following sources of protein is different from others?

(A) Peas   (B) Gram

(C) Soyabeans

(D) Cottage cheese (paneer)

Space for Rough work

50. An iron nail is kept in each of the following liquids. In which case would it lose its shine and appear dull?

(A) Mustard oil   (B) Soft drink

(C) Coconut oil   (D) Kerosene

51. Priya brought some vegetables such as french beans, lady s finger, green chillies, brinjals and potatoes all mixed in a bag. Which of the following methods of separation would be most appropriate for her to separate them?

(A) Winnowing   (B) Sieving

(C) Threshing   (D) Hand picking

52. Pick the change that can be reversed from the following

(A) Cutting of trees   (B) Melting of ghee

(C) Burning of candle   (D) Blooming of flower

53. Which of the following combination of features would you observe in grass?

(A) Parallel venation and fibrous root

(B) Parallel venation and tap root

(C) Reticulate venation and fibrous root

(D) Reticulate venation and tap root

54. Which of the following cannot be called a habitat?

(A) A desert with camels.

(B) A pond with fishes.

(C) A jungle with wild animals

(D) Cultivated land with grazing cattle.

55. Which of the following statements is incorrect?

(A) All living things require air to breathe.

(B) We can feel air but we cannot see it.

(C) Moving air makes it possible to fly a kite.

(D) Air is present everywhere but not in soil.

56. The method of preparing compost with the help of earthworms is called

(A) composting   (B) vermicomposting

(C) manuring   (D) decomposing

57. Mohan saw a plant which he thought to be a legume and wanted to see if it had nitrogen fixing bacteria. What would he look for?

(A) Absence of root hairs

(B) An enlarged taproot

(C) Nodules present on root

(D) An extensive fibrous root system

58. The insects captured by insectivorous plants partially fulfil their requirement of _____

(A) Enzymes   (B) Oxygen

(C) Nitrogen   (D) Carbon

59. From which of the four chamber of ruminant stomach, semi-digested food is moved back to mouth?

(A) Rumen   (B) Abomasum

(C) Omasum   (D) All of these

60. The tongue is the main organ of taste. Different sets of taste buds are located in specific areas of the tongue. In the given figure, which part of the tongue will tell you that the food is sweet?
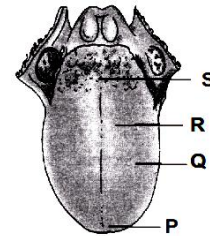
(A) P   (B) Q

(C) R   (D) S

61. A girl had three burgers. She ate two burgers and then divided the last burger into four equal parts and ate three of those parts. How many burgers did she eat?

(A) $\dfrac{3}{4}$ (B) $\dfrac{7}{4}$

(C) $\dfrac{9}{4}$ (D) $\dfrac{11}{4}$

Space for Rough work

62. What is the successor of the greatest negative integer?

(A) –1   (B) 0

(C) 1   (D) 2

63. The area of a playground is 300 m². The length of the playground is 2,000 cm. The width of the playground is

(A) .15 m   (B) 15 m

(C) .15 cm   (D) 15 cm

64. The number of shirts with A is four more than half the number of shirts with B. If A has *s* shirts, then which of the following expressions **gives** number of shirts with B?

(A) s/2 + 4   (B) 2(s-4)

(C) 4(s-2)   (D) s/2 - 4

65. For a rectangle with integral lengths of sides and 196 m² area, the minimum perimeter is obtained by taking the length of the rectangle as

(A) 4 m   (B) 7 m

(C) 14 m   (D) 28 m

66. The algebraic expression of the statement : "number 5 added to three times the product of numbers *m* and *n*".

(A) $5mn + 3$ (B) $2m + 5n$

(C) $3mn + 5$ (D) None of the above

67. Factorize $(2a + 3b)^2 - (3a - 2b)^2$

(A) $(5a+b)(5a-b)$ (B) $(a+5b)(a-5b)$

(C) $(5a+b)(5b-a)$ (D) $(5a+b)(5b+a)$

68. The least 4 digit number which is a perfect square is :

(A) 1024   (B) 1016

(C) 1036   (D) 1044

69. The ratio of the age of a man and his wife is 4 : 3. After 4 years, this ratio will be 9 : 7. If at the time of marriage the ratio was 5 : 3, then how many years ago were they married?

(A) 12 years   (B) 8 years

(C) 10 years   (D) 15 years

70. In the adjoining figure, the value of ∠AOC such that ∠AOB is a straight line is

(A) 40°

(B) 55°

(C) 125°

(D) 180°
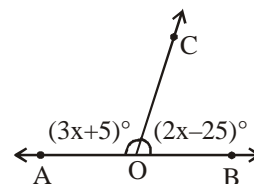
ANSWER KEY

SECTION - A

REASONING

1.	(A)	2.	(A)	3.	(D)	4.	(D)	5.	(B)	6.	(D)
7.	(B)	8.	(A)	9.	(B)	10.	(B)	11.	(D)	12.	(A)
13.	(C)	14.	(D)	15.	(A)								

SECTION - B

SCHOLASTIC APTITUDE

16.	(D)	17.	(C)	18.	(B)	19.	(B)	20.	(B)	21.	(D)
22.	(B)	23.	(B)	24.	(C)	25.	(A)	26.	(D)	27.	(A)
28.	(B)	29.	(A)	30.	(B)	31.	(B)	32.	(A)	33.	(A)
34.	(D)	35.	(D)	36.	(C)	37.	(C)	38.	(C)	39.	(A)
40.	(C)	41.	(D)	42.	(B)	43.	(C)	44.	(C)	45.	(B)
46.	(B)	47.	(C)	48.	(D)	49.	(D)	50.	(B)	51.	(D)
52.	(B)	53.	(A)	54.	(D)	55.	(D)	56.	(B)	57.	(C)
58.	(C)	59.	(A)	60.	(A)	61.	(D)	62.	(B)	63.	(B)
64.	(B)	65.	(C)	66.	(C)	67.	(C)	68.	(A)	69.	(A)
70.	(C)										