NAME- _____FATHER'S NAME- _____

ROLL NO.- _____CLASS-   **6**th

MOBILE NO.- _____INVIGILATOR SIGN. - _____

TIME- 90 Min.   MM- 70

_____

SUBJECT- MATHEMATICS & REASONING

Q1. If a = 5, b = 15 then find the value of (a/b + 1) b/a + (b-a) is

a) 14   b) 24

c) 12   d) 18

Q2. The average of number 12, 15, 19, k and K + 5 is 13 then value of k is

a) 3   b) 5

c) 7   d) 13.5

Q3. Which fraction should be added to the sum of $5\frac{3}{4}$, $4\frac{4}{5}$ and $7\frac{3}{8}$ to make the result a whole number?

 a) 1/40   b) 37/40

c) 3/40   d) 4/40

Q4. The perimeter of a rectangle field is 456 meters. If the length of the field is four times its breadth, then find its breadth.

Options:

a) 48.9 m   b) 46.7 m

c) 42.8 m   d) 45.6 m

Q5. A question paper contains 30 questions. Questions from 1 to 17 are of 4 marks each and questions from 18 to 30 are of 5 marks each. Yash solves Q1, Q2, Q5, Q6, Q15, Q18, Q27 and Q30 correctly whereas Kunal solves all the questions correctly. Find the difference between the marks of Kunal and Yash.

a) 133

b) 98

c) 90

d) 100

Q6. What should be subtracted from the difference of 852.38 and 217.50 to get the sum of 375.21 and 199.53?

a) 132.78

b) 78.54

c) 60.14

d) 175.65

Q7. If the two perpendicular sides of a right angle triangle are 5 cm and 12 cm, then the perimeter of the triangle is:

a) 13 cm

b) 17 cm

c) 27 cm

d) 30 cm

Q8. 5% of 10% of 175 grams is equal to

a) 8.75 gm

b) 0.5 gm

c) 0.875 gm

d) 17.5 gm

Q9. Find the greatest number which divides 1277 and 1368 to give the remainder 3 in each case.

a) 68

b) 77

c) 91

d) 97

Q10. What is the value of $24 + [16 – \{5 – 2 (4 – 3)\}]$?

a) 22

b) 23

c) 24

d) 27

Q11. Sneha was asked to find the total of 4 2/5 and 1 1/2, but she made a mistake and subtracted 1 1/2 from 4 2/5. Find the difference between the correct answer and the result she obtained.

a) 5   b) 7/10

c) 3   d) 9/10

Q12. In an army camp, there were provision for 425 men for 30 days. Only 375 men attended the camp. How long did the provision last?

a) 32 days   b) 34 days

c) 38 days   d) 40 days

Q13. The ratio of (1/3 of ₹ 9.30) to (0.6 of ₹ 1.55) is

a) 1:4   b) 10:3

c) 3:10   d) 4:1

Q14. The prime factorization of 529200 is $(2^a \times 3^b \times 5^c \times 7^d)$ then the value of (a × b × c × d) is

a) 16   b) 28

c) 36   d) 48

Q15. Aman is 45 years old and Priya is 75 years old. How many years ago was the ratio of their ages 1:3?

a) 5 years   b) 15 years

c) 25 years   d) 30 years

Q16. A shopkeeper increase the price of a toy by 20% and then gives 20% discount. What is the net effect

a) No change   b) Increase price

c) Decrease price   d) Double price

Q17 Three bells starts ringing together at 8:35am, if they ring after 12s, 15s, 18s. respectively each time , the next time they will ring together at

a) 8:38 AM   b) 8:40 AM

c) 8:41AM   d) 8:45 AM

Q18. Name the type of an angle whose measure is the difference of a complete angle and the angle which is 5 times of half of a right angle:

a) Reflex angle   b) Acute angle

c) Obtuse angle   d) Straight angle

Q19. A rod of length 15m 8cm is divided into 4 equal parts. Then length of each part of the rod is:

a) 3.65m   b) 3.77m

c) 3.95m   d) 3.88m

Q20. A man does a work in 12 days working 8hr/day. If he works for 6 hr/day, what would be the number of days taken by him.

a) 12   b) 14

c) 16   d) 18

Q21. A train covered a certain distance with a speed of 120km/hr in 40 min. If speed of the train is increased to 150km/hr, then how much less time will it take to cover the same distance

a) 8 min.   b) 5 min.

c) 10 min.   d) 16 min.

Q22. The ratio of two numbers is 3:8 & their difference is 115. What is the largest number?

a) 181   b) 182

c) 183   d) 184

Q23. If bicycle wheel has 45 spokes then the angle between a pair of two consecutive spokes is _____

a) 12   b) 15

c) 8   d) 14

Q24. If each side of a square is decrease to one-third of itself, then the area of the square will be decrease to:

a) one-seventh   b) one-third

c) one-eight   d) one-ninth

Q25. The average of all prime numbers between 10 and 20 is

a) 10   b) 15

c) 20   d) 18

Q26. Find the missing number that has same relation to 26 as 37 has to 19.

19:37::26:?

a) 52   b) 51

c) 46   d) 43

Q27. Find odd one out.

a) BdEg   b) KmNP

c) PrSu   d) TwXz

Q28. If in a code language MOTHER is written as OQVJGT, then what ways SISTER will be written?

a) CJUVGT   b) TJTUFS

c) TJTUES   d) UKUVGT

Q29. F : 216 :: L :?

a) 1728   b) 1700

c) 1600   d) 1723

Q30. If D = 8, NO = 39, and NOT = 98, then TONE = ?

a) 128   b) 108

c) 103   d) 100

Q31. Pointing towards a girl singing on stage, Matthew says, "Her mother is the only daughter of my mother-in-law". Who is Matthew to the girl?

a) Father   b) Uncle

c) Brother   d) Husband

Q32. There are 32 employees in a bank working in three shifts. The first group of 8 employees work from 09:00 AM to 11:00 AM. The second group of 14 employees works from 10:00 AM to 01:00 PM. The

third group of 10 employees work from 11:00 AM to 01:00 PM. If there are only 6 computers available, find the time during which the computers are likely to be used the most?

a) 09:00 AM to 11:00 AM

b) 11:00 AM to 01:00 P

c) 10:00 AM to 01:00 PM

d) None of these

Q33. If 'P' denotes '÷', 'Q' denotes '×', 'R' denotes '+', and 'S' denotes '-', then the value of 18Q12P4R5S6 is:

a) 53

b) 59

c) 65

d) 51

Q34. Ajay is at 10th position from top. In the class of 50 students, there are 26 students between Sunil and Ajay. How many students are there in between Sunil and the last students in the class?

a) 10

b) 12

c) 15

d) 16

Q35. There are five sales executive in a company. Rohan earns more bonus than Esha but not the same as Sachin. Bhanu draws more bonus than Jatin but less than Esha. Who earns the maximum bonus in the company?

a) Esha

b) Jatin

c) Rohan

d) Sachin

SUBJECT- SCIENCE

Q36. If your diet is deficient in vitamin A then you are supposed to suffer from

a) Rickets

b) Beri Beri

c) Scurvy

d) Night blindness.

Q37. Which food group BEST provides the necessary nutrients for healthy teeth and bones?

a) Milk and dairy products

b) Fruits and vegetables

c) Bread and cereal

d) Meat.

Q38. Which part of the body receives messages transmitted by nerve cells located throughout the body?

a) Heart

b) Lungs

c) Brain

d) Liver.

Q39. Which is usually NOT a reason why foods are processed?

a) More nutritious

b) Easier to package

c) Last longer on the shelf

d) Easier to transport to the store

Q40. If you dissolved a lot of salt in some water in a large flat dish and put the dish in bright sunlight on a hot day, what would be left in the dish after a long time?

a) Dry salt

b) Water with no salt

c) The same salty water as before

d) Nothing.

Q41. A boy pulls a wagon with a force of 6 N east and another boy pushes it with a force of 3 N east. Calculate the total force applied on the wagon:

a) 2 N

b) 18 N

c) 9 N

d) 3 N

Q42. The water can exist in all three states at temperature of

a) 0.01 ° C

b) 0 ° C

c) Room temperature.

d) At all temperatures

Q43. Sam met with an accident and some bones of his ribcage were broken. Why was he finding it difficult to breathe?

a) Ribcage protects liver which helps in the breathing process.

b) Ribcage protects lungs which help in the breathing process.

c) Ribcage helps in the breathing process.

d) All of the above

Q44. Read the clues given below and identify the planet:

Clue 1: It is so big that all the planets of the solar system can easily fit inside it.

Clue 2: It completes one rotation on its axis in about 10 hours.

Clue 3: It is the fastest spinning planet in the solar system.

a) Mars

b) Earth

c) Saturn

d) Jupiter

Q45. Kerosene is

a) Combustible substance

b) Insoluble in water

c) Non-Combustible substance.

d) Both (a) & (b)

Q46. Tina wants to make lemon pickles at home. Which of the following processes should she use to preserve the lemons at home?

a) She should add milk to the lemons.

b) She should boil the lemons with milk.

c) She should add salt and oil to the lemons.

d) She should dry the lemons in a steamer.

Q47. Choose the activity that you should not be doing during an earthquake:

a) If you are indoors, get inside a desk or a table.

b) If you are outdoors, stay away from trees.

c) If you are on a beach, get into the sea.

d) Stay away from windows and light fixtures

Q48. The number of images formed when two plane mirrors are at 30⁰ with each other.

a) 6

b) 11

c) 12

d) 9

Q49. Choose the correct option and complete the following sentence: _____ nerves are known for the transmission of messages right from the organs of our body to the brains whereas _____ nerves take messages from the brain to the organs of our body.

a) Sensory, motor

b) Motor, sensory

c) Motor, mixed

d) Mixed, sensory

Q50. Which of the following animals is preparing for a seasonal change in the environment?

a) A bat flying at night.

b) A deer drinking water.

c) An owl eating a mouse.

d) A squirrel storing nuts.

Q51. Read the given statements and select the option that correctly identifies the incorrect one(s).

(i) Comets are often described as dirty snowballs.

(ii) Sun flares are large explosions on the surface of the Sun that emit intense radiation.

(iii) The great red spot is a huge storm swirling on the planet Jupiter since centuries.

(iv) Crescent moon is more visible than Gibbous moon.

a) (ii) and (iii) only

b) (i) and (iii) only

c) (iv) only

d) (i), (iii) and (iv) only

Q52. Suppose you are a scientist and you have to make a satellite to send it into orbit in outer space. Which of these will you use as a source of power in the satellite?

a) Dry cell

b) Car battery

c) Solar cell

d) Button Cell

Q53. To ensure a properly lit image, the direction of the sun in relation to the camera's pinhole should be

a) directly on top of your object

b) in front of your object

c) to the side of your object

d) on opposite side of edge containing pinhole.

Q54. Which of the following statements is correct?

a) Mercury is the hottest planet of the solar system.

b) Jupiter is called the red planet as it has a large red spot on its surface.

c) Mars has no natural satellites of its own.

d) Saturn is the least dense planet among all planets.

Q55. Find the temperature at which Fahrenheit and Kelvin scales give the same reading.

a) 544º C

b) 554º C

c) 564º C

d) 574º C

Q56. Which of the following unit conversions is wrong?

a) 1km = 10^9 um

b) 1cm = 10^3 mm

c) 1mg = 10^3 ug

d) 1kg = 10^6 mg

Q57. A bar magnet is dipped in iron filings and taken out. Which of the following observations is correct?

a) The maximum quantity of filings gets sticked to the ends of the magnet.

b) The maximum quantity of filings gets sticked to the middle.

c) The filings gets uniformly distributed.

d) The maximum quantity will be sticked at the north pole only.

Q58. You are provided with the following materials:

(i) Dry wood   (ii) Metallic sheet   (iii) Rubber tube   (iv) Iron nail

Which of the given materials will you classify as non-conductors of electricity?

a) (ii) and (iv) only

b) (i) and (iii) only

c) (i) and (iv) only

d) (ii) and (iii) only

Q59. Which of the following statements are incorrect?

1. Vinegar and lemon juice form a separate layer on water.

II. Freshly cut surfaces of metals are lustrous.

III. Oxygen gas is transparent while milk is opaque.

IV. Wax when mixed with water forms a solution.

a) I and II only

b) I and IV only

c) III and IV only

d) None of these

Q60. The appearance of Halley's comet after every 76 years is a

a) permanent change

b) temporary change

c) physical change

d) periodic change.

Q61. Read the following statements carefully and select the correct option.

Statement 1: Sieving is used for separating components of a mixture based on their particles size.

Statement 2: Loading is a method of separation of a solid from a liquid, in which the suspended particles are rotated at high speed.

a) Both statements 1 and 2 are true.

b) Statement 1 is false but statement 2 is true.

c) Statement 1 is true but statement 2 is false.

d) Both statements 1 and 2 are false

Q62. While lighting a candle, Paheli observed the following changes:

(i) Wax was melting

(ii) Candle was burning

(iii) Size of the candle was reducing

(iv) Melted wax was getting solidified.

The changes that can be reversed are

a) (i) and (ii)

b) (ii) and (iii)

c) (iii) and (iv)

d) (i) and (iv)

Q63. Which of the following is not the correct example of structural adaptation in animals?

a) A desert fox losing excess heat through its large ear.

b) A monkey using its strong, long limbs and tail for grasping branches.

c) A polar bear balancing itself on its paws with stiff hair.

d) Toucan has developed sticky pads on its feet to help it to reach the fruits on branches which are otherwise too weak to support its weight.

Q64. Identify the correct feature of stage III in the life cycle of mosquito.

a) It is worm-like.   b) It lives in water.

c) It come to the water surface to breathe air.   d) All of the above

Q65. Which of the following is not a structural adaptation?

a) Camels have long eyelashes to protect their eyes from dust storm.

b) Some animals migrate from less favorable to more favorable places in search of food and to escape harsh weather.

c) Stem of cactus becomes fleshy to store water and also performs photosynthesis.

d) Some aquatic plants have reduced root system and dissected ribbon like leaves.

Q66. Which of the following could be the consequences of deforestation?

(i) Large scale plantation of trees

(ii) Loss of habitat for many species

(iii) Climate change will not occur.

(iv) Increase in oxygen production

(v) Soil erosion

a) (i) and (ii) only   b) (ii) and (v) only

c) (i), (ii) and (v) only   d) (ii), (iii) and (iv) only

Q67. Identify 'X' on the basis of following points.

(i) X is black, hard combustible substance.

(ii) X is burnt to produce energy in the form of heat.

(iii) X is a kind of fossil fuel.

a) Coal   b) Petrol

c) Natural gas   d) LPG

Q68. Which of the following statements is not true?

a) Deficiency diseases can be prevented by eating a balanced diet.

b) Rickets and scurvy are vitamin deficiency diseases.

c) Balanced diet should contain a variety of food.

d) 4 bowls full of protein rich food provides much more energy than 4 bowls full of carbohydrate-rich food.

Q69. Which of the following food will make the paper translucent?

a) Groundnut   b) Sesame seeds

c) Cream   d) All of these

Q70. Earthworms belongs to

a) Porifera   b) Arthropoda

c) Annelida   d) Mollusca