BIG BANG
EDGE TEST

SAMPLE PAPER

For Students presently in Class VI

Paper 2 - NTSE Science & Mathematics

Duration : 90 minutes

Paper Code: 67-2

Maximum Marks : 72

Please read the instructions and guidelines carefully :

Important Note : Please ensure to accurately input the details for the Question Paper Code as indicated at the top of this sheet (Side 2) into the corresponding columns / fields on the OMR sheet before proceeding with the paper. Incorrectly filled information regarding the class or paper may result in inaccurate outcomes or results.

"This paper has been scientifically designed to evaluate your potential – manifested and hidden for the target examinations mentioned in various sections of the paper. Thus, your adherence to the instructions is critical in the evaluation of the same"

1. This Question paper consists of 2 sections.
2. Student should devote allotted time for each section. If a section is easy, then it is easy for everyone & was meant to be like that with a goal in mind. Do not switch over to another section if you find the section to be easy. If a section is tough, then it is tough for everyone. Please note that each section has been allocated a time limit of 45 minutes. Dedicating the full 45 minutes to finish each section successfully is essential. Opening the next section before completing the allotted time for the preceding section is not permitted. This adherence is crucial for assessing your true potential, as each section is meticulously crafted to evaluate your potential for the corresponding competitive examinations.
3. Candidate should open the seal of Section-II only after completing 45 minutes of Section-I.
4. Sheets will be given to each candidate for rough work. Candidate must fill all details on the rough sheet and submit the same to invigilator along with OMR sheet. Candidate must mention the Question No. while doing the rough work in the sheet.
5. Please note candidates are not allowed to bring any prohibited items into the exam hall such as electronic devices, mobile phones, smart watch, earphones, calculators, books, notes, formula sheets, and bags.
6. Marking scheme is given in table below:

Section	Subject	Question no.	Marking Scheme for each question	
			Correct answer	Wrong answer
SECTION – I (NTSE-Science) Time Allotted: 45 Minutes	PHYSICS (Part-A)	1 to 12	+1	0
	CHEMISTRY (Part-B)	13 to 24	+1	0
	BIOLOGY (Part-C)	25 to 36	+1	0
SECTION – II (NTSE-Mathematics) Time Allotted: 45 Minutes	MATHEMATICS (Part-A)	37 to 72	+1	0

Section – I

Time: 45 Minutes

PHYSICS (PART – A)

*This part contains **12 Multiple Choice Questions** number **1 to 12.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

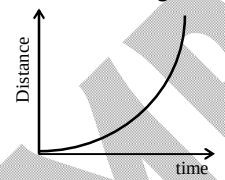
1. FPS is :–
   (A) Force pressure second
   (B) Foot pound second
   (C) Force power second
   (D) Foot power second

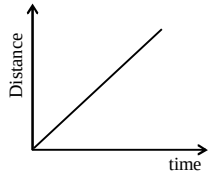
2. How many years are there in one decade?
   (A) 5 years
   (B) 10 years
   (C) 100 years
   (D) 1000 years

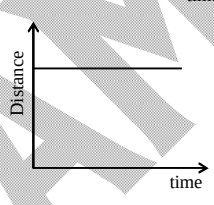
3. While measuring the length of a pencil the reading of the scale at one end is 3.0 cm and at the other 15.2 cm. What is the length of the Pencil?
   (A) 13.2 cm
   (B) 12.2 cm
   (C) 11.8 cm
   (D) 14.2 cm

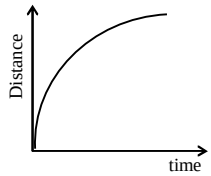
4. The motion of a hanging bell is an example of :–
   (A) Rectilinear
   (B) Oscillatory
   (C) Random
   (D) Circular

5. Which of the following is a uniform motion:–

   (A) 

   (B) 

   (C) 

   (D) 

6. 10 quintals equals to.
   (A) 100 kg
   (B) 10 kg
   (C) 1000 kg
   (D) 1 kg

7. 1 micro second is equal to :–
   (A) 10^{6} s
   (B) 10^{-6} s
   (C) 10^{3} s
   (D) 10^{-3} s

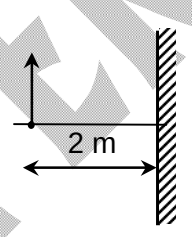
8. If the image cannot be taken on the screen, it must be
   (A) real
   (B) virtual
   (C) real or virtual
   (D) none of these

9. Soldiers in march past is an example of
(A) Random (B) Rotational
(C) Rectilinear (D) Circular

10. When light bounces off from a surface, we say it has been : –
(A) Reflected (B) Absorbed
(C) Transmitted (D) Refracted

11. Shape & size of a shadow depends on
(A) The shape and size of the object
(B) The position of the source of light
(C) The distance between the source of light and object
(D) All the above

12. An object is placed at a distance of 2 m from a plane mirror. Find the distance of the image formed by the mirror from object.
(A) 10 m (B) 4 m
(C) 6 m (D) 2 m



CHEMISTRY (PART – B)

*This part contains **12 Multiple Choice Questions** number **13 to 24.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

13. In which climate are cotton crops grown?
(A) Winter (B) Warm
(C) Spring (D) Rainy

14. Which types of cloths burn slowly?
(A) Nylon (B) Polyester
(C) Cotton (D) Silk

15. Silk is obtained from
(A) Banana tree (B) Jute stem
(C) Silk worm (D) Mango tree

16. The process of pulled out cotton seeds from cotton is called _____?
(A) Pat sun (B) Ginning
(C) Bobbins (D) Spinning

17. Find the odd one out from the following
(A) Aluminium (B) Iron
(C) Copper (D) Sand

18. Which one is liquid metal?
(A) Mercury (B) Bromine
(C) Silicon (D) Germanium

19. Wax and plastics are _____ in water
(A) Soluble (B) Insoluble
(C) Miscible (D) None of these

20. All gases are _____ conductor of heat
(A) Good (B) Bad
(C) Neutral (D) None of these

21. The process of settling of suspended particles is
(A) Evaporation (B) Filtration
(C) Sedimentation (D) Sublimation

22. Husk is separated from rice by
(A) Winnowing (B) Hand picking
(C) Sublimation (D) Distillation

23. The purity of a substance is determined by
(A) Its colour (B) Quantity
(C) M.P. and B.P. (D) Source

24. Loading is done by using a piece of
(A) Stone (B) Alum
(C) Chalk (D) Sugar

BIOLOGY (PART – C)

*This part contains **12 Multiple Choice Questions** number **25 to 36.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

25. Which one of the following is not an animal product?
(A) Cheese (B) Butter
(C) Honey (D) Rice

26. The food which is mainly eaten by majority of people is known as:
(A) Non staple food (B) Fermented food
(C) Staple food (D) Fast food

27. Oil contain…….. contents which is an essential component of food.
(A) Proteins (B) Fats
(C) Carbohydrates (D) Minerals

28. Which one among the following is an omnivore?
(A) Lion (B) Deer
(C) Cockroach (D) None of these

29. Match the statements in column A with those of column B

Column – A		Column – B	
(a)	Maize	(p)	Herbivore
(b)	Some plants and animals	(q)	Curd
(c)	Milk	(r)	Carbohydrate
(d)	Deer	(s)	Source of food to human beings.

(A) $(a \rightarrow p), (b \rightarrow q), (c \rightarrow r), (d \rightarrow s)$ (B) $(a \rightarrow r), (b \rightarrow s), (c \rightarrow q), (d \rightarrow p)$
(C) $(a \rightarrow r), (b \rightarrow p), (c \rightarrow s), (d \rightarrow q)$ (D) $(a \rightarrow s), (b \rightarrow p), (c \rightarrow q), (d \rightarrow r)$

30. Deficiency of iron leads to:
(A) Goitre (B) Marasmus
(C) Anaemia (D) All of these

31. Vitamin C is also known as:
(A) Ascorbic acid (B) Asboric acid
(C) Citric acid (D) Acetic acid

32. Lipids in the diet:
(A) Makes the food less tasty (B) Increase the bulk
(C) Enable the absorption of some vitamins (D) All of these

33. Water is absorbed by the …….of a plant.
(A) root (B) stem
(C) flower (D) seed

34. We get cereals from:
(A) Animals (B) Plants
(C) (A) and (B) both (D) Factories

35. Which of the following food components does not provide any nutrients?
(A) Milk (B) Water
(C) Fruit Juice (D) Vegetable soup

36. Egg is a rich source of
(A) Proteins (B) Vitamins
(C) Minerals (D) All of these

Section – II

Time: 45 Minutes

MATHEMATICS (PART – A)

*This part contains **36 Multiple Choice Questions** number **37 to 72.** Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE** is correct.*

37. The value of digit A in 8928A if it is divisible by 10 is equal to
(A) 5 (B) 9
(C) 0 (D) 1

38. Quotient =
(A) $\frac{\text{Divisor} - \text{Remainder}}{\text{Dividend}}$ (B) $\frac{\text{Dividend} - \text{Remainder}}{\text{Divisor}}$
(C) $\frac{\text{Dividend} + \text{Remainder}}{\text{Divisor}}$ (D) None of these

39. Find the value of ||10| + | – 5| – |16||
(A) 1 (B) 2
(C) –1 (D) – 10

40. Which of the following is not a factor of 94 ?
(A) 2 (B) 47
(C) 17 (D) 1

41. The sum of the digits of a two-digit number is 8. The number obtained by interchanging its digits is 18 more than the original number. The original number is
(A) 35 (B) 40
(C) 30 (D) 20

42. If the angles of a Δ are in the ratio of 1 : 3 : 5 then what is value of the smallest angle?
(A) 20º (B) 60º
(C) 100º (D) 50º

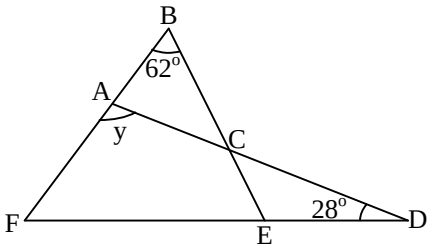
43. Complement of 75º is?
(A) 15º (B) 85º
(C) 105º (D) 115º

44. By what number should $1\frac{1}{2}$ be divided to get $\frac{2}{3}$
(A) $2\frac{2}{3}$ (B) $1\frac{2}{3}$
(C) $\frac{4}{9}$ (D) $2\frac{1}{4}$

45. If $\frac{a}{3} = \frac{b}{4} = \frac{c}{7}$, then $\frac{a+b+c}{c}$ is equal to
(A) 7 (B) $\frac{1}{2}$
(C) $\frac{1}{7}$ (D) 2

46. The HCF and LCM of two numbers is 16 and 192 respectively. If one of the numbers is 64, the other one is
(A) 48 (B) 24
(C) 72 (D) None

47. In the figure, ΔADF and ΔBEF are two triangles and $\angle EDC = \angle DCE$. Find y.

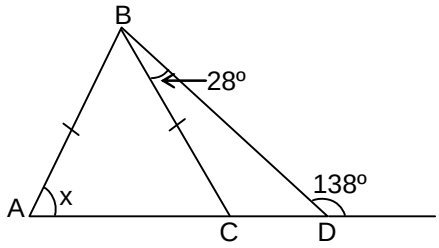


(A) 90^o (B) 91^o
(C) 92^o (D) 93^o

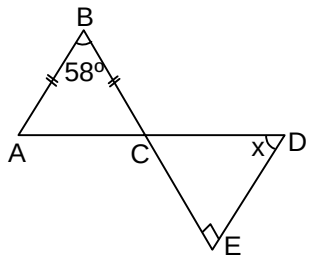
48. The price of commodity x increases by 20 paisa every year, while the price of commodity y decreases by 20 paisa every year. If present price of x is Rs. 23.50 and that of y is Rs. 40.30, find the total price of x and y after 10 years.
(A) Rs. 21.50 (B) Rs. 38.30
(C) Rs. 59.80 (D) Rs. 63.80

49. Subtract $\left(x^4 + x^2y^2 - 3x^2y + y^4\right)$ from $\left(y^4 + 3x^2y^2 - x^4\right)$
(A) $2x^4 - 2x^2y^2 - 3x^2y$ (B) $2x^2y^2 + 3x^2y - 2x^4$
(C) $2y^4 + 4x^2y^2 - 3x^2y$ (D) $x^2y^2 + 2y^4$

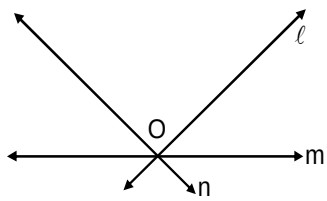
50. In the given figure, ACD is a straight line. ABC is an isosceles triangle. The value of x is
(A) 65º (B) 70º
(C) 72º (D) 83º



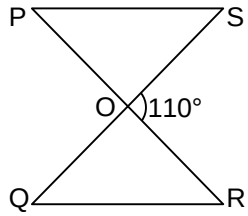
51. In the given figure, ACD and BCE are straight lines and $\angle CED = 90°$. The value of x is
(A) 22º (B) 29º
(C) 31º (D) 34º



52. In given figure lines ℓ, m and n are called
(A) Collinear lines
(B) Parallel lines
(C) Concurrent lines
(D) None of these



53. Measure of $\angle POQ$ in the following figure is

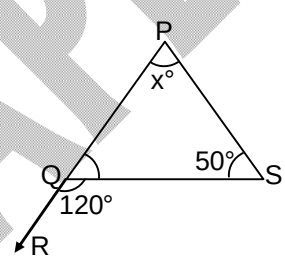


(A) 90º (B) 20º
(C) 70º (D) 110º

54. Supplementary angle of 108.5° is
(A) 70.5° (B) 71.5°
(C) $21\frac{1}{2}^{\circ}$ (D) $77\frac{1}{2}^{\circ}$

55. At 3 O'clock, the angle formed between the hands of a clock is
(A) Reflex angle (B) Right angle
(C) Straight angle (D) Acute angle

56. Measure of x° in the figure is



(A) 60º (B) 70º
(C) 80º (D) 55º

57. Which of the following is not true?
A triangle can have
(A) Two acute angles (B) One right angle
(C) Two obtuse angles (D) Each angle equal to 60°

58. Value of 976 × 237 + 976 × 763 is
(A) 968000 (B) 976000
(C) 100000 (D) 900000

59. Roman numeral for the greatest three digit number is
(A) IXIXIX (B) CMXCIX
(C) CMIXIX (D) CMIIC

60. Complimentary angle of 40.5° is
(A) 39.5° (B) 41.5°
(C) 49.5° (D) 51.5°

61. If the product 4868 × 9P2 is divisible by 12, then the value of P is
(A) 2 (B) 5
(C) 6 (D) None of these

62. The representation of the smallest 5-digit number using three different digits is
(A) 10002 (B) 11002
(C) 100000 (D) 12300

63. The round off of the number 346578 to its nearest lakh is
(A) 400000 (B) 300000
(C) 340000 (D) 346000

64. If $\frac{x}{y}=\frac{4}{3}$, then value of $\frac{x^2-y^2}{x^2+y^2}$ is

(A) $\frac{25}{7}$ (B) $\frac{61}{11}$

(C) $\frac{11}{61}$ (D) $\frac{7}{25}$

65. Find the L.C.M. of 84, 126 and 288.

(A) 2016 (B) 12

(C) 84 (D) 288

66. If $2=x+\frac{1}{1+\frac{1}{3+\frac{1}{5}}}$, then value of x is

(A) $\frac{13}{21}$ (B) $\frac{3}{5}$

(C) $\frac{26}{21}$ (D) $\frac{5}{3}$

67. Which of the following statements is/are correct ?

i. Whole numbers are closed under addition

ii. Whole number are closed under subtraction

iii. Whole number are closed under multiplication

iv. Whole number are closed under division

(A) All of these (B) only (i) and (iii)

(C) only (ii) and (iv) (D) None of these

68. A school canteen charges Rs. 25 and Rs. 5 for biscuits and milk, respectively. How much money is spent by a student in 6 days on both the items if he has one of each on all the six days ?

(A) 180 (B) 150

(C) 120 (D) 100

69. Which set of the following number will make the number sentence true?

..... ÷ ..... + ... = 12

(A) 6, 8, 12 (B) 6, 8, 16

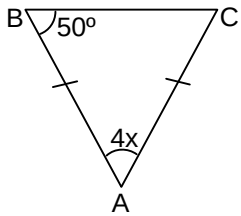
(C) 16, 8, 10 (D) 6, 8, 10

70 Circumference of a circle, whose area is 3850 cm^2, is :

(A) 220 cm (B) 70 cm

(C) 110 cm (D) 140 cm

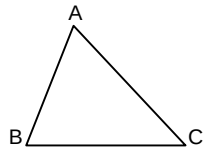
71. The diagram shows an isosceles triangle ABC, such that AB = AC. The value of x is



(A) 100° (B) 80°

(C) 50° (D) 20°

72. Which of the relation of the sides showing the condition of scalene triangle?



(A) AB = BC = CA (B) AB ≠ BC = AC

(C) AB ≠ BC ≠ CA (D) AB = BC ≠ AC

BIG BANG EDGE TEST

SAMPLE PAPER

For Students presently in Class VI

Paper 2 - NTSE Science & Mathematics

Paper Code: 67-2

ANSWER KEYS

1.	**B**	2.	**B**	3.	**B**	4.	**B**
5.	**B**	6.	**C**	7.	**B**	8.	**B**
9.	**C**	10.	**A**	11.	**D**	12.	**B**
13.	**B**	14.	**C**	15.	**C**	16.	**B**
17.	**D**	18.	**A**	19.	**B**	20.	**B**
21.	**C**	22.	**A**	23.	**C**	24.	**B**
25.	**D**	26.	**C**	27.	**B**	28.	**C**
29.	**B**	30.	**C**	31.	**A**	32.	**C**
33.	**A**	34.	**B**	35.	**B**	36.	**D**
37.	**C**	38.	**B**	39.	**A**	40.	**C**
41.	**A**	42.	**A**	43.	**A**	44.	**D**
45.	**D**	46.	**A**	47.	**A**	48.	**D**
49.	**B**	50.	**B**	51.	**B**	52.	**C**
53.	**D**	54.	**B**	55.	**B**	56.	**B**
57.	**C**	58.	**B**	59.	**B**	60.	**C**
61.	**D**	62.	**A**	63.	**B**	64.	**D**
65.	**A**	66.	**C**	67.	**B**	68.	**A**
69.	**C**	70.	**A**	71.	**D**	72.	**C**