CODE: A

Name: _____Sec: ___ Roll No. ____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION: [2020-21]
MATHEMATICS
CLASS – VI

Time: 3 Hrs. **Maximum Marks: 80**

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General Instructions:

(i) All questions are compulsory.
(ii) This question paper consists of 37 questions divided into four sections- A,B,C and D.
(iii) Section A contains 16 questions each of 1 mark.
(iv) Section B contains 6 questions each of 2 marks
(v) Section C contains 8 questions each of 3 marks.
(vi) Section D contains 7 questions each of 4 marks.

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SECTION- A

1. If Rupam earns Rs x per day and spends Rs y per day, then his saving for the month of June is 1
a) Rs(31x-y) b) Rs 30(x-y) c) Rs 31(x-y) d) Rs 30 (y-x)

OR

Which of the following is an equation?
a) r + 6 b) 8r c) 3y + 2 = 11 d) 2p < 7

2. If 7 pencils cost Rs 35, then the cost of one dozen pencils is 1
a) Rs 30 b) Rs 5 c) Rs 70 d) Rs 60

3. If the perimeter of a square is 52 cm, then its area is 1
a) 13sq.cm b) 31sq.cm c)169sq.cm d) 81sq.cm

4. Which of the following letters does not have any line of symmetry? 1
a) B b) T c) Y d) Z

5. The presentation of an information (data) by pictures is called 1
a) bar graph b) pictograph c) line graph d) pie chart

6. The number of lines of symmetry in a protractor is 1
a) 0 b) 1 c) 2 d) more than 2

7. The smallest integer lying between -11 and -20 is 1
a) -11 b) -20 c) -19 d)-12

8. The fraction equivalent to $\frac{144}{180}$ is 1

a) $\frac{5}{4}$ b) $\frac{4}{5}$ c) $\frac{12}{60}$ d) $\frac{3}{5}$

OR

The largest of the fraction $\frac{4}{5}, \frac{4}{7}, \frac{4}{9}, \frac{4}{11}$ is

a) $\frac{4}{11}$ b) $\frac{4}{5}$ c) $\frac{4}{7}$ d) $\frac{4}{9}$

9. If Rishika's present age is b years, then her age after 20 years will be _____. 1

10. The ratio of the number of sides of a rectangle and the number of edges of a cuboid is _____. 1

11. If the perimeter of a regular hexagon is 18 cm, then length of its each side is ____ cm. 1

12. A regular pentagon has ____ lines of symmetry. 1

13. If ☺ represents 200 students, then ☺ ☺ ☺ ☺ represent how many students? 1

14. Find the successor and predecessor of -425 1

15. Find the equivalent fraction of $\frac{56}{70}$ with 1

a. numerator 4
b. denominator 10

16. Name the triangle which has: 1

a. exactly one line of symmetry
b. exactly three lines of symmetry

SECTION-B

17. An athlete takes 10 rounds of a rectangular park, 70 m long and 40 m wide. Now answer the following questions 2

a. Find the total distance covered by the athlete.
b. Why should we include sports in our life? Give one reason.

18. Write algebraic expressions for the following: 2

a. y multiplied by -7 and then 10 added to the result.
b. 9 subtracted from –x

19. The length and the breadth of a rectangular park are 225 m and 70 m respectively. What is the ratio of the length to the breadth of the park? 2

20. Show all the lines of symmetry a square can have with the help of a figure and write how many lines of symmetry does it have? 2

OR

How many lines of symmetry does the given figure have?

a. Parallelogram
b. Rectangle
c. Kite
d. Regular hexagon

21. Draw a circle of radius 3.5 cm and mark points X,Y and Z such that 2
a. X is on the circle
b. Y is in the interior of the circle
c. Z is in the exterior of the cirle

OR

Draw a line segment AB = 5.5 cm. Draw a perpendicular to it from a point R outside AB by using a ruler and compass.

22. The sum of two integers is -27. If one of them is 260, find the other. 2

SECTION - C

23. Mr Sahai and his wife are both school teachers and earn Rs 16800 and Rs 10500 per month respectively. Find the ratio of 3
a. Mr Sahai's income to his wife's income.
b. Mrs Sahai's income to her husband's income.
c. Mr Sahai's income to the total income of the two.

OR

In a class, there are 45 boys and 25 girls. Find the ratio of the number of
a. boys to that of girls.
b. girls to that of total number of students.
c. boys to that of total number of students.

24. Draw a circle with the centre C and radius 4.4 cm. Draw any chord PQ. Construct the perpendicular bisector of PQ and examine if it passes through C. 3

25. Form six expressions using r and 7. Use not more than one number operation and every expression must have r in it. 3

OR

Surbhi is p years old. Express the following in algebraic form :
a. four times Surbhi's age next year.
b. the present age of Surbhi's uncle, if her uncle is 5 times as old as Surbhi will be two years from now.
c. the present age of Surbhi's cousin, if her cousin is two years less than one third of Surbhi's age five years ago.

26. A farmer has a rectangular field of length of 240 m and breadth 150 m respectively. He wants to fence it with 5 rounds of wire. If the wire costs Rs15 per meter, then find the cost of fencing the field. 3

OR

Rakhi runs around a square field of side 85m. Ashish runs around a rectangular field with length 250 m and breadth 175 m. Who covers more distance and by how much?

27. In a ready-made garment shop, on a particular day the following sizes of shirts were sold: 3

34, 38, 42, 40, 42, 32, 34, 38, 42, 40, 42, 36, 38, 38, 44, 40, 36, 40, 42, 32, 34, 40, 42, 40, 34, 42, 40, 38, 32, 40.

Arrange the above data in ascending order and construct frequency distribution table.

28. The weight of an empty gas cylinder is $16\frac{4}{5}$ kg and it contains $14\frac{2}{3}$ kg of gas. What is the weight of the cylinder filled with gas? 3

29. a. Solve: -6 + (-2) 1

b. Arrange the following integers in descending order: 2

189 , 2056 , -49 , -6 , -21 , 678, - 678

30. Pick out the solution from the values given in the bracket next to the equation. Show that the other values do not satisfy the equation. 3

2m – 3 = 5 (2, 4, 0, 6)

SECTION- D

31. The following pictograph shows the number of computers sold by Ankit Electronic during a week. 4

The scale used : ☐ = 6 computers

Monday	☐☐☐☐☐
Tuesday	☐☐☐
Wednesday	☐☐
Thursday	☐☐☐☐☐☐
Friday	☐☐☐☐
Saturday	☐

Study the pictograph carefully and answer the questions given below:

a. How many computers were sold on Friday?

b. How many computers were sold on Monday?

c. How many computers were sold during the week

d. On which day was the sale maximum?

32. The area of a rectangular plot is 144 sq.m and its length is 18 m. Find the breadth of the plot and the cost of fencing it at the rate of Rs 9 per metre. 4

33 The number of Mathematics books sold by a shopkeeper on six consecutive days is shown below. 4

Days	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
No of books sold	65	40	25	50	70	35

Draw a bar graph to represent the above information.

OR

A survey of 185 students of a school was done to find which activity they prefer to do in their free time. The result was recorded as:

Preferred activity	Playing	Reading story books	Watching TV	Listening music	Painting
Number of students	60	50	35	25	15

Draw a bar graph to represent the above information. Which activity is preferred by most students other than playing?

34. a. If the radius of a circle is r units, then express the length of a diameter of the circle in terms of r. 2

b. Oranges are to be transferred from larger boxes into smaller boxes. When a large box is emptied, the oranges from it fill two smaller boxes and still 30 oranges remain outside. If the number of oranges in a small box is taken to be z, what is the number of oranges in the larger box? 2

OR

a. The length of an edge of a cube is x. Find the formula for the sum of lengths of all the edges of the cube.

b. A bus travels at m km per hour. It is going from Kerala to Tamil Nadu. After the bus has travelled 15 hours, Tamil Nadu is still 20 km away. What is the distance from Kerala to Tamil Nadu?

35. Draw a right angle and construct its bisector. 4

36. Cost of 5 kg of rice is Rs 107**.**50. 4

a. What will be the cost of 8 kg of rice?

b. What quantity of rice can be purchased in Rs 64.50?

OR

Divide Rs 3450 among A, B and C in the ratio 3: 5: 7.

37. Two friends Aryan and Yash went to market to purchase marbles. They purchased 20 marbles for Rs 30. Aryan gave Rs 12 and Yash gave Rs 18, after buying marbles they came back home. Aryan asked Yash to give him 10 marbles, but Yash did not agree for this. According to Yash he should get 12 marbles and Aryan only 8. Now answer the questions related to the above passage. 4

a. Who gave more money for marbles?

b. Find the ratio of money given by Aryan to that of Yash.

c. According to Yash, what is the ratio of the number of marbles Aryan should get to number of marbles he should get?

d. Who was correct in distributing marbles according to the money given?

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