MACRO VISION ACADEMY, BURHANPUR

Sample Entrance Paper (2018-19)

Class: IX   **Time: 2:00 Hrs** .   **M.M:100**

Mathematics (40 Marks)

Select the correct option   (10x1=10)

1. The product of a rational number and Zero is

   (a) 0   (b) 1   (c) −1   (d) None of these

2. The probability of getting an odd number in a throw of a dice is

   (a) 0   (b) 1   (c) $\frac{1}{2}$ (d) None of these

3. Which of the following perfect squares is the square of an even number?

   (a) 256   (b) 441   (c) 729   (d) 625

4. The volume of a cube whose edge is x is

   (a) $8x^3$ (b) $6x^3$ (c) $2x$ (d) None of these

5. In a parallelogram if length of diagonals are equal, then it is called

   (a) rectangle   (b) Rhombus   (c) rhombus   (d)Both (a) and (b)

6. The least number by which 45 must be multiplied to make it a perfect square

   (a) 2   (b) 3   (c) 5   (d) None of these

7. 24% of ` 600 is

   (a) ` 2412      (b) ` 1224   (c) ` 4221   (d) None of these

8. Which one is not the polynomial

   (a) $x^2 + 5x + 7$ (b) $9x^3 + \frac{5}{4}x^2 + 4$ (c) $\frac{3}{x} + \frac{5}{x^2}$ (d) $8x^4 - 5x^3 + 6$

9. $\frac{3m}{5} + \frac{5m}{4} = \frac{29}{40}$, then m is equal to

   (a) $\frac{74}{29}$ (b) $\frac{29}{74}$ (c) $\frac{9}{54}$ (d) None of these

10. Cone, Cylinder and Sphere are examples of _____ figure.

    (a) 2D   (b) 3D   (c) both (a) and (b)   (d) None of these

Solve (Any 5)   (5x2=10)

11. Two adjacent angles of a parallelogram are in the ratio 2:3. Find all angles of the parallelogram.

12. The Area of a square is 2304 Sq. m. What is them length of its side?

13. If 52 men can do a piece of work in 35 days, in how many days will 28 men will do it?

14. If 4a² + 9b² = 97 and ab = 6, find the value of 2a + 3b.

15. A football team won 10 matches out of the total number of matches they played. If their winning percentage was 40%, then how many matches did they play in all ?

1

16. Find the surface area of a cube whose volume is 512 cm3

Solve (Any 5) (5x4=20)

17. Verify that $\left(\dfrac{a}{b}+\dfrac{c}{d}\right)+\dfrac{e}{f}=\dfrac{a}{b}+\left(\dfrac{c}{d}+\dfrac{e}{f}\right)$ for $\dfrac{a}{b}=\dfrac{2}{5},\dfrac{c}{d}=\dfrac{-3}{7},\dfrac{e}{f}=\dfrac{-1}{14}$

18. A scooter was bought at Rs. 42,000. Its value increases at the rate of 8% per annum. Find its value after one year.

19. The area of the trapezium is 210 cm^2 and its height is 5 cm. If one of the parallel side is longer than the other by 8 cm, find the two parallel sides.

20. Find a, if $a^4=\left(\dfrac{3}{13}\right)^{-2}\div\left(\dfrac{3}{13}\right)^{-14}$

21. A man bought two T.V. sets for Rs. 42500.He sold one at a loss of 10% and other at the profit of 10%. If the selling price of each T.V. set is same, determine the C.P. of each.

22. Show that : $(a-b)(a+b)+(b-c)(b+c)+(c-a)(c+a)=0$

Science (30 Marks)

1. **a) Fill in the blanks.** (4×½=2)
   1. Like charges _____ each other.
   2. _____ is the female gamete.
   3. Gas which helps burning is _____.
   4. Rearing of fish is called _____.

   b) Match the following. (4×½=2)
   1. Nitrification   _   Dress material
   2. Constellation   _   1 Hz
   3. One oscillation per second _ Ursa Major
   4. Rayon   _   Nitrogen fixation

2. **Define the following.** (4×1=4)
   1. Non contact force
   2. Harvesting
   3. Time period
   4. Neutralization

3. **Answer the following.** (5×2=10)

   1. What is combustion?

   2. "Avoid plastics as far as possible". Comment on this advice.

   3. What is endangered species?

   4. What are the major groups of micro organisms.

   5. What is crystallisation?

4. **Answer the following.** (3x3=9)

   1. Explain force and its types.
   2. Write any 3 ways to protect ourselves from earthquake.
   3. Write about internal and external fertilization.

5. **Draw the well labeled diagram of the following.**   (1x3=3)
    1. Human eye

Social Science (10 Marks)

1. Name the leaders of the Khilafat agitation.   1

2. Who was the ruler of England in 1600.   1

3. Which Fundamental Rights will the following situation violate: 1

    a) If a group of people are not given permission to open a Hindi-medium school in Punjab.

4. From the given statement, identify whether the work is of a State Government or that of a Central Government.   1

    (a) The decision of Haryana government to provide free electricity for all farmers.

5. What is arable land?   2

6. Write any four key features of the Indian constitution.   2

7. What does 'Dalit' refer to?   2

English (20 Marks)

1.Read the passage. Then answer the questions below.   5

To Whom it May Concern:

On March 5, 2010, I bought a Perfect Muffin Kit from your store at Midfield Mall. The cashier who assisted me was George. George was very friendly and assured me that the Perfect Muffin Kit would live up to the guarantee on the box: "Perfect Muffins Every Time!"

Unfortunately, this product did not live up to its claim. Although the box promised, as I stated above, to provide "Perfect Muffins Every Time," the muffins I made were far from perfect. I followed the directions included in the package very carefully. First, I removed the bag of mix from the box. Then, I poured it into a bowl. Next, I added the correct amount of water to the mix and stirred it. The directions said that after stirring the mixture, I could, and I quote, "add half a cup of raisins, nuts, berries, or another favorite ingredient ."My favorite ingredient happens to be hot sauce. I find that a dash of hot sauce makes pizza, pasta, and soup taste very delicious. So, continuing to follow the directions, I added half a cup of hot sauce to the mix and stirred it. Finally, I poured the mix into muffin tins and baked it in the oven at 350 degrees for exactly 20 minutes.

When the muffins finished baking, I was very excited to eat the "Perfect Muffins" as promised on the box. You can imagine my disappointment when, upon tasting the muffins, I discovered that they were not perfect. These muffins were, in fact, absolutely terrible. Not even my dog was interested in eating these supposedly "perfect" muffins.

I would appreciate a full refund ($3.99) for this product as soon as possible. Enclosed are the receipt, the empty box, and one of the un-perfect muffins so that you can experience it for yourself. Thank you for your prompt attention to this matter.

 Sincerely,
Michelle Bauer
Questions

1)This letter is most likely addressed to
  A.the owner of the muffin mix company
  B.a local storeowner
  C.the clerk at a local muffin bakery
  D.George, the cashier who sold Michelle the muffin mix

2)The tone of the author can best be described as
A.furiousB.disgustedC.embarrassedD.frustrated

3)As used in paragraph 1, which is the best synonym for guarantee?
A.lieB.warningC.promiseD.sentence

4)The author's main purpose in writing this letter is to
A.complain about how bad the muffins tasted
B.obtain a full refund for her money
C.prevent others from making the same mistake she did
D.persuade the company to change the wording on their box

5)Which of thefollowing words best describes the author?
A.shrewdB.senselessC.unreasonableD.careful

2.Write a letter to the Editor of a newspaper expressing your views against the insensitive use of
    loudspeakers.   5

3.   Computers have become a rage with children. The image shows young children glued to their
computers. Computers play a major role in today's age but one must understand its function as a
major distraction. Write an article highlighting the role of computers and also pointing out the
hazards their excessive use can cause. You are Nikhil/Neha.   4

4.   **Turn the following sentences into indirect speech(any 3)**   **3**
    1. He said,"I met him an hour ago."
    2. Ritusaid,"Leave me alone."
    3. Ramesh said,"I am ruined."
    4. He said,"Where do you live?"

5.   **Rearrange the following words and phrases to form meaningful sentences:**   **3**
    1.nightfall/ began/ cricketers/ the/ at /their piercing calls.

    2. wore/ a hat /he/ of /coconut /made /fiber /his/ on/ head.

    3. parts/ many /coffee/ popular /in /world /the/ is /very of.

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