

 <b>MACRO</b> VISION ACADEMY	<b>Entrance Paper (2023-24)</b>		<b>For Office Use Only</b>
	<b>Class:</b>	IX SET-A	
	<b>Time:</b>	02:30 Hrs.	
	<b>M.M:</b>	75	

### Personal Information

**Student's Name:-** \_\_\_\_\_ **Father's Name:-** \_\_\_\_\_

**City:-** \_\_\_\_\_ **Mobile No:-** \_\_\_\_\_ **Exam Date:-**    /    / 2023

**Studying in Class:-** \_\_\_\_\_ **Appearing for class:-** \_\_\_\_\_ **Board:-** \_\_\_\_\_

#### GENERAL INSTRUCTIONS:

- All questions are compulsory.
- Section A contains 20 questions (from 1-20) of Mathematics.
- Section B contains 25 questions (from 21-45) of Science.
- Section C contains 10 questions (from 46-55) of Social Science.
- Section D contains 18 questions (from 56-73) of English.

<b>Mathematics</b> (20)	<b>Science</b> (25)	<b>So. Science</b> (10)	<b>English</b> (20)	<b>OBTAINED MARKS</b> (75)

<b>Section-A</b>		
<b>Mathematics</b>		
<b>Q.No.</b>	<b>Questions</b>	<b>Answers</b>
	<b>Answer the Following Questions.</b>	
1.	The value of $\left(\frac{5}{4}\right) - \left(\frac{8}{3}\right)$ is:	
2.	The perimeter of the rectangle is 20 cm. If the length of the rectangle is 6 cm, then its breadth will be (in cm):	
3.	If $\angle A$ and $\angle B$ are two adjacent angles of a parallelogram. If $\angle A = 70^\circ$ , then $\angle B =$	

**Rough Work**

4.	If the sum of interior angles of a regular polygon is $540^\circ$ . Write the name of the polygon.	
5.	A bag has 4 red balls and 3 green balls, what is the probability of getting a red ball randomly?	
6.	Find the greatest four-digit number which is a perfect square.	
7.	Find the smallest number by which the number 108 must be multiplied to obtain a perfect cube.	
8.	The price of a motorcycle was Rs. 34,000 last year. It has increased by 20% this year. The price of motorcycle now is:	
9.	An item marked at Rs. 840 is sold for Rs. 714. The discount % is _____	
10.	If we subtract $4a - 7ab + 3b + 12$ from $12a - 9ab + 5b - 3$ then the answer is:	
11.	The volume of a cuboid with length, breadth and height as $5x, 3x^2$ and $7x^4$ respectively is _____	
12.	Write the name of the given shape. 	
13.	The area of a rhombus whose diagonals are of length 10 cm and 8.2 cm is _____	
14.	The area of a trapezium is $480\text{cm}^2$ , the distance between two parallel sides is 15 cm and one of the parallel side is 20 cm. The other parallel side is _____	

**Rough Work**

15.	What is the value of $(2^3 + 3^2 + 4^2)^0$ ?	
16.	If 12 workers can build a wall in 50 hours, how many workers will be required to do the same work in 40 hours?	
17.	Manvi types 200 words in 30 minutes. How many words will she type in 12 minutes?	
18.	The factors of $x^2 + xy + 8x + 8y$ are:	
19.	Find the factors of $3m^2 + 9m + 6$ .	
20.	If the length and breadth of a rectangle are 15cm and 11cm, respectively, then its area is _____	

**Section-B**

**Science**

**Answer the following:**

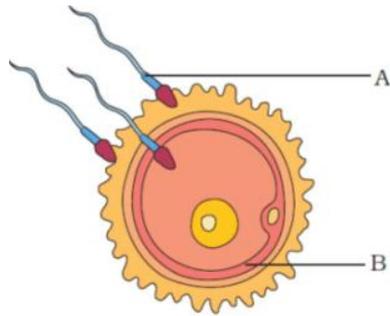
21.	Name the tool (or implement) used in the traditional harvesting of crops.	
22.	Name the hormone that is released by testes at the onset of puberty.	
23.	Write the term that defines the amount of heat energy produced on complete combustion of 1Kg of a fuel.	
24.	Acidified water is electrolyzed by using carbon electrodes. What is produced at positive carbon electrode?	
25.	When a force of 5N is applied on a surface the pressure produced is of 500 Pa. What will be the area of the surface?	

**Rough Work**

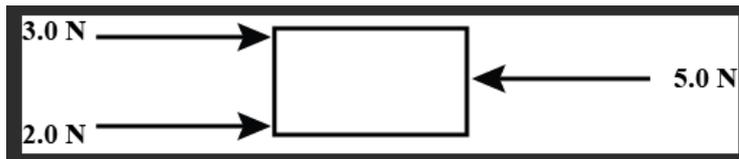
	<b>Fill in the blank.</b>	
26.	The number of images formed by mirrors placed at an angle to one another to make numerous beautiful pattern is used in a _____	
27.	_____ is a special kind of preparation (or medicine) which provides immunity against a particular disease.	
28.	Synthetic fibres are synthesized from raw material called _____	
29.	Loudness is determined by the _____ of vibration.	
30.	The north pole of a magnet _____ the north pole of another magnet	
	<b>Match the Column-A with Column-B:</b>	
	<b>Column-A</b>	<b>Column-B</b>
	31. Sound	Thermometers
	32. Fossil fuel	Electric wires
	33. Mercury	Amplitude
	34. Inorganic fertilizer	Coal
	35. Copper	Urea
31.	Sound	
32.	Fossil fuel	
33.	Mercury	
34.	Inorganic fertilizer	
35.	Copper	
	<b>Give one word for:</b>	
36.	Property of metal through which it can be drawn into thin wire.	
37.	Chemical substance secreted by endocrine gland that reaches target organ through bloodstream.	
38.	Unit of inheritance present on the chromosomes.	
39.	Splitting of light into its constituent colours.	
40.	Lowest temperature at which a substance catches fire	

**Solve the following questions.**

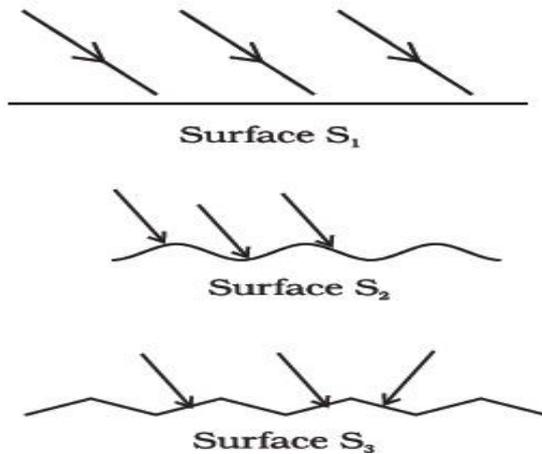
41. Observe the given figure and identify A and B.



42. The diagram shows the only three forces acting on an object. What is the resultant force on the object?



43. Light is falling on surface  $S_1$ ,  $S_2$ ,  $S_3$  as shown in Fig.



Surfaces on which the angle of incidence is equal to the angle of reflection is/are.

44. The picture shows four type of shoe soles.



Which shoe sole provides best grip and friction while walking?

45.	The table shows the properties of four water sample.																
	<table border="1"> <thead> <tr> <th>Water Sample</th> <th>Smell</th> <th>Colour</th> </tr> </thead> <tbody> <tr> <td>Sample 1</td> <td>No smell</td> <td>Slightly muddy</td> </tr> <tr> <td>Sample 2</td> <td>Strong bas smell</td> <td>Muddy and greenish</td> </tr> <tr> <td>Sample 3</td> <td>Very light smell</td> <td>Colorless</td> </tr> <tr> <td>Sample 4</td> <td>No Smell</td> <td>Colorless</td> </tr> </tbody> </table>	Water Sample	Smell	Colour	Sample 1	No smell	Slightly muddy	Sample 2	Strong bas smell	Muddy and greenish	Sample 3	Very light smell	Colorless	Sample 4	No Smell	Colorless	
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	In which water source will the survival of aquatic animal be the most difficult?																

**Section-C**  
**Social Science**

	<b>Give one word for:</b>	
46.	Who started the Civil Service in British Indian Government?	
47.	Who gave the slogan 'Jai Hind'?	
48.	Which year Civil Disobedience Movement Launched?	
49.	The Rashtrapati Bhawan is the official residence of the _____ of India.	
50.	Write any two factors responsible for landslide.	
51.	Which of the following physical features are best suited for living? (a) Desert (b) Lakes and rivers (c) Plains and river valleys (d) Mountains	
52.	Name any two exhaustible resources?	
53.	Ganga – Brahmaputra plain of India is an overpopulated region. (true/ false)	
54.	Who is known as the father of the Indian Constitution?	
55.	The total membership of the Lok Sabha is _____.	

**Section-D**  
**English**

**Complete the following passage (From Q. No. 56 – 58) by choosing the appropriate word given in the bracket:**  
**(and, whom, to, away, stop/bother)**

"Would you like to buy a box of matchsticks, mister?" the little girl asked. The man \_\_\_(56)\_\_\_ she approached did not even \_\_\_(57)\_\_\_ to answer her. He shuffled \_\_\_(58)\_\_\_ in his great coat, eager to get home to his cosy fireplace.

56.

57.

58.

**Read the passage given below and choose the correct option:**

It's believed that Aryabhata was born in 476 AD at Kusumpur, Bihar. He was a versed and intelligent person, so he had many disciples. Varaha Mihir was one of his most famous disciples. When he was twenty-three years old, he wrote a book called Aryabhatiya. He completed his education at Nalanda University. He was also the Vice-Chancellor of the University. On the principles of Aryabhata or influenced by him, Bhaskar I wrote a book called Tika. He also wrote many other books like Mahabhaskariya, Laghubhaskariya and Bhashya. Aryabhata was a great Mathematician of ancient times. He made his contribution not only in the field of mathematics but also in astronomy. It was he who told that the earth rotates on its axis. Apart from this, he also represented the Pi value more accurately. In modern mathematics, the Pi value is considered to be approximately 3.14159. He also discovered Zero.

**Based on your understanding of the passage, choose the appropriate option:**

59. The book 'Aryabhatiya' was written by Aryabhata when he was:  
(a) Twenty-five years old      (b) Twenty-three years old  
(c) Twenty-two years old      (d) Twenty-one year old

60. In modern Mathematics, what's the approximate value of Pi?  
(a) 3.14216    (b) 3.14630    (c) 3.14597    (d) 3.14159

61.	Who was the most famous disciple of Aryabhata? (a) Varaha Mihir (b) Bhaskar I (c) Both (d) None of these	
62.	Which book was written by Aryabhata? (a) Mahabhaskariya (b) Laghubhaskariya (c) Bhashya (d) None of the above	
63.	What is the antonym of versed? (a) poor (b) adroit (c) unskilled (d) bood	
64.	A formal letter should be _____ to have the desired effect on the recipient. (a) in Proper format (b) grammatically correct (c) relevant (d) all of these	
65.	How to end the main body of a formal letter? (a) By telling the recipient what he should be doing next (b) By showing love (c) By discussing the weather (d) None	
66.	What would you write in the opening part of a formal letter? (a) Asking About Health (b) Asking About Family (c) Informing About Purpose of Writing The Letter (d) None	
67.	What _____ doing? (a) do they (b) are they (c) is they (d) does they	
68.	My brother is a police officer so he always _____ wear a uniform? (a) has to (b) don't have to (c) doesn't have to (d) have to	
69.	A sentence must always contain a verb? (a) False (b) True (c) None of These. (d) Either A or B	



## **Rough Work**