 MACRO VISION ACADEMY BURHANPUR	Entrance Paper (2024-25)		For Office Use Only
	Class:	IX (SAMPLE PAPER-I)	
	Time:	02:30 Hrs.	
	M.M:	75	

Personal Information

Student's Name:- _____ **Father's Name:-** _____

City:- _____ **Mobile No:-** _____ **Exam Date:-** / / 2024

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 20 questions (from 56-75) of English.

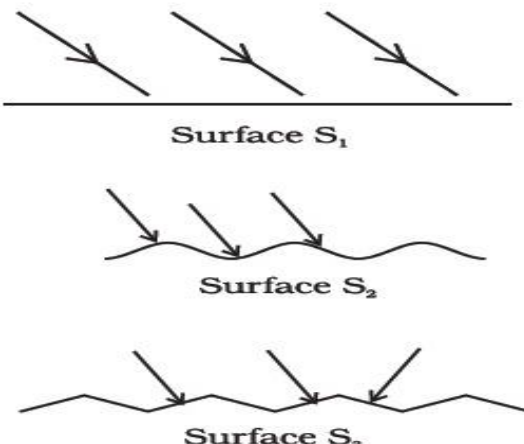
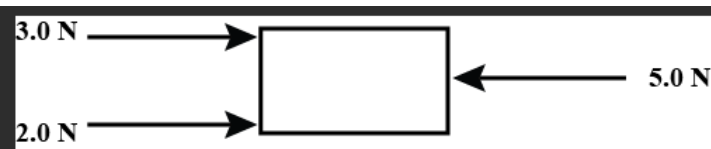
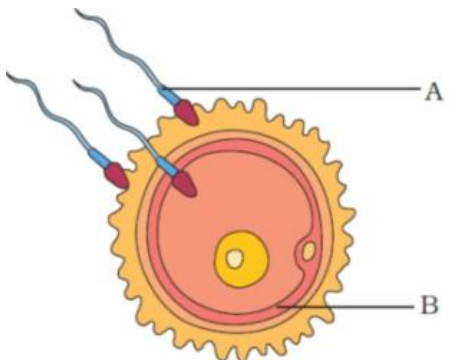

Mathematics (20)	Science (25)	So. Science (10)	English (20)	OBTAINED MARKS (75)

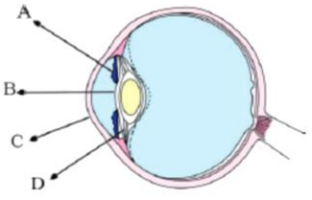

Section-A Mathematics		
Q.No.	Questions	Answers
	Answer the Following Questions.	
1.	The value of $\left(\frac{5}{4}\right) - \left(\frac{8}{3}\right)$ is:	$-\frac{17}{12}$
2.	The perimeter of the rectangle is 20 cm. If the length of the rectangle is 6 cm, then its breadth will be (in cm):	4 cm
3.	In a quadrilateral ABCD, the measure of the three angles A, B and C of the quadrilateral are 110° , 70° and 80° , respectively. Then the measure of the fourth angle is _____	100°
4.	The value of $(11-8) \times 3 + 7 + 27 - 3$ is _____	40

5.	What should be subtracted from $-\frac{2}{3}$ to get -1 _____	$\frac{1}{3}$
6.	The cube root of -729 is _____	-9
7.	The cost of 1 litre of petrol is Rs. $92\frac{2}{7}$. Find the cost of $7\frac{1}{2}$ litre of petrol.	$\frac{4845}{7} = 692\frac{1}{7}$
8.	The cost of a ticket for show is Rs. 250. Ayush got a 20% discount on buying a ticket through online booking. How many rupees did Ayush pay for the ticket.	Rs. 200
9.	The volume of a cuboid with length, breadth and height as $5x, 3x^2$ and $7x^4$ respectively is _____	$105x^7$
10.	The area of a rhombus whose diagonals are of length 10 cm and 8.2 cm is _____	41cm^2
11.	The value of $(3^{-1} + 4^{-1} + 5^{-1})^0$ is _____	1
12.	Manvi types 200 words in 30 minutes. How many words will she type in 12 minutes?	80
13.	The quotient of $7m^2n$ and $(-14mn)$ is _____	$-\frac{1}{2}m = -\frac{7}{14}m = -0.5m$
14.	Find the factors of $3m^2 + 9m + 6$.	$3(m+2)(m+1) = (3m+6)(m+1)$ $= (m+2)(3m+3)$
15.	If the length and breadth of a rectangle are 15cm and 11cm, respectively, then its area is _____	165cm^2
16.	<p>Statement 1 (S₁): The area of a triangle with base b and altitude h is $\frac{1}{3}bh$</p> <p>Statement 2 (S₂): The area of a triangle is defined as the total space occupied by the three sides of a triangle in a 2-dimensional plane</p> <p>(a) Only S₁ is correct. (b) Only S₂ is correct. (c) Both S₁ and S₂ are correct. (d) Both S₁ and S₂ are incorrect.</p>	(d) Both S ₁ and S ₂ are incorrect.

17.	<p>Statement 1 (S₁): The diagonals of a square are equal to each other.</p> <p>Statement 2 (S₂): Only opposite sides of square are equal.</p> <p>(a) Only S₁ is correct.</p> <p>(b) Only S₂ is correct.</p> <p>(c) Both S₁ and S₂ are correct.</p> <p>(d) Both S₁ and S₂ are incorrect.</p>	(a) Only S ₁ is correct.
<p>Case study (Q.18 – Q.20)</p> <p>Based on the given information, answer the following questions.</p> <p>It is common that government revises fares from time to time based on various factors such as taxes, economy and inflation, for various vehicles like auto-rickshaw, taxis and radio cab etc. The auto and Taxi charge in a city comprise of fixed charge and the charge for the distance covered. Few situations are given below in the form questions. Find the correct option.</p>		
18.	If the fixed charge in a city is Rs. x and charge per km is Rs. 5 and total fare is Rs. 60 then find the linear equation for the journey of 10 km.	$x + 50 = 60$ OR $x = 10$
19.	If in a city a person has to pay Rs. 110 for a journey of 15 km and fixed charge is Rs. 20 then what is the charge per km	Rs. 6
20.	According to the given equation, $2x + 17 = 85$, if Rs. 17 is the fixed charge and the total fare is Rs. 85 for a journey of 2 km then what is the charge per kilometre?	$x = 34$
<p>Section-B</p> <p>Science</p>		
<p>Answer the following:</p>		
21.	Name the tool (or implement) used in the traditional harvesting of crops.	Sickle
22.	Name the hormone that is released by testes at the onset of puberty.	Testosterone
23.	Write the term that defines the amount of heat energy produced on complete combustion of 1Kg of a fuel.	Calorific value
24.	Acidified water is electrolyzed by using carbon electrodes. What is produced at positive carbon electrode?	Oxygen
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?	100 cm ²


	Fill in the blank.	
26.	The number of images formed by mirrors placed at an angle to one another to make numerous beautiful pattern is used in a _____	Kaleidoscope
27.	_____ is a special kind of preparation (or medicine) which provides immunity against a particular disease.	Antibiotics
28.	Synthetic fibres are synthesized from raw material called _____	Polymers
29.	Loudness is determined by the _____ of vibration.	Amplitude
30.	The north pole of a magnet _____ the north pole of another magnet	Repels
	Case study (Q.31 – Q.33) Based on the given information, answer the following questions. Sita and her mother reached a jewellery shop to purchase some ornaments. She liked a necklace very much but her mother told her not to purchase it because it is not real gold. When she checked the information tag, it was written that 1gm gold. The necklace was quite big and heavy. She was surprised to see it and asked about it. The salesman explained that it is a gold-plated necklace. Then Sita checked that the process of depositing a layer of any desired metal on another material by means of electricity is called electroplating. It is one of the most common applications of the chemical effects of electric current. Nowadays, people prefer to buy gold-plated jewellery, similarly, iron articles are often coated with zinc or chromium to protect them from rusting and corrosion.	
31.	The process of depositing a layer of any desired metal on another material by means of electricity is called as	Electroplating
32.	Why iron articles are often coated with zinc or chromium.	To protect it from corrosion
33.	What effect of current does electroplating show?	Electric
	Write T for True & F for False. (Q.34-Q.35)	
34.	Air does not exert a frictional force.	False
35.	Harvesting and threshing is done by combine.	False
	Give one word for:	
36.	Property of metal through which it can be drawn in to thin wire.	Ductibility
37.	Chemical substance secreted by endocrine gland that reaches target organ through blood stream.	Hormones
38.	Unit of inheritance present on the chromosomes.	Genes
39.	Splitting of light in to its constituent colours.	Dispersion
40.	Lowest temperature at which a substance catches fire	Ignition temperature

Solve the following questions.		
41.	<p>Light is falling on surface S_1, S_2, S_3 as shown in Fig.</p>  <p>Surfaces on which the angle of incidence is equal to the angle of reflection is/are.</p>	<p>All three surface OR S_1, S_2, S_3</p>
42.	<p>The diagram shows the only three forces acting on an object. What is the resultant force on the object?</p> 	0 N OR Zero
43.	<p>Observe the given figure and identify A and B.</p> 	<p>A-sperm B-Ovum</p>
44.	<p>The picture shows four type of shoe soles.</p>  <p>Which shoe sole provides best grip and friction while walking?</p>	Sole 2

45.	<p>In the figure of the human eye, the letter A is represented _____.</p> 	Iris
Section-C Social Science		
Give one word for:		
46.	Who started the Civil Service in British Indian Government?	Warren Hasting
47.	Who gave the slogan 'Jai Hind'?	Subhash Chand Bose
48.	Which year Civil Disobedience Movement was launched?	In 1930
49.	The Rashtrapati Bhawan is the official residence of the _____ of India.	President
50.	Write any two factors responsible for landslide.	Heavy rainfall, Earthquakes
51.	<p>What does the given image signify?</p>  <p>(a) Signing of separate India and Pakistan. (b) Signing of Independence of India. (c) Signing of Constitution of India. (d) Signing of Election in India.</p>	(c) Signing of Constitution of India.
52.	<p>Statement 1 (S₁): Solar energy is an inexhaustible resource.</p> <p>Statement 2 (S₂): It is resource which is always available and does not get exhausted by human activities.</p> <p>(a) Only S₁ is correct. (b) Only S₂ is correct. (c) Both S₁ and S₂ are correct. (d) Both S₁ and S₂ are incorrect.</p>	(c) Both S ₁ and S ₂ are correct.

	Case study (Q.53 – Q.55)	
	Based on the given information, answer the following questions.	
	Being a plant of the temperate zones, woad was more easily available in Europe. It was grown in northern Italy, southern France and parts of Germany and Britain. Worried by the competition from indigo, woad producers in Europe pressurised their governments to ban the import of indigo. Cloth dyers, however, preferred indigo as a dye. Indigo produced a rich blue colour, where as the dye from woad was pale and dull. By the seventeenth century, European cloth producers persuaded their governments to relax the ban on indigo imports. The French began cultivating indigo in St. Domingue in the Caribbean islands, the Portuguese in Brazil, the English in Jamaica and the Spanish in Venezuela. Indigo plantations also came up in many parts of North America.	
53.	Why did cloth dyer prefer indigo in place of woad?	Indigo produced rich blue colour
54.	European cloth producers persuaded their government to relax the ban on indigo import. This statement is true or false.	True
55.	Where does the Portuguese cultivated indigo?	Brazil
Section-D		
English		
	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:	
56.	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	(b) Twenty-three years old
57.	In modern Mathematics, what's the approximate value of Pi? (a) 3.14216 (b) 3.14630 (c) 3.14597 (d) 3.14159	(d) 3.14159

58.	Who was the most famous disciple of Aryabhata? (a) Varaha Mihir (b) Bhaskar I (c) Both (d) None of these	(a) Varaha Mihir
59.	Which book was written by Aryabhata? (a) Mahabhaskariya (b) Laghubhaskariya (c) Bhashya (d) None of the above	(d) None of the above
60.	What is the antonym of versed? (a) poor (b) adroit (c) unskilled (d) bood	(c) unskilled
<p>Fill in the following blanks given below choosing the most appropriate options from the ones that follow.</p> <p>Communication (61) _____ become very effective (62) _____ instant due to smart phones. People are able (63) _____ convey their message all around the globe to (64) _____ loved ones (65) _____ spending hefty sums of money.</p>		
61.	(a) is (b) has (c) have (d) had	(b) has
62.	(a) but (b) as (c) or (d) and	(d) and
63.	(a) for (b) in (c) to (d) of	(c) to
64.	(a) his (b) her (c) their (d) your	(c) their
65.	(a) with (b) without (c) and (d) to	(b) without
66.	<p>In the following questions, some parts of the sentence have been jumbled up. You are required to rearrange these parts which are labelled P, Q, R and S to produce the correct sentence. Choose the option with proper sequence.</p> <p>The doctor P : able to find out Q : what has caused R : the food poisoning S : has not been</p> <p>The correct sequence should be (a) S P R Q (b) P R Q S (c) P R S Q (d) S P Q R</p>	(d) S P Q R
67.	<p>In the following questions, some parts of the sentence have been jumbled up. You are required to rearrange these parts which are labelled P, Q, R and S to produce the correct sentence. Choose the option with proper sequence.</p> <p>The boy _____ P : in the competition Q : who was wearing spectacles R : won many prizes S : held in our college</p> <p>The correct sequence should be (a) P Q R S (b) R P S Q (c) Q R P S (d) Q P S R</p>	(c) Q R P S

68.	Unscramble the following word and write the correct one: EUGH : _____	HUGE
69.	Select the most appropriate meaning of the given phrase/idiom. Bite your tongue (a) Be impossible to be understood (b) Get bruises in the mouth (c) Talk for a long time (d) Stop yourself from saying something	(d) Stop yourself from saying something
70.	Select the most appropriate meaning of the given phrase/idiom. Spill the beans (a) Reveal a secret (b) Create difficulty (c) Makes an excuse (d) Frighten someone	(a) Reveal a secret
71.	Choose the same relationship from given four choices as given in original pair. Muslims: Mosque : : Sikhs : ? (a) Golden Temple (b) Medina (c) Fire Temple (d) Gurudwara	(d) Gurudwara
72.	Here are some words translated from an artificial language. gorblflur means fan belt pixngorbl means ceiling fan arthtusl means tile roof Which word could mean "ceiling tile"? (a) gorbtlusl (b) flurgorbl (c) arthflur (d) pixnarth	(d) pixnarth
<p>Look at the pictures carefully and answer the questions that follow: (Q.73 – Q.75)</p> <p>Working Together to Keep Our Children Safe.</p> <div style="text-align: center;">  </div>		

73.	<p>What is the purpose of this advertisement ?</p> <p>(a) to prevent people from using motor vehicle.</p> <p>(b) to spread awareness about traffic rules.</p> <p>(c) to stop people from walking on the road.</p> <p>(d) to secure people of road ancient.</p>	(b) to spread awareness about traffic rules.
74.	<p>While on scooter or bike, which thing can help to save our lives:</p> <p>(a) scarf (b) cap (c) helmet (d) seat belt.</p>	(c) helmet
75.	<p>Zebra crossing is meant for:</p> <p>(a) four wheelers (b) bikers</p> <p>(c) cyclists (d) pedestrians</p>	(d) pedestrians

Rough Work