	SAMPLE PAPER-I (2025-26)	For Office Use Only
MACRO VISION ACADEMY BURHANPUR	**Class:** X	
	Time: 03:00 Hrs.	
	M.M: 100	

Personal Information

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

City:-_____ Mobile No:-_____ Exam Date:-   /   /2025

Studying in Class:- _____ Appearing for class:-_____ Board:- _____
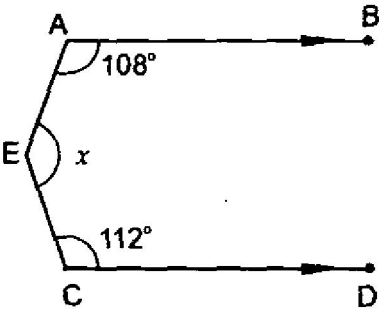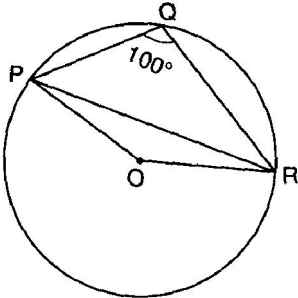
Present School Name:-_____ Category:-_____

Section-A			Section-B					Total (100)
Maths (15)	English (05)	Hindi (05)	Maths (20)	Science (30)	SST (10)	English (10)	Hindi (05)	

Section-A		
Mathematics (15)		
Q.No.	Questions	Answers
	Instruction:- Q. 1 – Q. 15 carry 1 mark each.	
1.	Find the LCM and HCF of 80 & 25.	LCM = 400, HCF = 5
2.	Evaluate: $\dfrac{1}{4}-\dfrac{8}{3}$	-29/12
3.	Convert the given fraction $\dfrac{1552}{5}$ into decimal form.	310.4
4.	Evaluate: $2 \times [48 \div 12] - 8 - 2 =$	−2
5.	25% of 800 is	200
6.	If $x - 3 = 4x + \dfrac{3}{2}$, then $x =$ _____.	−3/2
7.	The cost of 10 notebooks is ₹ 300. Find the cost of 7 notebooks.	210
8.	If the price of 5 kg potato is ₹ 150. Find the cost of 24 kg potato.	₹ 720
9.	In an exam Tanay secured 332 marks. If he secured 83% marks, find the maximum marks.	400

10.	Evaluate: $22 - \left[8 + 7\{7 - 3(7 - 2)\} \div 8 \right]$	21
11.	Evaluate: $\dfrac{2}{5} + \dfrac{6}{7} - \dfrac{3}{2}$	−17/70
12.	Meeta saves ₹ 4000 from her salary. If this is 10% of her salary. What is her actual salary?	₹ 40,000
13.	A pack of 120 soaps cost ₹ 720. Find the cost of 12 soaps.	₹ 72
14.	If $x - 9 = 2(2x + 3) + x,$ then $x =$	−15/4
15.	Evaluate: $-1\dfrac{2}{3} + 2\dfrac{1}{6} - 3\dfrac{2}{3}$	−19/6
	English (05)	
16.	Write a short paragraph on 'The Importance of time-management.' (80-100 words)	**(05 Marks)**
Ans.		

	Hindi (05)	
17.	निम्नलिखित विषयों में से किसी एक विषय पर लगभग 100 शब्दों में रचनात्मक लेख लिखिए।　　　　**(05 Marks)** (क) संगति (ख) सादा जीवन उच्च विचार	
Ans.		

	Section-B	
	Mathematics (20)	
	Instruction:- Q. 18 – Q. 32 carry 1 mark each.	
18.	What will be the quotient when $x^3 - 3x^2 - 12x + 19$ is divided by $x^2 + x - 6$.	$x - 4$
19.	Evaluate: $\dfrac{1}{3 + 2\sqrt{2}}$	$3 - 2\sqrt{2}$
20.	If $a^2 + b^2 + c^2 = 250$ and $ab + bc + ca = 3$, find $a + b + c$.	± 16

21.	The distance of the point $P(4,3)$ from the origin is	5 unit
22.	If $x = 2k - 1$ and $y = k$ is a solution of the equation $3x - 5y - 7 = 0,$ find the value of k.	$k = 10$
23.	The taxi fare in a city is as follows. For the first kilometre, the fare is Rs. 8, for the subsequent distance it is Rs. 5 per km. Taking the distance covered as x km and total fare as y, write a linear equation for this information.	$5x - y + 3 = 0$
24.	Two opposite angles of a parallelogram are $(3x - 2)°$ and $(50 - x)°$. Find the measure of each angle of the parallelogram.	$x = 13$ and four angles of parallelogram are 37⁰, 37⁰, 143⁰, 143⁰
25.	In Fig., $AB \parallel CD$. Find the value of x. 	$x = 140°$
26.	In a $\triangle ABC$, if $\angle A = 120°$ and AB = AC. Find $\angle B$ and $\angle C$.	$\angle B = 30°, \angle C = 30°$
27.	If the angles of a triangle are in the ratio 2:1:3, then find the measure of smallest angle.	$30°$
	Instruction: - Q. 28 – Q. 32 carry 2 marks each.	
28.	A hemispherical tank has inner radius of 2.8 m. Find its capacity in litres.	45990 L (46000 L approx)
29.	In Fig., $\angle PQR = 100°$, where P, Q and R are points on a circle with centre O. Find $\angle OPR$. 	$\angle OPR = 10°$

30.	**Assertion (A):** If the volumes of two spheres are in the ratio 27:8 then their surface areas are in the ratio 3:2.	(d) Assertion (A) is false but reason (R) is true.
	Reason (R): Volume of a sphere of radius 'r' is given by $\frac{4}{3}\pi r^3$ and surface area is given by $4\pi r^2$.	
	(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).	
	(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).	
	(c) Assertion (A) is true but reason (R) is false.	
	(d) Assertion (A) is false but reason (R) is true.	

Case Study: Based on the given information, answer the following questions.

Mrs. Rakhi lives in an undeveloped area where there is no facility of proper education. But one thing is available in that area that is network. Since she was very keen to take education, so she decided to complete her education through e-learning. One day she was studying number system, where she learnt about rational numbers, irrational numbers and decimal numbers, etc.

On the basis of the above information, solve the following questions:

31.	Find the product of two irrational numbers $\left(7+2\sqrt{2}\right)$ and $\left(7-2\sqrt{2}\right)$.	41
32.	If $x+\sqrt{2}=3$, find the value of $\frac{1}{x}-x$.	$\dfrac{-18+8\sqrt{2}}{7}$

	Science (30)	
	Instruction:- Q. 33 – Q. 62 carry 1 mark each.	
33.	A body whose position with respect to surrounding does not change, is said to be in a state of _____.	Rest or stationary
34.	If a body is compressed to half its previous volume, its density becomes ____	Twice **OR** Double
35.	A car accelerates uniformly from 18 km/h to 36 km/ h in 5 s. What is the acceleration in ms^{-2}?	1 m/s^2 **OR** 1
36.	A person revolves one complete cycle on a square track of side 10 m in 40 sec. What will be the displacement of person after 2 min 20 sec., If he starts from midpoint of any side of square?	10 m
37.	The gravitational force between two objects is F. If masses of both objects are doubled without changing distance between them, then the gravitational force would become _____.	4F **OR** 4 times
38.	The S.I. unit of buoyant force is	Newton (N)
39.	Objects in motion possess energy and can do work; this energy is called _____.	Kinetic energy
40.	A force of 6 N displaces a body by 10 m in 2 seconds. The power will be	30 W
41.	Human heart beats about 72 times in a minute. So the frequency of the heartbeat is	1.2 Hz
42.	The highest frequency produced by a man is 1700 Hz and that of a woman is 2780 Hz. The ratio of wavelengths of the sound of man and woman is _____. (speed of sound is 340 m/s)	1 : 0.61 **OR** 2780/1700
43.	Write the pair of isotopes of chlorine.	$^{35}_{17}Cl$ and $^{37}_{17}Cl$
44.	What is the maximum capacity of K shell to hold electrons?	Two
45.	As the temperature increases what change is observed in the rate of evaporation?	Rate of evaporation increases
46.	202°C = _____K	475 K

47.	Write the atomic mass of S and Na.	S – 32u Na – 23u
48.	What is the chemical name of $MgSO_4$?	Magnesium sulphate
49.	What is the number of protons in a chlorine atom?	17
50.	Name a mixture that will show Tyndall effect.	Blood, Milk, Muddy Water etc.
51.	Name the solute and solvent in soda water.	Solute – CO_2, Solvent – Water
52.	What is the atomicity of ozone?	3 **OR** Triatomic
53.	What is the control center of a cell?	Nucleus
54.	Which tissue connects bones to muscles?	Tendon
55.	The period of milk production after the birth of a calf is called as.	Lactation period
56.	What is the basic unit of life?	Cell
57.	Which type of tissue transports water and minerals in plants?	Xylem
58.	The cell membrane is _____ in nature.	semi permeable
59.	Cells with similar structure and function form a group of cells called _____.	tissue
60.	The process of improving crop varieties through breeding is called _____.	hybridization
61.	Tissues that provide support and mechanical strength to plants are called _____ tissues.	sclerenchyma
62.	_____ and _____ are the two modification of parenchyma tissue.	Arenchyma, Chlorenchyma
	SST (10)	
	Instruction:- Q. 63 – Q. 72 carry 1 mark each.	
63.	Who was the first ruler to unify Germany?	Bismarck
64.	What was the name of Hitler's autobiography?	Mein
65.	Which year did the French Revolution begin?	1789
66.	Which country did Hitler rule?	Germany
67.	Which type of soil is most suitable for growing cotton?	Black
68.	Which soil is ideal for wheat cultivation?	Alluvial
69.	What is the main crop grown in the Deccan plateau?	Millets
70.	Who is the constitutional head of India?	President
71.	Which court is at the top of the judicial system in India?	Supreme

72.	Which sector includes services like education and health?	Tertiary

<table>
<tr><td colspan="3" align="center">English (10)</td></tr>
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	Instruction:- Q. 73 – Q. 82 carry 1 mark each.	
	Read the passage carefully:	
	The Impact of Social Media on Teenagers 1. Social media has transformed communication, particularly for teenagers. Platforms like Instagram, Snapchat, and TikTok provide avenues for self-expression, learning, and networking. However, the impact of social media on teenagers is a double-edged sword. 2. On one hand, social media offers tremendous benefits. It helps teenagers stay connected with friends and family, learn new skills, and explore diverse cultures. Moreover, it serves as a platform for advocacy, enabling young people to raise awareness about social issues. On the other hand, its overuse can lead to significant problems. Studies have shown that prolonged exposure to social media can disrupt sleep patterns, reduce productivity, and even affect mental health. 3. One major concern is the tendency of teenagers to compare their lives to the idealized, curated content on social media. This often leads to feelings of inadequacy, low self-esteem, and anxiety. Cyber bullying is another alarming issue, with many teenagers experiencing harassment online. These negative experiences can take a toll on their emotional well-being. 4. To use social media effectively, teenagers need to strike a balance. They should set time limits, focus on meaningful interactions, and avoid getting influenced by unrealistic portrayals of life online. Parents and educators also play a key role in guiding teenagers toward mindful social media use. Social media is a powerful tool, but its potential benefits can only be realized when used responsibly.	
	Based on your understanding of the passage, choose the appropriate option:	
73.	What is one benefit of social media for teenagers? (a) It reduces anxiety levels (b) It helps in learning new skills (c) It ensures emotional stability (d) It eliminates cyberbullying	(b) It helps in learning new skills
74.	What is one major concern about prolonged social media use? (a) Improved mental health (b) Disrupted sleep patterns (c) Enhanced physical fitness (d) Increased productivity	(b) Disrupted sleep patterns

75.	What negative emotion is linked to comparing lives on social media? (a) Happiness (b) Confidence (c) Inadequacy (d) Excitement	(c) Inadequacy
76.	How can teenagers use social media effectively? (a) By setting time limits (b) By comparing themselves to others (c) By posting only curated content (d) By using it without guidance	(a) By setting time limits
77.	Who plays a key role in guiding teenagers' social media use? (a) Teachers and friends (b) Parents and educators (c) Celebrities (d) Online influencers	(b) Parents and educators

Fill in the blanks in the paragraph given below with the help of options that follow.

English is one of the most widely spoken languages in the world. It serves as an _____ (78) language in many countries and is often used for communication in international business, science, and technology. Learning English improves career opportunities and _____ (79) access to global information. Moreover, it enables people from different _____ (80) to connect and share ideas. Proficiency in English is not just a skill but a _____ (81) in today's globalised world. Consistent practice in speaking, reading, and writing helps in _____ (82) fluency over time.

78.	(a) regional (b) national (c) global (d) official	(d) official
79.	(a) limits (b) reduces (c) enhances (d) ignores	(c) enhances
80.	(a) races (b) regions (c) cultures (d) families	(c) cultures
81.	(a) choice (b) necessity (c) challenge (d) hobby	(b) necessity
82.	(a) losing (b) forgetting (c) achieving (d) stopping	(c) achieving

Hindi (05)

Instruction:- Q. 83 – Q. 87 carry 1 mark each.

निम्नलिखित वाक्यों को शुध्द रुप में लिखिए।

83.	बुरे आदत से बचो	बुरी आदत से बचो।
84.	मुझको खाना नहीं खाना	मुझे खाना नहीं खाना

निम्नलिखित शब्द संबंधी अशुध्दियों को सुधार कर लिखिए।

85.	ऊंचाई	ऊँचाई
86.	छत्रिय	क्षत्रिय
87.	निश्फल	निष्फल

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Rough Work