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

Personal Information

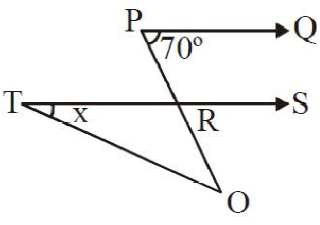
Student's Name:- _____ **Father's Name:-** _____

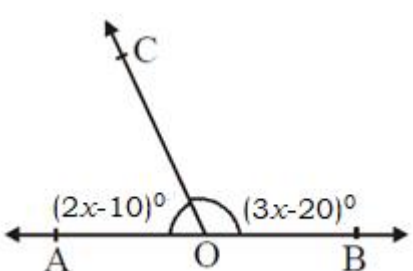
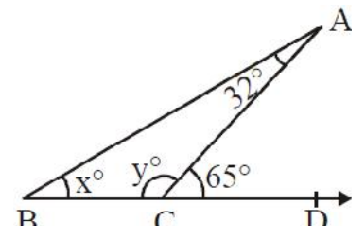
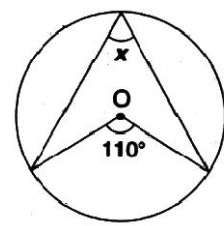
City:- _____ **Mobile No:-** _____ **Exam Date:-** / / 2025

Studying in Class:- _____ **Appearing for class:-** _____ **Board:-** _____

Present School Name:- _____ **Category:-** _____

Section-A			Section-B				Total (100)
Maths (15)	English (05)	Hindi (05)	Maths (25)	SST (25)	English (20)	Hindi (05)	

Section-A Mathematics (15)		
Q.No.	Questions	Answers
	Instruction:- Q. 1 – Q. 15 carry 1 mark each.	
1.	$\left[\frac{(32)^{0.2} + (81)^{0.25}}{(256)^{0.5} - (121)^{0.5}} \right] = \text{_____}$	
2.	If $A = 4x^3 - 5x + 7$, $B = 2x^3 + x^2 + 3$ and $C = 5x^3 - 8x^2 + 10$, then $A - 2B - C$, is	
3.	Find the remainder when the expression $3x^3 + 8x^2 - 6x + 1$ is divided by $x + 3$.	
4.	The LCM of $x^2 - 16$ and $2x^2 - 9x + 4$ is	
5.	In the given figure $PQ \parallel RS$, $\angle QPR = 70^\circ$, $\angle ROT = 20^\circ$, then the value of x . 	

6.	If we join the points $(-2,0)$, $(0,1)$, $(2,0)$ and $(0,-1)$ then which type of quadrilateral is formed?	
7.	$\sqrt{20\frac{1}{4}} - \sqrt{1\frac{32}{49}} = \underline{\hspace{2cm}}$.	
8.	If $\frac{5x}{4} + \frac{6-x}{8} = \frac{6(x+3)}{3} - \frac{1}{6}$, then $x = ?$	
9.	Factors of $(42 - x - x^2)$ are	
10.	If $x = \left(\frac{3}{2}\right)^2 \times \left(\frac{2}{3}\right)^{-4}$, find the value of x^2 .	
11.	Simplify: $(3x^2 + x - 11) \times (7x^3 + 12)$	
12.	<p>In the given figure, AOB is a straight line and the ray OC stands on it.</p> <p>If $\angle AOC = (2x - 10)^\circ$ and $\angle BOC = (3x - 20)^\circ$, find the value of x.</p> 	
13.	<p>In the figure, find values of x and y.</p> 	
14.	Solve: $3x + 4y - 1 = 0$; $2x - \frac{8}{3}y + 5 = 0$	
15.	<p>Find the angle marked as x in given figure where O is the centre of the circle.</p> 	

English (05)

16. You are monitor of your class. A new girl has join your class. She is reserved in nature and its finding its difficult to adjust the new environment. Write a descriptive paragraph in about 100 - 120 words describing how you help her out. **(05 Marks)**

Ans.

Hindi (05)

17. निम्नलिखित दो विषयों में से एक विषय पर लगभग 100 शब्दों में रचनात्मक लेख लिखिए। **(05 Marks)**
(क) गया समय फिर हाथ नहीं आता
(ख) अंतरिक्ष में जीवन की कल्पना

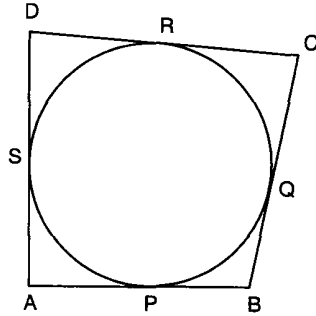
Ans.

Section-B

Mathematics (25)

Instruction:- Q. 18 – Q. 37 carry 1 mark each.

- 18.** In Fig., a circle touches all the four sides of a quadrilateral $ABCD$ with $AB = 4\text{ cm}$, $BC = 4.5\text{ cm}$ and $CD = 6\text{ cm}$. Then the length of AD is _____.



- 19.** Solve : $2x + 3y = 17$
 $3x - 2y = 6$

- 20.** In $\triangle ABC$, $DE \parallel AB$. If $CD = 3\text{ cm}$, $EC = 4\text{ cm}$, $BE = 6\text{ cm}$, then DA is equal to _____.

- 21.** If a pendulum swings through an angle of 30° and describes an arc 8.8 cm in length, then the length of the pendulum is _____. $\left(\text{Use } \pi = \frac{22}{7} \right)$

- 22.** If $\sin A = \frac{9}{41}$, then $\cos A$ and $\tan A$ are _____.

- 23.** The zeros of the quadratic polynomial $f(x) = 6x^2 - 3$ are _____.

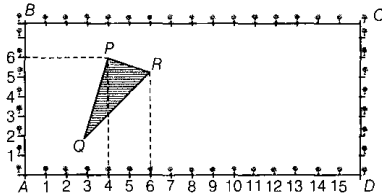
- 24.** The probability that a leap year selected at random will contain 53 Sundays is _____.

- 25.** The nature of the roots of the quadratic equation $2x^2 - 6x + 3 = 0$ is _____.

- 26.** The HCF of two numbers is 16 and their product is 3072. Then their LCM is _____.

- 27.** Two unbiased dice are thrown. Find the probability that the total of the numbers on the dice is greater than 10.

28.	<p>The sum and product of the zeros of a quadratic polynomial are $-\frac{1}{2}$ and -3 respectively.</p> <p>Then the quadratic polynomial is _____.</p>											
29.	<p>If $\tan \theta = \frac{24}{7}$, find the value of $\sin \theta + \cos \theta$</p>											
30.	<p>Find the angle subtended at the centre of a circle of radius 5 cm by an arc of length $\left(\frac{5\pi}{3}\right) \text{ cm}$.</p>											
31.	<p>Write the value of k for which the system of equations $3x - 2y = -4$ and $kx + 5y = 10$ has infinitely many solutions.</p>											
32.	<p>Assertion (A): The system of equations $2x + 3y + 5 = 0$ and $4x + ky + 7 = 0$ is inconsistent when $k = 6$.</p> <p>Reason (R): The system of equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is inconsistent when</p> $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}.$ <p>(a) Both assertion and reason are correct and reason is correct explanation of the assertion.</p> <p>(b) Both assertion and reason are correct, but the reason is not the correct explanation of the assertion.</p> <p>(c) Assertion is correct, but reason is incorrect.</p> <p>(d) Assertion is incorrect, but reason is correct.</p>											
<p>Instruction: - Q. 31 – Q. 32 carry 2 marks each.</p>												
33.	<p>How many numbers of two digits are divisible by 7?</p>											
34.	<p>Calculate the mean for the following distribution:</p> <table border="1" data-bbox="427 1644 788 1760"> <tbody> <tr> <td>x:</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> <tr> <td>f:</td> <td>4</td> <td>8</td> <td>14</td> <td>11</td> </tr> </tbody> </table>	x:	5	6	7	8	f:	4	8	14	11	
x:	5	6	7	8								
f:	4	8	14	11								
35.	<p>On a morning walk, three persons step off together and their steps measure 40 cm, 42 cm and 45 cm respectively. What is the minimum distance each should walk so that each can cover the same distance and complete steps?</p>											

36.	Two cones with same base radius 8 cm and height 15 cm are joined together along their bases. Find the surface area of the shape formed. (Use $\pi = 3.14$)	
<p>Case Study: Based on the given information, answer the following question.</p> <p>Class X students of a school in Gomtinagar have been allotted a rectangular plot of a land for gardening activity. Sapling of roses are planted on the boundary at a distance of 1 meter from each other. There is a triangular grassy fountain in the plot as shown in the figure. The students are to sow seeds of flowering plants on the remaining area of the plot.</p> <div style="text-align: center;">  </div> <p>Considering 'A' as origin. Answer the following questions</p>		
37.	(i) What are the coordinates of R? (ii) What is the coordinate of centroid of ΔPQR ?	
So. Science (25)		
Instruction:- Q. 38 – Q. 62 carry 1 mark each.		
38.	Which sector is the largest employer in India?	
39.	Which state in India has the highest human development index (HDI)?	
40.	What will be the top priority in the developmental goal of a landless labourer?	
41.	Classify the economy on the basis of ownership of enterprises.	
42.	Production of a commodity, mostly through the natural process is an activity of which sector?	
43.	How many days of guaranteed employment are provided under National Rural Employment Guarantee Act, 2005?	
44.	ATM is an example of which sector?	
45.	Which body supervises the functioning of formal sources of loans?	
46.	Which authority issues currency notes in India?	
47.	Who are the informal lenders?	

48.	Mention the three tier system prevailing in India.	
49.	State any two subjects included in the Union List.	
50.	What is the official post for the chairperson of a Municipal Corporation?	
51.	How many parties are needed in any democratic system to compete in elections and provide a fair chance for the competing parties to come to power?	
52.	Who governs the Union Territories?	
53.	Give any two examples of primary activities.	
54.	Which organisation in India undertakes the task of measuring GDP?	
55.	On what basis, the sectors are classified into public and private sector?	
56.	Which are modern forms of money? State any one.	
57.	Which organization lays stress on liberalization of foreign trade and foreign investment?	
58.	Who is responsible for managing a team in a company? (a) Customer (b) Manager (c) Employee (d) Supplier	
59.	Which of the following is a group of people working together to achieve a goal? (a) Team (b) Manager (c) Customer (d) Supplier	
60.	How can managers motivate employees? (a) By giving rewards or praise (b) By ignoring them (c) By asking them to work without breaks (d) By telling them to do everything on their own	
61.	What does teamwork mean? (a) Working alone (b) Working together with others (c) Doing nothing (d) Only watching others work	

62.	Which of the following is NOT a function of management? (a) Planning (b) Controlling (c) Playing (d) Organizing	
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English (20)

Instruction:- Q. 63 – Q. 82 carry 1 mark each.

Read the following passage carefully.

(1) Like bad news and common cold, allergies can pop up when least expected. I suddenly developed an allergy to crocin (paracetamol) some years ago after having it all my life to treat everything, from headache to fever to toothache.

(2) A stuffed or drippy nose, frequent sneezing, an itchy throat, rashes, sinus, ear pain, difficulty in breathing, stomach cramps, itchiness, red or watery eyes are some of the common symptoms of an allergic reaction. Pollen, dust, polluted outdoor air, and indoor pollutants, such as dust mites, animal dander, cigarette smoke, and mould are among the common environmental pollutants, while other triggers include medicines, paint, and chemicals in cleaners and cosmetics, such as hair colour and skin creams. Among foods, eight allergens account for almost 90% of food allergies: milk, soy, wheat, egg, peanut, tree nuts, fish, and shellfish.

(3) Most of us wrongly believe that people with allergies are either born with them or develop them in early childhood. An allergy can develop at any time in your life and its prevalence among adults is rising. While most people who develop allergies as adults have experienced some allergic reaction—either to the same or an unrelated trigger before—a few have no history of sensitivity.

(4) In an acute immune reaction, the allergy trigger may be one, but the symptom is usually caused by a combination of factors. Stress, a sterile environment that prevents the body from developing immunity and lifestyle-induced changes in the body's hormonal balance are thought to be some triggers. This has been borne out by clinical evidence that women are more likely to develop allergies at puberty, after pregnancy, and at menopause, all pointing to hormonal causes.

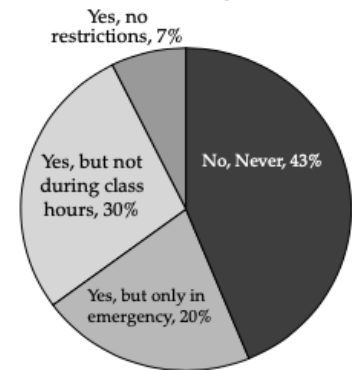
(5) Avoiding the allergy trigger and taking anti-allergy medication as soon as you can, after exposure to an allergen is the best possible protection. Since pollen levels generally peak in the morning, people with airway sensitivity and asthma should postpone outdoor exercises to later in the day or stick to exercising indoors, as deeper and more rapid breathing induced by aerobic exercise causes more pollen and dust being inhaled, which can wreck your airways and lungs. Since air pollutants tend to cling to clothes and hair, changing your clothes when you come home or washing your hair before going to bed, lowers exposure.

Read the following passage carefully.

(1) Human life changes constantly over time. Mobile phones were previously seen only among few high-class people and were considered as something lavish. Then slowly, even the average or the common men on the street, like a cobbler or vegetable vendor, could be seen having a cell-phone. In the world today, even young kids and school going children are found busily chatting away on their mobile phones. Now kids as young as seven and eight too have started owning a mobile phone. Welcome to the new age world!

(2) Studies recommend that mobile phones should only be given to children above sixteen years of age. Children below the age of sixteen should not be given mobile phones since their brain is too sensitive to withstand the effects of mobile radiation. Since the tissues in the brain and body are still developing, these radiations can cause cell damage. Due to the absorption of radiation, children can have severe health issues. Although, adults also get affected by these radiations it will be more severe in children because of increased absorption of these radiation levels. Experts also believe there is a link between childhood cancer and mobile phone usage among children.

Whether students should be given mobiles or not



(3) A survey was conducted to get the views of the parents and teachers as to whether the children below sixteen years of age should be given mobiles or not was conducted. The responses received were formulated into a pie diagram as under:

On the basis of your understanding of the passage, attempt the following questions.

69.	What is the minimum age prescribed by the studies to give mobile phones to children? (a) Ten (b) Twelve (c) Fourteen (d) Sixteen	
70.	Which of these diseases is linked to mobile phone usage? (a) Childhood obesity (b) Childhood retardation (c) Childhood cancer (d) All of these	
71.	What percentage of parents and teachers are against giving mobile phones to students in any situation? (a) 7% (b) 20% (c) 30% (d) 43%	
72.	Pick out the word or phrase from the passage which means the same as 'extravagant' (used in Para 1). (a) High-class (b) Lavish (c) Vendor (d) Busily	

73.	<p>Pick the right option:</p> <p>Statement-1: Mobile phones should be given to children above sixteen years of age.</p> <p>Statement-2: The brain of Children below the age of sixteen is too sensitive to withstand the effects of mobile radiation.</p> <p>(a) Statement 1 true and statement 2 is false. (b) Statement 1 is false and statement 2 is true. (c) Statement 2 is the reason and statement 1 is the effect. (d) Both of the statements cannot be inferred.</p>	
74.	<p>According to the graph, what percentage of parents and teachers are in favour of giving mobile phones to students in emergency?</p> <p>(a) 48% (b) 58% (c) 28% (d) 20%</p>	
<p>Fill in the blanks in the paragraph given below with the help of options that follow.</p>		
	<p>Man has always considered himself to be the ruler of his planet. This (75) _____ and the attendant superiority feeling has made him look down (76) _____ other creatures who co-exist with human on this earth. The so-called civilized human race has (77) _____ and ill-treated small and large animal species and birds in an attempt to prove his (78) _____. It is common knowledge that (79) _____ number of animals have been (80) _____ for centuries under the (81) _____ of conducting scientific experiments or for sports. Till recently, in the (82) _____ of scientific experiments, monkeys and frogs have been subjected to dissection and vivisection in the laboratory.</p>	
75.	<p>(a) pleasure (b) fact (c) achievement (d) arrogance</p>	
76.	<p>(a) in (b) upon (c) with (d) for</p>	
77.	<p>(a) criticised (b) devalued (c) protected (d) abused</p>	
78.	<p>(a) supremacy (b) wisdom (c) cleverness (d) instinct</p>	
79.	<p>(a) tall (b) plenty (c) countless (d) diverse</p>	
80.	<p>(a) tortured (b) exposed (c) treated (d) vanished</p>	
81.	<p>(a) projection (b) criticism (c) pretext (d) game</p>	
82.	<p>(a) matter (b) set (c) scheme (d) name</p>	

Hindi (05)	
Instruction:- Q. 83 – Q. 87 carry 1 mark each.	
निम्नलिखित वाक्यों को शुद्ध करके लिखिए।	
83.	कृपया करके ध्यान दें।
84.	एक गर्म कप टमाटर का सूप पीते जाओ।
निम्नलिखित शब्दों का शुद्ध रूप लिखिए।	
85.	ग्रहस्थ
86.	अगामी
87.	उज्वल

Rough Work