 MACRO VISION ACADEMY BURHANPUR	Sample Paper-I (2026-27)		For Office Use Only
	Class:	IX	
	Time:	03:00 Hrs.	
	M.M:	80	

Personal Information

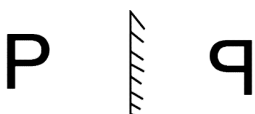

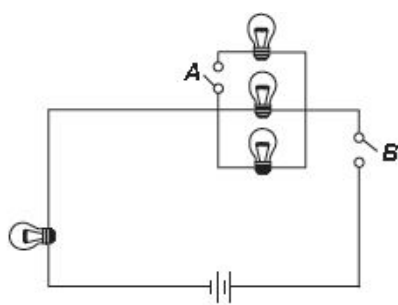
Student's Name:- _____ **Father's Name:-** _____

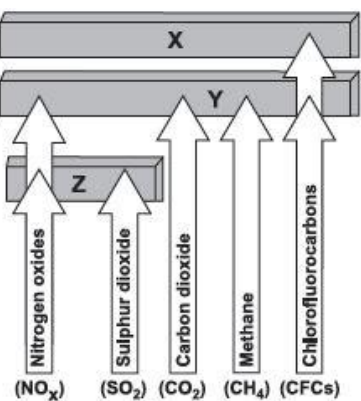
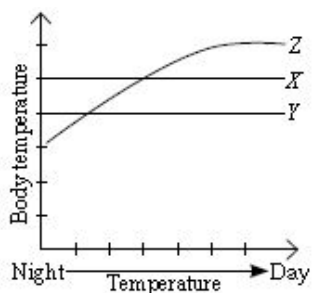
City:- _____ **Mobile No:-** _____ **Exam Date:-** / / 2026

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

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

Science (30)	Mathematics (25)	Hindi (05)	English (10)	MAT (10)	Total (80)	Remark
Done	DONE	DONE	DONE	DONE		

	Science (30)	MM
	Choose the correct answer. (Q. 1 to 10)	
1.	1- Name the phenomenon shown in the figure- <div style="text-align: center;">  </div> (a) Reflection (b) Refraction (c) Dispersion (d) Lateral Inversion	1
2.	Louis Braille, himself a visually challenged person, developed a system for visually challenged persons and published it in 1821. From the given symbol can you make a word- <div style="text-align: center;">  </div> (a) RAT (b) MAT (c) CAT (d) BAT	1
3.	Study the given circuit diagram. <div style="text-align: center;">  </div> How many bulbs will light up when switches A and B are closed in following situations? Only switch A is closed Only switch B is closed	1

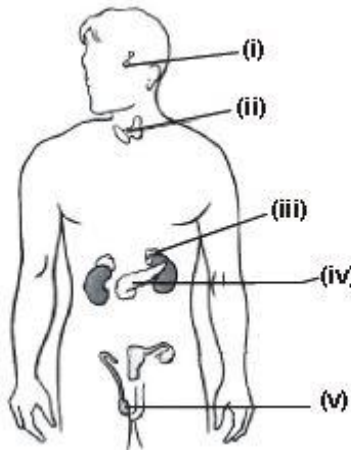
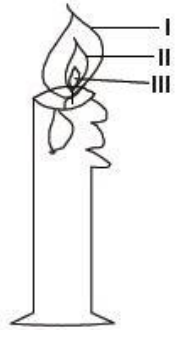
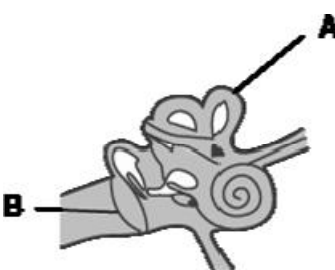
	<table><tr><td></td><td>(A)</td><td>(B)</td></tr><tr><td>(a)</td><td>4</td><td>2</td></tr><tr><td>(b)</td><td>4</td><td>3</td></tr><tr><td>(c)</td><td>0</td><td>2</td></tr><tr><td>(d)</td><td>0</td><td>3</td></tr></table>		(A)	(B)	(a)	4	2	(b)	4	3	(c)	0	2	(d)	0	3						
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(c)	0	2																				
(d)	0	3																				
4.	<p>The given graph shows various air pollutants and their effects labelled X, Y and Z. Identify X, Y and Z and select the correct option.</p> <div></div> <table><tr><td></td><td>X</td><td>Y</td><td>Z</td></tr><tr><td>(a)</td><td>Acid rain</td><td>Ozone hole</td><td>Green house effect</td></tr><tr><td>(b)</td><td>Green house effect</td><td>Ozone hole</td><td>Acid rain</td></tr><tr><td>(c)</td><td>Ozone hole</td><td>Green house effect</td><td>Acid rain</td></tr><tr><td>(d)</td><td>Acid rain</td><td>Green house effect</td><td>Ozone hole</td></tr></table>		X	Y	Z	(a)	Acid rain	Ozone hole	Green house effect	(b)	Green house effect	Ozone hole	Acid rain	(c)	Ozone hole	Green house effect	Acid rain	(d)	Acid rain	Green house effect	Ozone hole	1
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(d)	Acid rain	Green house effect	Ozone hole																			
5.	<p>Body temperature of some animals changes with that of atmosphere while some animals have adapted to maintain constant body temperatures. Advika investigated this fact using three animals X, Y and Z and obtained the given graph. Which of these options correctly identifies X, Y and Z?</p> <div></div> <table><tr><td></td><td>X</td><td>Y</td><td>Z</td></tr><tr><td>(a)</td><td>Frog</td><td>Lizard</td><td>Rabbit</td></tr><tr><td>(b)</td><td>Lizard</td><td>Cobra</td><td>Rabbit</td></tr><tr><td>(c)</td><td>Salamander</td><td>Crow</td><td>Cow</td></tr><tr><td>(d)</td><td>Crow</td><td>Bear</td><td>Frog</td></tr></table>		X	Y	Z	(a)	Frog	Lizard	Rabbit	(b)	Lizard	Cobra	Rabbit	(c)	Salamander	Crow	Cow	(d)	Crow	Bear	Frog	1
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(d)	Crow	Bear	Frog																			
6.	<p>A coating of _____ is deposited on iron to protect it from corrosion and formation of rust</p> <p>(a) copper (b) aluminium (c) zinc (d) silver</p>	1																				

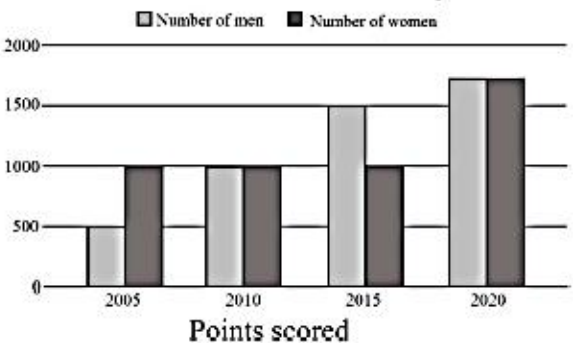
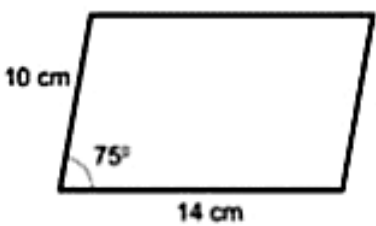
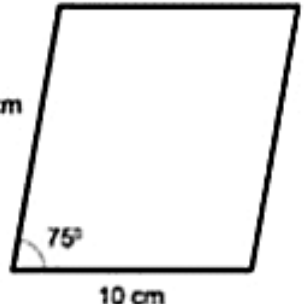
7.	Consider The Following Statements And Choose The Correct One: (a) The pitch of a sound depends on the frequency of vibration. (b) If the frequency of vibration is low, the sound produced has a low pitch. (c) If the frequency of vibration is high, the sound produced has a high pitch. (d) All the above.	1
8.	To make a kaleidoscope we require (a) Three plane mirrors (b) Four plane mirrors (c) Three glass sheets (d) Four glass sheets	1
9.	Which of the following is characteristic of friction? (a) It is a non-contact force (b) It works on only resting body (c) It works opposite to direction of motion (d) It can change the direction of motion	1
10.	Plastics which when moulded once, cannot be softened by heating. Such plastics are called ____ (a) Polythene (b) Thermoplastics (c) Polyester (d) Thermosetting plastics	1
	Question Based on Reason & Assertion. (Q. 11 to 14) (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.	
11.	Assertion (A): The elongated and branched structure of a nerve cell is a key feature that helps it perform its function. Reason (R): Cells are found in different shapes and sizes because their unique structure helps them carry out specific functions.	1
12.	Assertion (A): Asexual reproduction requires only single parent. Reason (R): Male animals are not capable for asexual reproduction.	1
13.	Assertion (A): In the game of tug of war; sometimes the rope doesn't seem to move to any side even if strong forces are applied from both sides. Reason (R): Equal force applied from opposite sides on any object makes the net applied force zero.	1
14.	Assertion (A): Distilled water do not conduct electricity. Reason (R): Glowing of a bulb is due to heating effect of electric current.	1
	Case Study (Q. 15 to 19): The most common fire extinguisher is water but water works only when things like wood and paper are on fire. If electrical equipment is on fire, water may conduct electricity and harm those trying to douse the fire. Water is	

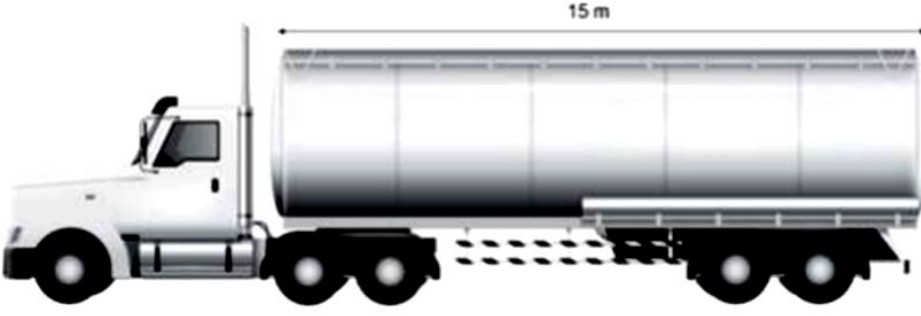
also not suitable for fires involving oil and petrol. Do you recall that water is heavier than oil? so it sinks below the oil and oil keeps burning on the top for fires involving electrical equipment and inflammable materials like petrol, carbon dioxide is the best extinguisher carbon dioxide being heavier than oxygen and covers the fire like a blanket. Since the contact between the fuel and oxygen is cut off the fire is controlled. The added advantage of carbon dioxide is that in most cases it does not harm the electrical equipments how do we get supply of carbon dioxide? It can be stored at high-pressure as a liquid in cylinders in what form is the LPG Student cylinders when released from the cylinder, Carbon dioxide expands enormously in volume and cools down. So it not only forms a blanket around the fire. It also brings down the temperature of the fuel. That is why it is an Excellent fire extinguisher. Another way to get carbon dioxide is to release a lot of dry powder of chemicals like sodium by carbonate or quotation by carbonate. Near the Fire, these chemicals give off carbon dioxide.



15.	LPG stands for?	1
16.	How do we extinguish fire when things like wood and paper on fire?	1
17.	Why do we not use water to control fire involving electrical equipment?	1
18.	Why do we use carbon dioxide as extinguisher fire involving electrical equipment and inflammable material?	1
19.	Which component in fire extinguishers suffocates the fire?	1
	Fill in the blank. (Q. 20 to 27)	
20.	Useful substances obtained from petroleum & natural gases are called _____	1
21.	An object is vibrating at 50 Hz. _____ will be its time period	1
22.	Trapping of unescapable radiations of sun in Earth's environment is called _____	1
23.	Deforestation is the removal of _____	1
24.	The north pole of a magnet _____ the north pole of another magnet.	1
25.	_____ state of matter possesses the least inter-particle space.	1
26.	Reflection of light means _____	1
27.	_____ is the process of converting sugar into alcohol by yeast.	1









	Label the parts of diagram correctly (Q. 28 to 30)	
28.	<p>The given figure represents the position of various endocrine glands in human body. Which number is showing the correct placed of thyroid gland.</p> 	1
29.	<p>Write the name of I and III zones of the flame as shown in figure.</p> 	1
30.	<p>Label the parts of the human ear in the below given picture.</p> 	1
	Maths (25)	
	Choose the correct answer. (Q. 31 to 35)	
31.	<p>Which of the following statement is false?</p> <p>(a) All the four sides of a parallelogram are equal (b) The opposite angles of a parallelogram are equal (c) The diagonals of a parallelogram bisect each other (d) All the four sides of a rhombus are equal</p>	1
32.	<p>If MP of a box is Rs 10 and a discount of 10% is allowed then what should be the sale price?</p> <p>(a) Rs10 (b) Rs 9 (c) Rs 11 (d) None of these</p>	1
33.	<p>Which of the following is a factor of $y^2 - 7y + 12$?</p> <p>(a) $2y + 3$ (b) $y + 3$ (c) $y - 3$ (d) $2y - 2$</p>	1

34.	<p>Below is the data of the number of men and women in a village for different years. Now based on this data answer the following MCQ with the correct option.</p>  <p>How many men were there in the village in 2010?</p> <p>(a) 500 (b) 1500 (c) 1000 (d) 2000</p>	1
35.	<p>Which of the following statements is true?</p> <p>(a) Natural numbers are commutative for subtraction</p> <p>(b) Whole numbers are commutative for subtraction</p> <p>(c) Integers are commutative for subtraction</p> <p>(d) Rational numbers are not commutative for subtraction</p>	1
Fill in the Blank. (Q. 36 to 42)		
36.	$\text{_____} + \frac{15}{23} = 4.$	1
37.	$7\frac{1}{2}\%$ of Rs. 1200 = _____.	1
38.	The smallest square number exactly divisible by 2, 4, 6 is _____.	1
39.	A car is travelling 48 km in one hour. The distance travelled by the car in 12 minutes is _____.	1
40.	A can do a work in 16 hours and B alone can do it in 24 hours. If A , B and C working together can finish it in 8 hours, then C alone can finish it in _____ hours.	1
41.	If 8 oranges cost Rs. 20.80, the cost of 5 oranges is Rs. _____.	1
42.	A parallelogram is rectangle in which _____.	1
<p>Answer the questions based on given information. (Q. 43 to 44)</p> <p>Pradeep and Nadeem have been provided with the information below to construct a parallelogram. The lengths of the sides of the parallelogram are 10 cm and 14 cm. The angle between the two adjacent sides is 75°.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Pradeep's construction</p> </div> <div style="text-align: center;">  <p>Nadeem's construction</p> </div> </div>		

43.	Are their parallelogram identical? Justify your answer.	1
44.	Why do Pradeep and Nadeem's parallelogram look different?	1
	<p>Answer the questions based on given information. (Q. 45 to 46)</p> <p>Oil is transported through a special kind of truck with a cylindrical tank.</p>  <p>The radius of the cylindrical tank of one such tank is 1.4 m.</p>	
45.	What is the total surface area of the tank?	1
46.	<p>The quantity of oil carried in the truck is measured in litres. The measurement in meters can be converted into litres by using the conversion 1 cubic meter = 1000 litres.</p> <p>What can be the maximum oil (in litres) stored in the tank? $\left(Use \pi = \frac{22}{7}\right)$.</p> <p>(a) 92.4 (b) 132 (c) 1000 (d) 92,400</p>	1
	Subjective Type Questions (Q. 47 to 51)	
47.	Find product: $\left(\frac{1}{8}x^2y^4\right) \times \left(\frac{1}{4}x^4y^2\right) \times (xy) \times 5$	1
48.	The four angles of a quadrilateral are in the ratio 3 : 5 : 7 : 9. Find the angles.	1
49.	Find the difference between the compound interest and simple interest, on a sum of Rs. 50,000 at 10% per annum for 2 years.	1
50.	If $x = -1, y = -2$ then value of $(x^2y - 1)(3 - 2x^2y)$ is _____.	1
51.	Find the length of the longest rod that can be placed in a room 12m long, 9m broad and 8m high.	1
	Case Study (Q. 52 to 55): 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 distances covered. Answer the following questions	
52.	<p>If the fixed charge in a city is ₹ x and charge per km is ₹ 5 and total fare is ₹ 60 then find the linear equation for the journey of 10 km.</p> <p>(a) $x + 50 = 60$ (b) $x - 50 = 60$ (c) $x + 50 = 50$ (d) None of these</p>	1
53.	<p>In the above question, what is the value of fixed charge?</p> <p>(a) ₹ 20 (b) ₹ 5 (c) ₹ 10 (d) ₹ 15</p>	1

54.	If in a city a person has to pay ₹ 110 for a journey of 15 km and fixed charge is ₹ 20 then what is the charge per km?	1
55.	If the fixed charge in a city is ₹ 10 and charge per km is ₹ 5, then find the fair for the journey of 5 km.	1
Hindi (05)		
56.	निम्नलिखित विषयों में से किसी एक विषय पर अनुच्छेद लिखिए। (क) जब मुझे मेरा निजी स्मार्टफोन मिला (ख) अनुशासन क्यों आवश्यक ?	3
57.	निम्नलिखित वाक्यों को शुद्ध करके लिखिए। (क) मोहन, राम और कमला पढ़ती हैं। (ख) मैंने हस्ताक्षर कर दिया है।	2
English (10)		
<p>Read the following text.</p> <p>1. In the age of digital media, people are consuming news at an unprecedented pace. With smartphones in every pocket, updates arrive instantly from across the globe. While this immediacy connects people to world events in real time, it also brings challenges. The abundance of information can overwhelm readers, and the speed at which stories spread often outpaces careful fact-checking.</p> <p>2. One major concern is the rise of misinformation. False or misleading content, whether intentional or accidental, spreads quickly online. Social media algorithms often prioritize sensational headlines, increasing the likelihood of inaccurate stories going viral. A study by MIT revealed that false news travels six times faster on Twitter than the truth.</p> <p>3. Another challenge is the shrinking attention span of readers. News outlets compete for clicks, often reducing complex issues to short summaries or catchy visuals. While this makes information more accessible, it can also limit deeper understanding and critical thinking.</p> <p>4. Despite these drawbacks, digital media has democratized news production. Citizen journalists with smartphones can document events, amplifying voices that might otherwise be ignored. This has increased awareness of social issues and mobilized communities for change.</p> <p>5. The key, therefore, lies in developing media literacy—teaching people how to question sources, verify facts, and think critically about the content they consume. In a digital world, the ability to filter truth from falsehood may be as important as access itself.</p> <p>Based on your reading of the above passage, answer the following questions.</p>		
58.	What is the author's main concern about digital media? (a) It spreads news slowly. (b) It increases misinformation and reduces deep understanding. (c) It makes people smarter and more critical. (d) It eliminates traditional journalism.	1

59.	<p>According to the passage, why does misinformation spread quickly online?</p> <p>(a) People ignore headlines.</p> <p>(b) Social media algorithms promote sensational stories.</p> <p>(c) Journalists fact-check every detail.</p> <p>(d) Readers prefer only long reports.</p>	1
60.	<p>What did the MIT study reveal about false news?</p> <p>(a) It spreads six times faster than the truth.</p> <p>(b) It is always corrected immediately.</p> <p>(c) It rarely goes viral.</p> <p>(d) It is ignored by social media users.</p>	1
	<p>Read the following text.</p> <p>1. Climate change has become one of the defining challenges of the 21st century, affecting ecosystems, economies, and human lives across the globe. Rising temperatures, melting glaciers, and unpredictable weather patterns are already evident.</p> <p>2. According to the Intergovernmental Panel on Climate Change (IPCC), the Earth's average surface temperature has risen by about 1.1°C since the late 19th century, largely due to human activities such as burning fossil fuels and deforestation.</p> <p>3. Low-lying island nations face the threat of submersion due to rising sea levels, while regions dependent on agriculture are experiencing crop failures caused by droughts and floods. Millions of people risk being displaced.</p> <p>4. International agreements like the Paris Agreement of 2015 aim to limit global warming to well below 2°C, with efforts to keep it under 1.5°C. Countries are encouraged to reduce carbon emissions, invest in renewable energy, and adopt sustainable practices.</p> <p>5. On an individual level, actions such as conserving energy, using public transport, planting trees, and reducing waste can contribute significantly. While global cooperation is essential, local and personal efforts also play a critical role in combating climate change.</p> <p>Based on your reading of the above passage, answer the following questions.</p>	
61.	<p>What has been the approximate rise in Earth's average temperature since the late 19th century?</p> <p>(a) 0.5°C (b) 1.1°C (c) 2.0°C (d) 3.0°C</p>	1
62.	<p>Which of the following is NOT mentioned as a cause of climate change?</p> <p>(a) Burning fossil fuels (b) Deforestation</p> <p>(c) Renewable energy adoption (d) Human activities</p>	1
63.	<p>Which regions are particularly vulnerable to rising sea levels?</p> <p>(a) Mountainous countries (b) Low-lying island nations</p> <p>(c) Desert regions (d) Industrial cities</p>	1

64.	<p>You are Aarav/Ananya, a resident of Sunrise Apartments, Delhi. Write a letter to the Municipal Commissioner complaining about the poor condition of streetlights in your area, leading to accidents and thefts. Suggest timely repair and installation of solar-powered lights. (80–100 words)</p> <p style="text-align: center;">OR</p> <p>You are Meera/Manish, a resident of Park Lane, Jaipur. Write a letter to the Editor of “The City Times” expressing concern about the growing problem of stray animals on the roads. Suggest measures like animal shelters and stricter rules for pet owners. (80–100 words)</p>	4
	Mental Aptitude Test (10)	
	Solve the questions based on general intelligence. (Q. 65 to 74)	
65.	<p>SCD, TEF, UGH, ____, WKL</p> <p>(a) CMN (b) UJI (c) VIJ (d) IJT</p>	1
66.	<p>CMM, EOO, GQQ, ____, KUU</p> <p>(a) GRR (b) GSS (c) ISS (d) ITT</p>	1
67.	<p>$\triangle \square \triangle \square \bigcirc \square \bigcirc \diamond \bigcirc \diamond \square ?$</p> <hr/> <p style="text-align: center;">     </p> <p style="text-align: center;">(1) (2) (3) (4)</p> <p>(a) 1 (b) 2 (c) 3 (d) 4</p>	1
68.	<p>$\begin{array}{ c c c } \hline \dots & \dots & \dots \\ \hline \dots & \dots & \dots \\ \hline \end{array} \begin{array}{ c c } \hline \dots & \dots \\ \hline \dots & \dots \\ \hline \end{array} \begin{array}{ c } \hline \dots \\ \hline \dots \\ \hline \end{array} \begin{array}{ c c } \hline \dots & \dots \\ \hline \dots & \dots \\ \hline \end{array} \begin{array}{ c c } \hline \dots & \dots \\ \hline \dots & \dots \\ \hline \end{array} \begin{array}{ c c } \hline \dots & \dots \\ \hline \dots & \dots \\ \hline \end{array} ? \begin{array}{ c } \hline \dots \\ \hline \dots \\ \hline \end{array}$</p> <hr/> <p style="text-align: center;">     </p> <p style="text-align: center;">(1) (2) (3) (4)</p> <p>(a) 1 (b) 2 (c) 3 (d) 4</p>	1
69.	<p>120, 99, 80, 63, 48, ?</p> <p>(a) 35 (b) 38 (c) 39 (d) 40</p>	1
70.	<p>3, 10, 101, ?</p> <p>(a) 10101 (b) 10201 (c) 10202 (d) 11012</p>	1
71.	<p>Jack is looking at Anne. Anne is looking at George. Jack is married, George is not, and we don't know if Anne is married. Is a married person looking at an unmarried person?</p> <p>(a) Yes (b) No</p> <p>(c) CND (d) Everyone's married condition required</p>	1
72.	<p>Pointing to a man in the photograph, Seema said, “He is the son of my grandfather's only son.” How is the man related to Seema?</p> <p>(a) Brother (b) Son (c) Father (d) Uncle</p>	1

73.	A is the brother of B. B is the husband of C. C is the daughter of D. How is D related to A? (a) Father (b) Mother (c) Maternal grandmother (d) Cannot be determine	1
74.	A man walks 12 km east, turns left and walks 9 km, turns left again and walks 5 km, then turns right and walks 7 km. How far is he from his starting point? (a) $\sqrt{305}$ km (b) 20 km (c) $\sqrt{503}$ km (d) 9 km	1
