

**N K BAGRODIA GROUP OF SCHOOLS**  
**SESSION: 2025-26**

**GRADE – IX (Mock)**  
**SAT & MAT PAPER**

Time Allowed: 1 hour

Maximum Marks: 75

**PAPER-I SCHOLASTIC APTITUDE TEST (SAT): 45 Marks**

**General Instructions:**

- This question paper is divided into three sections.
- Section A comprises 15 MCQs based on Verbal Ability & Reading Comprehension.
- Section B comprises 15 MCQs based on General Awareness.
- Section C comprises 15 MCQs based on Scientific Aptitude.
- Each question carries one mark.
- All questions are compulsory. No internal choice has been provided in the paper.
- There is no negative marking
- There is ONLY ONE correct answer for a question. Choose only one option for an answer.
- In case of multiple selection for an answer, the question will be deemed as unattempted & the candidate will be awarded 0 marks for that question.
- The correct answer needs to be check marked (✓) in the question booklet only.
- Use only blue ball point pens to mark the answers.
- Use of calculators is not permitted.

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FULL NAME OF THE CANDIDATE (IN BLOCK LETTERS): \_\_\_\_\_

CLASS & SECTION: \_\_\_\_\_ CLASS ROLL NUMBER: \_\_\_\_\_

CANDIDATE'S SIGNATURE: \_\_\_\_\_ INVIGILATOR'S SIGNATURE: \_\_\_\_\_

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**FOR SCHOOL USE ONLY**

SECTION	MARKS SCORED	EXAMINER'S SIGNATURE
SECTION A (15)		
SECTION B (15)		
SECTION C (15)		

<b>TOTAL (45)</b>		
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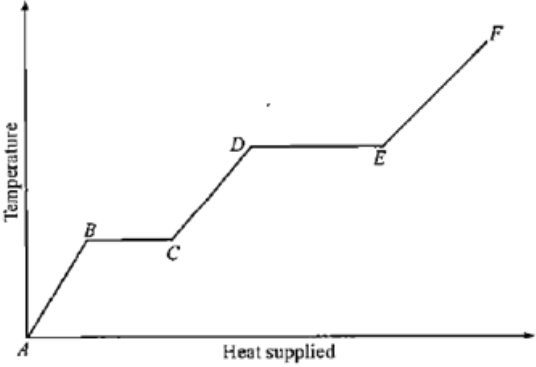
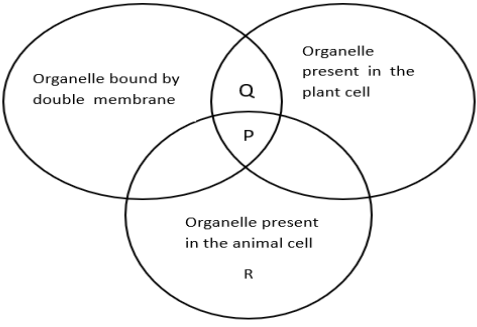
<b>Q.No.</b>	<b>SECTION – A (Verbal Ability &amp; Reading Comprehension)</b>	<b>Marks</b>
<b>1</b>	<p><b>‘Inscrutable’ most nearly means:</b></p> <p>A. unfriendly B. incomprehensive C. incomplete D. inaccurate</p>	<b>1</b>
<b>2</b>	<p><b>The professor insisted that _____ not to be late for class. Choose the most appropriate answer from the options-</b></p> <p>A. it was B. we were C. he had been D. they be</p>	<b>1</b>
<b>3</b>	<p><b>Choose the best correction: “Even though the shirt is rather expensive but I wish to purchase it with my own money.”</b></p> <p>A. Remove "but" after "Even though" B. Replace "rather expensive" with "very expensive" C. Change "wish to purchase" to "wish purchasing" D. No change</p>	<b>1</b>
<b>4</b>	<p><b>She was relieved _____ the pain after the treatment. (Choose the most suitable preposition from the options available)</b></p> <p>A. for B. of C. from D. with</p>	<b>1</b>
<b>5</b>	<p><b>RUST : CORROSION :: DEW : ?</b></p> <p>A. precipitation B. condensation C. hail D. vapor</p>	<b>1</b>
<b>6</b>	<p><b>“All roses are flowers. Some flowers fade quickly. Therefore, some roses: _____.”</b></p> <p>A. fade quickly B. do not fade quickly C. are thorns D. are artificial</p>	<b>1</b>

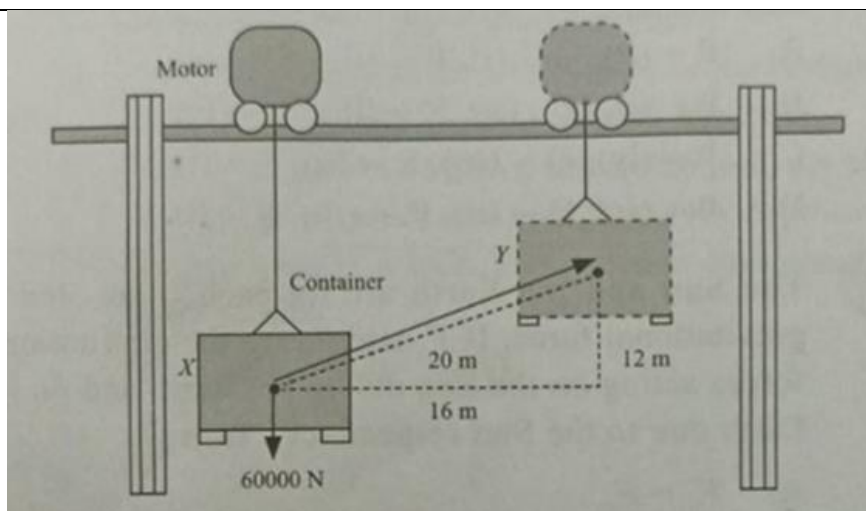
7	<p><b>SQUANDER : CONSERVE :: MISER : ?</b></p> <p>A. spendthrift B. greedy C. refuge D. hunger</p>	1
8	<p>The following sentence had been split into four segments. Identify the correct order of the sentence.</p> <p>A. then the music began to play B. the host served drinks C. After the guests had arrived, D. and gave hors d'oeuvres,</p> <p>A. ABCD B. ACBD C. CBDA D. CDAB</p>	1
9	<p>Convert the following from Direct to Indirect Speech- <i>The man said to the boy, "Do not make noise before they leave the house tonight."</i></p> <p>A. The man ordered the boy not to make noise before they left the house tonight. B. The man ordered the boy not to make the noise before they left the house that night. C. The man told the boy that do not make noise before they had left the house that night. D. The man told the boy do not make noise till they leave the house.</p>	1
10	<p>Choose the incorrect phrase-</p> <p>A. at the drop of a hat B. raining cats and dogs C. out and about D. down and town</p>	1
11	<p>Choose the word opposite in meaning to the word RESTIVE</p> <p>A. active B. patient C. deceptive D. cautious</p>	1
12	<p>Despite the <i>adverse</i> weather, the game continued uninterrupted. (Choose the word similar to adverse from the options below)</p> <p>A. except</p>	1

	<p>B. temperate C. unfavorable D. mild</p>	
13	<p>Choose the most suitable conjunction from the options to fill the sentence- _____ <i>having a difficult childhood, Raja and his brother had been working tirelessly to make ends meet.</i></p> <p>A. inspite B. despite C. although D. even though</p>	1
14	<p>Convert from Active Voice to Passive Voice- Rajan made a decision to never leave his hometown and his elderly parents.</p> <p>A. A decision was made by Rajan to never leave his parents who are elderly. B. A decision was made by Rajan of never leaving his parents who are elderly. C. A decision was made by Rajan of never leave his hometown and his elderly parents. D. A decision was made by Rajan to never leave his hometown and his elderly parents.</p>	1
15	<p>Choose the most suitable verb as per the subject to create a meaningful sentence- <i>Either the girls or the teacher _____ heard the boys talking about the principal.</i></p> <p>A. has B. have C. have been D. had been</p>	1
	<p style="text-align: center;"><b>SECTION – B</b> <b>(General Awareness)</b></p>	
16	<p>What is the full form of LED in technology?</p> <p>A. Light Emitting Diode B. Light Energy Device C. Low Emission Display D. Longwave Emission Diode</p>	1
17	<p>Who was the author of the book 'The Wealth of Nations'?</p> <p>(A) Adam Smith (B) Khushwant Singh (C) Karl Marx (D) Nandan Nilekani</p>	1
18	<p>Why are semiconductors strategically important in the 21st century?</p> <p>A. They are used in farming B. They are military weapons</p>	1

	<p>C. They power all digital electronics and defense tech</p> <p>D. They replace fossil fuels</p>	
19	<p>Which river is known as the 'Roof of the World'?</p> <p>A. Nile</p> <p>B. Indus</p> <p>C. Yangtze</p> <p>D. Amazon</p>	1
20	<p>Where is the headquarters of the United Nations Environment Programme?</p> <p>A. Geneva, Switzerland</p> <p>B. Nairobi, Kenya</p> <p>C. Bonn, Germany</p> <p>D. New York, USA</p>	1
21	<p>Which Indian state has the highest number of UNESCO World Heritage Sites as of 2025?</p> <p>A. Maharashtra</p> <p>B. Tamil Nadu</p> <p>C. Uttar Pradesh</p> <p>D. Rajasthan</p>	1
22	<p>The Treaty of Versailles, which ended World War I, was signed in which year?</p> <p>A. 1918</p> <p>B. 1919</p> <p>C. 1920</p> <p>D. 1921</p>	1
23	<p>The term 'Cold War' primarily refers to the geopolitical tension between which two countries?</p> <p>A. USA and China</p> <p>B. USA and Soviet Union</p> <p>C. USA and Germany</p> <p>D. USA and Japan</p>	1
24	<p>Which Indian classical dance form is traditionally performed as a narrative of the Ramayana and Mahabharata?</p> <p>A. Kathak</p> <p>B. Bharatanatyam</p> <p>C. Kuchipudi</p> <p>D. Odissi</p>	1
25	<p>The 'Great Barrier Reef' is located in which country?</p> <p>A. South Africa</p> <p>B. Australia</p> <p>C. Brazil</p> <p>D. Indonesia</p>	1

26	<p>The 'Suez Canal' connects which two bodies of water?</p> <p>A. Atlantic Ocean and Indian Ocean B. Mediterranean Sea and Red Sea C. Pacific Ocean and Indian Ocean D. Black Sea and Caspian Sea</p>	1
27	<p>Which Indian state shares its boundary with the maximum number of other states?</p> <p>A. Uttar Pradesh B. Madhya Pradesh C. Rajasthan D. Bihar</p>	1
28	<p>Which Article of the Indian Constitution deals with the amendment procedure?</p> <p>A. Article 352 B. Article 368 C. Article 370 D. Article 356</p>	1
29	<p>The 'Blue Revolution' in India is associated with which sector?</p> <p>A. Dairy B. Fisheries C. Oilseeds D. Horticulture</p>	1
30	<p>Which of the following is NOT a member of the G7 group of nations?</p> <p>A. Canada B. Russia C. France D. Italy</p>	1
	<p style="text-align: center;"><b>SECTION – C</b> <b>(Scientific Aptitude)</b></p>	
31	<p>A source of heat supplies heat at constant rate to a solid cube. The variation of the temperature of the cube with the heat supplied is shown in figure. What do the straight lines BC and DE represent in the graph?</p>	1

	 <p> <b>A. The temperature remains steady</b>  <b>B. The heat absorbed / released is used for state change</b>  <b>C. BC is the latent heat of fusion and DE is the latent heat of vaporization</b>  <b>D. All of the above</b> </p>	
32	<p>Refer to the given Venn diagram and select the incorrect option.</p>  <p> <b>A. Organelle P could be an organelle that takes part in synthesis of ATP.</b>  <b>B. Organelle P could be an organelle that helps in disposal of waste material.</b>  <b>C. Organelle Q could be an organelle that contains green pigment chlorophyll.</b>  <b>D. Organelle R is an organelle that stores reserve food dissolved in water and also takes part in osmoregulation.</b> </p>	1
33	<p>At the PSA container port, a motor runs on a horizontal rail at a constant speed while raising a 60000 N container from X to Y as shown in the diagram.</p>	1



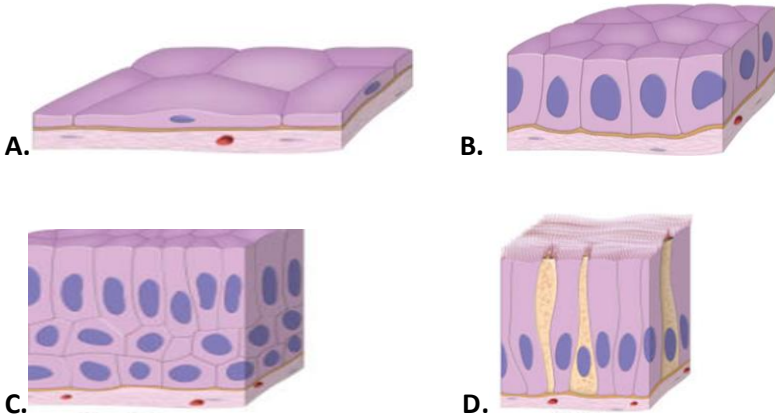
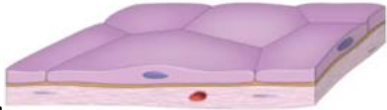
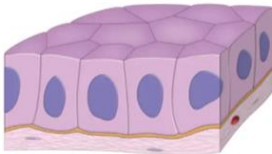
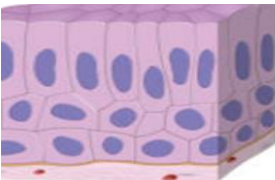
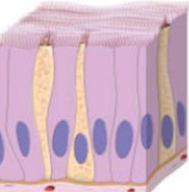
Which of the following statements is/are correct?

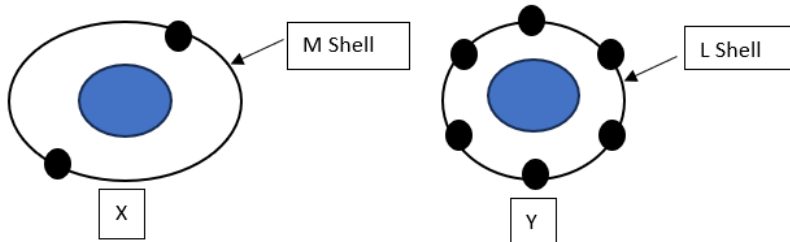
- I. Work done by the motor during this process is 90 kJ.
- II. Work done by the motor during this process is 720 kJ.
- III. Work done by gravity during this process is –720 kJ.
- IV. Work done by gravity during this process is –1200 kJ.

- A. I only
- B. II and III only
- C. I and IV only
- D. II and IV only

34	<p>The solubility of a solute 'X' in water is 35g in 100g of water. The density of the solution is 1.5 g/ml. The concentration of 'X' in the solution in % (M/V) is:</p> <ul style="list-style-type: none"> <li>A. 60</li> <li>B. 38.88</li> <li>C. 34</li> <li>D. 88</li> </ul>	1
35	<p>A stone is dropped from a point at 3 : 30 : 32 p.m (hour : minute : second). Another stone is dropped from the same point at 3 : 30 : 34 p.m. Find the separation between the stones at 3 : 30 : 35 p.m.</p> <ul style="list-style-type: none"> <li>A. 50 m</li> <li>B. 100 m</li> <li>C. 39.2 m</li> <li>D. 48 m</li> </ul>	1
36	<p>Which of the following epithelial tissues primarily performs the functions of absorption and secretion in the inner lining of the intestine?</p>	1



	 <p>A. </p> <p>B. </p> <p>C. </p> <p>D. </p>	
37	<p>Zephyr refers to:</p> <p>A. A gale with great speed B. A soft gentle breeze C. A type of soil D. Name of a pesticide</p>	1
38	<p>An object of mass 1000 kg is moving with a velocity of 45km/h .Some work is done on the object and its velocity increases to 72km/h .Find the amount of work done on the object.</p> <p>A. 121875 km/h B. 222875 km/h C. 7575863 km/h D. None of these</p>	1
39	<p>Introducing dead or weakened germs in the body of living beings for developing immunity for a specific disease is called :</p> <p>A. Pathogenicity B. Antibiotic C. Antigen – Antibody Complex D. Immunization</p>	1
40	<p>Which combination of statements is correct?</p> <p>I. Relative atomic mass of water is 18 u. II. If valencies of elements X and Y are 2 and 1 respectively, then the formula of the molecule formed when they react with each other is <math>XY_2</math>. III. Chemical formula for potassium sulphate is <math>K_2S</math>. IV. Sodium nitrate is a triatomic molecule. V. Molar mass of one mole of <math>N_2</math> gas is 28 g.</p> <p>A. Only I, II and IV B. Only II, III and V C. Only I, II, and V D. All I, II, III, IV and V</p>	1

41	<p>An object moves in uniform circular motion. Which statement is CORRECT?</p> <p>A. Centrifugal force is the action–reaction pair of centripetal force. B. Centripetal acceleration and velocity vectors point in the same direction. C. Velocity changes while centripetal acceleration remains constant. D. A satellite in circular orbit is constantly “falling” toward the centre.</p>	1								
42	<p>The outer electronic configurations of two elements are shown below : Which of the following statements are incorrect regarding X and Y ?</p> <div></div> <p>1. X can have valency 3 . 2. X and Y combine to form <math>X_2Y_3</math> type of compound. 3. Y will form a divalent anion to acquire stable configuration. 4. The valency of X and Y is the same.</p> <p>A. Only III B. I and II only C. I,II and III D. III and IV only</p>	1								
43	<p>In a cloud, lightning and thunder are produced simultaneously. If thunder is heard by a man 5 seconds after the lightning is seen, how far is the cloud from the man? (Speed of sound in air = 340 m/s)</p> <p>A. 1500 m B. 1600 m C. 1700 m D. 1800 m</p>	1								
44	<p>Read the following statements and choose the correct option that identifies them as True (T) or False (F):</p> <p>I. Integrated Pest Management (IPM) focuses solely on using chemical pesticides to control pests. II. Intercropping is a method of growing two or more crops on the same field in a definite row pattern to reduce pest infestation. III. Poultry farming focuses only on meat production and excludes egg production. IV. An ideal manure improves soil texture, enriches soil nutrients, and increases water-holding capacity.</p> <table><tr><td>I</td><td>II</td><td>III</td><td>IV</td></tr><tr><td>A. T</td><td>T</td><td>F</td><td>T</td></tr></table>	I	II	III	IV	A. T	T	F	T	1
I	II	III	IV							
A. T	T	F	T							

	<div><div>B. F            T            F            T</div><div>C. T            F            T            F</div><div>D. F            F            F            T</div></div>	
45	<div>A few mixtures are given in the box below:</div> <div><div><div>1. Blood</div><div>2.Paint</div><div>3. Sand in water</div><div>4.Mist</div><div>5. Talcum powder in air</div><div>6.Gel (like jelly)</div></div></div> <div>Which of the following options indicates the correct classification of these mixtures?</div> <div><div>Colloid</div><div>Suspension</div><div><div>A. (iii) and (v)</div><div>(i), (ii), (iv), and (vi)</div><div>B. (ii), (iii), (iv), and (v)</div><div>(ii) and (vi)</div><div>C. (i), (ii), (iv), and (vi)</div><div>(iii) and (v)</div><div>D. (i), (ii), (v), and (vi)</div><div>(iii) and (iv)</div></div></div>	1

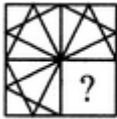
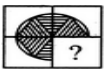
**PAPER-II SCHOLASTIC APTITUDE TEST (SAT): 30 Marks**

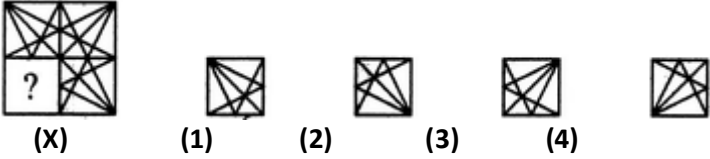
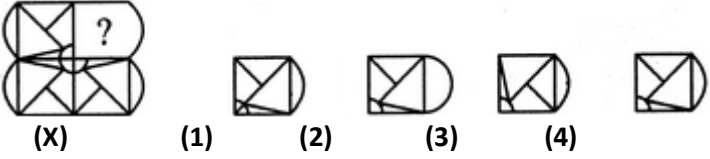
**General Instructions:**

- This part of the paper contains 30 questions divided into 3 sections A, B and C.
- Section A comprises 10 MCQs based on Verbal & Non-verbal Reasoning.
- Section B comprises 10 MCQs based on Everyday Mathematics.
- Section C comprises 10 MCQs syllabus related Competency Based Questions.

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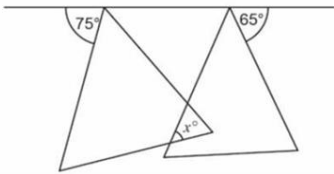
SECTION	MARKS SCORED	EXAMINER'S SIGNATURE
SECTION A (15)		
SECTION B (15)		
SECTION C (15)		
TOTAL (45)		

Q.No.	SECTION – A (Verbal & Non-verbal Reasoning)	Marks
1	<p>Identify the figure that completes the pattern.</p>  <p>(X)      (1)      (2)      (3)      (4)</p> <p>A. 1 B. 2 C. 3 D. 4</p>	1
2	<p>Identify the figure that completes the pattern.</p>  <p>(X)      (1)      (2)      (3)      (4)</p> <p>A. 1 B. 2 C. 3 D. 4</p>	1

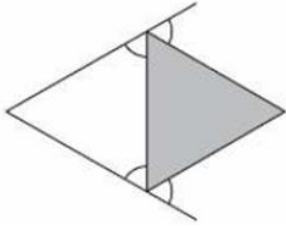
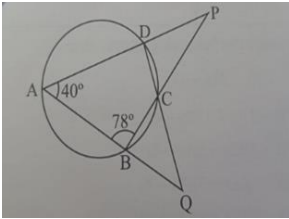
3	<p>Identify the figure that completes the pattern.</p>  <p>(X) (1) (2) (3) (4)</p> <p>A. 1 B. 2 C. 3 D. 4</p>	1
4	<p>Identify the figure that completes the pattern.</p>  <p>(X) (1) (2) (3) (4)</p> <p>A. 1 B. 2 C. 3 D. 4</p>	1
5	<p>If LOGIC = 50, REASON = 79, then what is the value of THOUGHT?</p> <p>A. 90 B. 96 C. 102 D. 99</p>	1
6	<p>Pointing to a man in a picture, Riya says, "He is the brother of my mother's husband's only sister." How is the man related to Riya?</p> <p>A. Uncle B. Father C. Cousin D. Brother</p>	1
7	<p>A father is five times as old as his daughter. In 10 years, he will be three times her age. What is the daughter's current age?</p> <p>A. 6 B. 8 C. 10 D. 12</p>	1
8	<p>In a survey of 120 people:</p>	1

	<ul style="list-style-type: none"> <li>• 80 like tea</li> <li>• 50 like coffee</li> <li>• 30 like both</li> </ul> <p>How many like only one of the two?</p> <p>A. 80 B. 100 C. 70 D. 60</p>	
9	<p>Five boxes J, K, L, M, and N are stacked vertically.</p> <ul style="list-style-type: none"> <li>• L is above only one box.</li> <li>• K is above L but below M.</li> <li>• N is not at the top.</li> <li>• J is immediately above L.</li> </ul> <p>Which box is at the top?</p> <p>A. M B. J C. K D. N</p>	1
10	<p>In a certain code:</p> <ul style="list-style-type: none"> <li>• DOG is written as 417157,</li> <li>• CAT is written as 312120.</li> </ul> <p>What is the code for GOAT?</p> <p>A. 71512020 B. 71513020 C. 71512021 D. 71412020</p>	1
	<p style="text-align: center;"><b>SECTION – B</b> (Everyday Mathematics)</p>	
11	<p>Two solid spheres made of the same metal have weights 11840 gm and 1480 gm, respectively. Find the diameter of the smaller sphere, if the radius of the larger sphere is 5 cm.</p> <p>A. 2.5 cm B. 4.0 cm C. 5.0 cm D. 10.0 cm</p>	1

12	<p>What type of graph connects the midpoints of the class intervals in a frequency distribution?</p> <p>A. Histogram B. Bar graph C. Frequency Polygon D. Pie Chart</p>	1
13	<p>Find the value of <math>\frac{4^{0.42} X 8^{0.72}}{16^{0.5}}</math></p> <p>A. <math>\frac{1}{2}</math> B. 2 C. 1 D. 4</p>	1
14	<p>If <math>(3 - 2x)</math> and <math>(5x + 8)</math> are factors of <math>(-10x^2 + hx - k)</math> then the value of h and k are-</p> <p>A. -31, 45 B. -3, 25 C. -1, -24 D. -4, 19</p>	1
15	<p>If <math>(X^4 + \frac{1}{X^4}) = 34</math>, then the value of <math>(X - \frac{1}{X})</math> is:</p> <p>A. 1 B. 2 C. 3 D. 4</p>	1
16	<p>If the degree of the product of two polynomials P and Q in variable x is 25 and the degree of polynomial P is 5, then the degree of polynomial Q is:</p> <p>A. 5 B. 20 C. 10 D. 15</p>	1
17	<p>Find the length of a chord which is at a distance of 12 cm from the centre of a circle of radius 37 cm.</p> <p>A. 61 cm B. 72 cm C. 66 cm D. 70 cm</p>	1
18	<p>In a frequency distribution, the mid-value of a class is 18.75 and the width of each class is 7.5. The lower limit of the class is:</p> <p>A. 16 B. 15 C. 30 D. 12</p>	1
19	<p>If <math>abc = -108</math>, <math>ab + bc + ca = -21</math>, <math>a + b + c = 8</math>, then <math>a^3 + b^3 + c^3</math> is equal to:</p> <p>A. 600 B. 692</p>	1

	<p>C. 540 D. 866</p>	
20	<p>If <math>\sqrt{15 - x\sqrt{14}} = \sqrt{8} - \sqrt{7}</math>, then find the value of x.</p> <p>A. 4 B. 6 C. 5 D. 2</p>	1
	<p style="text-align: center;"><b>SECTION – C</b> (Competency Based questions)</p>	
21	<p>If <math>xyz = 1</math> then find the value of  <math>(1 + x + y^{-1})^{-1} + (1 + y + z^{-1})^{-1} + (1 + z + x^{-1})^{-1}</math></p> <p>A. 1 B. 0 C. 2 D. -1</p>	1
22	<p>If <math>a + b + c = 0</math>, find the value of <math>\frac{(b+c)^2}{bc} + \frac{(c+a)^2}{ca} + \frac{(a+b)^2}{ab}</math></p> <p>A. 1 B. 3 C. 0 D. -1</p>	1
23	<p>Two equilateral triangles on a straight line are shown below:</p>  <p>What is the measure of x?</p> <p>A. 200 B. 500 C. 400 D. 1400</p>	1
24	<p>The height and the radius of the base of a right circular cone are 35 cm and 10 cm respectively. The radius of the circular cross section of the cone cut by a plane parallel to its base at a distance of 19.25 cm from the base is-</p> <p>A. 4 cm B. 5.5 cm C. 4.5 cm D. 3.5 cm</p>	1
25	<p>How many three digit numbers are possible such that on reversing the digits of these numbers ,we get a difference of 99?</p> <p>A. 90 B. 110 C. 120 D. 170</p>	1



26	<p>The figure below shows an equilateral triangle bounded by two straight lines.</p>  <p>What is the sum of the four marked angles?</p> <p>A. <math>120^\circ</math>  B. <math>180^\circ</math>  C. <math>240^\circ</math>  D. <math>60^\circ</math></p>	1
27	<p>On simplification <math>(\sqrt[4]{8^2}\sqrt{6^3}\sqrt[3]{3^{12}}\sqrt[4]{18^3}\sqrt[4]{4})</math> is equal to-</p> <p>A. 36  B. 18  C. 24  D. 12</p>	1
28	<p>The square root of <math>[(ab+ac-bc)^2-4abc(a-b)]</math> is-</p> <p>A. <math>(bc+ca-ab)</math>  B. <math>(ab+bc-ca)</math>  C. <math>(ab+bc+ca)</math>  D. <math>(ab-bc+ca)</math></p>	1
29	<p>Find the minimum value of <math>\frac{2x^2 - 24x + 19}{17 + 36x - 3x^2}</math></p> <p>A. <math>\frac{-51}{225}</math>  B. <math>\frac{-53}{225}</math>  C. <math>\frac{61}{105}</math>  D. <math>\frac{63}{205}</math></p>	1
30	<p>In the given figure <math>\angle A=40^\circ</math> and <math>\angle ABC=78^\circ</math>. Find the value of <math>\angle DPC + \angle BQC</math></p>  <p>A. <math>80^\circ</math>  B. <math>100^\circ</math></p>	1

	<b>C. <math>110^0</math></b> <b>D. <math>120^0</math></b>	
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## Answer Key

PAPER I						PAPER II					
SEC A	ANS	SEC B	ANS	SEC C	ANS	SEC A	ANS	SEC B	ANS	SEC C	ANS
1	B	16	A	31	D	1	D	11	C	21	A
2	D	17	A	32	B	2	C	12	C	22	B
3	A	18	C	33	B	3	D	13	B	23	C
4	B	19	C	34	B	4	D	14	C	24	C
5	B	20	B	35	C	5	D	15	B	25	D
6	A	21	B	36	C	6	A	16	B	26	C
7	A	22	B	37	B	7	C	17	D	27	D
8	B	23	B	38	A	8	C	18	B	28	B
9	B	24	A	39	D	9	A	19	B	29	B
10	D	25	B	40	C	10	A	20	A	30	B
11	B	26	B	41	D						
12	C	27	A	42	D						
13	B	28	B	43	C						
14	D	29	B	44	B						
15	A	30	B	45	C						