N K BAGRODIA GROUP OF SCHOOLS SESSION: 2025-26

GRADE – X (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.

FULL NAME OF THE CANDIDATE (IN BLOCK LETTERS):			
CLASS ROLL NUMBER:			
INVIGILATOR'S SIGNATURE:			

FOR SCHOOL USE ONLY

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

	I	
TOTAL (45)		

Q.No.	SECTION – A	Marks
1	(Verbal Ability & Reading Comprehension) Read the passage given below and answer the questions from 1 to 7:	1
	Time is one of the most valuable resources in our lives. Unlike maney or	
	Time is one of the most valuable resources in our lives. Unlike money or	
	possessions, time cannot be saved or recovered once it is lost. Each person has the same 24 hours in a day, yet some people achieve more than	
	others. The key lies in how we manage our time.	
	Effective time management involves planning your day in advance, setting	
	goals, and prioritizing tasks. It helps reduce stress and allows individuals to	
	focus on important activities. For students, managing time wisely can lead	
	to better academic performance and improved mental well-being.	
	Procrastination, or the habit of delaying tasks, is one of the biggest	
	enemies of time management. It often leads to rushed work, poor results,	
	and anxiety. By developing good habits such as maintaining a daily	
	schedule, avoiding distractions, and setting deadlines, students can make	
	the most of their time.	
	In conclusion, time management is not just about being busy, but about	
	being productive and organized. Learning this skill early in life can bring	
	long-term benefits and greater success.	
	What is the main idea of the passage?	
	A. Money is more valuable than time	
	B. Students should study more	
	C. Time management is important for success	
	D. Everyone wastes time	
2	According to the passage, how much time does everyone get in a day?	1
	A. 12 hours	
	B. 24 hours	
	C. 48 hours	
	D. Unlimited time	
3	What does effective time management help reduce?	1
	A. Money problems	
	B. Stress	
	C. Sleep	
	D. Homework	
4	What is procrastination?	1

		1
	B. Doing work quickly	
	C. Delaying tasks unnecessarily	
	D. Planning a schedule	
5	Which of the following is NOT mentioned as a good time management	1
	habit?	
	A. Making a daily schedule	
	B. Avoiding distractions	
	C. Setting deadlines	
	D. Waking up late	
6	What does the passage suggest is more important: being busy or being	1
U	productive?	1
	A. Being busy	
	B. Being lazy	
	C. Being productive	
	D. Being fast	
7	What can time management lead to in the long run?	1
	A. More free time only	
	B. Better food habits	
	C. Long-term benefits and success	
	D. Less need to study	
8	Complete the following sentence meaningfully:	1
	The scientist was admired for her efforts to reduce pollution	
	in urban areas.	
	A. harmful	
	B. groundbreaking	
	C. hesitant	
	D. unplanned	
9	Which word is closest in meaning to "reluctant"?	1
	A. eager	
	B. unwilling	
	C. confident	
	D. careless	
10	Identify the error and choose the correction:	1
	Neither the teacher nor the students was late for the session.	
	A. was – were	
	B. students – student	
	C. teacher – teachers	
	D. session – sessions	

11	Select the grammatically correct sentence:	1
	A. The members of the team was awarded medals.	
	B. Each of the participants were given a certificate.	
	C. The committee has submitted its final report.	
	D. The group of players are practicing daily.	
12	Analogies:	1
	HABIT is to REPETITION as PRACTICE is to:	
	A. mistake	
	B. effort	
	C. improvement	
	D. perfection	
13	Choose the correct passive voice transformation:	1
	"People speak English in many countries."	
	A. English was spoken in many countries.	
	B. English has been spoken in many countries.	
	C. English is spoken in many countries.	
	D. English had been spoken in many countries.	
14	Reorder the sentence parts to form a correct sentence:	1
	(P) by introducing new policies and reforms	
	(Q) the government hopes to improve the education system	
	(R) which has long needed structural change	
	(S) in both rural and urban areas	
	A. QPRS	
	B. PRQS	
	C. QPSR	
	D. RQSP	
15	Choose the correct direct speech version:	1
	She told me that she would visit Paris the following month.	
	A. She said, "I will visit Paris next month."	
	B. She said, "She would visit Paris next month."	
	C. She said, "I would visit Paris the following month."	
	D. She said, "I would visit Paris next month."	
	SECTION – B	
4.0	(General Awareness)	
16	Which space company's spacecraft carried Shubhanshu Shukla and the	1
	Axiom-4 crew to the ISS?	
	A. Blue Origin	
	B. ISRO	
	C. SpaceX	
	D. Boeing	

17	When and where did the 17th BRICS Summit take place?	1
	A. July 6–7, 2025, in Johannesburg	
	B. July 6–7, 2025, in Rio de Janeiro	
	C. April 28–29, 2025, in Brasília	
	D. May 5–6, 2025, in New Delhi	
18	Who appoints the Chief Justice of India?	1
	A. Prime Minister	
	B. Chief Election Commissioner	
	C. President of India	
	D. Law Minister	
19	Which world leader emphasized climate justice as a moral duty and	1
	proposed a new acronym for BRICS ("Building Resilience and Innovation	
	for Cooperation and Sustainability")?	
	A. Luiz Inácio Lula da Silva	
	B. Narendra Modi	
	C. Xi Jinping	
	D. Cyril Ramaphosa	
20	The International Olympic Committee (IOC) is headquartered in:	1
	A. France	
	B. Switzerland	
	C. USA	
	D. Greece	
21	Sadbhavana Diwas is observed to mark the birth anniversary of:	1
	A. Mahatma Gandhi	
	B. Rajiv Gandhi	
	C. Indira Gandhi	
	D. Jawaharlal Nehru	
22	Which global organization's headquarters is hosting discussions on rising	1
	global economic risks and inflation?	
	A. World Economic Forum	
	B. United Nations	
	C. International Monetary Fund (IMF)	
	D. World Bank	
23	Which international leader offered to host peace talks between Russia and	1
	Ukraine in July 2025?	
	A. Pope Leo	
	B. António Guterres	

	C. Olaf Scholz	
	D. Vladimir Putin	
24	What is the full form of UNESCO?	1
	A. United Nations Economic and Social Committee	
	B. United Nations Educational, Scientific and Cultural Organization	
	C. Universal National Environmental Science Council	
	D. United Nations Energy and Space Communication Organization	
25	Under Ratan Tata's leadership, which two global car brands did Tata	1
İ	Motors acquire?	
	A. Rolls Royce and Bugatti	
	B. Mercedes-Benz and Ferrari	
	C. Jaguar and Land Rover	
	D. Tesla and Nissan	
26	Which of the following is the MOST effective long-term solution to water	1
20	scarcity in urban areas?	_
	The state of the s	
	A. Importing water from rivers	
	B. Building more swimming pools	
	C. Rainwater harvesting and water recycling	
	D. Banning all industries	
27	Which organization awards the Nobel Peace Prize?	1
	A. Swedish Academy of Sciences	
	B. Norwegian Nobel Committee	
	C. Royal Society	
	D. United Nations	
28	Which of the following is NOT a type of subordinate court in India?	1
	A. Civil Court	
	B. District Court	
	C. Sessions Court	
	D. Cabinet Court	
29	Who administers the oath of office to the President of India?	1
	A. Prime Minister	
	B. Speaker of Lok Sabha	
	C. Vice-President	
	D. Chief Justice of India	
30	Which of these BEST shows responsible behavior during elections?	1
	A. Voting based on advertisements	
	B. Ignoring the election	<u> </u>

	C. Selling your vote	
	D. Evaluating the candidates and voting wisely	
	SECTION – C	
	(Scientific Aptitude)	
31	A gene for colorblindness is located on the X chromosome. A woman with	1
	normal vision, whose father is colorblind, marries a colorblind man. What	
	is the probability that their son will be colorblind?	
	A. 0%	
	B. 25%	
	C. 50%	
	D. 100%	
32	A genetically modified crop that produces a pest-resistant toxin is	1
32	introduced. This crop is eaten by herbivores and enters the food chain.	-
	What is a possible long-term genetic impact on the herbivore population?	
	and the personal configuration of personal metallic personal metal	
	A. Selection pressure leading to genetic resistance	
	B. Enhanced growth rate in herbivores	
	C. Complete immunity to the toxin within one generation	
	D. No genetic impact, as the crop is natural	
22	Mile to a constant the state of	
33	Why is copper mixed with tin to make bronze rather than used in pure form?	1
	lorm?	
	A. Tin removes reactivity of copper	
	B. Alloys are chemically unstable	
	C. Tin makes it a conductor	
	D. Tin makes copper harder and more corrosion-resistant	
		_
34	Which among the following pairs are functional group isomers?	1
	A. Propan-1-ol and propan-2-ol	
	B. Butanal and butanone	
	C. Ethene and cyclopropane	
	D. Ethanol and dimethyl ether	
	·	
35	Two bar magnets are of equal size, but one is made of soft iron and the	1
	other of steel. If both are magnetized identically, which of the following is	
	true?	
	A. Steel magnet has weaker field B. Steel retains magnetism longer	
	B. Steel retains magnetism longer	
	C. Soft iron retains magnetism longer D. Both behave identically	
	5. Both schare identically	
36	In uncontrolled diabetes, glucose is found in the urine because:	1
	A. The glomerulus becomes more permeable	
	B. The tubules start secreting glucose	
	C. Transport maximum for glucose reabsorption is exceeded	
	S. Transport maximum for gracose readsorption is exceeded	<u> </u>

	D. Insulin directly causes glucose loss			
37	Two balls of masses 2 kg and 4 kg move toward each other with speeds 3 m/s and 2 m/s respectively. After a perfectly elastic head-on collision, the velocities of the two balls will:			
	A. Be exchanged			
	B. Remain unchanged			
	C. Reverse			
	D. Become equal			
38	Though baking soda is called a "salt", it exhibits basic behavior in aqueous solution. Why?	1		
	A. It is formed from a weak acid and weak base			
	B. It hydrolyzes to form OH ⁻ ions in water			
	C. It is hygroscopic in nature			
	D. It oxidizes easily in water			
39	Why is the reflex arc considered faster than a typical sensory pathway involving the brain?	1		
	A. It bypasses the spinal cord			
	B. It involves motor neurons only			
	C. It bypasses the brain and uses the spinal cord for immediate			
	response D. It is controlled directly by the medulla			
		_		
40	The scattering of sunlight in the atmosphere is strongest when:	1		
	A. Light has the highest frequency and smallest wavelength			
	B. Light has the highest amplitude			
	C. The sun is at the zenith			
	D. Air molecules absorb infrared light more efficiently			
41	Read the given passage carefully and fill in the blanks by selecting an appropriate option.	1		
	In the electrolytic refining process, the impure metal is made the (i) and a thin strip of pure metal is made the (ii). A solution of metal salt is used as			
	an electrolyte. On passing the current through the electrolyte, the pure			
	metal from the (iii) dissolves into the electrolyte. An equivalent amount of			
	pure metal from the electrolyte is deposited on the (iv) The insoluble			
	impurities that settle down at the bottom of the anode are known as (v).			
	(i) (ii) (iii) (iv) (v)			
	A. Anode Cathode Anode Cathode Anode mud			
	B. Cathode Anode Cathode Mud			
	C. Anode Cathode Cathode Anode Gangue particles			
	D. Cathode Anode Anode Cathode Anode mud	l		

42	A coin lies at the bottom of a tank of water (refractive index 4/3). If the real depth is 12 cm, what is the apparent depth?	1
	A. 16 cm	
	B. 9 cm	
	C. 12 cm	
	D. 6 cm	
43	Which of the following pairs of elements represents a mole ratio of 1: 3?	1
	A. 10 g of calcium and 18 g of magnesium	
	B. 12 g of carbon and 11 g of sodium	
	C. 18 g of sulphur and 46 g of calcium	
	D. 24 g of carbon and 12 g of magnesium	
44	Which event in flowering plants ensures post-pollination compatibility before fertilization?	1
	A. Germination of pollen on stigma	
	B. Entry of pollen tube into ovule	
	C. Degeneration of nucleus	
	D. Recognition of pollen by stigma via surface proteins x nucleus	
45	Three identical bulbs A, B, and C (rated 100 W, 220 V) are connected in the following way to a 220 V supply:	1
	A and B are connected in series	
	C is connected in parallel to the combination of A and B	
	Which bulb will glow the brightest?	
	A. A	
	В. В	
	C. C	
	D. All glow equally	

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.

FOR SCHOOL USE ONLY

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

Q.No.	SECTION – A	Marks					
	(Verbal & Non-verbal Reasoning)						
1	Select the correct water image of the given figure						
	S I						
	A. B. B.						
	C. 20 D. 00						
2	In a certain code language, 'he is my friend' is coded as '5692', 'my aunt is						
	ill' is coded as '7635' and 'friend is ill' is coded as '627'. What is the code						
	of the word 'aunt' and in the code language?						
	A. 5						
	B. 3 C. 6						
	D. 7						
3	Select the letter-cluster that will replace the question mark (?) in the						
	following series						
	BZA, DYC, FXE, HWG, ?						
	A. JUH						
	B. JVH						
	C. JVI						
	D. KVI						
	D. KAI						

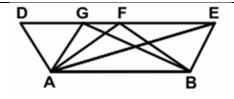
4	Select a figure from the options which will continue the same series as established by the problem figures Problem Figures S S D V I P L S						
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						
5	In the following question, two statements are given followed by two conclusions I and II. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any follow from the given statements. Statements 1. 60% of government employees went on strike. II. Mr. Gopal is a government employee. Conclusions 1. Mr. Gopal went on strike II. Mr. Gopal did not participate in the strike. A. Only Conclusion I follows B. Only Conclusion II follows C. Both Conclusions I and II follow D. Either Conclusion I or II follows	1					
6	In the following question, choose the answer figure which is embedded in the problem figure Problem Figure Answer Figures Answer Figures A B C D	1					
7	Introducing a man to her husband, a woman said, "His brother's father is the only son of my grandfather". How is the woman related to the man? A. Mother-in-law B. Sister C. Daughter D. Sister-in-law	1					
8	In the given venn diagram, the 'rectangle' represents 'ladies of a club', the 'triangle' represents 'like to dance', the 'circle' represents 'like to sing' and	1					

	the 'pentagon' represents 'like to mimic'. The numbers given in the diagram represent the number of persons in that particular category.							
	How many ladies of the club neither like to dance nor like to mimic? A. 26 B. 72 C. 64 D. 23							
9	A clock is so placed that at 12 noon its minute hand points towards the North-East. In which direction does its hour hand point at 1:30pm?							
	A. East B. South C. North D. West							
10	How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?	1						
	A. 2 B. 4 C. 5 D. 6							
	SECTION – B							
11	(Everyday Mathematics) A, B, and C can finish a job in 12, 15, and 20 days respectively, working							
11	A, B, and C can finish a job in 12, 13, and 20 days respectively, working alone. If all of them work together, how long will it take to finish the job? A. 5 days B. 6 days C. 7 days D. 8 days							
12	The cost of producing x units of a product is given by the equation C=500+15x, where C is the total cost in rupees and x is the number of units produced. The revenue from selling x units is given by R=40x. Find the number of units x at which the company breaks even (i.e. The cost of production = Revenue from selling)							
	A. 20 units B. 25 units C. 30 units D. 40 units							

13	A person spends ₹6,000 per month on rent and groceries. If the rent is ₹2,000 more than 3 times the amount spent on groceries, find the rent and the amount spent on groceries.	
	A. ₹7,500 and ₹1,500 B. ₹4,000 and ₹2,000 C. ₹4,500 and ₹1,500 D. ₹5,000 and ₹1,000	
14	A 40-meter tall building casts a shadow of length 30 meters on the ground. At the same time, a pole casts a shadow of length 7.5 meters. What is the height of the pole?	
	A. 12 m B. 9 m C. 11 m D. 10 m	
15	A train and a car start at the same time from two cities for the destination that is 360 km far from each city. The car travels 30 km/h faster than the train. If the car reaches its destination 2 hours earlier than the train, find the speed of the car and the train.	
	A. 90 km/h, 60 km/h B. 80 km/h, 50 km/h C. 120 km/h, 90 km/h D. 70 km/h, 40 km/h	
16	A bag contains 5 red balls, 6 blue balls, and 9 green balls. One ball is drawn at random. What is the probability that the ball drawn is either red or blue?	
	A. 5/20 B. 11/20 C. 15/20 D. 5/6	
17	A box is in the shape of a cuboid. The length of the box is 4 cm more than the width, and the height is 2 cm less than the width. If the volume of the box is 240 cm ³ , find the width of the box.	
	A. 6 cm B. 8 cm C. 10 cm D. 12 cm	
18	A student has to secure 40% marks to pass. He obtains 40 marks and fails by 40 marks. What are the maximum marks obtainable?	
	A. 400 B. 250 C. 200	

	D. 500	
19	The dates 3rd April, 2005; 6th August, 2010 and 5th December, 2013 when written in Date-Month-Year Form (dd-mm-yy) have a unique mathematical property. The Indian Independence Day of which year	
	among the following has the same property?	
	A. 2017	
	B. 2016 C. 2018	
	D. 2015	
	51 2025	
20	Shubham's house faces North. He leaves from the back gate of his house	
	and walks 14m. Then he turns left and walks 30m. Then he turns left and	
	walks 50m. Then he turns left and walks 10m. He then turns left and walks	
	36m. In which direction and how many meters away is he from his home?	
	A. 30 meters West	
	B. 68 meters South East	
	C. 20 meters East	
	D. 10 meters South	
	SECTION – C	
	(Competency Based questions)	
21	For an acute angle θ , $\sin \theta + \cos \theta$ takes the greatest value when θ is:	
	A. 30°	
	B. 45 ⁰	
	C. 60°	
	D. 90°	
22	If the sum of the roots of the equation $ax^2 + bx + c = 0$ is equal to the sum	
	of their squares, then which one of the following is correct?	
	A. $a^2 + b^2 = c^2$	
	B. $a^2 + b^2 = a + b$	
	C. $2ac = ab + b^2$	
	D. 2c + b = 0	
23	If p_1 and p_2 are two odd prime numbers such that $p_1 > p_2$, then $p_1^2 - p_2^2$ is:	
	A. An even number	
	B. An odd number	
	C. An odd prime number	
	D. A prime number	
24	The houses of a row are numbered consecutively from 1 to 49. If there is a	
	value of x such that the sum of the numbers of the houses preceding the	
	house numbered x is equal to the sum of the numbers of the houses	
	following it. Find the value of x.	
	A. x = 33	

B. x = 43 C. x = 39 D. x = 35 25 The average weight of A, B and C is 84 kg. If D joins the group, the average weight of the group becomes 80 kg. If another man E who weighs 3 kg more than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 kg B. 72 kg C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
The average weight of A, B and C is 84 kg. If D joins the group, the average weight of the group becomes 80 kg. If another man E who weighs 3 kg more than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 Kg B. 72 Kg C. 75 Kg D. 80 Kg A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
The average weight of A, B and C is 84 kg. If D joins the group, the average weight of the group becomes 80 kg. If another man E who weighs 3 kg more than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 Kg B. 72 Kg C. 75 Kg D. 80 Kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
weight of the group becomes 80 kg. If another man E who weighs 3 kg more than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 kg B. 72 kg C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 kg B. 72 kg C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
than D replaces A, then the average of B, C, D and E becomes 79 kg. What is the weight of A? A. 64 Kg B. 72 Kg C. 75 Kg D. 80 Kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
is the weight of A? A. 64 Kg B. 72 Kg C. 75 Kg D. 80 Kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
B. 72 kg C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
B. 72 kg C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²).	
C. 75 kg D. 80 kg 26 A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P	
A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
A certain strain of virus occurs three times every 25 minutes. In how much time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7√2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
time will it become 729 times its initial value? A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
A. 125 minutes B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
B. 100 minutes C. 150 minutes D. 175 minutes 27 30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% 28 In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
C. 150 minutes D. 175 minutes 27	
D. 175 minutes 27	
30% of the items were sold at a profit of 40% while the remaining were sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
sold at x% loss. If the overall loss is 10%, find the value of x. A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
A. 30% B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
B. 30.42% C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
C. 31.42% D. 31.24% In the given figure, PQRS is a square of side 7/2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
D. 31.24% In the given figure, PQRS is a square of side 7v2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
In the given figure, PQRS is a square of side 7V2 cm. With P and R as centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). A. 50 B. 48 C. 44	
centres and PQ as radius, the arcs QAS and QBS are drawn, respectively. Find the area of the shaded region (in cm²). P A. 50 B. 48 C. 44	
Find the area of the shaded region (in cm²). P B A A B B 48 C 44	
A. 50 B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
B. 48 C. 44	
C. 44	
D. 42	
29 In the given figure, AB DE and the area of the parallelogram ABFD is 24	
cm ² . Find the areas of triangles AFB, AGB, and AEB.	
-,,	



- A. 8 cm²
- B. 12 cm²
- C. 10 cm²
- D. 14 cm²

The following steps are involved in finding a number, if the positive number is less than its square by 30. Arrange them in sequential order:

- (a) $x^2 x 30 = 0$
- (b) x = 6
- (c) $x^2 x = 30$
- (d) (x + 5) (x 6) = 0
 - A. cadb
 - B. dcba
 - C. dcab
 - D. cdab

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