



ATOMIC ENERGY CENTRAL SCHOOL - 5, MUMBAI
MCQ TEST, JULY 2025

CLASS: VI

Time Allowed : 1 Hr.

Maximum Marks : 100

	Section A - Maths													
1	Find the value of questions marks (?). 122, 248, 326, 414, ? a) 521 b) 177 c) 432 d) 817	[1]												
2	8, 13, 10, 15, 12, 17, 14 ... ? a) 20 b) 22 c) 16 d) 19	[1]												
3	52227, 53227, 55227, 58227, _____. a) 59227 b) 57227 c) 62227 d) 58227	[1]												
4	What is the next term of the series 1, 2, 4, 8, 16,? a) 64 b) 20 c) 24 d) 32	[1]												
5	Find the value of questions marks (?). 2, 3, 5, 7, ? a) 11 b) 9 c) 13 d) 10	[1]												
6	Complete the pattern: 7, 15, 23, ____ a) 31 b) 27 c) 37 d) 28	[1]												
7	What will be the next row of numbers in the following pattern? <table border="1" data-bbox="224 898 341 1045"> <tr><td>4</td><td>16</td><td>64</td></tr> <tr><td>6</td><td>36</td><td>216</td></tr> <tr><td>8</td><td>64</td><td>512</td></tr> <tr><td>?</td><td>?</td><td>?</td></tr> </table> a) 10, 100, 1000 b) 10, 200, 2000 c) 8, 68, 518 d) 10, 500, 5000	4	16	64	6	36	216	8	64	512	?	?	?	[1]
4	16	64												
6	36	216												
8	64	512												
?	?	?												
8	What is rule of the pattern below? 2, 5, 11, 23, 47, ... a) Multiply the number by 2 and add 1 b) Add 6 c) Multiply by 2 d) Add 3	[1]												
9	What comes next? ABC, EFG, IJK ... a) ONM b) KLM c) MNO d) LMN	[1]												
10	Next term of 86, 48, 32, _____ is a) 6 b) 10 c) 12 d) 27	[1]												
11	3, 6, 18, 72, 360, ? a) 2160 b) 2254 c) 1296 d) 4329	[1]												
12	If the sum of each row, column and diagonal is 24, then find the multiple of x and y. <table border="1" data-bbox="224 1591 867 1705"> <tr><td>9</td><td>y</td><td>11</td></tr> <tr><td>10</td><td>8</td><td>6</td></tr> <tr><td>5</td><td>X</td><td>7</td></tr> </table> a) 40 b) 44 c) 32 d) 48	9	y	11	10	8	6	5	X	7	[1]			
9	y	11												
10	8	6												
5	X	7												
13	If sum of each row, column and diagonals are equal, then the value of x, y, z and w respectively, is <table border="1" data-bbox="435 1801 516 1915"> <tr><td>8</td><td>x</td><td>z</td></tr> <tr><td>y</td><td>5</td><td>w</td></tr> <tr><td>4</td><td>9</td><td>2</td></tr> </table> a) 3, 6, 7, 1 b) 1, 3, 6, 7 c) 4, 6, 8, 7 d) 1, 6, 3, 7	8	x	z	y	5	w	4	9	2	[1]			
8	x	z												
y	5	w												
4	9	2												

14	11, 13, 17, 19, 23, 29, 31, 37, 41, _____ is a) 44 b) 45 c) 43 d) 42	[1]
15	Find the rule of number pattern: 5, 10, 20, 40, 80 a) Multiply by 5 b) Add 10 c) Add 5 d) Multiply by 2	[1]
16	Write number pattern next three terms 4, 8, 16, 32, _____, _____, _____. a) 64, 128, 256 b) 62, 128, 254 c) 60, 85, 90 d) 60, 70, 120	[1]
17	92, 82, 72, 62, _____. a) 22 b) 42 c) 32 d) 52	[1]
18	What is the next term in the given series? 9, 13, 17, 21, 25, ...? a) 26 b) 27 c) 29 d) 33	[1]
19	What comes next in the pattern? 32, 30, 28, 26, ... a) 25 b) 22 c) 23 d) 24	[1]
20	Rohan has created a number pattern. The first 3 numbers were 4, 11 and 18. What comes next? a) 29 b) 24 c) 25 d) 21	[1]
Section B – Science		
21	What happens when a guess made in science turns out to be wrong? a) We stop doing science b) The experiment is cancelled c) We test a new guess and learn from the mistake d) The result is ignored	[1]
22	What role does questioning play in science? a) It delays discoveries b) It confuses students c) It is used only for exams d) It leads to exploration and discoveries	[1]
23	How does the scientific method resemble what we do when our pen stops working? a) We throw the pen away b) We guess and test until we find the problem c) We wait for someone to fix it d) We do nothing	[1]
24	What is meant by “Science is everywhere”? a) Science is only in laboratories b) Science is only for scientists c) Science is found in all parts of life d) Science is only for textbooks	[1]
25	What is the first step of the scientific method? a) Writing a conclusion b) Asking for help c) Observation d) Making a chart	[1]
26	Why is curiosity important in science? a) It helps us sleep better b) It makes us memorize facts c) It leads us to ask questions and explore d) It makes experiments longer	[1]
27	What question would you ask as a young scientist? a) Why do stars shine? b) What is the capital of France? c) Who invented the telephone? d) How old is your mother?	[1]
28	What is Science? a) A storybook subject b) A collection of random facts c) Doing observation and experimentation d) A subject only for students	[1]
29	The place where a living organism live is called a) Room b) House c) Habitat d) Habit	[1]

30	The plants that climb up an upright support by special clinging or clasping structure like tendrils, roots or hooks are called a) Twinersb) Climbers c) Creepersd) Trailers	[1]
31	A herb is one having a) Annual growthb) A few flowers and fruits c) Woody short stemsd) Green, soft and short stems	[1]
32	Ramesh spotted an organism with streamlined and slippery body. The organism's habitat must be a) Aquaticb) Terrestrialc) Grasslandd) Deserts	[1]
33	Which of these adaptations is not shown by a camel for living in deserts? a) Perspires or sweat a lot ofb) Passes scanty of urine c) The sole of feet has sort of padsd) Has a hump on its back	[1]
34	Which one is the common characteristic of all fishes? a) All can live on land as well as waterb) All have streamlined body c) All have bony endoskeletond) All have cartilaginous endoskeleton	[1]
35	Long legs of camels help them in living in deserts by a) Keeping body away from heat of sand b) Making comfortable walking on sand c) Keeping food near his mouth d) Holding the nose above to respire cold air	[1]
36	The plants with weak stem and cannot stand upright are called a) Herbsb) Trees c) Shrubsd) Creepers	[1]
37	Small plants, soft perishable stems, attain height up to five feet, generally annuals and biennials. These plants are a) Shrubsb) Treesc) Climbersd) Herbs	[1]
38	Combination of feature found in grass are a) Parallel venation and tap rootb) Reticulate venation and tap root c) Reticulate venation and fibrous rootd) Parallel venation and fibrous root	[1]
39	Forest, grassland, desert and mountain region are example of a) Aquatic habitat b) Amphibious habitat c) Terrestrial habitat d) None	[1]
40	Who played an important role in the Save Silent Valley Movement and worked to protect India's plant biodiversity? a) Kalpana Chawla b) Janaki Ammalc) C.V. Raman d) Homi Bhabha	[1]
Section C – Social Science		
41	The frigid zone lies near a) The Tropic of Cancer b) The Equator c) The Tropic of Capricorn d) The Poles	[1]
42	It is the time by the position of the sun at noon of a place: a) Local Time b) Prime Meridian c) Standard Time d) Prime Time	[1]
43	Dhubri is in a) Nagaland b) Sikkim c) Assam d) Tripura	[1]
44	The map showing boundaries of the countries and the state within the countries are called a) Thematic map b) Conventional map c) Political map d) Physical map	[1]
45	How many time zone India has? a) Two b) Three c) Twenty four d) One	[1]
46	The length of the latitudes are: a) Shortest at the eastern hemisphere b) Shortest at the equator c) Longest at the pole d) Longest at the equator	[1]



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CLASS: VII

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	Section A - Maths	
1	Rounding off 8,49,239 to nearest thousand: a) 8,49,200 b) 8,49,340 c) 8,49,240 d) 8,49,000	[1]
2	The approximate value of 4,99,897 is: a) 5,00,000 b) 4,99,900 c) 4,90,000 d) 4,99,000	[1]
3	Which of the following numbers is smallest? a) 800 b) 8 crore c) 8 lakh d) 80,000	[1]
4	What comes just before 1,00,000? a) 9,99,999 b) 99,999 c) 10,000 d) 1,00,001	[1]
5	Ten ten - thousands make: a) 10,00,000 b) 10,000 c) 1,000 d) 1,00,000	[1]
6	1 crore equals: a) 10 lakhs b) 100 lakhs c) 1,000 lakhs d) 1 lakh	[1]
7	The number 10,00,000 is read as: a) Ten thousand b) One crore c) One lakh d) Ten lakhs	[1]
8	A newspaper has a circulation of 2.5 lakh. What is the number in digits? a) 25,000 b) 2,50,000 c) 2,500 d) 25 lakh	[1]
9	1 lakh = _____ thousands a) 10,000 b) 1,000 c) 100 d) 10	[1]
10	How many zeroes are there in one lakh? a) 5 b) 4 c) 6 d) 7	[1]
11	The Indian system of numeration places lakh after: a) Crore b) Hundred c) Ten thousand d) Thousand	[1]
12	Write 3 lakh and 75 thousand in digits. a) 3,75,600 b) We are given: 3 lakh = 3,00,000 75 thousand = 75,000 Now add both: 3,00,000 + 75,000 = 3,75,000 c) 3,75,400 d) 3,75,200	[1]
13	Which of the following is greater? a) 60 thousand b) 6 crore c) 6 lakh d) 60 lakh	[1]
14	1 crore is equal to how many thousands? a) 10,000 b) 1000 c) 1,00,000 d) 10,00,000	[1]
15	9,99,999 rounded to nearest lakh is: a) 9,90,000 b) 1,00,000 c) 10,00,000 d) 9,00,000	[1]
16	What is the unit digit of the square of 999? a) 1 b) 9 c) 0 d) 5	[1]
17	Which number is equal to 10 million? a) 10 lakhs b) 10 crores c) 1 lakh d) 1 crore	[1]
18	Which of these is NOT a round number? a) 5,00,000 b) 10,00,000 c) 1,000 d) 4,23,100	[1]
19	1 crore - 1 lakh = ?	[1]

	a) 99 lakhs b) 99 thousand c) 9 lakhs d) 1 lakh	
20	Assertion (A): 12321 is a product of 111×111 . Reason (R): It is a palindromic square. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
Section B - Science		
21	Why are experiments important in science? a) They help in memorizing concepts b) They are optional activities c) They provide hands - on experience and understanding d) They confirm preconceived notions	[1]
22	What is the process by which plants make their food? a) Transpiration b) Photosynthesis c) Respiration d) Digestion	[1]
23	Assertion (A): New scientific discoveries can change our understanding of the world. Reason (R): Science is a dynamic field that evolves with new evidence. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
24	Assertion (A): Curiosity is the driving force behind scientific discoveries. Reason (R): Without curiosity, scientists would not question or explore phenomena. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
25	Assertion (A): Science is a way of thinking, observing, and doing things to understand the world. Reason (R): Science relies solely on memorization of facts. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
26	Which of the following is not a property of bases? a) Sour taste b) Bitter taste c) Soapy touch d) Turns red litmus blue	[1]
27	Which of the following is not a natural indicator? a) Turmeric b) Litmus c) Red cabbage d) Phenolphthalein	[1]
28	Which of the following is used to treat an ant bite? a) Lemon juice b) Baking soda c) Salt solution d) Vinegar	[1]
29	Which of the following combinations will result in a neutralization reaction? a) Soap solution and baking soda b) Hydrochloric acid and sodium hydroxide c) Water and salt d) Lemon juice and vinegar	[1]
30	Which of the following substances is likely to be basic? a) Lemon juice b) Soap solution c) Vinegar d) Tamarind water	[1]
31	Which of the following indicators is used to detect acids and bases? a) Litmus b) Water c) Sugar d) Salt	[1]
32	Which of the following is a natural indicator?	[1]

	a) Universal indicator b) Litmus c) Phenolphthalein d) Methyl orange	
33	Litmus is extracted from: a) Beetroot b) Lichens c) Red cabbage d) Turmeric	[1]
34	If a substance tastes sour and turns blue litmus red, it is likely to be: a) Neutral b) Salty c) Basic d) Acidic	[1]
35	Which of the following substances turns blue litmus paper red? a) Vinegar b) Baking soda c) Soap solution d) Lime water	[1]
36	Which of the following substances is neutral in nature? a) Lemon juice b) Vinegar c) Soap solution d) Sugar solution	[1]
37	Which indicator turns red in a basic solution? a) Phenolphthalein b) Red cabbage c) Turmeric d) Litmus	[1]
38	Assertion (A): Lemon juice turns red litmus blue. Reason (R): Lemon juice is basic in nature. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false and R is also false.	[1]
39	Assertion (A): Phenolphthalein is a natural indicator. Reason (R): Phenolphthalein is extracted from plants. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false and R is also false.	[1]
40	Assertion (A): Litmus paper changes color in acidic and basic solutions. Reason (R): Litmus is a synthetic indicator. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
Section C – Social Science		
41	Which of the following is not a coastal state of India? a) Tamil Nadu b) Gujarat c) Kerala d) Madhya Pradesh	[1]
42	Which of the following is a cold desert in India? a) Ladakh b) Deccan c) Thar d) Rann of Kutch	[1]
43	The Sundarbans are located in which Indian state? a) Tripura b) West Bengal c) Odisha d) Assam	[1]
44	Which Indian desert is characterized by sand dunes and sparse vegetation? a) Thar b) Ladakh c) Kutch d) Deccan	[1]
45	The Peninsular Plateau is mostly made of: a) Igneous and metamorphic rocks b) Alluvial soil c) Sedimentary rocks d) Sand dunes	[1]
46	The Sundarbans are famous for: a) Hot springs b) Volcanic activity c) Dense mangrove forests d) Tea plantations	[1]
47	Which island group is known for coral islands? a) Sri Lanka b) Andaman c) Lakshadweep d) Nicobar	[1]
48	The Indian Desert receives less than _____ mm of rainfall annually. a) 500 b) 1000 c) 100 d) 50	[1]
49	Which island group lies in the Arabian Sea? a) Maldives b) Lakshadweep Islands c) Nicobar Islands d) Andaman Islands	[1]
50	Which desert is located in the northwestern part of India?	[1]

	a) Sahara b) Gobi c) Kalahari d) Thar Desert	
51	Which river is primarily responsible for forming the Gangetic Plains? a) Narmada b) Yamuna c) Godavari d) Ganga	[1]
52	What is the capital of Ladakh region? a) Leh b) Srinagar c) Kargil d) Shimla	[1]
53	Which of the following hill ranges is one of the oldest in the world? a) Nilgiris b) Western Ghats c) Himalayas d) Aravalli Hills	[1]
54	Which mountain range acts as a natural barrier to the cold winds from Central Asia? a) Himalayas b) Aravalli Hills c) Satpura Range d) Western Ghats	[1]
55	What is the main occupation in the Gangetic Plains? a) Mining b) Tourism c) Agriculture d) Fishing	[1]
56	Assertion (A): The Peninsular Plateau is rich in black soil. Reason (R): It is formed mainly from volcanic rocks. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
57	Assertion (A): The Great Indian Desert is known for its dense forests. Reason (R): It receives very little rainfall annually. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
58	Assertion (A): The Himalayas act as a climatic barrier for India. Reason (R): They prevent the cold Siberian winds from entering India. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
59	Assertion (A): The Andaman and Nicobar Islands are of volcanic origin. Reason (R): These islands lie in the tectonically active zone. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
60	Assertion (A): The Gangetic Plains are one of the most fertile regions of India. Reason (R): These plains are formed by alluvial deposits brought by rivers. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]



Maximum Marks : 100

MCQ – JUL 2025 - Page 9 of 20

		6	7	2		
	a) 8	b) 9	c) 7	d) 2		
20	Manish read $\frac{5}{6}$ part of a book. Preeti read $\frac{1}{6}$ part of a book. What more part was read by Manish? a) $\frac{2}{3}$ b) $\frac{1}{3}$ c) $\frac{5}{6}$ d) $\frac{7}{6}$					[1]
Section B - Science						
21	Which of the following food components is required for the growth and maintenance of the human body? a) Proteins b) Vitamins c) Minerals d) Both (a) and (b)					[1]
22	Guava, Lemon, Orange and Tomato are rich in _____. a) vitamin A b) vitamin B c) vitamin C d) vitamin D					[1]
23	Parallel venation is not found in— a) sugarcane b) peepal c) maize d) wheat					[1]
24	Leaf venation and type of root is correctly paired in a) parallel venation, fibrous roots b) parallel venation, taproot c) no relation exists in leaf venation and type of roots d) reticulate venation, fibrous roots					[1]
25	Why are seeds soaked in water for sprouting? a) To kill germs on the seed surface b) To absorb sunlight and make it ready to grow c) To soften the seed coat and activate germination d) To improve the taste and make seeds easier to cook					[1]
26	What are millets known for? a) Being a source of fats b) Being easy to cultivate and highly nutritious c) Being a type of fruit d) Being a source of vitamins only					[1]
27	Which one of the following food items does not provide dietary fibre? a) Whole grains b) Whole pulses c) Fruits and vegetables d) Milk					[1]
28	Which of the following type of plants has thick, hard and woody stem? a) Tree b) Shrub c) Herb d) All of these					[1]
29	Which nutrient is known as the 'bodybuilding' food? a) Carbohydrates b) Proteins c) Fats d) Vitamins					[1]
30	Deficiency of iron in the diet causes which disease? a) Osteoporosis b) Anaemia c) Scurvy d) Rickets					[1]
31	Which process allows wet clothes to dry on a cloudy day when the temperature is below 100°C? a) Boiling b) Melting c) Condensation d) Evaporation					[1]
32	Anjali placed two wet towels for drying — one outside in the sun and one inside a closed bathroom. After 2 hours, the towel outside dried completely, while the one inside was still damp or little wet. Which factor most likely caused the towel inside the bathroom to remain wet? a) Higher humidity inside the bathroom b) Lower temperature outside c) smaller surface area of the towel d) Lack of sunlight outside					[1]
33	Which of the following is a non-depletable (renewable) resource? a) Coal b) Petroleum c) Solar energy d) Natural gas					[1]
34	Which of the following statements is correct about the shape of water in					[1]

51	Which of the following is a factor responsible for soil formation? a) Sunlight b) Wind c) Parent rock d) Gravity	[1]
52	Black soil is best suited for growing: a) Rice b) Wheat c) Cotton d) Tea	[1]
53	Which method is used to prevent soil erosion on steep slopes? a) Strip farming b) Terrace farming c) Crop rotation d) Mixed cropping	[1]
54	Which of the following is an example of a Kharif crop? a) Wheat b) Mustard c) Paddy d) Gram	[1]
55	What type of farming is practiced to meet the needs of the farmer's family? a) Plantation farming b) Subsistence farming c) Commercial farming d) Organic farming	[1]
56	Which of the following crops needs a lot of water? a) Wheat b) Maize c) Cotton d) Rice	[1]
57	Which soil is found in desert areas? a) Black soil b) Alluvial soil c) Laterite soil d) Arid soil	[1]
58	Which human activity leads to soil erosion? a) Afforestation b) Reforestation c) Deforestation d) Conservation	[1]
59	Which type of soil is ideal for growing sugarcane and pulses? a) Red soil b) Black soil c) Alluvial soil d) Desert soil	[1]
60	Which is NOT a method of soil conservation? a) Afforestation b) Terrace farming c) Overgrazing d) Contour ploughing	[1]



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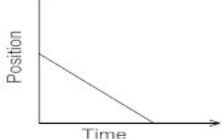
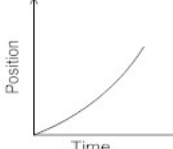
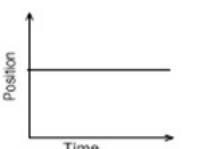
CLASS: IX

Time Allowed : 1 Hr.

Maximum Marks : 100

	Section A - Maths	
1	If $8^{x+1} = 64$, what is the value of 3^{2x+1} ? a) 27 b) 3 c) 9 d) 1	[1]
2	If $x = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ and $y = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$, then $x^2 + xy + y^2 =$ a) 98 b) 101 c) 99 d) 102	[1]
3	If $9^{x+2} = 240 + 9^x$, then the value of x is a) 0.2 b) 0.1 c) 0.3 d) 0.5	[1]
4	The value of $0.\overline{2}$ in the form $\frac{p}{q}$ where p and q are integers and $q \neq 0$ is a) $\frac{1}{8}$ b) $\frac{1}{5}$ c) $\frac{2}{9}$ d) $\frac{2}{5}$	[1]
5	The value of $\left\{ (23 + 2^2)^{\frac{2}{3}} + (150 - 29)^{\frac{1}{2}} \right\}^2$, is a) 286 b) 324 c) 196 d) 400	[1]
6	$\frac{1}{(3 + 2\sqrt{2})} = ?$ a) $\frac{(3-2\sqrt{2})}{13}$ b) $(3 - 2\sqrt{2})$ c) $\frac{3-2\sqrt{2}}{17}$ d) $(3 + 2\sqrt{2})$	[1]
7	Rationalisation of the denominator of $\frac{1}{\sqrt{5}+\sqrt{2}}$ gives a) $\frac{1}{\sqrt{10}}$ b) $\sqrt{5} + \sqrt{2}$ c) $\frac{\sqrt{5}-\sqrt{2}}{3}$ d) $\sqrt{5} - \sqrt{2}$	[1]
8	Which of the following is an irrational number: a) 3.141141114 ... b) 3.14444 ... c) 3.14 d) 3.141414...	[1]
9	$8\sqrt{15} \div 2\sqrt{3}$ a) $4\sqrt{5}$ b) $2\sqrt{15}$ c) $4\sqrt{15}$ d) $2\sqrt{5}$	[1]
10	If both $(x + 2)$ and $(2x + 1)$ are factors of $ax^2 + 2x + b$, then the value of $a - b$ is a) 2 b) 0 c) 1 d) - 1	[1]
11	The zeros of the polynomial $4x^2 + 5\sqrt{2}x - 3$ are a) $-3\sqrt{2}, \frac{\sqrt{2}}{2}$ b) $\frac{-3\sqrt{2}}{2}, \frac{\sqrt{2}}{4}$ c) $-3\sqrt{2}, \sqrt{2}$ d) $-3\sqrt{2}, \frac{\sqrt{3}}{2}$	[1]
12	If $a + b + c = 9$ and $ab + bc + ca = 23$, then $a^3 + b^3 + c^3 - 3abc =$ a) 207 b) 108 c) 669 d) 729	[1]
13	The zeros of the polynomial $p(x) = x^2 - 3x$ are a) 3, - 3 b) 0, 0 c) 0, - 3 d) 0, 3	[1]
14	If $\frac{a}{b} + \frac{b}{a} = 1$, then $a^3 + b^3 =$ a) - 1 b) 1 c) $\frac{1}{2}$ d) 0	[1]
15	$\sqrt{3}$ is a polynomial of degree.	[1]

	a) 2	b) 1	c) 0	d) $\frac{1}{2}$	
16	If $x^3 + 6x^2 + 4x + k$ is exactly divisible by $x + 2$, then $k =$ a) - 6 b) - 8 c) - 10 d) - 7				[1]
17	$x + 1$ is a factor of the polynomial a) $x^3 + 2x^2 - x + 2$ b) $x^3 + 2x^2 - x - 2$ c) $x^3 - 2x^2 + x + 2$ d) $x^3 + 2x^2 + x - 2$				[1]
18	The possible expressions for the length and breadth of the rectangle whose area is given by $4a^2 + 4a - 3$ is a) $(2a + 1)$ and $(2a - 3)$ b) $(2a + 1)$ and $(2a + 3)$ c) $(2a - 1)$ and $(2a - 3)$ d) $(2a - 1)$ and $(2a + 3)$				[1]
19	Which of the following is a polynomial. a) $\frac{1}{x} + 5$ b) - 4 c) $x - \frac{1}{x} + 2$ d) $\sqrt{x} + 3$				[1]
20	Assertion (A): If the graph of a polynomial touches x - axis at only one point, then the polynomial cannot be a quadratic polynomial. Reason (R): A polynomial of degree $n(n > 1)$ can have at most n zeroes. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.				[1]
Section B - Science					
21	When alcohol is kept in a china dish it evaporates, the temperature falls and cooling is produced. Which one is the correct method to record the temperature? a) By using a thermometer b) By touching the surface of china dish c) By smell of alcohol vapour d) By taking the help of the teacher.				[1]
22	Liquid A boils at 60°C while liquid B boils at 80°C which is more volatile? a) Liquid B b) Neither A nor B c) Both A and B d) Liquid A				[1]
23	On converting 25°C , 38°C and 66°C to Kelvin scale, the correct sequence of temperature will be a) 298 K, 311 K and 339 K b) 273 K, 278 K and 543 K c) 298 K, 300 K and 338 K d) 298 K, 310 K and 338 K				[1]
24	In which one of the following sets, is each one a solid under ordinary conditions? a) Salt, Sugar, Chalk b) Stone, Water, Ice c) Mercury, Iron, Gold d) Oxygen, Nitrogen, Sulphur				[1]
25	During summer, water kept in an earthen pot becomes cool because of the phenomenon of a) transpiration b) osmosis c) evaporation d) diffusion				[1]
26	A liquid is kept in an open china dish. The evaporation of the liquid can be accelerated. a) By keeping the dish under a running fan b) By keeping the dish in the open c) All of these d) By blowing air into the liquid				[1]
27	Which cell organelle plays a crucial role in detoxifying many poison and drugs in a cell? a) Lysosomes b) Golgi apparatus c) Smooth endoplasmic reticulum d) Vacuoles				[1]
28	Ribosomes are the centre for : a) Proteins synthesis b) Photosynthesis c) Respiration d) Fat synthesis				[1]
29	Viruses do not show any characteristic of living until they enter a living cell, because of the absence of: a) mitochondria b) membrane c) proteins d) nucleic acid				[1]
30	The most abundant material on the plant cell wall is: a) lipids b) cellulose c) wax d) proteins				[1]
31	Most of the substances in the living world are transported across the cell membrane by the process of:				[1]

	a) diffusion b) osmosis c) plasmolysis d) endocytosis	
32	Organelle other than nucleus, containing DNA is a) Golgi apparatus b) Endoplasmic reticulum c) Mitochondria d) Lysosome	[1]
33	The site of detoxification in liver cells is: a) RER b) SER c) ribosome d) lysosome	[1]
34	Which of the following is a correct statement? 1. Distance is the magnitude of displacement in all cases. 2. When a body moves with uniform speed, then the average speed is same as instantaneous speed. 3. Average speed is greater than the average velocity if a body is moving in a straight line without reversing its direction. 4. When a body moves with constant velocity, the average velocity is zero. a) Statement (i) is correct. b) Statement (iii) is correct. c) Statement (ii) is correct. d) Statement (iv) is correct.	[1]
35	A body starting at a point, say A, reaches, say B, ahead in a straight line and returns back to A. Then there is: a) cannot be said b) negative displacement c) positive displacement d) zero displacement	[1]
36	A person sitting in the truck projected a ball vertically upwards. The ball: a) falls outside the truck b) falls in front of the truck c) falls back in his hand d) falls by the side of truck	[1]
37	Which of the following is the position - time graph for a body at rest?  a)  b)  c)  d)	[1]
38	When a body moves uniformly along the circle, then: - a) its speed changes but velocity remain the same b) both speed and velocity changes c) both speed and velocity remain the same. d) its velocity changes but speed remain the same	[1]
39	What does the slope of the velocity - time graph give? a) distance b) acceleration c) displacement d) force	[1]
40	The area under the velocity - time graph gives the value of: a) acceleration b) velocity c) mass d) distance travelled	[1]
Section C – Social Science		
41	The political instability of the Directory paved the way for the rise of which military dictator? a) Napoleon Bonaparte b) Louis XVI c) Robespierre d) Dr. Guillotine	[1]
42	Whom did Louis XVI get married? a) Marie Antoinette b) Olympe de Gouges c) Nanine Vallain d) Marie de Medicis	[1]
43	Passive citizens of France were: a) Only men above 25 years b) Men and women who didn't vote c) Only propertied men d) Only propertied women	[1]
44	Which group enjoyed certain privileges by birth? a) Nobility and Lawyers b) Clergy and Big businessmen c) Big businessmen and Lawyers d) Clergy and the nobility	[1]
45	Who proposed a form of government based on a social contract between people and their	[1]

	representatives? a) Abbe Sieyes b) John Locke c) Montesquieu d) Jean Jacques Rousseau	
46	Which one of the following is the Standard Meridian of India? a) 82 degree 30' West b) 82 degree 30' South c) 82 degree 30' East d) 82 degree 30' North	[1]
47	The landmass of India has an area of? a) 3.28 million sq km b) 9.59 million sq km c) 8.54 million sq km d) 7.68 million sq km	[1]
48	The Standard Meridian of India passes through which state? a) Himachal Pradesh b) Rajasthan c) Uttar Pradesh d) Maharashtra	[1]
49	Kavarati is situated in a) Lakshadweep b) Diu and Daman c) Pondicherry d) Andaman and Nicobar island	[1]
50	In which one of the following state Tropic of Cancer does not pass through? a) Tripura b) Orissa c) Rajasthan d) Chhattisgarh	[1]
51	What is Multiple Cropping? a) Growing rabi Crops b) Growing Kharif Crops c) Growing Different crop by different People d) Growing more than one Crop on a piece of same land during the year	[1]
52	Scope of farming activity is limited in Palampur due to a) The fixed amount of land b) Lack of labour c) Lack of irrigation d) Lack of money	[1]
53	Which of these states adopted modern methods of farming at the earliest? a) Punjab, Haryana and Uttar Pradesh b) Karnataka, Andhra Pradesh and Maharashtra c) Punjab, Rajasthan and Gujarat d) Uttar Pradesh, Bihar and West Bengal	[1]
54	What is done to surplus wheat in Palampur? a) Stocked by self b) Destroyed c) Sold in the market d) Given in charity	[1]
55	The concept of White Revolution is associated with a) Water b) Milk c) Vegetables d) Wheat	[1]
56	In which country free and fair elections are not held? a) Mexico b) China c) India d) Both China and Mexico	[1]
57	Which one of the following is a demerit of democracy? a) Free and fair election b) Democracy leads to delays in decision making c) Rule of law d) Equality	[1]
58	Which party always won elections in Mexico since its independence in 1930 until 2000? a) Institutional Revolutionary Party b) Mexican Revolutionary Party c) Institutional Party d) Revolutionary Party	[1]
59	Who led a military coup in Pakistan in 1999? a) Pervez Musharraf b) Ahmed khanc) Benazir Bhutto d) Nawaz Sharif	[1]
60	Which one of the following is not the argument against democracy? a) Democracy is all about political competition and power play. b) Democracy leads to corruption. c) Rule of law and respect for rights d) Democracy leads to instability	[1]



ATOMIC ENERGY CENTRAL SCHOOL - 5, MUMBAI
MCQ TEST, JULY 2025

CLASS: X

Time Allowed : 1 Hr.

Maximum Marks : 100

	Section A - Maths	
1	The product of two numbers is 1600 and their HCF is 5. The LCM of the numbers is a) 8000 b) 320 c) 1605 d) 1600	[1]
2	If the HCF of 360 and 64 is 8, then their LCM is: a) 2480 b) 2880 c) 512 d) 2780	[1]
3	HCF of $(3^4 \times 2^2 \times 7^3)$ and $(3^2 \times 5 \times 7)$ is: a) 567 b) 63 c) 729 d) 630	[1]
4	If two numbers do not have common factor (other than 1), then they are called a) co - prime numbers b) prime numbers c) twin primes d) composite numbers	[1]
5	If $1080 = 2^x \times 3^y \times 5$, then $(x - y)$ is equal to: a) 1 b) 0 c) 6 d) - 1	[1]
6	The HCF of two consecutive numbers is a) 1 b) 2 c) 3 d) 0	[1]
7	If α, β are the zeros of the polynomial $f(x) = x^2 + x + 1$, then $\frac{1}{\alpha} + \frac{1}{\beta} =$ a) 0 b) - 1 c) 1 d) 2	[1]
8	The polynomial $9x^2 + 6x + 4$ has a) no real zeroes b) one real zero c) many real zeroes d) two real zeroes	[1]
9	If the two zeroes of a quadratic polynomial are $\pm\sqrt{5}$, then the quadratic polynomial is: a) $x^2 + 5$ b) $4(x^2 - 5)$ c) $x^2 - \sqrt{5}$ d) $(x + \sqrt{5})^2$	[1]
10	A quadratic polynomial whose zeroes are - 8 and 3, is a) $x^2 + 5x + 24$ b) $x^2 + 5x - 24$ c) $(x - 8)(x - 3)$ d) $(x + 8)(x + 3)$	[1]
11	The sum and product of zeroes of the polynomial $p(x) = 3x^2 - 5x + 2$ are a) $1, \frac{2}{3}$ b) $\frac{-5}{3}, \frac{-2}{3}$ c) $\frac{-5}{3}, \frac{2}{3}$ d) $\frac{5}{3}, \frac{2}{3}$	[1]
12	If α and β are zeroes of the polynomial $2x^2 = 9x + 5$, then value of $\alpha^2 + \beta^2$ is a) $\frac{1}{4}$ b) $\frac{101}{4}$ c) 1 d) $\frac{71}{4}$	[1]
13	If one zero of the polynomial $x^2 - 3kx + 4k$ be twice the other, then the value of k is: a) - 2 b) $-\frac{1}{2}$ c) $\frac{1}{2}$ d) 2	[1]
14	If one zero of the polynomial $(3x^2 + 8x + k)$ is the reciprocal of the other, then value of k is a) $-\frac{1}{3}$ b) 3 c) - 3 d) $\frac{1}{3}$	[1]
15	The value of p if $(-2, p)$ lies on the line represented by the equation $2x - 3y + 7 = 0$, is a) $\frac{13}{2}$ b) - 1 c) $-\frac{13}{2}$ d) 1	[1]
16	The graphs of the equations $6x - 2y + 9 = 0$ and $3x - y + 12 = 0$ are two lines which are a) coincident b) parallel c) perpendicular to each other d) intersecting exactly at one point	[1]
17	If a pair of linear equation is consistent, then the lines will be a) parallel b) intersecting or coincident c) always coincident d) always intersecting	[1]
18	For what value of k, do the equations $kx - 2y = 3$ and $3x + y = 5$ represent two lines intersecting at a unique point? a) $k = 6$ b) all real values except - 6 c) $k = - 3$ d) $k = 3$	[1]
19	The value of k for which the system of equations $3x - y + 8 = 0$ and $6x - ky + 16 = 0$ has infinitely many solutions, is a) $-\frac{1}{2}$ b) $\frac{1}{2}$ c) 2 d) - 2	[1]

20	The pair of equations $x = 5$ and $y = 5$ has a) unique solution b) only solution (0, 0) c) no solution d) many solutions	[1]
Section B - Science		
21	Which one of the following molecules is produced initially when glucose breaks down in the cytoplasm of a cell in aerobic as well as anaerobic respiration? a) Ethanol b) Carbon dioxide c) Pyruvate d) Lactic acid	[1]
22	Pick out a decomposition reaction: a) $C_2H_4 + H_2 \rightarrow C_2H_6$ b) $Cu + AgNO_3 \rightarrow Cu(NO_3)_2 + 2Ag$ c) $NH_4Cl \rightarrow NH_3 + HCl$ d) $Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$	[1]
23	$CaO + H_2O \rightarrow Ca(OH)_2$. The type of reaction is: a) Displacement reaction b) Precipitation reaction c) Combination reaction d) Decomposition reaction	[1]
24	Which of the following gases can be used for storage of fresh sample of an oil for a long time? a) Helium or nitrogen b) Nitrogen or oxygen c) Carbon dioxide or oxygen d) Carbon dioxide or helium	[1]
25	Silver articles on exposure become black. It is an example of a) Displacement reaction b) Reduction reaction c) Redox reaction d) Oxidation reaction	[1]
26	$MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$ The reaction given above is a redox reaction because in this case: a) MnO_2 is reduced. b) MnO_2 is reduced and HCl is oxidised. c) HCl is oxidised. d) MnO_2 is oxidised and HCl is reduced.	[1]
27	On the basis of evolution or absorption of heat, chemical reactions can be divided in how many types ? a) One b) Three c) Four d) Two	[1]
28	A well - stained leaf peel preparation when focused under the high power of the microscope would show 5. epidermal cells, stomata, guard cells each with one nucleus and many chloroplasts 6. epidermal cells, stomata, guard cells with many nuclei and one chloroplast each 7. stomata and guard cells without nuclei or chloroplast 8. stomata but no guard cells or epidermal cells a) (C) b) (B) c) (A) d) (D)	[1]
29	As compared to daytime, the amount of carbon dioxide released by the plants during night is more because: a) Plants do not respire during daytime. b) It is not produced during daytime. c) It is stored in the leaves of plants during daytime. d) Major amount of carbon dioxide produced is used up for photosynthesis during daytime.	[1]
30	Choose the forms in which most plants absorb nitrogen i. Proteins ii. Nitrates and Nitrites iii. Urea iv. Atmospheric nitrogen a) (i) and (ii) b) (i) and (iv) c) (iii) and (iv) d) (ii) and (iii)	[1]
31	The kidneys in human beings are a part of the system for a) respiration b) nutrition c) excretion d) transportation	[1]
32	While preparing a temporary stained mount of a leaf epidermal peel, the extra stain is removed by a) washing with water b) washing with calcium chloride solution c) soaking with filter paper d) absorbing with cotton wool	[1]
33	In which of the following vertebrate group/groups, the heart does not pump oxygenated blood to different parts of the body? a) Pisces only b) Pisces and amphibians c) Amphibians and reptiles d) Amphibians only	[1]

	b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	
48	Suppose in country A, 2 million children were born in 2017 and 80,000 died before the age of one? Then, What is the infant mortality rate of country A? a) 40 b) 80 c) 30 d) 60	[1]
49	Economic development helps to increase: a) Poverty b) Rural income c) Per capita income d) Equality	[1]
50	There are 4 families in a country with per capita income ₹ 40,000. Family A earns ₹ 35,000, family B earns ₹ 50,000, Family C earns ₹ 29,000. What is the income family D? a) ₹ 44,000 b) ₹ 48,000 c) ₹ 45,000 d) ₹ 46,000	[1]
51	Assertion (A): Different persons can have different developmental goals. Reason (R): The son of the family expects to get a new mobile phone if he secures good marks in the exam while his sister wants to let her education continue further. a) Both A and R are true and R is the correct explanation of A. b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.	[1]
52	Read the following statements about Human Development and choose the correct option: 9. It is the composite Index prepared by United Nations Development Programme (UNDP). 10. Parameters to measure it are Longevity, Literacy and Per Capita Income. 11. Countries are ranked according to Developed and Low Developing countries. 12. World Bank also prepares report of Human Development on the basis of 13. Quality of Life. a) I and III b) I and II c) II and III d) II and IV	[1]
53	Read the following events relating to the year 1848 and tick the incorrect event. a) National workshops to provide employment were set up b) Barricades were erected and Louis Philippe was forced to flee c) Food shortages and widespread unemployment brought the population of Paris out on the roads d) National Assembly proclaimed a Constitutional Monarchy, granted suffrage to all adult males above 18 and guaranteed the right to work	[1]
54	Name the state which led the process of Italian unification? a) Vienna b) Sardinia Piedmont c) Prussia d) Rome	[1]
55	Which of the quotes is said by Metternich? a) Little by little, the old world crumbled, and not once did the king imagine that some of the pieces might fall on him b) A nation is the culmination of a long past of endeavours, sacrifice and devotion. c) When France sneezes the rest of Europe catches a cold d) Liberty, equality, fraternity, or death; - the last, much the easiest to bestow, O Guillotine	[1]
56	What territories did the Habsburg Empire rule over? a) Hungary b) Romania c) Austria d) Both Austria and Hungary	[1]
57	The German philosopher Johann Gottfried belonged to which one of the following schools of thought? a) Socialist b) Liberalist c) Marxist d) Romanticist	[1]
58	Where was the Earth Summit held in 1992? a) Rio de Janeiro b) New York c) Delhi d) France	[1]
59	Which one of the following soils develops in an area with high temperature and heavy rainfall? a) Alluvial b) Laterite c) Red and Yellow d) Black	[1]
60	Which one of the following is the main cause of land degradation in Punjab? a) Over irrigation b) Deforestation c) Intensive Cultivation d) Overgrazing	[1]