

CLASS: X

ATOMIC ENERGY CENTRAL SCHOOL - 5, MUMBAI MCQ TEST, JUNE 2024

Maximum Marks: 100

Time Allowed : 2 Hrs.

	Section A - English	<u> </u>
1	"For months they had harely kent themselves alive "This means that	[1]
T	They had no desire to live how the they were weak willed	[1]
	a. They had no desire to live b. They were weak wheel They had great difficulties during the war d. They were lazy	
2	The boys had kept alive by :	[1]
2	a Eating a lot	[1]
	a. Lating a lot b. Degging for work and anns	
2	The above reflects on the qualities of boys like:	[1]
5	Diligence b Perseverance	[T]
	c Compassion d Determination	
1	"They had always known a comfortable and cultured life" Identify 'they'	[1]
Ŧ	They had always known a connortable and cultured me. Identify they.	[T]
	a. The harrator and his menu b. Micoro and jacopo	
5	C. Some tourists u. The guide at junct's tonib	[1]
5	by connortable me means:	[T]
	a. Internet money b. Lot of Salary	
6	What kind of reaction did the animals display to the frag's songs?	[1]
0	They beted it	[T]
	a. They index it D. They addred it	
7	Why were the creatures of the Bog dumbstruck?	[1]
/	The freq cang yery well by The nightingale cang melodiously	[1]
	a. The moon shope brightly d All the animals came to the same place	
0	What did the free claim to be?	[1]
0	Λ nublisher h Λ king of the hog	[T]
	a. A publisher b. A king of the bog	
0	U. The owner of the sumactive	[1]
2	Λ famous artist Λ famous singer and musician	[T]
	a. Writer of 'Bog Trumpet' d Owner of the tree	
10	'you must aim for better billings' the poetic device used here is:	[1]
10	a Alliteration h Simile	[1]
	c Metanhor d Onomatopoeia	
11	What caused the death of the nightingale ?	[1]
11	a She was unhanny her throat got choked	[1]
	c A vein hurst hy too much exhaustion d She had a high fever	
12	man that we saw turned out to be thief	[1]
14	A h The c That d This	[+]
13	There isn't cash left with us	[1]
15	a Some b so c More d much	[1]
Sect	a Some b So c More a much	<u> </u>
14		[1]
1 T	$1 \square $	[1]
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	$\overline{\mathbf{u}}$ \square \square \square \square (iii)	
15	ाततात ता पद ततात हम ततात, तता ततातात तताता -	[1]
	क) हम ०००० ०००, ००००० और ०००० ००००	
	ख) ०००० ००००० ०००० ०००० ००००, हम ०० ००००	
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	घ)	
16	<u> </u>	[1]
	\Box \Box ?	
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17		[1]
	क) ०००० ख) ०००००० ग) ०००००० घ)	
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24		[1]
	क) ००००० ०० ०००० ख) ००००० ०० ०००	
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25	<u> </u>	[1]
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	ख) ववववव वव ववववव ववव वववव ववव ववव वव वववव	
	ग) वह ००००० ०० ०००००० नए ००००० ००००० ००	
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Sect	ion C – Mathematics	
26	is neither prime nor composite.	[1]
	a) 4 b) 1 c) 2 d) 3	
27	The sum of the exponents of the prime factors in the prime factorisation of 196, is	[1]
	a) 5 b) 3 c) 4 d) 2	
28	If a is rational and \sqrt{b} is irrational, then $a + \sqrt{b}$ is:	[1]
	a) an irrational number b) an integer	
	c) a natural number d) a rational number	
29	The number (5 - $3\sqrt{5} + \sqrt{5}$) is:	[1]
	a) an integer b) an irrational number	
	c) a whole number d) a rational number	
30	The LCM and HCF of two rational numbers are equal, then the numbers must be	[1]
	a) equal b) prime c) co - prime d) composite	
31	According to the Fundamental Theorem of Arithmetic, if p (a prime number) divides	[1]
	b ² and b is positive, then	
	a) p divides b b) b divides p c) p ² divides b d) b ² divides p	
32	(HCF× LCM) for the numbers 70 and 40 is:	[1]
	a) 280 b) 2800 c) 10 d) 70	
33	If 3 is the least prime factor of number 'a' and 7 is the least prime factor of number 'b',	[1]
	then the least prime factor of $a + b$, is	
24	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	[4]
34	If $n = 2^3 \times 3^4 \times 5^4 \times 7$, then the number of consecutive zeros in n, where n is a	
	natural number, is a^2 a^3 a^3 a^3 a^3 a^4 a^4	
25	a_{J}^{2} b_{J}^{3} c_{J}^{2} u_{J}^{4}	[1]
33	$\frac{1}{2} = \frac{1}{2} = \frac{1}$	
26	A guadratic polynomial the sum and product of whose zeroes are 2 and 2	[1]
30	A quadratic polynomial the sum and product of whose zeroes are - 5 and 2	[1]
	1 = 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3	
37	If α β are the zeros of $kx^2 - 2x + 3k$ such that $\alpha + \beta - \alpha\beta$ then $k - 2$	[1]
57	h^{-1} h^{-1} h^{-1} h^{-1} h^{-1} h^{-1}	[¹]
	$a_{J}\frac{a_{J}}{3}$ $b_{J}\frac{a_{J}}{3}$ $c_{J}\frac{a_{J}}{3}$ $a_{J}\frac{a_{J}}{2}$	-
38	If one root of the polynomial $p(y) = 5y^2 + 13y + m$ is reciprocal of other, then the	[1]
	a) 6 b) $\frac{1}{5}$ c) 5 d) 0	

	Which of the following is a polynomial?	
	i. $x^2 - 5x + 4\sqrt{x} + 3$	
	ii. $x^{3/2} - x + x^{1/2} + 1$	
	iii. $\sqrt{x} + \frac{1}{x}$	
	\sqrt{x}	
20	1V. $\sqrt{2x^2} - 3\sqrt{3x} + \sqrt{6}$ a) Option (iv) b) Option (ii) c) Option (i) d) Option (iii)	[1]
39	$\frac{d}{dt} = \frac{d}{dt} $	[1]
40	(a + p) is: a) 0 b) 1 c) - 1 d) 2	[1]
<u>4</u> 1	If n give the zeroes of the polynomial $f(x) = x^2 + k(x - 1) = c$ then $(n - 1)(g - 1)$ is	[1]
TI	r_{μ} p, q are the zeroes of the polynomial r_{μ} r_{μ	[T]
	a) c b) c - 1 c) $1 - c$ d) $1 + c$	
42	A quadratic polynomial whose sum and product of zeroes are 2 and - 1 respectively	[1]
	is:	
	a) $x^2 + 2x + 1$ b) $x^2 - 2x - 1$ c) $x^2 + 2x - 1$ d) $x^2 - 2x + 1$	
43	The zeroes of the quadratic polynomial $x^2 + kx + k$, $k \neq 0$,	[1]
	a) cannotbe both negative b) cannot be both positive	
	c) are always equal d) are always unequal	
44	What should be added to the polynomial $x^2 - 5x + 4$, so that 3 is the zero of the	[1]
	resulting polynomial?	
45	a) 4 b) 2 c) 5 d) 1 -2^{-2} 2	[4]
45	Which of the following is a quadratic polynomial having zeroes $\frac{-2}{3}$ and $\frac{2}{3}$	[1]
	a) $4x^2 - 9$ b) $\frac{4}{9}(9x^2 + 4)$ c) $5(9x^2 - 4)$ d) $x^2 + \frac{9}{4}$	
46	If α , β are the zeros of the polynomial $f(x) = x^2 + x + 1$, then $\frac{1}{2} + \frac{1}{2} = \frac{1}{2}$	[1]
	$\alpha \beta$	
47	If one zero of the polynomial $6x^2 + 37x - (k - 2)$ is reciprocal of the other, then what	[1]
	is the value of k?	[-]
	a) 6 b) - 4 c) - 6 d) 4	
48	If the zeroes of the quadratic polynomial $x^2 + (a + 1) x + b$ are 2 and -3, then	[1]
	a) $a = 0, b = -6$ b) $a = 5, b = -1$ c) $a = -7, b = -1$ d) $a = 2, b = -6$	
49	The graph of y = p(x) is shown in the figure for some polynomial p(x). The number of	[1]
	zeroes of p(x) is/are:	
	$\mathbf{y} = \mathbf{p}(\mathbf{x})$	
	$x' \longleftrightarrow x$	
	v t*	
	a) 2 b) 3 c) 0 d) 1	
50	The zeroes of the polynomial $p(x) = x^2 + 4x + 3$ are given by:	[1]
	a) - 1, 3 b) 1, - 3 c) 1, 3 d) - 1, - 3	
Secti	on D – Science	
51	Which of the reaction is used in black and white photography?	[1]
	a) Combination reaction b) Decomposition reaction	
F 0	Choose a displacement reaction d) Uxidation reaction	[4]
52	a) Burning of metals	[1]
	b) Addition of more active metal to a solution of a less active metal compound	
	c) Extraction of metals d) Electrolysis	

53	In the double displacement reaction between aqueous potassium iodide and aqueous lead	[1]
	nitrate, a yellow precipitate of lead iodide is formed. While performing the activity if lead	
	nitrate is not available, which of the following can be used in place of lead nitrate?	
	a) Ammonium nitrate b) Potassium sulphate	
	c) Lead acetate d) Lead sulphate (insoluble)	
54	The pale green colour of the solution after half an hour when iron nails are dipped in	[1]
	copper sulphate solution is due to the formation of	
	a) FeS b) FeS_2 c) $FeSO_3$ d) $FeSO_4$	
55	The reaction between calcium oxide and water is:	[1]
	a) Displacement reaction b) Decomposition reaction	
	c) Combination reaction d) Double - decomposition reaction	
56	A small amount of a light green coloured compound X is heated in a test tube. In the	[1]
	beginning, it loses some water and then gas(es) Z with a suffocating smell come(s) out.	
	The vapours of gas(es) are collected and dissolved in water. The solution turns blue litmus	
	red. The residue Y left in the test tube turns reddish brown. X, Y and Z could be	
	respectively	
	a) $PbSO_4$, Pb_2O_3 and SO_3	
	b) $FeSO_4 \cdot 7H_2 O$, $Fe_2 O_3$ and SO_2 , SO_3	
	c) Pb(NO ₃) $_2$, PbO $_2$ and NO $_2$, N $_2$ O $_4$	
	d) Na ₂ SO $_4 \cdot 10H_2$ O, Na $_2$ SO $_4$ and SO $_2$	
57	Keeping food in air - tight containers helps to slow down:	[1]
	a) Decomposition reaction b) Reduction	
=0	c) Redox reaction d) Oxidation	543
58	Which of the following is an exothermic reaction?	[1]
	a) Reactants × heat \rightarrow Products b) Reactants - heat \rightarrow Products	
50	c) Reactants \rightarrow Products - heat d) Reactants \rightarrow Products + heat	[4]
59	The reaction between barium chloride and sodium sulphate is called Double	[1]
	Decomposition reaction because:	
	a) the reactants interchange their ions to form two new compounds	
60	b) All of these c) a precipitate is formed d) two new compounds are formed when indices and the a particular vagatable that had been crushed into a pasta blue.	[1]
00	black colour was obtained. This indicates the presence of	[1]
	a) protein b) glucose c) starch d) sugar	
61	During deficiency of oxygen in tissues of human beings, pyruvic acid is converted into	[1]
01	lactic acid in the	[1]
	a) Golgi body b) Mitochondria c) Chloroplast d) Cytoplasm	
62	Opening and closing of stomata is due to	[1]
02	a) Movement of water in and out of the guard cells	[¹]
	b) Stimulus of light in the guard cells	
	c) Diffusion of CO_{2} in and out of the guard cells.	
	d) High pressure of gases inside the cells.	
63	Cramps are caused by heavy exercise resulting in the accumulation of	[1]
00	a) Heat b) Ethanol c) Carbon dioxide d) Lactic acid	[_]
64	Each nephron has a cup shaped upper end called . which contains a .	[1]
• •	a) Bowman's capsule, Glomerulus	[-]
	b) Bowman's capsule. Ampulla	
	c) Capillaries. Bowman's capsule	
	d) Ampulla, Glomerulus	
65	Which component of blood transports, carbon dioxide, and nitrogenous wastes in dissolved	[1]
	form?	
	a) RBC b) Plasma c) Platelets d) WBC	

	The internal (cellular) energy reserve in autotrophs is	
66	a) Glycogen b) Starch c) Protein d) Fatty acid	[1]
67	In the experiment to show that carbon dioxide is released during respiration the small test tube of KOH solution is suspended inside the conical flask to absorb the:	[1]
	a) Oxygen of the flask.b) Moisture of the flask.c) Air of the flask.d) Carbon dioxide of the flask released by the seeds.	
68	If R is the radius of curvature of a spherical mirror and f is its focal length then:	[1]
	a) $R = f$ b) $R = \frac{f}{2}$ c) $R = 3f$ d) $R = 2f$	
69	In torches, search lights and head lights of vehicles, the bulb is placed :	[1]
	a) At the centre of curvature b) Very near to the focus	
	c) Between the pole and the focus d) Between the focus and the centre of curvature	
70	The refractive index of water with respect to air is $\frac{4}{3}$. The refractive index of air with	[1]
	respect to water will be:	
	a) 0.50 b) 0.75 c) 0.25 d) 1.75	
71	The angle of incidence for a ray of light passing through the centre of curvature of a	[1]
	concave mirror is:	
72	a) 45 degree b) 90 degree c) 180 degree d) 0 degree	[1]
12	light incident obliquely at same angle would bend the most?	
	a) Glycerine b) Kerosene c) Water d) Mustard oil	
73	As the incident angle is increased for a given pair of the medium, the refraction angle will	[1]
	a) decrease b) remains same c) zero d) increase	
74	Four optical media W, X, Y and Z have optical densities 1.35, 1.21, 1.58 and 1.002	[1]
	respectively. In which optical medium will the light travel fastest?	
	a) W b) Y c) Z d) X	543
/5	with an increase in the thickness glass slab the lateral displacement:	[1]
Secti	a) remains same b) increases c) decreases d) zero	
76	In which part of SriLanka are the SriLankan Tamils concentrated?	
	a) North and East b) South and East c) South and West d) North and West	
77	Name the headquarters of the European Union.	
	a) Brussels b) Amsterdam c) London d) Germany	
78	Which two languages among the following are prominently spoken by Belgium	
	Nationals?	
	a) Russian and French b) French and English	
79	Under which of the following is nower shared in the Community Covernment of	
15	Relgium?	
	a) Different social groups b) State government and Community government	
	c) Central and State government d) Different organs of government	
80	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) 30 b) 60 c) 80 d) 40	
81	Which one of the following organizations prepares the World Development Report ?	
	a) World Bank b) International Monetary Fund	
02	CJ WORIG HEALTH OF CALL AND A CONTRACT AND A CONTRA	
02	a) Harvana b) $I\&K$ c) Kerala d) Bihar	
83	Which of the following revolutions is called as the first expression of Nationalism?	+
	a) French Revolution b) Glorious Revolution	

	c) The Revolution of the liberals d) Russian Revolution	
84	In revolutionary France, who were granted exclusive rights to vote?	
	a) All men b) Property- owning men	
	c) All women d) Property - owning women.	
85	In history, which term refers to a form of monarchical government that was	
	centralised,	
	militarised, and repressive.	
	a) Despotic b) Communalist c) Democratic d) Absolutist	
86	A large part of the Balkans was under the control of which Empire?	
0.7	a) Ottoman b) Russian c) Dutch d) Portuguese	
87	What territories did the Habsburg Empire rule over?	
00	a) Hungary b) Austria c) Both Austria and Hungary d) Romania	
88	Why was the Treaty of Vienna drawn up in 1815?	
	a) To abolish tariff barriers d) To units the Cormon Confederation of 22 states	
00	Who among the following was proplaimed as the first Corman Emporer in 19712	[1]
07	a) Friedrich Wilhelm IV b) William II c) William I d) Friedrich Wilhelm I	
90	In 1848 Frédéric Sorrigu à French artist prenared à sorias of four prints visualising	[1]
90	his dream	[1]
	of a world made up of	
	a) democratic and social republics b) absolutist and democratic	
	c) communal and social republics d) majority and minority	
91	In which state mining has caused severe land degradation?	[1]
	a) Harvana b) Punjab c) Bihar d) Iharkhand	L-J
92	What are gullies?	[1]
	a) Deep channels created by seawater b) Deep channels created by running water	
	c) Deep channels created by wind d) Deep channels created by drainage water	
93	Which one of the following soils develops in an area with high temperature and heavy	[1]
	rainfall?	
	a) Laterite b) Alluvial c) Red and Yellow d) Black	
94	Name the soil that has a higher concentration of Kanker nodules.	[1]
0.7	a) Khader b) Black soil c) Bangar d) Yellow	543
95	In which of the following states black soil is predominantly found?	[1]
0.6	a) Jammu and Kashmir b) Jharkhand c) Maharashtra d) Rajasthan	543
96	What option do we have if non - renewable resources get exhausted?	[1]
	a) Shut down the use of energy b) More invention of resources	
07	A Capitalist oconomy is also known as:	[1]
57	a) Free market economy b) Socialist economy	
	c) Mixed economy d) Communist economy	
98	Which of the following countries has the highest Life Expectancy at the hirth?	[1]
	a) Pakistan b) Nepal c) India d) Bangladesh	L * J
99	Economic development helps to increase:	[1]
	a) Poverty b) Rural income c) Equality d) Per capita income	[[]
100	Which one of the following options prove that India is a quasi - federal state?	[1]
	1. More powers with Centre	
	2. Residuary subjects with Centre	
	3. Equal subjects with Centre and States	
	4. Currency and Railways with Centre	
	a) i ji and iv b) i jij and iv c) i ji and iji d) ii jij and iv	