

Atomic Energy Central School No.4 Rawatbhata
Multiple Choice Questions Test (APRIL -MAY 2019-20)

Class X

Subject - Mathematics ,Science ,Social Science

Time 90: min

- 1 For some positive integer a, every even positive integer is of the form:
A) $a+1$ B) $a-1$ C) $2a$ D) $2a+1$
- 2 The exponent of 2 in the prime factorization of 144 is:
A) 4 B) 5 C) 6 D) 3
- 3 If the LCM of a and 18 is 36 and the HCF of a and 18 is 2, then a=
A) 2 B) 3 C) 4 D) 1
- 4 The decimal expansion of the rational number $\frac{33}{20}$ will terminate after:
A) 3 places of decimal B) 2 places of decimal C) 4 places of decimal D) 1 places of decimal
- 5 LCM of smallest prime number and smallest composite number is:
A) 1 B) 8 C) 4 D) 2
- 6 If p and q are co-prime numbers ,then p^2 and q^2 are:
A) co-prime B) Not co-prime C) even D) odd
- 7 If 3 is least prime factor of number a and 7 is the least prime factor of number b, then the least prime factor of a+b, is:
A) 2 B) 3 C) 5 D) 10
- 8 The smallest number by which $\sqrt{27}$ should be multiplied so as to get a rational number is:
A) $\sqrt{27}$ B) $3\sqrt{3}$ C) $\sqrt{3}$ D) 3
- 9 If n is a natural number, then $9^{2n} - 4^{2n}$ is always divisible by
A) 5 B) 13 C) Both 5 and 13 D) 3
- 10 If n is any natural number, then $6^n - 5^n$ always ends with
A) 3 B) 5 C) 7 D) 1
- 11 The HCF of smallest prime number and smallest composite number is:
A) 4 B) 7 C) 6 D) 2
- 12 $N^2 - 1$ is divisible by 8, if N is :
A) An integer B) A natural number C) An odd number D) An even number
- 13 The largest number which divides 70 and 125, leaving remainder 5 and 8 respectively, is:
A) 13 B) 65 C) 875 D) 1750
- 14 If the HCF of 65 and 117 is expressible in the form $65m - 117$, then the value of m is :
A) 4 B) 2 C) 1 D) 3
- 15 The remainder when the square of any prime number greater than 3 is divided by 6, is:
A) 1 B) 3 C) 2 D) 4
- 16 $119^2 - 111^2$ is:
A) Prime number B) An odd prime number C) Composite number D) An odd composite number

- 17 If α, β are the Zeros of the polynomial $x^2 + x + 1$, then $\frac{1}{\alpha} + \frac{1}{\beta} =$
 A) 1 B) -1 C) 0 D) 2
- 18 If one Zeros of the polynomial $(k^2 + 4)x^2 + 13x + 4k$ is reciprocal of the other, then $k =$
 A) 2 B) -2 C) 1 D) -1
- 19 If the sum of Zeros of polynomial $2x^3 - 3kx^2 + 4x - 5$ is 6, then the value of k is
 A) 5 B) 4 C) -5 D) -4
- 20 If α and β are Zeroes of the polynomial $x^2 - 5x + 6$, value of $\alpha + \beta - 3\alpha\beta$ is:
 A) -13 B) 13 C) 6 D) -5
- 21 The sum and the product of the Zeroes of a quadratic polynomial are $\frac{-1}{2}$ and $\frac{1}{2}$ respectively. Then polynomial is:
 A) $2x^2 - x + 1$ B) $2x^2 + x + 1$ C) $2x^2 - x - 1$ D) $2x^2 + x - 1$
- 22 If $p(x) = x^2 + 5x + 2$, then $p(3) + p(2) + p(0)$ is:
 A) 40 B) 44 C) 8 D) 42
- 23 If graph of $y = ax^2 + bx + c$ is a downward parabola, then a is:
 A) $a < 0$ B) $a > 0$ C) $a \leq 0$ D) $a \geq 0$
- 24 $2 + \sqrt{3}$ is one zero of $x^2 + px + q$, then p and q are:
 A) 4, -1 B) 4, 1 C) -4, 1 D) -4, -1
- 25 If the two zeroes of the polynomial $x^3 + 2x^2 - 5x - 10$ are $\sqrt{5}$ and $-\sqrt{5}$, then its third zero is:
 A) 2 B) -2 C) 3 D) -10
- 26 If α and β are zeroes of the quadratic polynomial $x^2 - 2x + 3$, then the value of $\alpha^2 + \beta^2$ is:
 A) -4 B) -3 C) -2 D) -1
- 27 If one of the zeroes of the cubic polynomial $x^3 + ax^2 + bx + c$ is -1, then the product of other two zeros is
 A) $b - a - 1$ B) $a - b + 1$ C) $a - b - 1$ D) $b - a + 1$
- 28 What should be subtracted to the polynomial $x^2 - 16x + 30$, so that 15 is the zero of the resulting polynomial?
 A) 30 B) 14 C) 15 D) 16
- 29 A quadratic polynomial, the sum of whose zeroes is 0 and one zero is 3, is
 A) $X^2 - 9$ B) $X^2 + 9$ C) $X^2 + 3$ D) $X^2 - 3$
- 30 The smallest number which is exactly divisible by 12, 15, 20 and 27 is:
 A) 520 B) 540 C) 560 D) 580
- 31 The number 525 and 3000 are both divisible only by 3, 5, 15, 25 and 75 What is HCF of 525 and 3000?
 A) 25 B) 65 C) 75 D) 85
- 32 The degree of zero polynomial is:
 A) 0 B) 1 C) -1 D) Not define
- 33 What must be added to the polynomial $2x^3 + 2x^2 - 5x - 6$, so, that it may be exactly divisible by $x^2 + 3x + 3$.
 A) $2x - 3$ B) $2x + 3$ C) $3x - 2$ D) $3x + 2$
- 34 The zeroes of the quadratic polynomial $x^2 + kx + k, k \neq 0$,

- 35 The law governing the force between electric charges is known as
 A) Are always equal B) Both always unequal C) Cannot both be positive D) Cannot both be negative
- 36 Number of electrons in 1C of charge will be-
 A) 5.46×10^{29} B) 6.25×10^{18} C) 1.6×10^{-19} D) 9×10^{11}
- 37 The resistivity of a wire depends on its-
 A) length B) Area of cross-section C) shape D) Material.
- 38 A device which converts chemical energy into electrical energy is known as
 A) Battery B) Ammeter C) Galvanometer D) Rheostat
- 39 The commercial unit of electric energy is-
 A) Kilowatt B) Killowatt-hour C) Horse power D) Watt
- 40 The work done in moving a charge of 2C across two points having a p.d of 12V is-
 A) 24J B) 12J C) 240J D) 120J
- 41 A current of 0.5A is drawn by filament of an electric bulb for 10 minutes. The amount of electric will be-
 A) 100C B) 200C C) 300C D) 400C
- 42 100J of heat is produced each second in a 4Ω resistance. P.d across the resistor is -
 A) 10V B) 15V C) 25V D) 20V
- 43 An electric bulb is connected to a 220V generator. The current is 0.50A. The power of bulb will be-
 A) 110W B) 120W C) 130W D) 140W
- 44 The power rating of an electric appliance is given by:
 A) I^2V B) VI C) $V^2 R$ D) $I^2 R$
- 45 The term Joule/Coulomb is the same as:
 A) Watt B) Volt C) Ampere D) Ohm.
- 46 Which of the following is termed as rancidity?
 A) Reduction of oxygen present in food B) oxidation of oil & fats present in food C) Oxidation of sugar present in food D) increase in acidity in stomach
- 47 What happens when copper metal is dipped in the solution of zinc sulphate ?
 A) copper sulphate is formed B) oxygen gas is formed C) zinc metal is separated D) No reaction takes place
- 48 Which of the following processes involve chemical reaction?
 A) storing of oxygen gas under pressure in a gas cylinder B) Liquefaction of air
 C) keeping petrol in a china dish in the open D) Heating copper wire in presence of air at high temperature
- 49 A chemical equation is said to be balanced if number of
 A) compounds are same on both side
 B) number of molecules of an element is same in both side of equation
 C) number of atoms of each element is the same on both sides of equation
 D) number of electrons are same on both side
- 50 Rahul adds a solution of barium chloride to a solution of sodium sulphate . He would observe that.
 A) A pungent smelling gas is evolved B) the colour of the solution turns red
 C) a yellow ppt. is formed D) a white ppt. is formed
- 51 Chemically rust is

- A) hydrated ferrous oxide B) Hydrated ferric oxide C) only ferric oxide D) none of these
- 52 When ferrous sulphate crystals are heated in a test tube we observe
 A) a colourless and odourless gas is evolved
 B) A brown gas is evolved
 C) Green colour of the salt fades and no gas is evolved
 D) Green colour of the salt fades and a gas with the smell of burning sulphur is evolved
- 53 The reaction between quick lime & water is an exothermic reaction which is also known as a
 A) Combination reaction B) decomposition reaction C) displacement reaction D) Precipitation reaction
- 54 To show that iron is more reactive than copper, the correct procedure is
 A) prepare ferrous sulphate solution & dip copper strip in it
 B) prepare copper sulphate solution & dip iron strip in it
 C) add dil. Nitric acid on both strips of iron and copper.
 D) heat iron & copper strips separately.
- 55 How rancidity can be prevented?
 A) by adding more oxygen to food B) by keeping food items in open C) by adding antioxidants in food D) All of the above
- 56 In the reaction. $MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$
 A) MnO_2 is oxidized to $MnCl_2$ B) MnO_2 is reduced to $MnCl_2$ C) MnO_2 is reduced to Cl_2 D) HCl is reduced to Cl_2
- 57 In which of the following groups of organisms food material is broken down outside the body and absorbed
 A) Mushroom, green plants, amoeba B) Yeast, mushroom, bread mould C) Paramecium, amoeba, cuscuta D) Cuscuta, lice, tapeworm
- 58 The filtration units of kidneys are called
 A) ureter B) urethra C) neurons D) Nephrons
- 59 Oxygen liberated during photosynthesis comes from
 A) Water B) chlorophyll C) Carbon dioxide D) glucose
- 60 Name the largest artery in our body
 A) aorta B) Pulmonary artery C) Superior vena cava D) pulmonary vein
- 61 Which of the following organism have parasitic mode of nutrition?
 A) penicillium B) plasmodium C) paramecium D) parrot
- 62 Main site of photosynthesis is
 A) Leaf B) stem C) chloroplast D) flower
- 63 Pancreatic juice contains enzymes digest
 A) proteins and carbohydrates only B) Proteins & fats only C) Fats & carbohydrates only D) Proteins, fats & carbohydrates
- 64 When carrying out the starch test on a leaf, why is it important to boil the leaf in alcohol
 A) To dissolve the waxy cuticle B) To make the cells more permeable to iodine solution C) To remove the chlorophyll D) To stop chemical reaction in the cells
- 65 The teacher instructed a student to place a healthy potted flower plant in a dark room for 72 hours prior to an experiment on photosynthesis. The purpose of placing it in a dark room is
 A) To de-starch the leaves B) to degenerate the enzymes in the leaves C) To increase the intake of CO_2 D) To activate the chloroplast in the leaves
- 66 Which is the correct sequence of air passage during inhalation?
 A) Nostrils \rightarrow larynx \rightarrow pharynx \rightarrow trachea \rightarrow lungs B) nasal passage \rightarrow trachea \rightarrow pharynx C) larynx \rightarrow Nostrils \rightarrow pharynx \rightarrow lungs D) Nostrils \rightarrow pharynx \rightarrow larynx \rightarrow trachea \rightarrow alveoli

→ larynx -→alveoli

- 67 The examples of organisms that tolerate some mixing of oxygenated and deoxygenated blood streams are
A) fishes and mammals B) birds and many reptiles C) amphibians and many reptiles D) fishes and birds
- 68 WHICH TYPE OF RESOURCE IS THE ROCK ?
A) Biotic B) Abiotic C) Individual D) All of these.
- 69 Which of the following is a non-recyclable resource?
A) Fossil fuel B) Wind energy C) Animal D) Humans
- 70 Which of the following resources belong to the nation?
A) National resources B) Developed resources C) Biotic resources D) Abiotic resources
- 71 Which of the following are the subset of stock ?
A) Stock B) Potential resources C) Reserve D) National resources
- 72 Which of the following is the most widespread soil in India ?
A) Alluvial B) Black C) Laterite D) Red and Yellow
- 73 What is old alluvial soil called?
A) Khadar B) Bangar C) Black D) Forest soil
- 74 Which of the following soils is also called Regur Soil ?
A) Alluvial B) Black C) Red D) Laterite
- 75 Which of the following soils is developed due to intense leaching ?
A) Alluvial Soil B) Black Soil C) Red Soil D) Laterite Soil
- 76 Which of the following soils is generally sandy in texture and saline in nature ?
A) Arid Soil B) Black Soil C) Laterite Soil D) Red Soil
- 77 Which of the following soils is found in hilly areas?
A) Alluvial Soil B) Red Soil C) Forest Soil D) Black Soil
- 78 Which of the following methods is used in the Himalayas for the soil conservation ?
A) Terrace Farming B) Strips Cropping C) Shelter Belts D) None of these
- 79 Which one of the following languages is not spoken in Belgium?
A) French B) Dutch C) Hindi D) German
- 80 What is the percentage of German speaking people in Belgium ?
A) 44% B) 94% C) 75% D) 1%
- 81 Which one of the following minority communities is relatively rich and powerful in Belgium ?
A) English B) French C) Dutch D) Hindus
- 82 The major social groups of Sri Lanka are.....
A) Dutch and Muslims B) Hindus and Sinhalese C) Sinhalese and Sri Lankan Tamils D) Sinhalese and Dutch
- 83 Which one of the following is the main religion of Sri Lankans ?
A) Buddhism B) Christianity C) Hinduism D) All of these
- 84 Which one of the following languages was recognized as the official language of Sri Lanka in 1956 ?

- A) Tamil B) English C) Hindi D) Sinhala
- 85 When did Sri Lanka gain independence?
- A) 4th April, 1949 B) 4th March, 1950 C) 15th August, 1948 D) 4th February, 1948
- 86 A belief that the majority community should be able to rule over a country in whichever way it wants is :
- A) Prudential B) Majoritarianism C) Central Government D) Community Government
- 87 How many times was Belgium constitution amended between 1970 to 1993 ?
- A) Thrice B) Twice C) Six times D) Four Times
- 88 Which of the following country is the headquarter of "The European Union "
- A) France B) Germany C) Belgium D) Spain
- 89 The functioning of executive or laws made by legislatures are checked by the :
- A) Law Minister B) Parliament C) Judiciary D) All the these
- 90 The government of Sri Lanka is example of
- A) Unitary Government B) Dictatorship C) Federal Government D) Monarchy
- 91 Which of the following is a developmental goal common to all ?
- A) Freedom B) Regular work C) Security and respect D) High level of income and better quality of life
- 92 Which of the following things money cannot buy ?
- A) Tree B) Flowers C) Pollution free enviroment D) Books
- 93 What is the most common method of measuring the economic development of a country ?
- A) Security B) Income C) Freedom D) Equal Treatment
- 94 Which of the following is people's goals in addition to higher income ?
- A) Peace and Security B) Freedom C) Equal treatment D) All of these
- 95 Among the following criteria which one is the basis to measure the development of a country, according to the world bank ?
- A) Per capita income B) Net attendance ratio C) Literacy rate D) Life expectancy
- 96 If there are five persons in a family and their total income is Rs 30000, what would be the average income of each person?
- A) Rs 6000 B) Rs 3000 C) Rs 8000 D) Rs 10000
- 97 Which of the following countries has the largest size of illiterate population in the world ?
- A) India B) England C) Sri Lanka D) USA
- 98 Who published the Human Development Report?
- A) BHI B) HDI C) UNDP D) World Bank
- 99 Which south Asian country has the first rank in the HDI?
- A) Sri Lanka B) India C) Pakistan D) Nepal
- 100 Which area of the world has the largest crude oil reserves?
- A) The Middle East B) Russia C) China D) India

Answer Key Class X

1	2	3	4	5	6	7	8	9	10
A	A	C	B	C	A	A	C	C	D
11	12	13	14	15	16	17	18	19	20
D	C	A	B	A	C	B	A	B	D
21	22	23	24	25	26	27	28	29	30
B	B	A	C	B	C	D	C	A	B
31	32	33	34	35	36	37	38	39	40
C	D	A	C	D	B	D	B	B	A
41	42	43	44	45	46	47	48	49	50
C	D	A	B	B	B	D	D	C	D
51	52	53	54	55	56	57	58	59	60
B	D	A	B	C	B	B	D	A	A
61	62	63	64	65	66	67	68	69	70
B	C	D	C	A	D	C	B	A	A
71	72	73	74	75	76	77	78	79	80
C	A	B	B	D	A	C	A	C	D
81	82	83	84	85	86	87	88	89	90
B	C	A	D	A	D	C	C	A	D
91	92	93	94	95	96	97	98	99	100
C	B	D	A	A	A	A	C	A	A