

Science and Technology Marathon of 2024-2025**Class: 8**

- 1) What is dry ice? (Answer:- Solid CO₂)
- 2) Which instrument is used to measure atmospheric pressure? (Answer:- Barometer)
- 3) Name the sub-atomic particle with no charge. (Answer:- Neutron)
- 4) What is the size of cell measured in? (Answer:- Micron)
- 5) What is the Latin name of Sodium? (Answer:- Natrium)
- 6) What is the normal human body temperature? (Answer:- 37°C or 98.6°F)
- 7) What is an association of two or more different organisms which are mutually interdependent called? (Answer:- Symbiosis)
- 8) What is a chemical reaction called in which energy is absorbed? (Answer:- Endothermic reaction)
- 9) Name a device that detects electric charge. (Answer:- Electroscope)
- 10) What is the SI unit of power? (Answer:- Watt/Kilowatt/Megawatt / Horse power)
- 11) What are cold blooded animals called? (Answer:- Poikilothermic)
- 12) How many chromosomes are there in each human cell? (Answer:- 46 or 23 Pairs)
- 13) Name a unicellular animal, which has chloroplast. (Answer:- Euglena)
- 14) What is the SI unit of work or energy? (Answer:- Joule)
- 15) Which mineral is necessary for the formation of hemoglobin? (Answer:- Iron)
- 16) Which muscles make up the heart? (Answer:- Cardiac muscles)
- 17) What is the smallest unit of Nervous system? (Answer:- Neuron)
- 18) What is the speed of light in vacuum? (Answer:- 3,00,000 km/sec)
- 19) Name an instrument that stops bleeding by clamping a blood vessel. (Answer:- Hemostat)
- 20) Which cell organelles are called power house of the cell? (Answer:- Mitochondria)
- 21) What is the full form of DNA? (Answer:- Deoxyribo Nucleic Acid)
- 22) What is the scientific name of sweet pea? (Answer:- Pisum sativum)
- 23) Which nutrient forms most of our body weight? (Answer:- Proteins)
- 24) What does lack of vitamin C cause? (Scurvy)
- 25) What is the height of mercury column in a barometer at sea level? (Answer:- 76 cm or 760 mm)
- 26) What is the ofunit for measuring amount of charge? (Answer:- Coulomb)
- 27) At which temperature water has maximum density? (Answer:- 4° C)
- 28) What are the hereditary units called? (Answer:- Genes)
- 29) Which plastid in a plant cell contains chlorophyll? (Answer:- Chloroplast)
- 30) What is the full form of ATP? (Answer:- Adenosine Triphosphate)
- 31) Which cell organelles are called suicidal bags? (Answer:- Lysosomes)
- 32) Name a protein substance produced in the blood or tissues of animals or humans which destroys or weakens bacteria or neutralizes the poison they produce. (Answer: Antibody)
- 33) Name the smallest human cells. (Answer:- Red blood cells)
- 34) Who invented electric bulb and gramophone? (Answer:- Thomas Alva Edison)
- 35) Who invented the electric generator and the electric motor? (Answer:- Michael Faraday)
- 36) What is the valency of Aluminum? (Answer: 3)
- 37) What is the chemical formula of common salt? (Answer:- NaCl)
- 38) Name one tetravalent element. (Answer:- Carbon)
- 39) What is negative acceleration called? (Answer:- Retardation or deceleration)
- 40) What is the upper fixed point of Fahrenheit scale? (Answer:- 212 ° F.)
- 41) What are substances called which do not allow light to pass through them at all? (Answer:- Opaque substances)
- 42) Which acid does an apple contain? (Answer:- Maleic acid)
- 43) What is the symbol of mercury? (Answer:- Hg)
- 44) Name a base which does not have a metal in its molecule. (Answer:- Ammonium hydroxide(NH₄OH))
- 45) What are water soluble bases called? (Answer:- Alkalis)
- 46) Name an element with valency zero. (Helium)
- 47) What is the formula of potassium permanganate? (Answer:- KMnO₄)
- 48) Name one diatomic element. (Answer:- Oxygen)
- 49) What is the energy stored in an object because of its position or condition called? (Answer:- Potential energy)
- 50) What is the phenomenon of left appearing right and right appearing left on a plane mirror called? (Answer:-Lateral inversion)
- 51) What is the process of transfer of heat without a material medium called? (Radiation)

- 52) What is the quantity of heat required to raise the temperature of 1kg of a substance by 1°C called? (Answer:- Specific heat capacity)
- 53) What is the image that cannot be formed on a screen called? (Answer:- Virtual image)
- 54) What is cell membrane made of? (Answer:- Lipoprotein)
- 55) What is a tissue called that joins two bones together? (Answer:- Ligament)
- 56) What is a tissue called that joins muscles to the bones? (Answer:- Tendons)
- 57) Name a plant hormone. (Answer:- Auxin)
- 58) What are the units of kidneys called? (Answer:- Nephrons)
- 59) What is the fluid part of the blood called? (Answer: Plasma)
- 60) What are the pores in the leaves of plants through which exchange of gases takes place called? (Answer:- Stomata)
- 61) What are the tiny finger-like projections arising from the inner wall of small intestine called? (Answer:- Villi. (Singular: Villus))
- 62) Name the supporting tissue usually found in leaf blades and petioles.(Answer:- Collenchyma)
- 63) Name abundantly found gas in air. (Answer:- Nitrogen)
- 64) Name the minerals which cause temporary hardness of water. (Answer:- Bicarbonates of calcium and magnesium)
- 65) Name the universal solvent. (Answer:- Water)
- 66) What is the energy which a body has because of its motion called? (Answer:- Kinetic energy)
- 67) What is the mass of an electron? (Answer:- $1/1839$ of 1a.m.u.)
- 68) What is the electricity which does not flow called? (Answer:- Static electricity)
- 69) Name the instrument which uses ultrasonic to find the depth of the sea. (Answer:- Sonar)
- 70) Which portion of a shadow does not receive light at all? (Answer:- Umbra)
- 71) Name the smallest human bone. (Answer:- Stirrup (bone in the ear))
- 72) What is the smallest unit of biological classification? (Answer:- Species)
- 73) What is the scientific name of a dog? (Answer:- *Canis familiaris*)
- 74) What is the energy evolved or absorbed during the change of state of matter at constant temperature called? (Answer:- Latent heat)
- 75) What is the distance travelled by light in one year called? (Answer:- Light year)
- 76) What is the study of extraterrestrial life in space called? (Answer:- Exobiology)
- 77) What is a constellation? (Answer:- A group of stars with a certain shape)
- 78) What is Nebula? (Answer:- A cloud of gas and dust between the stars)
- 79) Which is the brightest star? (Answer:- Sirius)
- 80) What is Hygrometer? (Answer:- An instrument for measuring the humidity of air)
- 81) What is the full form of CFCs ? (Answer:- Chlorofluorocarbons)
- 82) What are the elements with the properties midway between those of metals to non-metals called? (Answer:-Metalloids)
- 83) If the atomic number of Oxygen is 8, how many protons does its atom have? (Answer:- #8)
- 84) Up to how many electrons can second orbit of an atom hold? (Answer:-#8)
- 85) What is the study of classification and naming of organisms called? (Answer:- Taxonomy)
- 86) Which is the largest phylum in the animal kingdom? (Answer:- Arthropoda)
- 87) Name the female part of a flower.(Answer:- Gynoecium)
- 88) Condition in which the carpels are fused together. (Answer:-Syncarpous)
- 89) How many stamens are there in a mustard flower? (Answer:- Six)
- 90) What is a metabolic activity called which is destructive in nature? (Answer:- Catabolism)
- 91) What is the process of evaporation followed by subsequent condensation called? (Answer:- Distillation)
- 92) Name the process of separating different dyes of a colour. (Answer:- Chromatography)
- 93) Which process is applied in separating butter from milk? (Answer:- Centrifugation)
- 94) Name a barometer which does not use any liquid. (Answer:- Aneroid barometer)
- 95) What is the unit of work in CGS system? (Answer:- Erg)
- 96) What is the force called which produces on a body of mass 1Kg, an acceleration of 1m/s^2 ? (Answer:-1 Newton)
- 97) How many Joules equal to 1 mega joule? (Answer:- 1,000,000 Joules or 10^6 Joules)
- 98) How many watts equal of 1 Horsepower? (Answer:- about 750 Watts)
- 99) What are the cells called which do not have a nuclear membrane bound nucleus? (Answer:- Prokaryotic cells)
- 100) Name the cell organelles which are called kitchen of the plant cells. (Answer:-Chloroplasts)
- 101) Physical quantity having both magnitude and direction. (Answer:- Vector)
- 102) What is the distance in a particular direction called? (Answer:- Displacement)
- 103) What is the sound of frequency higher than 20,000 Hertz called? (Answer:- Ultra sonic)
- 104) What is sound of frequency less than 20 Hertz called? (Answer:- Infrasonic)
- 105) What is intensity of sound measured in? (Answer:- Decible)
- 106) What is the audible range of sound? (Answer:- 20 Hertz to 20,000 Hertz)

- 107) If the focal length of a spherical mirror is 10 cm, what will be the radius of curvature of that mirror?(Answer:- 20cm)
- 108) What is the temperature at which solid changes into liquid called? (Answer:- Melting point)
- 109) What is the temperature at which liquid changes to solid called? (Answer:- Freezing point)
- 110) What are vascular bundles in plants made of? (Answer:- Xylem and Phloem)
- 111) What is Golgi apparatus in plant cells called? (Answer:- Dictyosome)
- 112) What is cell wall made of? (Answer:- Cellulose)
- 113) What is the molecular formula of potash Alum (Phitkari)? (Answer: - $K_2SO_4 \cdot Al_2(SO_4)_3 \cdot 24H_2O$)
- 114) Which instrument is used to measure weight? (Answer:- Spring balance)
- 115) Mass is measured in Kg. What unit is used to measure weight?(Answer:- Newton)
- 116) On what factors does the weight of an object depend? (Answer:- mass and gravity(i.e.; acceleration due to gravity)
- 117) If there is friction in a single fixed pulley, what will be in its M.A. : less than 1, greater than 1 or none of these? (Answer:-Less than 1)
- 118) Why do we feel cold when few drops of alcohol is put on our palm? (Answer:- Alcohol evaporates taking heat from our body)
- 119) At what lowest temperature Hg(Mercury) changes to solid form: $-32^\circ C$, $-39^\circ C$, $0^\circ C$, $-273^\circ C$ or $-100^\circ C$? (Answer: - $39^\circ C$)
- 120) What is $41^\circ F$ in $^\circ C$? (Answer:- $5^\circ C$)
- 121) Light travels in a straight line. What is this property called? (Answer:- Rectilinear propagation of light)
- 122) Pin hole camera forms an inverted image on the screen. What do we call for such image? (Answer:- Real image)
- 123) What type of image is formed by plane mirror: real, virtual or inverted? (Answer:-Virtual)
- 124) At what time can we see the lunar eclipse: at full moon night or new moon? (Answer:- At full moon night)
- 125) Which phenomenon of light is involved in the formation of rainbow? (Answer:- Total internal reflection)
- 126) If a person is suffering from eye defect and cannot see distant objects, what is his eye defect called? (Answer:-Myopia or short sightedness)
- 127) If a person is suffering from hypermetropia, what type of lens should he use? (Answer:- Convex or converging lens)
- 128) What is the unit of power of a lens? Tell the correct spelling. (Answer:- Diopetre)
- 129) We receive message from the other end of the world through our radio sets. What type of waves come to the radio sets? (Answer:- Electromagnetic waves)
- 130) In a magnet or an Iron piece it is supposed that there are small magnets. What are these magnets called? (Answer:- Molecular magnets)
- 131) What is the function of MnO_2 in a dry cell? (Answer:- It prevents a cell from Polarization defect)
- 132) What is the SI unit of intensity of light? [Candela]
- 133) Which spherical mirror is called a converging mirror?[Concave mirror]
- 134) What is the mass of one electron? [$1/1837$ a.m.u]
- 135) Name the gas among noble gases which has 2 electrons into outer orbit.[Helium]
- 136) Name the liquid metals.[Bromine and Mercury]
- 137) What is the percentage of nitrogen and oxygen in the air?[N= 78.03% and oxygen = 20.9%]
- 138) How do burning plastic bags pollute the environment?[They produce carbon monoxide]
- 139) Name the scientist who discovered oxygen.[Joseph Priestley]
- 140) Name the gas which is used in rockets and space ships.[oxygen= (LO_2)]
- 141) Name the gas used in fire extinguishers. [Carbon dioxide]
- 142) Name a white metal with bright lustre.[Silver]
- 143) Name the metal which is used in ayurvedic medicine.[Gold]
- 144) Name a metal that forms rust.[Iron]
- 145) Name the gas used in manufacturing insecticides and fertilizers.[Chlorine]
- 146) How do blood capillaries absorb digested food? [By the process of diffusion]
- 147) About how many species get extinct every year? [27,000]
- 148) What do we call an opening of a volcano at the earth's surface? [Crater]
- 149) Who classified the living organisms into two kingdoms? [Carlous Linnaeus]
- 150) Where are genes located? [Chromosomes]

TECHNOLOGY

1. 'OS' computer abbreviation usually means? (Operating system)

2. What are the main objectives of Nano Science and Technology?

(A. Human Resource Development & B. International collaboration and orchestrating national dialogues)

3. What does 4G mean Fourth Generation
4. Who of the following invented Facebook? Mark Zuckerberg
5. 'Project Kuiper' is a proposed project of which multi-national technology company? Amazon
6. How many computer languages are in use? 2000
7. Which of the following is not one of the early "protocols," or ways to use the Internet? Blogging
8. A network designed to allow communication within an organization is called? an intranet
9. Who invented flexible photographic film? George Eastman
10. When did the compact disc first appear on the market? 1982
11. When was the DVD introduced? 1995
12. What does fiber optic cable resemble, in terms of size? Human hair
13. The launching of which naval vessel started a race to produce turbine-powered "all-big-gun" warships
Dreadnought
14. Which ballistic missile, fitted to submarines beginning in 1979, became the principal sea-based nuclear weapon
of the United States? Trident
15. What was given the nickname "Stalin Organ"? Katyusha rocket launcher
16. Who founded the search engine "google"? Larry page and Sergey Brin
17. What are java, Perl, and Fortran? Computer Programming Language
18. Who built the first working, programmable, electro mechanical computer? Konrad Zuse
19. Who is known as the father of neuroscience? **Santaigo Ramony Cajal**
20. Who is considered as the 'father of artificial intelligence'? **John McCarthy**
21. Who used the term computer worm for the first time? **John Brunner**
22. _____ is the called translator? **Language Processor**
23. How the quality of printer is measured? Dots per Inch
24. _____ eats up the computer memory. Worms
25. A type of non-malicious software virus that aims to identify and remove vulnerability from a software or a
system is called as _____ Proof of Concept Virus