

Science and Technology

1. He was a Canadian voyager who is known for his part in experiments on digestion in humans, conducted on him by the American Army physician William Beaumont between 1822 and -1833. Who was he?



- (a) Charles Darwin
(b) Alexander Fleming
(c) Stephen Jay Gould
(d) Alexis St. Martin
2. Which of the following is an example of exothermic reaction?
(a) Dissolving ammonium nitrate in water
(b) Burning of magnesium ribbon
(c) Addition of water to quicklime
(d) Both (b) and (c)
3. Nitrous oxide can be used as an oxidizer in a rocket motor. Which of the following is the advantage of using it?
(a) It is more stable at room temperature.
(b) It is non-toxic.
(c) It is relatively safe to carry on a flight.
(d) All of these
4. An instrument used to measure blood pressure is called
(a) Barometer
(b) Stethoscope
(c) Sphygmomanometer
(d) Otoscope
5. There are two basic branches of soil science, ____ (i) ____ is concerned with the influence of soils on living things, particularly plants and ____ (ii) ____ is focused on the formation, morphology and classification of soils in their

natural environment. Select the option which correctly fills the blanks.

- | | |
|----------------|-------------|
| (i) | (ii) |
| (a) Pedology | Edaphology |
| (b) Geology | Pedology |
| (c) Geology | Meteorology |
| (d) Edaphology | Pedology |

6. Match the compounds given in column I with their uses given in column II and select the correct option from the given codes.

Column I	Column II
p. Slaked lime	1. Cleaning of glass
q. Calamine lotion	2. Car batteries
r. sulphuric acid	3. White washing
s. Ammonium hydroxide	4. Remedy for ant bite

- (a) p-1, q-3, r-4, s-2
(b) p-3, q-2, r-1, s-4
(c) p-3, q-4, r-2, s-1
(d) p-2, q-1, r-4, s-3
7. The Nobel Prize in Chemistry, 2015 was awarded to ____ for "mechanistic studies of DNA repair".
(a) Tomas Lindahl (b) Paul L. Modrich
(c) Aziz Sancar (d) All of these

8. Match column I with column II and select the correct option from the given codes.

Column I (Units)	Column II (Quantities)
(i) Ampere	p. Temperature
(ii) Nautical mile	q. Electric current
(iii) Kelvin	r. Distance at sea
(iv) Ohm	s. Energy
(v) Joule	t. Resistance

- (a) (i)-q, (ii)-r, (iii)-p, (iv)-t, (v)-s
(b) (i)-p, (ii)-q, (iii)-r, (iv)-s, (v)-t
(c) (i)-t, (ii)-s, (iii)-r, (iv)-q, (v)-p
(d) (i)-q, (ii)-p, (iii)-s, (iv)-r, (v)-t

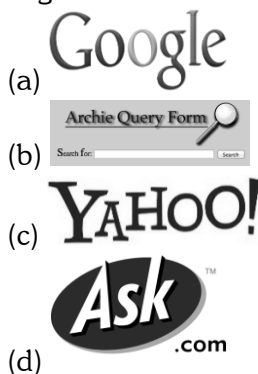
9. Which of these are lines on a map joining those places which have the same atmospheric pressure for a specified period of time?
- (a) Isotherms
 - (b) Isotopes
 - (c) Isobars
 - (d) None of these

10. He was an Italian scientist who discovered the principle of the pendulum. He observed the movement of the lamp hanging from the ceiling and noticed that its oscillatory movement was constant. Who was he?



- (a) Isaac Newton
 - (b) Galileo Galilei
 - (c) Albert Einstein
 - (d) Max Planck
11. Trimix is a breathing gas, consisting of three gases and is often used in deep commercial diving. These three gases are
- (a) Hydrogen, oxygen and helium
 - (b) Carbon dioxide, nitrogen and oxygen
 - (c) Oxygen, helium and nitrogen
 - (d) Chlorine, argon and oxygen

12. Which of the following was the first search engine in internet?

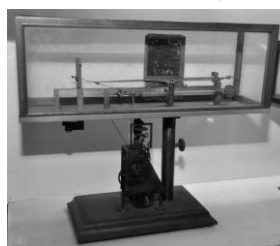


13. His discovery of the malarial parasite in the gastrointestinal tract of the Anopheles mosquito led to the realisation that malaria was transmitted by Anopheles. He received the Nobel Prize for Physiology or Medicine in 1902 for his work on the transmission of malaria. Who was he?



- (a) Ivan Petrovich Pavlov
 - (b) Robert Koch
 - (c) Ronald Ross
 - (d) Paul Ehrlich
14. 'X' is an acute inflammation of the brain tissues often due to viral infection. The symptoms of it include headache, fever, confusion, drowsiness and fatigue. What is 'X'?
- (a) Encephalitis
 - (b) Epilepsy
 - (c) Concussion
 - (d) Hydrocephalus

15. The device shown in the picture is used for measuring growth in plants. It was invented in the early twentieth century by Sir Jagdish Chandra Bose. Name the device.



- (a) Electrocardiograph
 - (b) Crescograph
 - (c) Chromatogram
 - (d) Seismograph
16. Wasp sting is _____ in nature and remedy for this is a/an _____.
- (a) Acidic, alkali
 - (b) Neutral, alkali
 - (c) Alkaline, base
 - (d) Alkaline, acid

- 17.** Which of the following chemicals is not used in photographic processing?
(a) Silver halide
(b) Ammonium thiosulphate
(c) Copper nitrate
(d) Both (a) and (b)
- 18.** 18. Which of the following activities is known as 'flaming' in internet jargon?
(a) Typing the whole document in lowercase
(b) Hostile and insulting interaction between internet users
(c) Following someone on the blogging site
(d) A word, phrase or topic that is popular on Twitter at a particular moment
- 19.** Some of the inventions and their inventors are given below. Select the mismatch pairs.
(i) Atomic bomb - J Robert Oppenheimer
(ii) Piano - Georges Audemars
(iii) Steel - Henry Bessemer
(iv) Cinema - Cristofori
(a) (i) and (ii)
(b) (ii) and (iii)
(c) (iii) and (iv)
(d) (ii) and (iv)
- 20.** If same amount of current is passed through each of the following then which one will show the strongest magnetic strength?
(a) Straight conducting wire
(b) Solenoid wound on an iron core
(c) Coil of wire
(d) Solenoid wound on a wooden core
- 21.** The Bristol Robotics Laboratory invented a robot which can digest organic matter for fuel and then excretes the waste. What is the name of this robot?
(a) EcoBot III
(b) Robonaut
(c) Environment friendly robot
(d) Robodigester
- 22.** USB is a plug-and-play interface that allows a computer to communicate with peripheral and other devices. What does USB stand for?
(a) Uniform Secondary Bit
(b) Ultra Smart Bandwidth
(c) Universal Serial Bus
(d) Utility Server Broadband
- 23.** Which of the following statements is false?
(a) FORTRAN, Visual Basic and Q Basic are kinds of computer languages.
(b) The term 'meatspace' refers to the real world.
(c) The operating system linux has a penguin character, Tux, as its logo.
(d) The file extension pdf stands for Powerful Document Format.
- 24.** 'X' metal is soft and can be easily cut with a knife. It catches fire when exposed to air and water and is also used in street lights. What is 'X'?
(a) Sodium
(b) Mercury
(c) Calcium
(d) Lithium
- 25.** It is a disease of the nervous system in which the affected person suffers from muscle rigidity and tremors. It mainly affects the motor neurons of nervous system and causes neuropsychiatric disturbances in the affected person. Name the disease.
(a) Parkinson's disease
(b) Alzheimer's disease
(c) Partial amnesia
(d) Schizophrenia

Answer - Key

1. D	2. D	3. D	4. C	5. D
6. C	7. D	8. A	9. C	10. B
11. C	12. B	13. C	14. A	15. B
16. D	17. C	18. B	19. D	20. B
21. A	22. C	23. D	24. A	25. A