

1. What is very fertile soil called?
 1) Top soil 2). Humus 3). Loam 4). Clay

Ans:3

Fertile soils teem with life. **Porous loamy soils** are the richest of all, laced with organic matter which retains water and provides the nutrients needed by crops. Sand and clay soils tend to have less organic matter and have drainage problems: sand is very porous and clay is impermeable. Only 11 percent of the earth's soils have no inherent limitations for agriculture. The rest are either too wet, too dry, too shallow, chemically unsuitable or permanently frozen.

To grow, plants need nitrogen, phosphorus, potassium and a range of other elements. However fertile the soil, growing crops will use up its nutrients. Farmers once compensated for this by spreading animal manure and plant waste on their fields. Increasingly, these have been replaced by manmade fertilizers.

Organic matter maintains the soil structure. It also acts as a buffer for chemical fertilizers, adding to their beneficial effects and reducing possible harm. In fact, the organic content and structure of the soil has to be managed as carefully as the nutrient content.

<http://www.fao.org/3/u8480e/U8480E0b.htm>

2. Which number cannot be represented in Roman numbers?
 1). 66 2). 77 3). 88 4). 0

Ans:4

3. The maximum concentration of lead in drinking water should not exceed
 1). 0.0005 mg/litre 2). 0.005 mg/litre
 3). 0.05 mg/litre 4). 0.5 mg/litre

Ans:

4. In which year was 'Indian National Congress' constituted? -
 1). 1885 2). 1875 3). 1857 4). 1867

Ans:1

5. What is "SLV-3"?
 1). The Indian space launching vehicle
 2). The space launching pad
 3). A Communication satellite
 4). None of these

Ans:1

6. The 'father of epidemiology' is considered to be -
 1) Aristotle 2). Hippocrates 3). Socrates 4). Susrutha

Ans:2

Modern period: In the mid-1800s, an anesthesiologist named **John Snow** was conducting a series of investigations in London that warrant his being considered the "father of field epidemiology." Twenty years before the development of the microscope,

7. The total number of three-digit numbers which are completely divisible by 6 is:
 1). 140 2). 150 3). 155 4). 159

Ans:2

8. For disinfecting large bodies of water chlorine is applied in the form of -
 1). Chlorine gas 2). Chloramine 3). Perchloron 4). Bleaching powder

Ans:2

amines are a **group of chemical compounds that contain chlorine and ammonia**. The particular type of chloramine used in drinking water disinfection is called monochloramine which is mixed into water at levels that kill germs but are still safe to drink

Water chlorination is the process of adding *chlorine* or *chlorine* compounds such as sodium hypochlorite to *water*.

9. Bubble Boy syndrome is also called -
 1). SCID 2). SNID 3). STID 4). SLID

Ans:1

Severe combined immunodeficiency (SCID) is very rare, genetic disorder, affecting between 50 and 100 children born in the U.S. every year. SCID is often called "bubble boy disease,"

10. The reference to 'Black Death' around 1300 AD in Europe is to the -
 1). Cholera 2). Typhoid 3). Bubonic plague 4). Small pox

Ans:3

11. Fats and oils are converted to fatty acids and glycerol by -
 1). Intestinal lipase 2). Maltose 3). Lactose 4). Sucrose

Ans:

12. Proteins obtained as a result of partial hydrolysis of natural proteins are called -

- | | |
|----------------------|------------------------|
| 1). Simple proteins | 2). Conjugated protein |
| 3). Desired proteins | 4). None of these |

Ans:

sample proteins. On hydrolysis they yield only the amino acids and occasional small carbohydrate compounds. Examples are: **albumins, globulins, glutelins, albuminoids, histones and protamines.**

(b) Conjugated proteins. These are simple proteins combined with some non-protein material in the body. Examples are: nucleoproteins, glycoproteins, phosphoproteins, haemoglobins and lecithoproteins.

(c) Derived proteins. These are proteins derived from simple or conjugated proteins by physical or chemical means. Examples are: denatured proteins and peptides.

The amino acids are the building blocks of proteins; about 23 amino acids have been isolated from natural proteins.

<http://www.fao.org/3/x5738e/x5738e04.htm>

13. What do the 14 rock edicts of Ashoka contain?

- | | |
|----------------------------------|--------------------------|
| 1). Principles of the government | 2). Buddhist preaching's |
| 3). Details of the ancestral | 4). Directions to places |

Ans:1.

Major Rock Edicts of Ashoka refer to 14 separate major Edicts, which are significantly detailed and extensive. These Edicts were concerned with **practical instructions in running the kingdom such as the design of irrigation systems and descriptions of Ashoka's beliefs in peaceful moral behavior.**

James Prinsep, an Englishman, managed to decipher the long-forgotten script in which these inscriptions were written.

14. Which is not a mineral containing phosphorous?

- | | | | |
|-----------------|-------------|------------------|---------------|
| 1). Phosphorite | 2). Apatite | 3). Chlorapatite | 4). Cerrusite |
|-----------------|-------------|------------------|---------------|

Ans:4. (*Cerussite* is a mineral consisting of lead carbonate ($PbCO_3$), and is an important ore of lead.)

15. What keeps the eyes moist?

- 1). Cochlea 2). Retina 3). **Tear duct** 4). Iris

Ans:3

Tears consist of a salty fluid that continuously bathes the surface of the eye to keep it moist and transfers oxygen and nutrients to the cornea, which lacks the blood vessels that supply these substances to other tissues. When closed, the eyelids help trap the moisture against the surface of the eye.

16. Intravascular clotting of blood is known as -

- 1). Erythrocin 2). Leucosis 3). Thrombis 4). None of these

Ans:

Disseminated intravascular coagulation (DIC) is a rare but serious condition that causes abnormal blood clotting throughout the body's blood vessels. It is caused by another disease or condition, such as an infection or injury, that makes the body's normal blood clotting process become overactive.

A thrombus is a **blood clot that forms in a vessel and remains there**. An embolism is a clot that travels from the site where it formed to another location in the body. Thrombi or emboli can lodge in a blood vessel and block the flow of blood in that location depriving tissues of normal blood flow and oxygen.

Leucosis is a **leukemia-like malignant viral disease** that is found in animals, particularly poultry and cattle.

Erithrocin. This medication is an antibiotic given by vein (IV) to treat certain bacterial infections when medications cannot be taken by mouth

17. The process of conversion of food into a bolus is known as -

- 1). Swallowing 2). **Mastication** 3). Deglutition 4). Mixing

Ans:2. (The first step in the digestion process is mastication, or chewing, when food is broken down, lubricated with saliva, and formed into a cohesive mass known as the food bolus.)

18. R. Briggs and T. King developed a technique called -

- 1). Cell transplantation 2). **Nuclear transplantation**
3). Mybridisation 4). Nuclear division

Ans:2

Cell transplantation is a method in which the nucleus of a donor cell is relocated to a target cell that has had its nucleus removed (enucleated). Nuclear transplantation has allowed experimental embryologists to manipulate the

development of an organism and to study the potential of the [nucleus](#) to direct development. Nuclear transplantation, as it was first called, was later referred to as somatic nuclear transfer or [cloning](#).

<https://embryo.asu.edu/pages/nuclear-transplantation>

19. The degree of prevalence of a disease is termed as
- | | |
|---------------|------------------------|
| 1). mortality | 2). Actuarial medicine |
| 3). Morbidity | 4). Epidemiology |

Ans:

Prevalence, in [epidemiology](#), the proportion of a population with a [disease](#) or a particular condition at a specific point in time (point prevalence) or over a specified period of time (period prevalence).

What is incidence?

Incidence is a measure of disease that allows us to determine a person's probability of being diagnosed with a disease during a given period of time. Therefore, incidence is the number of newly diagnosed cases of a disease. An incidence rate is the number of new cases of a disease divided by the number of persons at risk for the disease. If, over the course of one year, five women are diagnosed with breast cancer, out of a total female study population of 200 (who do not have breast cancer at the beginning of the study period), then we would say the incidence of breast cancer in this population was 0.025. (or 2,500 per 100,000 women-years of study)

What is prevalence?

Prevalence is a measure of disease that allows us to determine a person's likelihood of having a disease. Therefore, the number of prevalent cases is the total number of cases of disease existing in a population. A prevalence rate is the total number of cases of a disease existing in a population divided by the total population. So, if a measurement of cancer is taken in a population of 40,000 people and 1,200 were recently diagnosed with cancer and 3,500 are living with cancer, then the prevalence of cancer is 0.118. (or 11,750 per 100,000 persons)

What is morbidity?

Morbidity is another term for illness. A person can have several co-morbidities simultaneously. So, morbidities can range from Alzheimer's disease to cancer to traumatic brain injury. Morbidities are NOT deaths. Prevalence is a measure often

used to determine the level of morbidity in a population.

What is mortality?

Mortality is another term for death. A mortality rate is the number of deaths due to a disease divided by the total population. If there are 25 lung cancer deaths in one year in a population of 30,000, then the mortality rate for that population is 83 per 100,000.

<https://www.health.ny.gov/diseases/chronic/basicstat.htm>

20. Food mixed with gastric secretions, as a milky white semifluid paote like substance is called -

- 1). chiama 2), chyme 3). Chiasma 4). Chelma

Ans:2

21. An example of a simple lipid is -

- 1). Cholesterol 2). Phospholipid 3). Wax 4). Milk

Ans:3.

Main simple lipids are **triglycerides (also known as triacylglycerols), steryl esters, and wax esters**. Hydrolysis of these lipids yields glycerol and fatty acids, sterols and fatty acids, and fatty alcohols plus fatty acids, respectively.

<https://www.sciencedirect.com/topics/biochemistry-genetics-and-molecular-biology/simple-lipid>

22. Trypanosome gambiense enters human blood by the bite of –

- 1). Anopheles mosquito 2). Tsetse fly
3). Aedes mosquito 4). Housefly

Ans:2.

- Sleeping sickness is caused by parasites transmitted by infected tsetse flies and without treatment, the disease is considered fatal.
- The people most exposed to the tsetse fly and to the disease live in rural areas and depend on agriculture, fishing, animal husbandry or hunting.

23. The stored grain pests are repelled by the use of the leaves of the plant -

- 1)Neem 2). Hibiscus 3). Onion 4). Ginger

Ans:1

24. Anxiety always involves

- 1). Worry 2). Result 3). Secrets 4). News

Ans:1. (Anxiety disorders are mental health conditions that involve excessive amounts of anxiety, fear, nervousness, worry, or dread.)

25. How many events are there in a Pentathlon?

- 1). 7 events 2). 4 events 3). 6 events 4). 5 events

Ans:5

Modern pentathlon is an Olympic sport that comprises **five different events**; fencing, freestyle swimming (200 m), equestrian show jumping (15 jumps), and a final combined event of pistol shooting and cross country running (3200 m).

The heptathlon (women) consists of **three running events, two jumping events and two throwing events.**

26. Name the metal which is used to make a semiconductor material employed in the manufacture of diode.

- 1). B 2). Al 3). Ga 4). Sn

Ans:3

27. Enamel ware has a coating of -

- 1) Red lead 2). Glass 3). Boro silicates 4). Tin

Ans:3 (Borosilicate glass is a type of glass with *silica* and boron trioxide as the main glass-forming constituents.)

Vitreous enamel, also called **porcelain enamel**, is a material made by fusing powdered glass to a substrate by firing, usually between 750 and 850 °C (1,380 and 1,560 °F). The powder melts, flows, and then hardens to a smooth, durable vitreous coating. The word comes from the Latin *vitreum*, meaning "glass".

Enamel can be used on metal, glass, ceramics, stone, or any material that will withstand the fusing temperature.

https://en.wikipedia.org/wiki/Vitreous_enamel

28. Which of these is a zoonosis?

- 1). Plague 2). Cholera 3). Cancer 4). Jaundice

Ans:1

A zoonosis is any disease or infection that is naturally transmissible from vertebrate animals to humans.

The zoonotic diseases include Zoonotic influenza Salmonellosis West Nile virus Plague Emerging coronaviruses

29. To which country do the Maori people belong?

- 1). Tanzania 2). **New Zealand** 3). Turkistan 4). Malaysia

Ans:2

30. The number of protons in the nucleus is called

- 1). Neutrons number 2). Mass number
3) **Atomic number** 4). Nucleon number

Ans:3

31. Across which river is the Kadra Dam built?

- 1). Krishna River 2). **Kalinadi River**
3). Parson's Valley River 4). Narmada River

Ans:2. (Kadra Dam is situated in Uttara Kannada district of Karnataka)

32. Cancer effect can be minimised by -

- 1) **Early detection** 2). Taking water
3). Eating more food 4). Doing exercise

Ans:1

33. Bilirubin and biliverdin are -

- 1). **Bile pigments** 2). Intestinal juices
3). Pancreatic juice 4). Salivary juice

Ans:1

34. What would be the most useful to do first of all, if you see a car going at high speed, which has just run over accident?

- 1). Note down the number of the car
2). Shout for the driver to stop the car
3). Hire a taxi and try to follow the car
4). **Inform the police and take the child to the hospital**

Ans:4

35. Among the following, which of the following industry is the least polluting?

- 1). Cement industry
 2). Oil refinery
 3). Thermal power plant
 4) **Electronic industry**

Ans:4

36. Hansen's disease is also called -

- 1). Scabies 2). Rabies **3). Leprosy** 4). T.B

Ans:3

37. Legal age of marriage for girls in India is -

- 1). 15 yr 2). 17 yr **3). 21 yr** 4). 22 yr

Ans:3

38. The complete Indian film which was made in the year 1913 was -

- 1). Alam Ara **2). Raja Harishchandra** 3). Aan
 4). Aag

Ans:2 (Raja Harishchandra (transl. King Harishchandra) is a 1913 Indian silent film directed and produced by Dadasaheb Phalke. It is often considered the first full-length Indian feature film.)

39. The unit of angular displacement is -

- 1). Radians** 2). Radians per second
 3). Radians per second per second 4). None of these

Ans:1

40. The ellipticity of earth is equal to -

- 1). 1/500 2). 1/ 313 **3). 1 / 297** 4). 1 / 287

Ans:3

41. The product of valency and equivalent weight of an element is equal to its -

- 1). Vapour density 2). Specific heat
3). Atomic weight 4). Molecular weight

Ans:3

42. Heavy water production plants in India are located at all the following places except

- 1). Nangal **2). Bombay** 3). Baroda 4). Tuticorin

Ans:2

43. Which article in India empowers the central government to dismiss the state govt (i.e., "Provisions in case of failure of constitutional machinery in State government)

- 1). Article 356 2). Article 14 3). Article 9 4). Article 320

Ans:1

44. Which book published in 1859 deeply influenced the method of classification of animals and plants?

- 1). **Origin of Species** 2). Year of the Upheaval
3). Typhoon 4). Voiceless

Ans:1

On the Origin of Species (or On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life),^[3] published on 24 November 1859, is a work of scientific literature by Charles Darwin that is considered to be the foundation of evolutionary biology.

45. In HTML, what does 'M' stands for?

- 1). Machine 2). Middle 3). **Markup** 4). Maximum

Ans:3

HTML stands for hypertext markup language and m stands for **MARKUP**

46. The number of lines of force crossing unit area normally is

- 1) Magnetic flux 2). Magnetic induction
3). Flux density 4). Total flux

Ans:

47. An example of Lenz's law is

- 1). Conservation of momentum 2). **Conservation of energy**
3). Conservation of fuel 4). Conservation of angular momentum

Ans:2

Lenz's law, in electromagnetism, statement that an induced electric current flows in a direction such that the current opposes the change that induced it.

Thrusting a pole of a permanent bar magnet through a coil of wire, for example, induces an electric current in the coil; the current in turn sets up a magnetic field around the coil, making it a magnet. Lenz's law indicates the direction of the induced current. Upon withdrawing the bar magnet from the coil, the induced current reverses itself, and the near side of the coil becomes a south pole to produce an attracting force on the receding bar magnet.

A small amount of work, therefore, is done in pushing the magnet into the coil and in

pulling it out against the magnetic effect of the induced current. The small amount of energy represented by this work manifests itself as a slight heating effect, the result of the induced current encountering resistance in the material of the coil. Lenz's law upholds the general principle of the conservation of energy.

Britannica, The Editors of Encyclopaedia. "Lenz's law". *Encyclopedia Britannica*, 29 May. 2020, <https://www.britannica.com/science/Lenzs-law>. Accessed 10 September 2021.

48. The air becomes heated by
 1). Conduction 2). **Convection** 3). Radiation 4). Expansion
Ans:2
49. The perimeter of a certain sector of a circle is equal to length of arc of a semicircle having the same radius. Then the angle of the sector will be:
 1). $(\pi + 4)$ radians 2). **$(\pi - 2)$ radians**
 3). $(2-\pi)$ radians 4). $(\pi+2)$ radians
Ans:2
50. _____ is a source of ultra violet waves.
 1). Incandescent lamp 2). **Sun**
 3). Earth 4). None of these
Ans: 2. (Man-made ultraviolet sources include several types of UV lamps, arc welding, and mercury vapour lamps.)