

## Section-A

- 1] b) Kharif Crops
- 2] b) The statement is correct but the Reason is incorrect.
- 3] a) Bituminous
- 4] c) can be burnt at any moment
- 5] a) Assam
- 6] d) asexual reproduction
- 7] a) Diabetes
- 8] c)  $1.01 \times 10^5 \text{ N/m}^2$
- 9] c) increase friction
- 10] d) 27. 1.1.
- 11] b) Electrical energy into chemical energy
- 12] c) Copper
- 13] b) Same for both nose
- 14] a) True
- 15] a) True

## Section B

16) Pasteurisation of Milk is a process in which milk is heated to a specific temperature for a certain period of time and then cooled rapidly, with the goal of killing harmful microorganisms without significantly affecting the nutritional quality or taste of the milk.

### 17) Bituminous Coal

### Sub-bituminous Coal

- |   |  |
|---|--|
| * Carbon content is 45% to 86%.                         | * Carbon content is 35% to 45%.  |
| * Low moisture, more fixed carbon                       | * High moisture content, more volatile matter                                    |
| * Dark black in colour, denser, more compact and harder | * Dark brown to black, often dull, softer and more crumbly than bituminous coal. |

18) Diesel is a hydrocarbon fuel that forms an oil layer when spilled or burning. Water is ineffective for petroleum-based fires for several reasons:

- Oil is hydrophobic and is less dense than water, so burning fuel stays on top of water rather than mixing with it.
- When water is sprayed onto burning oil, it sinks below the oil layer and instantly vaporizes because of high temperature of the fire.

19] features seen in boys at puberty:

- \* Voice becomes deeper
- + Growth of facial and body hair

features seen in girls at puberty

- \* Development of breasts
- \* Widening of hips

20]

Music

Noise

- |   |   |
|---|---|
| * Pleasant, rhythmic and organised sound. | * Unpleasant, irregular unorganized sound |
| * Has a pattern of frequencies            | * No pattern                              |

### Section-C

23] Different soils hold water differently, so the irrigation method depends on soil type:

- \* clayey soil - holds water for a long time because its particles are very fine.
- \* sandy soil - has large particles and drains water very quickly.
- \* loamy soil - balanced texture; retains water ~~less~~ moderately.

24] Exhaustible resources:-

Resources that can get depleted because they exist in limited quantity

Ex:- Coal, petroleum, natural gas

Inexhaustible resources:-

Resources that never run out because nature continuously replenishes them.

Ex:- Sunlight, wind, tidal energy.

25] Asexual reproduction is a mode of reproduction where only one parent is involved and the offspring produced are genetically identical to the parent.

Methods :- \* Budding

\* Binary fission.

26) Health is a state of physical, mental and social well-being, not just the absence of disease.

factors for good health

→ Balanced diet

→ Regular exercise

→ Proper hygiene

→ Clean environment

→ Mental well being

→ Adequate sleep

→ Safe drinking water

→ Avoiding harmful habits

27) Non-contact forces that act without touching the object.

Types:-

→ Gravitational force:

\* Attraction between masses

\* EX:- Earth pulling objects downward.

→ Magnetic force:

\* force exerted by magnets

\* EX:- A magnet attracting iron filings.

→ Electrostatic force:

\* force between charged objects.

\* EX:- Rubbing a balloon and attracting paper bits.

## Section-D

32] During the spring or rainy season, frogs and toads migrate to ponds and slow-moving water bodies for reproduction. The male and female come together in water, where the female lays hundred of eggs and the male releases sperm over them. In frogs, a jelly-like covering surrounds the eggs and provides protection. Since fertilization occurs outside the female's body, this process is called as external fertilization.

33] Blood pressure reaches its maximum value when the heart pumps blood; this is called systolic pressure.

In a healthy adult, the normal systolic pressure is about 120 mmHg. When the heart relaxes between beats, the blood pressure decreases; this is known as diastolic pressure, which is normally about 80 mmHg in adults. Blood pressure is measured when the body is at rest and is written as systolic pressure over diastolic pressure, often without units. For ex:- A blood pressure reading of 90/60 in a 10-month-old child indicates a systolic pressure of 90 mmHg and diastolic pressure of 60 mmHg.

- 34) i] Nickel sulphate acts as electrolyte  
ii] The key chain functions as the cathode  
iii] Cathode reaction



- iv] Anode reaction

