



Q1(A) Write the correct alternative :

(5)

- (1) Plants like carrot and radish perform with the help of roots.
a) fragmentation c) vegetative propagation
b) fertilization d) budding
- (2) The exchange of respiratory gases occur by the in the plants.
a) Air pores c) Stomata
b) Lenticels d) Diffusion
- (3) is the 'antigen' containing material given to acquire either permanent or temporary immunity against a specific pathogen or disease.
a) Vaccine c) Enzyme
b) Antibiotic d) Drug
- (4) Millipedes, belong to phylum
a) echinodermata c) arthropoda
b) mollusca d) cnidarians
- (5) Branch of biology in which study of the enzymes related to some prokaryotes and eukaryotic microbes, proteins, applied genetics, molecular biology, etc. is performed; is called as
a) system biology c) structural biology
b) cell biology d) applied biology

(B) Answer the following questions as per the given instructions :

(5)
(1)

- (1) State true or false
Vision is adversely affected due to noise pollution.
- (2) Answer in one sentence
Why do you wait for periods of music, P.T., drawing in the classroom?
- (3) Find the odd one out
Earthquake, Volcano, Bomb blast, Land slide
a) Earthquake c) Volcano
b) Bomb blast d) Land slide
- (4) Find co-related terms
Solar cells : DC power : : Inverter : _____.
- (5) Match the pair

(1)

Column "A"	Column "B"
1. Gregor Mendel	a. Lamarckism
2. Hugo de Vries	b. Modern Genetics
	c. Amino acids

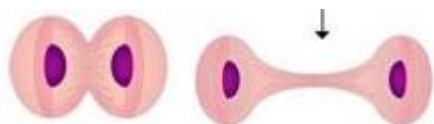
d. Mutation

Q2(A) Give scientific reasons (any two) :**(4)**

- (1) Increase in human disasters after the World War-II ?
- (2) Sometimes higher plants and animals too perform anaerobic respiration.
- (3) "A couple shall have a male child or female child totally depends upon husband".

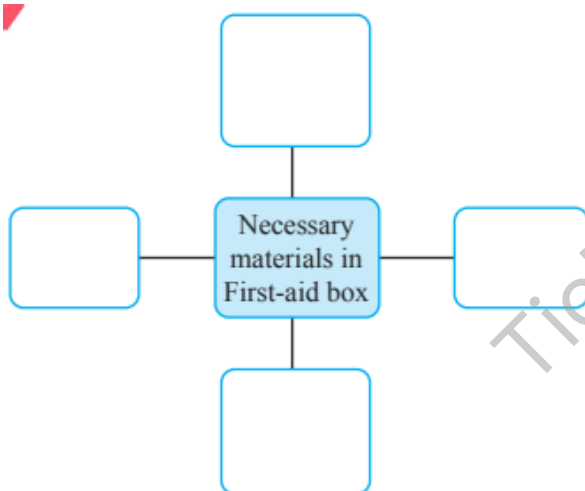
(B) Answer the following (any three) :**(6)**

- (1) Identify the cell division stage shown in the diagram below.

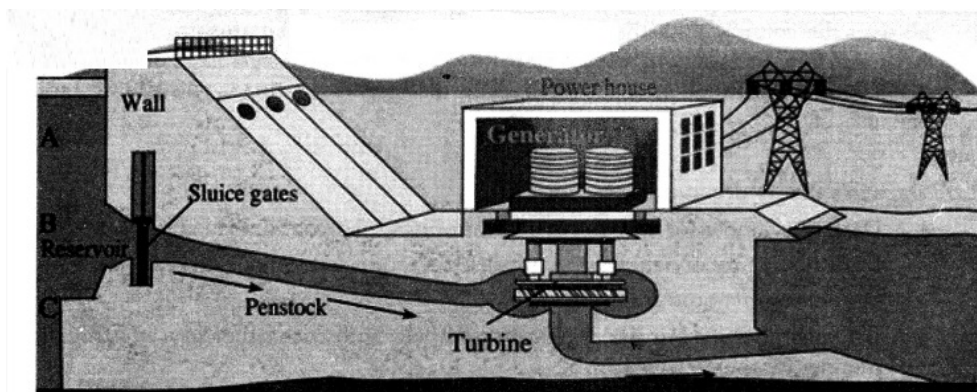


- (2) Write short note on Animal Husbandry.
- (3) Write four adverse effects of radiations on human body.
- (4) Applied Microbiology and Industrial Microbiology.

(5)

**Q3) Answer the following (any five) :****(15)**

- (1) Complete the paragraph:
(voluntarily donating, traditional, preserving, active, Awareness, organ and body, specific conditions, functional)
Human bodies are disposed off after death as per customs. Due to progress in science, it has been realized that many organs remain for certain period even after death, if death occurs under This advancement has lead to success of donation after death. about this concept is increasing in our country and people are their bodies.
- (2) Which precautions will you follow to maintain the reproductive health?
- (3) Fill in the blanks and explain the statements.
After complete oxidation of a glucose molecule, number of ATP molecules are formed.
- (4) Answer the following questions from figure:



- (a) With reference to point B, potential energy of how much water reservoir in the dam will be converted into kinetic energy?
- (b) What will be the effect on electricity generation, if the channel taking water to turbine starts at point A ?
- (c) What will be the effect on electricity generation if the channel taking water to turbine starts at point C

(5) Read the following paragraph and answer the questions given below:

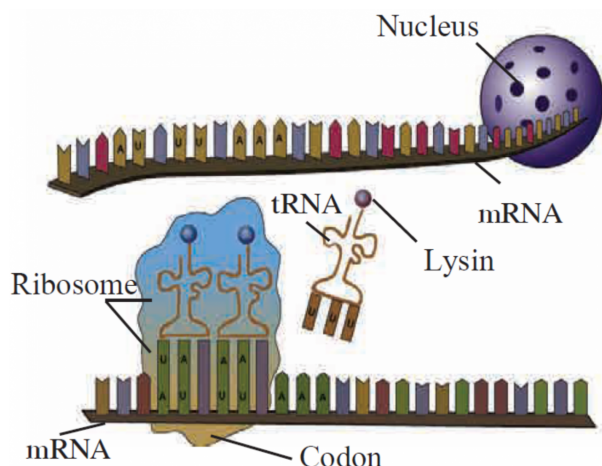
United Nations has defined the disaster as "the sudden event that leads to the huge loss of life and property. Words like 'huge' and 'sudden' are important in the definition. As the disaster occurs suddenly, it cannot be predicted. Hence, precautions are not possible. Huge losses to the property occur in the area of disaster. There are long term effects on society due to incidences of life and property loss. Various areas of life like economic, social, cultural, political, law and administration, etc. are affected by it. The life in the area of disaster is totally disturbed. There is loss to life and property of the people in distress.

- (1) Which world organization has defined disaster as "the sudden event that leads to the huge loss of life and property"?
- (2) Why can disasters not be predicted?
- (3) Which area of life are affected by disasters?
- (6) Underdeveloped, useless organs are non-functional yet present in humans.
- (7) Cockroach, Frog, Sparrow, Star fish, from these animals which can regenerate its broken body part ?
- (8) Suggest the remedies for the following situation:
- (1) What will you do if the child of your neighbor is addicted to tobacco chewing?
- (2) What will you do if you have free space around your home?

Q4) Answer any one of the following :

(5)

(1)



- i. How is mRNA formed ?
- ii. What is a codon ?
- iii. During Translocation, the movement occurs of over mRNA.

iv. How does tRNA bind to mRNA ?

v. How are amino acids bonded together ?

(2) Modern techniques like surrogate mother, sperm bank and IVF technique will help the human beings. Justify this statement.

All the Best

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