
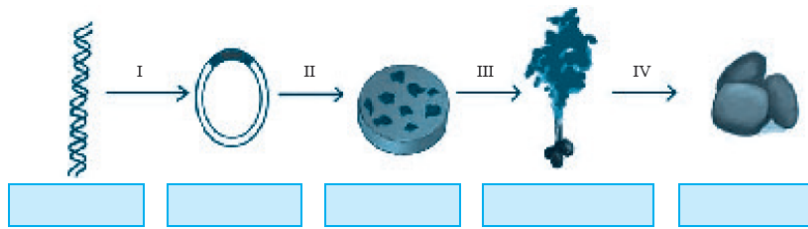


Chapter: ALL

- Q.1 Give scientific reasons (Any Two) 4**
- 1 Use of mutant strains has been increased in industrial microbiology.
 - 2 Oxygen is necessary for complete oxidation of glucose.
 - 3 Burning of natural gas results in less pollution than coal combustion.
- Q.2 Laws / Define / Principles(Any One) 2**
- 1 Define vestigial organs.
 - 2 Reproduction
- Q.3 Write Short Notes (Any One) 2**
- 1 Microbial inoculants
 - 2 Write short note on Connecting link.
- Q.4 Write properties/characteristics/uses/advantage/effects.(Any Two) 4**
- 1 What is role of microbes in compost production ?
 - 2 Write any two effects of this disaster.
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- Q.5 Distinguish between(Any Two) 4**
- 1 Chordates and Non-chordates.
 - 2 Food chain and Food web
 - 3 Aerobic respiration and Anaerobic respiration
- Q.6 Answer the following.(Any One) 2**
- 1 Sports and yoga play a very important role in an individual's personality development.
 - 2 Write the characteristics of urochordates.
- Q.7 Explain with the help of examples (Any One) 3**
- 1 Write the correct statement from the statements given in the box below the figure.
 - i. The whole plant is formed from the pieces of leaves which contain the genes of human pathogens.
 - ii. Consumption of raw potatoes builds immunity against those germs.
 - iii. Isolation of desired genes from pathogens found in human beings.
 - iv. Genetically transmitted plant-virus.
 - v. The virus infects pieces of potato leaves.

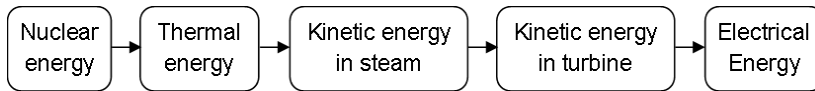


2 Explain with the help of examples Phylum-Mollusca ?

Q.8 Write laws, theories and explain.(Any One)

3

1 Explain energy transformation in nuclear power plant with a flow chart.



2 Objections to Darwin's theory of natural selection.

Q.9 Answer the following (Any Two)

6

1 Other than thermal power plant, which power plants use thermal energy for power generation? In what different ways is thermal energy obtained.

2 Redraw the given type of reproduction in the correct sequence and explain it.

3 Explain enumerate factors affecting the social health ?

Q.10 Draw a well labeled diagram and explain. (Any One)

5

1 Explain with a neat diagram, step-by-step energy conversion in the following.

2 Explain sexual reproduction in plants. Draw a neat labelled diagram.

Q.11 Answer the following in detail (Any One)

5

1 Cheese is produced on large scale from the abundantly available cow milk all over the world. First, chemical and microbiological tests of milk are performed. Some colours and microbes like *Lactobacillus lactis*, *Lactobacillus cremoris*, and *Streptococcus thermophilus* are mixed with milk. It imparts sourness to the milk. After this, to impart the dense texture, whey (water in yoghurt) needs to be removed. An enzyme, rennet obtained from alimentary canal of cattle was being traditionally used earlier. However, an enzyme protease obtained from fungi is used at present to produce vegetarian cheese. The whey is separated from yoghurt (which has some other uses). Then, process of production of cheese is started through steps like cutting the solid yoghurt into pieces, washing, rubbing, salting, and mixing of essential microbes, pigments and flavors. Then, cheese is pressed and cut into pieces and stored for ripening.

i. Give any two microbes used in cheese production. (1)

ii. Why the cheese is stored? (1)

iii. What enzyme is used to prepare vegetarian cheese?(1)

iv. What processes are involved in cheese production? (2)

2 Explain the human female reproductive system with the help of diagram.