

Time : 2 Hrs.

Marks : 40

Q.1 A) Multiple choice questions.

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- 1) The life process which does not help the organism to remain alive, but helps to maintain the continuity of the species is
a) nutrition b) respiration c) reproduction d) control and co- ordination
- 2) Animal that can change its colour is
a) Planaria b) Octopus c) Leech d) Hydra
- 3) Which of the following factor (s) is important while considering organ transplantation?
a) Blood group of the recipient b) Disorders of the donor
c) Age of the donor d) All of the above
- 4) Sewage should be released into rivers only after microbial treatment that results in
a) oxidation b) coagulation c) polymerization d) fermentation
- 5) _____ is a manmade disaster.
a) Earthquake b) Flood c) Meteorite d) Poisonous gas leak

B) Complete the Analogy.

5

- 1) Lipids : Fatty acids and glycerol : proteins _____
- 2) Pedicel present : Pedicellate flower : : Pedicel absent : _____
- 3) Group of solar cells : solar panel : : Group of solar strings : _____
- 4) Lactobacillus delbrueckii : Lactic acid : : Aspergillus itaconius : _____
- 5) _____ : Dwarfism : : Factor VIII : Hemophilia

Q.2 A) Give scientific reasons. (Any 2)

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- 1) The vestigial organ appendix is still existent in human beings.
- 2) Why is it said that pollution control is important?
- 3) What will you do if your brother studying in XII has developed stress? Why?

B) Answer the following. (Any 3)

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- 1) Mention any four molecules synthesized during aerobic respiration.
- 2) Write a short note on Chipko movement of Bishnoi.
- 3) State any four characteristics of members belonging to class Aves.
- 4) What are the reasons for increasing the popularity of probiotic products?

	Column I (Authority)		Column II (Help – line number)
5)			
i)	Police	a)	102
ii)	Fire fighting force	b)	108
iii)	Disaster control unit	c)	100
iv)	Ambulance	d)	101

Q.3 Answer the following. (Any 5)

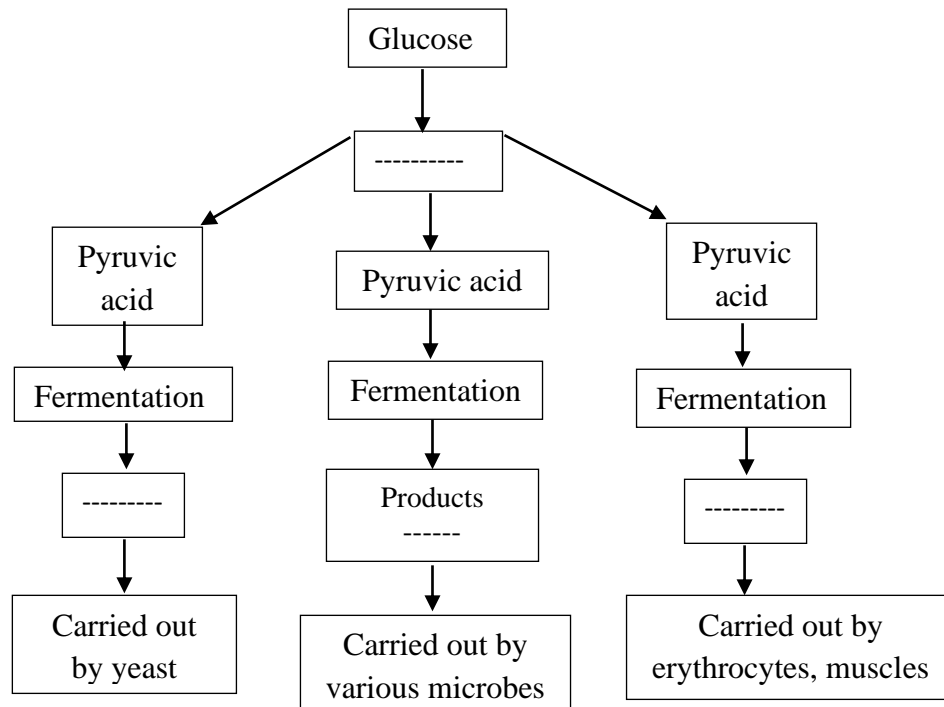
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Fill in the blanks by selecting the correct word from the bracket and complete the given paragraph.

(two, Ramapithecus, modern sciences, seven, Neanderthal man, lemurs, agriculture, orangutans)

The last dinosaurs disappeared approximately _____ crore years ago. Monkey – like animals are said to have evolved from some ancestors who were similar to modern _____. The first human – like animals with erect posture evolved about _____ crore years ago. The first record of this human – like ape is _____ from East Africa. _____ can be considered as the first member of the class – wise - man. About 10 thousand years ago, wise – man started to practice _____.

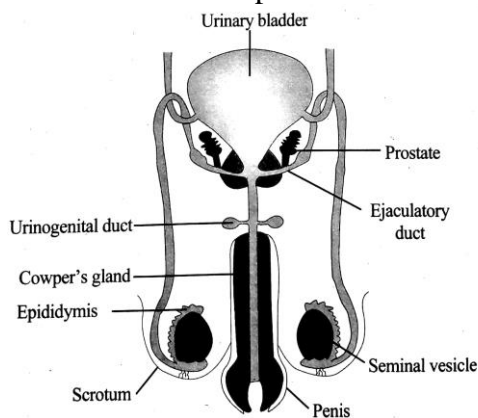
2) Complete the following chart.



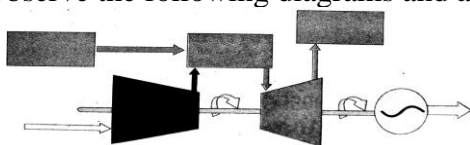
- 3) Make a list of voluntary organizations working for environmental conservation and protection.
- 4) State the characteristics of the members of class Pisces.
- 5) Give diagrammatic representation of a modern landfill site and explain how waste is disposed off?
- 6) Explain in detail the importance of biotechnology in human health.
- 7) What type of changes occurs in a home having chronically ill old person? How will you help to maintain good atmosphere?
- 8) Identify the type of disaster.
 - i) Terrorism
 - ii) Soil erosion
 - iii) Hepatitis
 - iv) Forest fire
 - v) Famine
 - vi) Theft

Q.4 Answer the following. (Any 1)

- 1) Correct the given figure of human male reproductive system and explain in detail the formation and maturation of sperms.



- 2) Observe the following diagrams and answer the questions.



- i) The schematic of power generation based on energy of natural gas is shown in the given diagram?
- ii) What is the function of the combustion chamber in the plant?
- iii) What is the function of the compressor in the plant?
- iv) Draw the flow chart showing the generation of electricity in the power plant.
- v) Draw the flow chart for the transformation of energy in the power plant.