

Nayak's Tutorials

Year : 2025 - 2026

Sample Paper - 3

Marks :40

Std: X_SSC

Science -2

Duration: 2 Hrs

Q.1)(A) Choose the correct alternative.

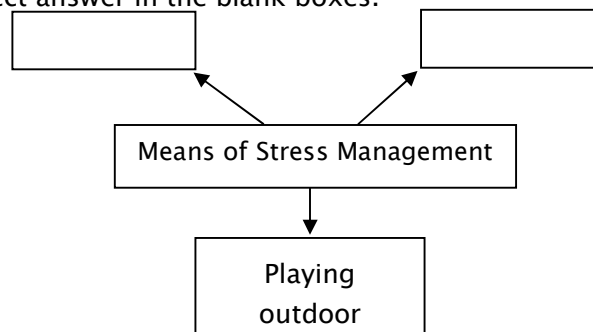
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- (i) During protein synthesis, the amino acids brought in by t-RNA are bonded together by _____ bonds.
(a) glycosidic (b) covalent (c) peptide (d) ionic
- (ii) "The Earth is sufficient to satisfy everyone's need but not the greed". The above quote was given by _____.
(a) Vikram Sarabhai (b) Kokilamukh (c) Jadhav payeng (d) Mahatma Gandhi
- (iii) _____ is a harmful microbe.
(a) *Azotobacter* (b) *Nocardia* (c) *Chlorella* (d) *Clostridium*
- (iv) In adolescents, the development of _____ is hindered due to alcoholism.
(a) liver (b) Lungs (c) brain (d) kidney
- (v) In female gamete of humans, the genotype of oocyte is _____.
(a) 22+Y (b) 44+X (c) 22+X (d) 44+Y

Q.1) (B) Answer the following questions.

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- (i) Fill in the blank.
Ethanol is a smokeless fuel obtained during _____ by the yeast – *Saccharomyces*.
- (ii) Identify the ODD one out.
Rohu, Myxine, Pomfret, Shark.
- (iii) Define cell.
- (iv) Complete the following correlation.
Vancomycin :Antibiotic :: Spinosad : _____
- (v) Write the correct answer in the blank boxes.



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

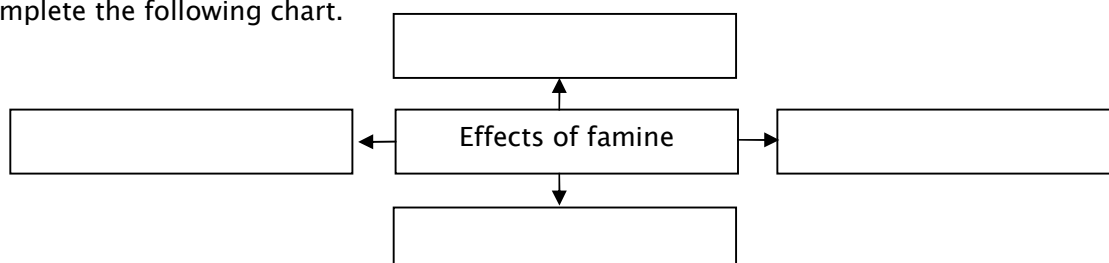
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- (i) Why is it asked to segregate wet and dry waste in each home?
- (ii) Stem cells are parent cells of all types of human cells.
- (iii) Our body irritates if it comes in contact with jelly fish.

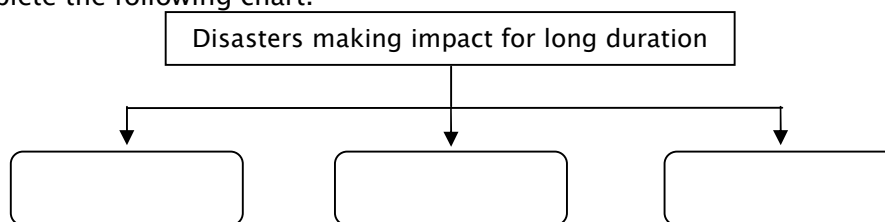
Q.2) Answer the following questions. (Any 3)

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- (i) Complete the following chart.



- (ii) Which are the different sources of obtaining stem cells?
- (iii) What is the difference between food chain and food web?
- (iv) Mention the uses of science of heredity.
- (v) Complete the following chart.



Q.3) Answer the following Questions. (Any 5)

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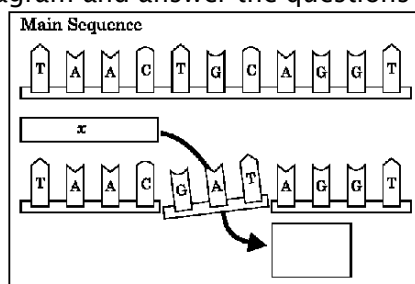
- (i) Make a comparative note on the usefulness and harmfulness of biotechnology and complete the table given below.

Usefulness of biotechnology	Harmfulness of biotechnology

- (ii) Which modern technique of reproduction is seen in the figure below? Describe in brief.

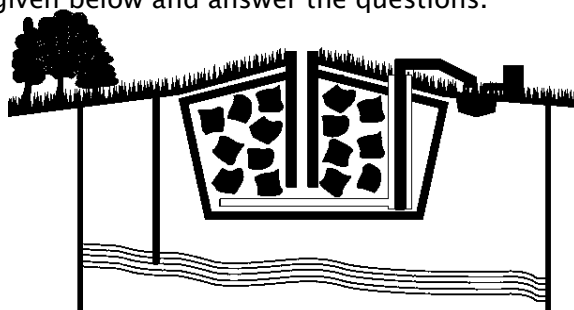


- (iii) Draw a flow chart showing different stages in solar thermal power plant.
- (iv) Which changes occur in persons continuously using internet and mobile phones?
- (v) Complete the given diagram and answer the questions that follow.



Questions:

- (a) Which change is shown in the above diagram?
- (b) What sequence should come in the empty box?
- (c) Which process is indicated by 'x'.
- (vi) Observe the figure given below and answer the questions.

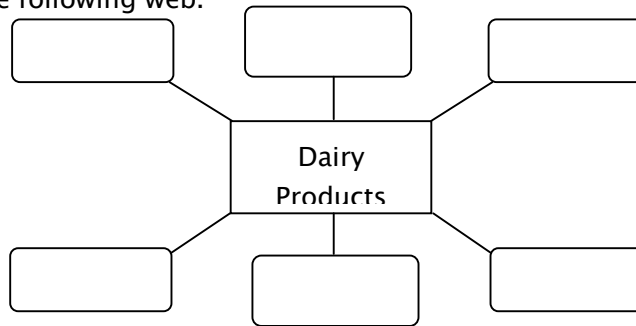


(a) Label the given figure.

(b) Which method of solid waste disposal is shown in the figure?

(c) Is the end product generated eco-friendly? Why?

(vii) Complete the following web.



(viii) Discuss 'Jivo Jivasya Jivanam'.

Q.4) Answer the following Questions. (Any 1)

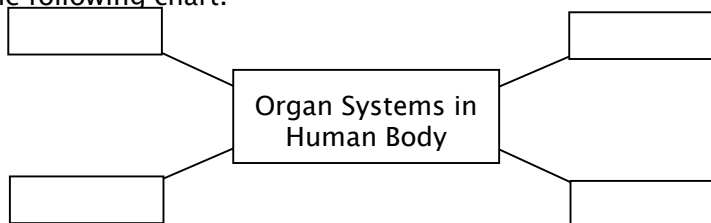
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(i) Read the following passage and answer the questions given below:

Various organ- systems are continuously performing their functions in human body. Along with various systems like digestive, respiratory, circulatory, excretory and control systems, different external and internal organs are performing their functions independently but through a complete co-ordination. This overall system is in action in more or less same way in all the organisms. Those are in need of continuous source of energy for this purpose. Carbohydrates, fats and lipids are the main sources of this energy and it is harvested by the mitochondria present in each cell. If is not like that only foodstuff is sufficient for energy production but oxygen is also necessary. All these, i.e. foodstuffs and oxygen are transported up to the cell via circulatory system. Besides, it is co-ordinated by the control system of the body, i.e. Each life process contributes in its own way in the process of energy production. Functioning of all these life processes also required the energy.

Questions:

(a) Complete the following chart.



(b) What is needed by the organ systems to perform their functions?

(c) Name the main sources of energy for the human body.

(d) Name the organelle present in cell which harvests energy sources.

(e) Which organ system present in the body transports food and oxygen upto the cell?

(ii) How can we offer first aid to victims of any disaster?

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