



SCIENCE-2

Class 10 - Science & Technology - II

Time Allowed: 2 hours

Maximum Marks: 40

General Instructions:

1. All questions are compulsory.
2. Use of a calculator is not allowed.
3. The numbers to the right of the questions indicate full marks.
4. In case of MCQs (Q. No. 1(A)), only the first attempt will be evaluated and given credit.
5. For each MCQ, the correct alternative (a), (b), (c) or (d) with subquestion number is to be written as an answer.
For e.g. (i) (a), (ii) (b), (iii) (c)
6. Scientifically correct, labelled diagrams should be drawn wherever necessary.

1. [10]
- (a) **Write the correct alternative:**
- i. The spindle fibres start appearing from _____ stage of karyokinesis. [1]
- a) Metaphase b) Anaphase
c) Prophase d) Telophase
- ii. Which sanctuary in Assam is under threat due to dams and indiscriminate use of water? [1]
- a) Sundarban b) Kaziranga
c) Manas d) Tadoba
- iii. Animal with bilateral symmetry is _____. [1]
- a) Paramoecium b) Human
c) Amoeba d) Star fish
- iv. Organs like _____ can be donated after death. [1]
- a) Skin b) Heart
c) Lungs d) Bones
- v. Which of the following is a man-made disaster? [1]
- a) Flood b) Earthquake
c) Meteoric d) Leakage of toxic gases
- (b) **Answer the following questions as per the given instructions:**
- i. Earthquake, Flooding, Tsunami, War [1]
- ii. Oxidation of proteins is carried out in aerobic respiration. [1]

- iii. To which class does bat belong? [1]
- iv. Which type of fuel is used in thermal power plant? [1]
- v. Identify the picture and name it. [1]



2. [10]

(a) Give scientific reasons. (Any 2)

- i. Cell division is one of the important properties of cell and organisms. [2]
- ii. It is absolutely necessary to control the fission reaction in nuclear power plants. [2]
- iii. Indians should follow family planning for controlling the population. [2]

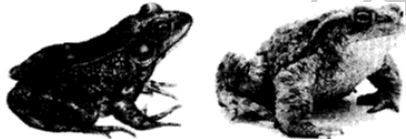
(b) Answer the following questions (Any 3)

- i. Define vestigial organs. Write any two names of vestigial organs in human body. [2]
- ii. Write a short note on Environmental Conservation. [2]
- iii. Which precautions should be followed to maintain the reproductive health? [2]
- iv. State any four benefits of animal classification. [2]
- v. What are vitamins? Write two types of vitamins. [2]

3. Answer the following questions (Any 5): [15]

(a) Write the factors affecting environment. [3]

(b) [3]

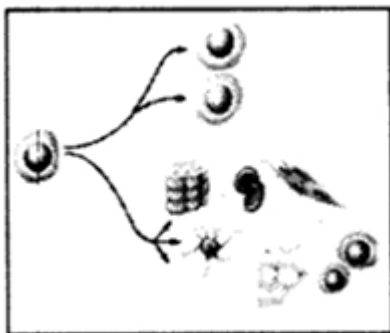


- i. Identify the class of the animals shown in the figure.
- ii. Write two characteristics of that class.

(c) Which precautions are necessary for proper decomposition of domestic waste? [3]

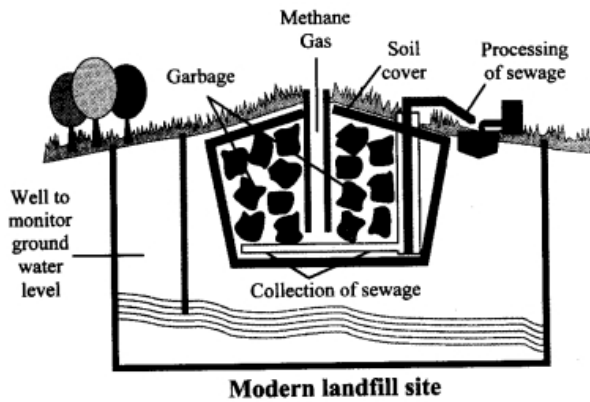
(d) i. Which process is shown in the given diagram? [3]

- ii. What is the importance of this process?
- iii. Which organs can be transplanted by this process?

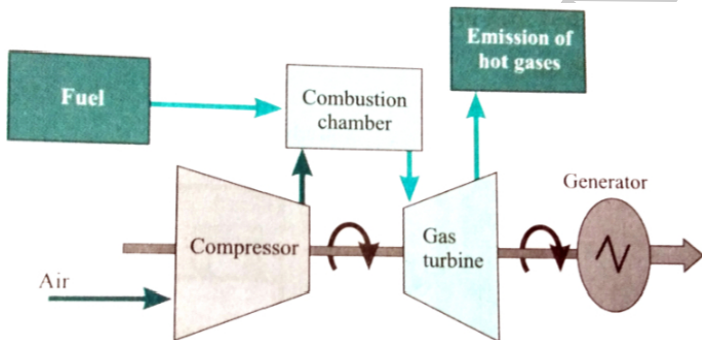


(e) Cockroach, Frog, Sparrow, Star fish, from these animals which can regenerate its broken body part? [3]

(f) Observe the following figure and answer the questions: [3]



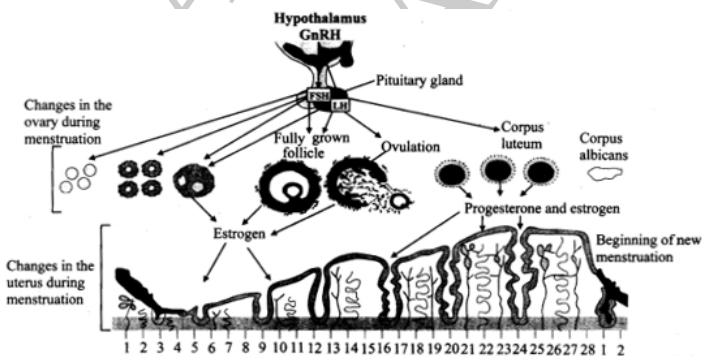
- i. Identify the process shown in the figure.
 - ii. Explain the process in short.
- (g)
 - i. What do you mean by central dogma? [3]
 - ii. What is transcription?
 - iii. What is meant by triplet codon?
- (h) Observe the diagram and answer the questions: [3]



- i. Which energy is generated from the power plant?
- ii. State its source.
- iii. Which is more eco-friendly - power generation from coal or power generation from natural gas? Why?

4. Answer any one of the following questions: [5]

- (a) Answer the following questions by observing the diagram of menstrual cycle: [5]



- i. What is the period of menstruation?
 - ii. On which day does ovulation occur during menstrual cycle?
 - iii. In menstrual cycle which reproductive organs undergo changes?
 - iv. Which period is said to be period of regeneration of endometrium?
 - v. Which period is said to be period of secretions of glands in endometrium?
- (b)
 - i. Identify the following symbols and state their significance: [5]



(a)



(b)

ii. How the biodiversity can be conserved?

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