

PVG's  
**Muktangan English School & Jr. College, Pune – 9**  
**Terminal Examination (2024-2025)**  
**STANDARD - X**

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Subject: Science & Technology (Part II)  
Date: 18/10/2024

Marks: 40  
Time: 8.00 am-10.00 am

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**Note:**

- 1) All questions are compulsory
  - 2) Draw scientifically, technically correct labelled diagram wherever necessary.
  - 3) Start writing each main question on new page.
  - 4) Figures to the right indicate full marks.
  - 5) For each Question no. 1- (A) MCQ marks will be given only for first attempt.
  - 6) The answer to every MCQ should be written as shown: Example – 1(A).
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**Q.1-A) Choose the correct alternative and write only the correct option. (5)**

- 1) A minor change occurs due to change in position of any nucleotide is termed as  
A) transcription      B) translocation      C) mutation      D) translation
  
- 2) Solar cells are made of a special type of material called Semiconductor such as \_\_\_\_\_.  
A) Silicon      B) Uranium      C) hydrogen      D) sodium
  
- 3) The length of sperm is about \_\_\_\_\_ micrometers.  
A) 400      B) 5      C) 60      D) 600
  
- 4) Regeneration occurs in \_\_\_\_\_.  
A) amoeba      B) paramecium      C) euglena      D) planaria
  
- 5) \_\_\_\_\_ prepares the Red list that contains the names of endangered species from different countries.  
A) IUCN      B) WWF      C) IPCC      D) UNEP

**Q.1-B) Answer the following questions. (5)**

- 1) State whether true or false.  
Oxidation of proteins is carried out in aerobic respiration.
- 2) Give one word for "The forest conserved in the name of god".
- 3) Pick the odd man out:  
Vagina, Uterus, Vas deferens, Ovary
- 4) Write Co-relation :  
Radial symmetry : : Star fish : : \_\_\_\_\_: Fishes
- 5) Define : Vestigial organs.

**Q2-A) Give scientific reasons of the following (Any 2)**

**(4)**

- i) Tobacco chewing is injurious to health.
- ii) Fibers are one of the important nutrients.
- iii) The construction of turbine is different for different types of power plant.

**Q2-B) Answer the following questions (Any 3)**

**(6)**

- 1) Write the difference between Conventional and Non-Conventional source of energy (Any 2 points)
- 2) Write the characteristics of sub kingdom chordates.
- 3) Explain with suitable examples importance of anatomical evidences in evolution.
- 4) What is the meaning of following symbols.



- 5) Explain the importance of good communications with others.

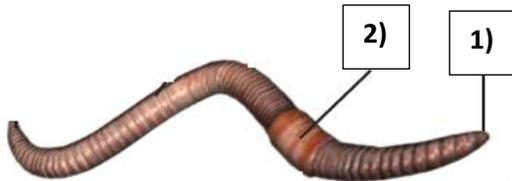
**Q.3 Answer the following questions. (Any 5)**

**(15)**

- 1) Write the types and examples of biodiversity.
- 2) Gender of the child is determined by the male partner of couple. Justify the given statement.
- 3) Explain the types of asexual reproduction in Unicellular organisms.
- 4) What will you do? Why?
  - a) your friend has developed the hobby of snapping selfies.
  - b) you are spending more time in internet mobile games, phones etc.
  - c) you have to use free space around your home for good purpose.
- 5) Explain the following terms.
  - a) IVF
  - b) Surrogacy
  - c) Sperm bank

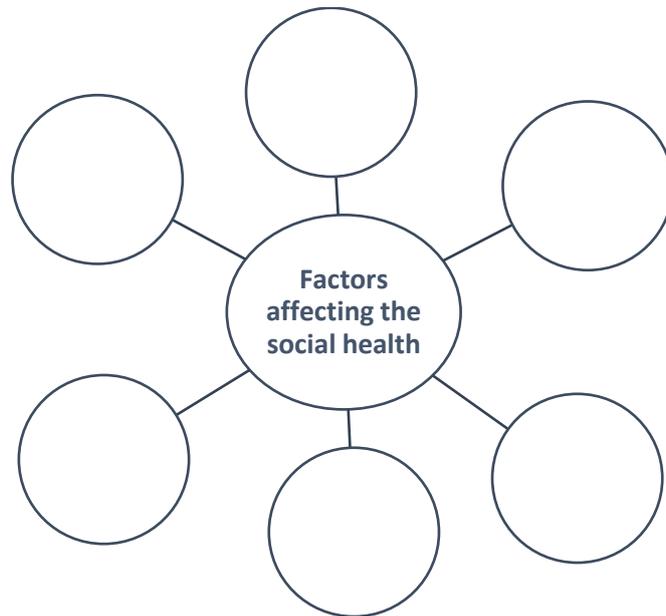
6) Explain the process of formation of complex proteins.

7) Observe the following diagram and write the answers for the following questions.



- i) To which phylum does the animal belong.
- ii) Label the given diagram where the numbering is done.
- iii) Write any two Characteristics of that phylum.

8) Redraw and complete the given chart.

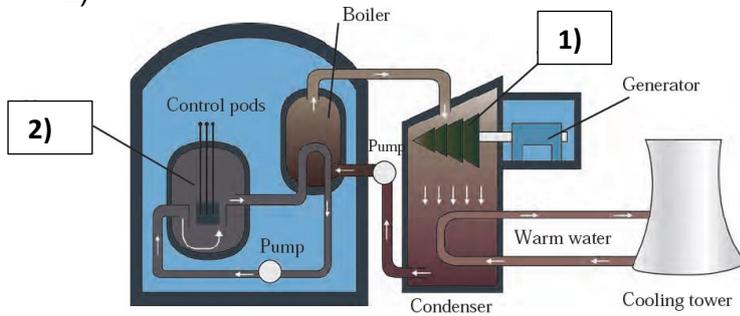


**Q.4 Answer the following questions (Any 1)**

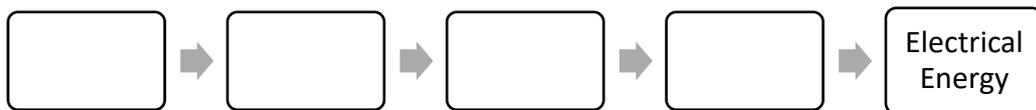
**(5)**

- 1) i) Draw a well labelled diagram of parts of flower.
- ii) Explain Double fertilization in angiosperms.
- iii) Write any two agents of pollination.

2)



- i) Label the given diagram where numbering is done.
- ii) Complete the following flow chart of the energy transformation in the nuclear power plant.



- iii) How does nuclear fission take place?

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