

Q.1. (A) Write the correct alternative. [5]

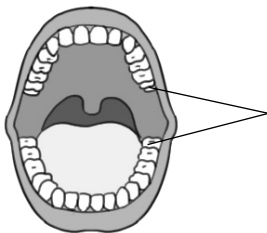
- i. _____ present in human body is not a proof of evolution.
- a. Human hand b. Appendix
c. Ear muscles d. Tail-bone
- ii. Type of sexual reproduction is _____.
- a. Fragmentation b. Regeneration
c. Gamete formation d. Budding
- iii. The apex consumer is _____ .
- a. Eagle b. Frog
c. Snake d. Grasshopper
- iv. The Hydroelectric capacity of Koyna dam is _____.
- a. 2400 MW b. 1960 MW
c. 1900 MW d. 1961 MW
- v. Animal with bilateral symmetry is _____.
- a. Starfish b. Human
c. Paramoecium d. Amoeba

(B) Answer the following questions as per the given instructions. [5]

- i. State whether the following statement is true or false:
To take a selfie on the road is an invitation for an accident.
- ii. Write the correct co-relation:
Insulin : diabetes :: Interferon :
- iii. To which class does bat belong?
- iv. Match the correct pair:

Column A	Column B
(1) Forest Conservation Act	(a) 1986
	(b) 1980
	(c) 1970

v. Write the name of indicated part in diagram of Human jaw:

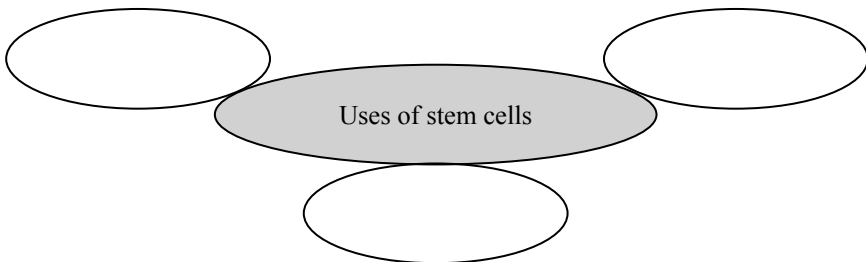


Q.2. (A) Give scientific reasons. (Any two) [4]

- i. Sometimes higher plants and animals too perform anaerobic respiration.
- ii. It is absolutely necessary to control the fission reaction in nuclear power plant.
- iii. Flower is structural unit of sexual reproduction in plants.

(B) Answer the following questions. (Any three) [6]

- i. Write a short note on Environmental Conservation.
- ii. Distinguish between Chordates and Non-chordates.
- iii. Write the correct answer in blank circles.



- iv. Write down any two objectives of disaster management.
- v. What are the benefits of mixing ethanol with petrol and diesel?

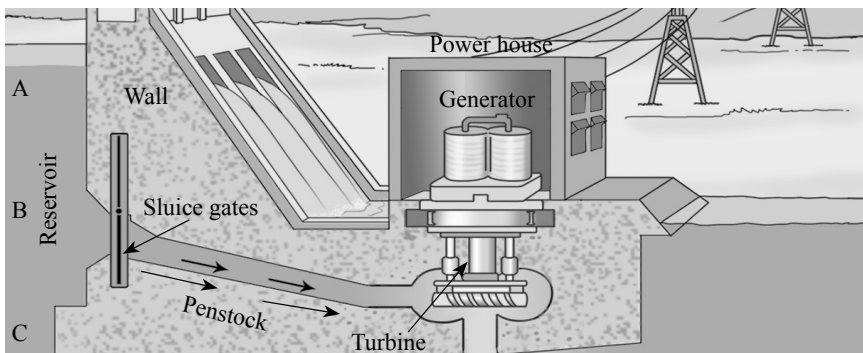
Q.3. Answer the following questions. (Any five) [15]

- i. Write Darwin's theory of natural selection.
- ii. Complete the following chart:

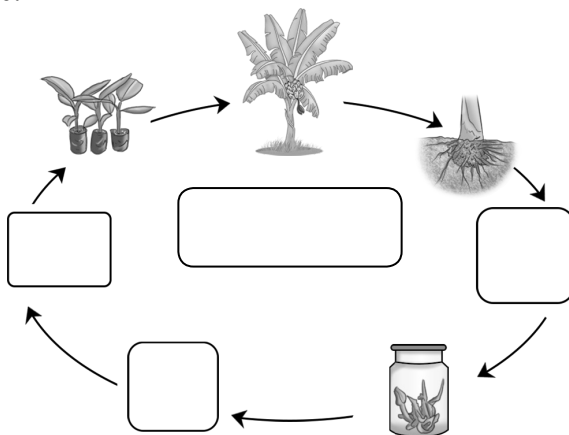
Sr. No.	Proteins	Name of the Organs
1.	Melanin, Keratin
2.	Pancreas
3.	Haemoglobin, antibodies

- iii. Write the factors affecting environment.

iv. Answer the following questions from figure:



- With reference to point B, Potential energy of how much water reservoir in the dam will be converted into kinetic energy?
 - What will be the effect on electricity generation, if the channel taking water to turbine starts at point A?
 - What will be the effect on electricity generation, if the channel taking water to turbine starts at point C?
- v. Cockroach, Frog, Sparrow, Starfish, from these animals which can regenerate its broken body part?
- vi. Complete the diagram showing various processes in tissue culture.



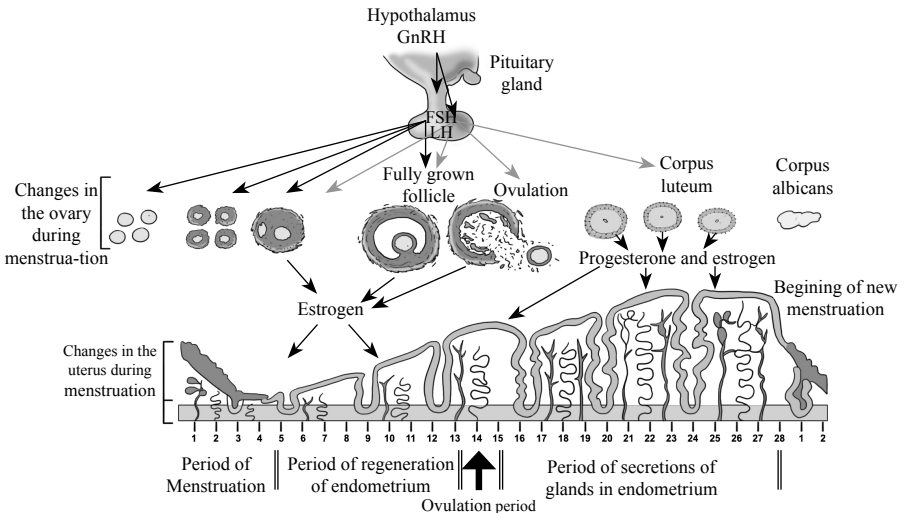
- vii. Which fuels are obtained from biomass?
- viii. Complete the following passage by using appropriate words given in brackets:

(Delhi, 12, 2005, army, National Disaster, rescue work, State Reserve Police, 2015)

National Disaster Response Force has been established as per the Disaster Management Act, _____ Divisions of this force are working in army. Overall, _____ divisions are working in the country. Its headquarter is in _____ and it is in action all over the country with the help of _____. In Maharashtra, _____ Response Force is in action through State Reserve Police Force. Personnel of this force have substantial contribution in _____ in disasters like cyclones, cliff-sliding, building collapse, etc.

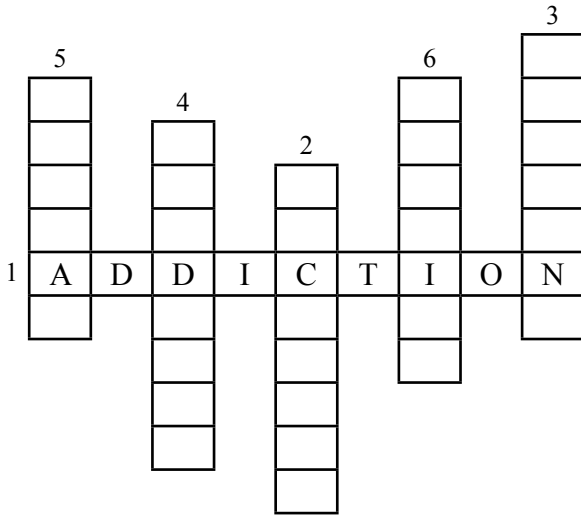
Q.4. Answer any one of the following questions. [5]

i. Answer the following questions by observing the diagram of menstrual cycle:



- What is the period of menstruation?
- On which day does ovulation occur during menstrual cycle?
- In menstrual cycle which reproductive organs undergo changes?
- Which period is said to be period of regeneration of endometrium?
- Which period is said to be period of secretions of glands in endometrium?

ii. Solve the following crossword:



1. Continuous consumption of alcoholic and tobacco materials.
2. This app may cause the cyber crimes.
3. A remedy to resolve stress.
4. Requirement for stress free life.
5. Various factors affect _____ health.
6. Art of preparing food items.

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