

A.P.R.E.I. SOCIETY® :: HYDERABAD

QUESTION BANK[E.M]

X - BIOLOGY

By

S.KARUNAKAR REDDY, PGT in Biology

B.PRABHAKAR, PGT in Biology

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I - LIFE PROCESSES

VERY SHORT ANSWER TYPE [1Mark]

1. What is reaction centre?
2. What is an electron acceptor? Give some examples.
3. What is photolysis? Write end products.
4. What are respiratory substrates? Give examples.
5. What is Glycolysis?
6. What is meant by optimum temperature?
7. What is Aestivation?
8. What is exoskeleton?
9. What is the shape of alary muscles?
10. How trachea is prevented from collapsing?
11. What is palate?
12. what is bronchial heart?
13. What is a pulmonary heart?
14. What is heart attack?
15. What is haematology?
16. What is saline?
17. What is Erythropoiesis?
18. Why spleen is called “grave yard of RBC?”
19. What is blood transfusion?
20. What is agglutination of blood?
21. Who are Universal Donors?
22. Who are Universal Recipients?

SHORT ANSWER TYPE [2Marks]

1. What is a life process? Name some life processes.
2. What is photosynthesis? Write an equation for photosynthesis showing all the requirements and the products formed?
3. What is the importance of Photosynthesis?
4. Write the differences between Oxidation and Reduction?
5. Write the differences between combustion and respiration?
6. Write the differences between Aerobic and Anaerobic respiration?
7. Write the differences between Palisade and Sponge parenchyma?
8. Write different types of respiratory organs, types of respirations with some suitable examples?
9. What is phosphorylation ? Describe different types of phosphorylations?
10. Write an account of evolution of heart in higher animals?
11. Write short notes on Sinus venosus.
12. Write short notes on open and closed type of circulatory system?
13. Write short notes on single and double circuit circulatory system?
14. What is heart beat? Write three stages of it.
15. Why there is more pressure in arteries than in veins?
16. A persons BP is written as 120/80. What does this indicate?
17. Write the differences between plasma and serum?

ESSAY TYPE [4Marks]

1. How do you prove that oxygen is evolved in photosynthesis?
2. How do you prove that carbondioxide is essential for photosynthesis?
3. How can we show that heat is liberated during respiration?
4. How can you show that carbindioxide is evolved in respiration?
5. Discuss the mechanism by which the light energy is converted to chemical energy? Or Describe light reaction in photosynthesis?

6. How is carbondioxide converted to glucose during photosynthesis?
7. Write an account of Glycolysis?
8. Describe the structure of Mitochondria with the help of a diagram?
9. Describe tracheal respiration in (cockroach) Insects?
10. Describe structure of human lungs?
11. What is hyper tension? How is it caused? Mention the preventive steps to be taken ?
12. Describe the different blood groups in Man?
13. Write the differences between RBC and WBC ?

II - CONTROL AND CO-ORDINATION

VERY SHORT ANSWER TYPE [1 Mark]

1. What is irritability?
2. What is apical dominance?
3. What is Parthenocarpy?
4. Where is the growing region in the root?
5. What is a target tissue or target organ?
6. What is cretinism?
7. What is tetany?
8. What is the function of glial cells?
9. What is synapse?
10. What is action potential?
11. How a nerve is formed?
12. What are the functions of Diencephalon?
13. What are the functions of Hypothalamus?
14. Give the functions of cerebellum.
15. Why is vagus nerve more important than the others?
16. Which is the decade of the brain?

SHORT ANSWER TYPE [2 Marks]

1. What are growth substances? Give examples.
2. What are the functions of Cytokinins?
3. What is a mixed gland? Give example.
4. Which hormones are secreted by ovary?
5. What are Nissal granules? Where do you find them?
6. What are the differences between Dendrite and an axon?
7. What is an action potential?
8. What is Myoline sheath? Where do you find it?
9. Why the damage in certain diseases like polio is permanent?
10. Give functions of Cerebellum?
11. Name the membranes that cover the brain?
12. What are Gyri and Sulci? What is the advantage of these structures?
13. Where do you find cerebro spinal fluid? What are its functions?
14. How many types of glands are present in human body depending on the nature of secretion? What are they?
15. Write differences between Diabetes mellitus and Diabetes insipidus?

ESSAY TYPE [4 Marks]

1. Plant growth substances act together or against each other. Give suitable examples
In Support of the statement.
2. What is the role of Gibberellins in plant growth and development?
3. What are Auxins? How do they affect plant growth?
4. What is the importance of Pituitary in the body? Mention the hormones and their functions.
5. Write a brief account of the Adrenal gland.
6. Describe the structure of the nerve cell with the help of diagram.
7. Describe the structure of Cerebrum.
8. What is Reflex Arc? What are its components and their function?
9. The Human brain is the most complicated organ in animal kingdom – comment.

III. REPRODUCTION

VERY SHORT ANSWER TYPE [1 Mark]

1. What is Palynology?
2. What is Totipotency?
3. What is Explant?
4. What is Callus?
5. How can we get haploid plant through tissue culture?
6. What is external fertilization? Give examples in which it occurs?
7. What is internal fertilization? Give examples.
8. What is sexual dimorphism?
9. What is hermaphroditism? Write the phyla which show this.
10. What is the function of micronucleus in Paramecium?
11. What is the function of macronucleus in Paramecium?
12. Name the phyla in which asexual reproduction occurs?
13. How can you distinguish a male frog from female frog?
14. What is the function of Acrosome of spermatozoa?
15. Name the accessory glands associated with human male reproductive system?
16. Name the sex hormones released by testes?
17. What is corpus luteum? What is its function?
18. What is meant by ovulation in human beings?
19. What is menstrual cycle?
20. What is implantation?
21. What is the function of synergids?
22. What is endosperm?

SHORT ANSWER TYPE QUESTIONS [2 Marks]

1. What is reproduction? Why it is important for a species?
2. Write advantages of vegetative propagation?
3. Describe the terms Scion and Stock.
4. Write a short note on uses of grafting.
5. What is a bud? Write about the importance of buds in vegetative propagation?
6. Despite hermaphroditism, why self fertilisation is not occurring in Earthworm?
7. What is the disadvantage of repeated binary fission for paramecium?
8. Houseflies are enemies of humanbeings. Why?
9. What is embryo rescue? When is this method followed?
10. What is Milt and Spawn?
11. How do you differentiate between the animal and vegetal poles of frog ovum?
12. Write differences between spermatozoa and ovum?
13. How is Placenta formed? What is its function?

ESSAY TYPE [4 Marks]

1. Write differences between Sexual and Asexual reproduction?
2. What are the applications of plant cell and tissue culture?
3. Describe the structure of flower with the help of a diagram?
4. Describe the Male reproductive system of the frog?
5. Describe the structure of Human spermatozoa?
6. Give an account of menstrual cycle in human beings?
7. Give an account of the various contraceptive methods?
8. Describe the most common methods of asexual reproduction in plants?
9. What is Grafting? Describe the different types of Grafting?
10. What is vegetative propagation? Write different types of vegetative propagation?

IV. HIV - AIDS

VERY SHORT ANSWER TYPE [1 Mark]

1. What are the enzymes present in HIV?
2. Which enzyme is responsible for the unique nature of HIV?
3. Name the tests to detect HIV antibodies?

ESSAY TYPE [4Marks]

1. What are the modes of HIV transmission?
2. How HIV is not transmitted?
3. A person initially infected with HIV reaches the AIDS stage. What are the different stages he passed through?
4. Why skills are necessary for everyone to face the challenges of life especially in the context of HIV.....AIDS ? Which life skills would you practice?
5. Write the differences between HIV.....AIDS ?

V. NUTRITION

VERY SHORT ANSWER [1 Mark]

1. What is the disadvantage if you eat only rice or meat?
2. Why do sports persons take glucose?
3. What are biologically complete proteins? Give two examples.
4. What is malnutrition?
5. Which is the only treatment available for obesity?
6. What happens if antibiotics are indiscriminately taken?
7. What is the loss if rice is polished or repeatedly washed? What is the diseases it causes?

8. What is method evolved by the national institute of nutrition, Hyderabad to prevent blindness in children?
9. What is Glossitis?
10. What is a infection?
11. How tetanus germs are transferred into the body?
12. What is recovery period?
13. Why the skin colour is yellow in Jaundice?

SHORT ANSWER TYPE [2 Marks]

1. In what way calcium helps the body?
2. What are the functions of Iron in the body?
3. What is flurosis? How does it affect the body?
4. What is Iodised salt? Why is it advisable to take Iodised salt?
5. What is balanced diet? What is its advantage?
6. What are micro nutrients? Give two examples?
7. Why vitamins are called essential nutrients?
8. How do you identify pellagra?
9. How to control Malarial infection?
10. What is first aid? Mention its purpose.
11. Write duties of a Anganwadi worker?
12. Describe duties of village health guide?

ESSAY TYPE [4 Marks]

1. What are the effects of Kwashiorkor on children?
2. How does marasmus affect a child?
3. What are the steps to be taken by obese people to reduce their weight and size?
4. Mention various diseases caused by the deficiency of vitamin A?
5. How vitamin C helps the body?
6. Give different causes for the occurrence of Jaundice?
7. What care is to be taken for the patient suffering with Jaundice?
8. Why encephalitis is a fatal disease? How it is caused?
9. Describe the changes in the life cycle of malarial parasite , that occur in Man?
10. Describe the changes in the life cycle of malarial parasite , that occur in Mosquito?
11. What is fracture? Write different types of fractures?
12. Mention the symptoms of a fractures?
13. What first aid will you render for fractures?