



BIOLOGY

BOOKS - VGS PUBLICATION-BRILLIANT

MOST IMPORTANT QUESTIONS

Unit Ia Digestion And Absorption Very Short Answer Type Questions

1. Dental formula of adult humans is



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2. Bile juice contains no digestive enzymes, yet it is important for digestion. How ?



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3. What would happen if, HCl were not secreted in the stomach ?



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4. What is auto catalysis ? Give two examples.



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5. What is chyme ?



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6. Name the different types of salivary glands of man, and their locations in the human body.



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7. Name different types of papillae present on the tongue of man.



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8. Distinguish between deglutition and mastication.



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9. Name two hormones secreted by the duodenal mucosa.



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Unit Ia Digestion And Absorption Short Answer Type Questions

1. Draw a neat labelled diagram of LS of tooth.



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2. Describe the process of digestion of proteins in the stomach.



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3. If you take butter in your food, how does it get digested and absorbed in the body? Explain.



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4. What are the functions of liver ?



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Unit Ia Digestion And Absorption Long Answer Type Questions

1. Describe the physiology of digestion of various types of food in the human digestive system.



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2. Explain the digestive system of man with neat labelled diagram.



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Unit 1b Breathing And Exchange Of Gases Very Short Answer Type Questions

1. What happens to the respiratory process in a man going up a hill?



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2. Define oxyhaemoglobin dissociation curve.

Can you suggest any reason for its sigmoidal pattern ?



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3. What is meant by chloride shift?



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4. Mention any two occupational respiratory disorders and their causes in human beings?



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5. Name the muscles that help in normal breathing movements.



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Unit 1b Breathing And Exchange Of Gases Short Answer Type Questions

1. Explain the process of inspiration and expiration under normal conditions ?



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2. What are the major transport mechanisms for CO_2 ?- Explain.



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3. How is respiratory movements regulated in Man?



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4. Describe disorders of respiratory system.



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Unit Ib Breathing And Exchange Of Gases Long Answer Type Questions

1. Write an essay on the transport of oxygen and carbon dioxide by blood.



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Unit Iia Body Fluids And Circulation Very Short Answer Type Questions

1. Write the differences between 'open' and 'closed' systems of circulation.



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2. Name the valves that guard the left and right atrioventricular apertures in man.



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3. Where is the valve of The besius in the heart of man? .



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4. Name the heart sounds. When are they produced ?



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5. What is meant by double circulation ? What is its significance?



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**Unit Iia Body Fluids And Circulation Short Answer
Type Questions**

1. Draw a labelled diagram of the L.S of the heart of man.



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2. Describe the events in a cardiac cycle, briefly.



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3. Explain the mechanism of clotting of blood.



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4. Distinguish between arteries and veins.



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Unit Iia Body Fluids And Circulation Long Answer Type Questions

1. Describe the structure of the heart of man with the help of neat labelled diagram.



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2. Write notes on the working of the heart of man.



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Unit 1b Excretory Products And Their Elimination Very Short Answer Type Questions

1. What are renal pyramids and renal papillae ?



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2. What are the columns of Bertin ?



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3. Define glomerular filtration.



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4. What is juxtaglomerular apparatus ?



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5. Distinguish between the enzymes renin and rennin.



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Unit 10 Excretory Products And Their Elimination Short Answer Type Questions

1. Differentiate vertebrates on the basis of the nitrogenous waste products they excrete, giving examples.



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2. Draw a labelled diagram of the V.S. of Kidney.



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3. Give a brief account of the counter current mechanism.



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Unit 11 Excretory Products And Their Elimination
Long Answer Type Questions

1. Describe the excretory system of man, giving the structure of a nephron.



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2. Explain the physiology of urine formation.



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Unit IIA Musculo Skeletal System Very Short Answer Type Question

1. What is triad system?



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2. Write the difference between actin and myosin.



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3. Distinguish between red muscle fibers and white muscle fibers.



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4. Name two cranial sutures and their locations.



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5. Name the keystone bone of the cranium.
Where is it located ?



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6. Name the type of joint between a) atlas/axis b) carpal metacarpal of the human thumb



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7. Name the type of joint between a) atlanto-axial joint b) Femur acetabulum joint.



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8. Name the type of joint between a) Cranial bones b) Inter-tarsal joint



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Unit Iii Musculo Skeletal System Short Answer Type Question

1. Write a short note on sliding filament theory of muscle contraction.



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2. Describe the structure of a skeletal muscle.



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3. Draw a neat labelled diagram of pelvic girdle.



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4. Describe the structure of synovial joint with the help of a neat labelled diagram.



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Unit IIA Musculo Skeletal System Long Answer Type Question

1. Explain the mechanism of muscle contraction.



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Unit IIB Neural Control And Coordination Very Short Answer Type Question

1. Name the cranial meninges covering the brain of man.



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2. What is corpus callosum?



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3. What do you know about arbor vitae?



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4. Why the sympathetic division is called thoraco-lumbar division?



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5. Why the para sympathetic division is called cranio sacral division?



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6. What is all-or-none principle?



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7. Distinguish between the blind spot and the yellow spot.



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8. What is organ of Corti?



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Unit IIB Neural Control And Coordination Short Answer Type Question

1. Draw a labelled diagram of the T.S. of the spinal cord of man.



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2. Give an account of Synaptic transmission.



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3. List out the differences between sympathetic and parasympathetic neural systems in man.



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Unit IIB Neural Control And Coordination Long Answer Type Question

1. Give a brief account of the structure and functions of the brain of man.



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Unit Iva Endocrine System And Chemical Co Ordination Very Short Answer Type Questions

1. Which hormone is called anti-diuretic hormone ? Write the name of the gland that secretes it.



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2. Name the gland that increases in size during childhood and decreases in size during adulthood. What important role does it play in case of infection ?



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3. Distinguish between diabetes insipidus and diabetes mellitus.



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4. What is 'insulin shock'?



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5. Which hormone is called "fight or Flight" hormones?



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6. What is erythropoietin? What is its function ?





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Unit Iva Endocrine System And Chemical Co Ordination Short Answer Type Questions

1. Give an account of the secretions of pituitary gland.



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2. Compare a pituitary dwarf and a thyroid dwarf in respect of similarities and

dissimilarities they possess.



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3. Explain how hypothyroidism, and hyperthyroidism can affect the body.



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4. Write a note on Addison's disease and Cushing's syndrome.



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Unit Ivb Immune System Very Short Answer Type Questions

1. Define the terms immunity and immune system.



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2. Write the names of any four mononuclear phagocytes.





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3. Colostrum is very much essential for the newborn infants. Justify.



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4. More and more people in-metrocities of India are prone to allergies. Justify:



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5. What are auto-immune disorders ? Give any two examples.



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Unit Ivb Immune System Short Answer Type Questions

1. Write short notes on B-cells..



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2. Write short notes on Immunoglobulins.



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3. Explain the mechanism of humoral immunity.



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4. Explain the mechanism by which HIV multiplies and leads to AIDS.



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Unit Va Human Reproductive System Very Short Answer Type Questions

1. What are the functions of Sertoli cells of the seminiferous tubules and the Leydig cells in man?



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2. Define spermiogenesis and spermiation.



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3. Define gestation period. What is the duration of gestation period in the human beings ?



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4. Draw a labelled diagram of sperm.



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5. What is parturition ? Which hormones are involved in inducing parturition ?



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6. What is Capacitation of sperms ?



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7. What are the four extra embryonic membranes ?





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Unit Va Human Reproductive System Short Answer Type Questions

1. What is spermatogenesis? Briefly describe the process of spermatogenesis.



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2. What is oogenesis? Give a brief account of oogenesis.



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3. In our society the women are often blamed for giving birth to daughters. Can you explain why this is not correct?



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4. Describe female reproductive system of a woman with the help of a labelled diagram.



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Unit Vb Reproduction Health Very Short Answer Type Questions

1. What are the measures one has to take to prevent from contracting STDs?



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2. What in your view are the reasons for population explosion, especially in India ?



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3. It is true that 'MTP is not meant for population control. Then why did the Government of India legalize MTP ?



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4. What is 'amniocentesis' ? Name any two disorders that can be detected by amniocentesis.



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5. Mention the advantages of 'actational amenorrhea method'.



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Unit Vb Reproduction Health Short Answer Type Questions

1. Suggest some methods to assist infertile couples to have children.



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2. Is sex education necessary in schools? Why?



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Unit Vi Genetics Very Short Answer Type Questions

1. What is Pleiotropy?



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2. What are multiple alleles ?



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3. What is erythroblastosis foetalis?



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4. A child has blood group o. If the father has blood group A and mother blood group B, work out the genotypes of the parents and

the possible genotypes of the other offsprings.



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5. What is haplo-diploidy?



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6. What are Barr bodies ?



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7. What is Klinefelter's syndrome ?



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8. What is Turner's syndrome ?



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9. What is crisscross inheritance ?



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10. What are sex limited characters?



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11. What are sex influenced characters?



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12. What are VNTRs.



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Unit Vi Genetics Short Answer Type Questions

1. How is sex determined in human beings ?



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2. What is erythroblastosis foetalis?



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3. Describe the genetic basis of ABO blood grouping.



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4. Describe male heterogamety.



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5. Describe female hetergamety.



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6. Describe the Genic Balance Theory of sex determination.



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7. A colour - blind man married a woman who is the daughter of a colour - blind father and mother homozygous normal vision. What is the probability of their daughters being colour-blind ?





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8. Write the salient features of HGP



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9. Describe the steps involved in DNA fingerprinting technology.



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1. What are multiple alleles Describe multiple alleles with the help of ABO blood groups in man.



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2. Describe chromosomal theory of Sex determination.



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3. What is crisscross inheritance ? Explain the inheritance of one. " sex linked recessive character in human beings.



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4. Why is the Human Genome project called a mega project?



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5. What is DNA fingerprinting? Mention its application.



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Unit Vii Organic Evolution Very Short Answer Type Questions

1. What are panspermia ?



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2. Define prebiotic soup. Who coined this term ?



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3. Mention the names of any four connecting links that you have studied.



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4. Define atavism with an example.



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5. Distinguish between allopatric and sympatric speciations.



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Unit Vii Organic Evolution Short Answer Type Questions

1. Distinguish between homologous and analogous organs.



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2. Write a short note on the theory of mutations.



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3. Explain Darwin's theory of Natural Selection with industrial melanism as an experimental proof.



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4. Discuss the role of different patterns of selections in evolution.



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5. What is meant by genetic drift ? Explain genetic drift citing the example of Founder Effect.



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Unit VIII Applied Biology Very Short Answer Type Questions

1. Distinguish between out-cross and cross-breed.



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2. Define the terms layer and broiler.



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3. Distinguish between a drone and worker in honey bee colony



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4. Explain the term hypophysation



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5. List out any two Indian carps and two exotic carps



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6. Mention any four fish by-products.



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7. How many amino acids and polypeptide chains are present in insulin?



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8. Define the term 'vaccine'.



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9. Define the term transgenic animal.



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10. What is popularly called 'Guardian Angel of Cell's Genome'?



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11. List out any four features of cancer cells.



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12. MRI scan is harmless-justify.



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Unit VIII Applied Biology Short Answer Type Questions

1. List out the various steps involved in MOET."



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2. Discuss in brief about 'Avian Flu'.



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3. Explain in brief about queen bee.



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4. Honey bees are economically important - justify.



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5. Explain in brief structure of Insulin.



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6. List out any four features of cancer cells.



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7. Explain the different types of cancers.



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8. Write about the procedure involved in MRI.



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9. Write short note on EEG.



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