



BIOLOGY

BOOKS - VGS PUBLICATION-BRILLIANT

MODEL PAPER 10

Section A

1. Explain the role of the pink colour pigment in the root nodule of legume plants. What is it called ?



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2. Define the terms quiescence and dormancy.



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3. Mention the difference between virulent phages and temperate phages.



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4. What is genotype of wrinkled phenotype of Pea seeds ?



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5. In a typical DNA molecule, the proportion of thymine is 20% of the N bases. Find out the percentages of other N bases.



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6. Define stop codon. Write the codons.



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7. How does one visualize DNA on an agar - gel ?



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8. What is GEAC and what are its objectives ?



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9. Give two examples of fungi used in SCP production.



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10. Name a microbe used for statin production. How do statins lower blood cholesterol level?



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Section B

1. How does ascent of sap occur in tall trees ?



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2. Write briefly about enzyme inhibitors.



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3. Tabulate any eight differences between C_3 and C_4 plants/cycles.



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4. What are the physiological processes that are regulated by Ethylene in plants ?



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5. What are the nutritional groups of bacteria based on their source of energy and carbon ?



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6. Explain the Law of Dominance using a monohybrid cross.



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7. Draw the schematic/diagrammatic presentation of the lac operon.



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8. Give a brief account of Bt cotton.



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Section C

1. Give an account of glycolysis, Where does it occur ? What are the end products? Trace the fate of these products in both aerobic, and anaerobic respiration.



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2. Give a brief account of the tools of recombinant DNA technology.



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3. Describe the tissue culture. technique and, what are the advantages of tissue culture over conventional method of plant breeding in crop improvement programmes ?



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Section A

1. What is chyme ?



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2. What are the columns of Bertin ?



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3. Write the difference between actin and myosin.



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4. What is 'insulin shock'?



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5. What is acromegaly.? Name the hormone responsible for this disorder.



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6. What is organ of Corti?



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



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8. What is compaction in human development ?



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9. What is electrocardiography and what are the normal components of ECG?



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10. Define the terms layer and broiler.



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Section B

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



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2. Describe disorders of respiratory system.



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



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



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5. Describe the Genic Balance Theory of sex determination.



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



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7. Distinguish between homologous and analogous organs.



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8. Explain in brief structure of Insulin.





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Section C

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



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



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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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