

## **BIOLOGY**

## **BOOKS - SUPER COMPANION 5 IN 1**

## ANNUAL EXAM QUESTION PAPER MARCH 2016

Annual Exam Question Paper March 2016 With Answer Part A

**1.** Name the molecular scissors used in 'recombinant DNA (rDNA) technology.



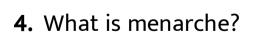
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Annual Exam Question Paper March 2016 With Answer

1. What are somaclones?



2. Define reforestation. **Watch Video Solution** 3. Name the enzyme by which the HIV genome replicates in the host cell. **Watch Video Solution** 





5. Name the disease diagnosed by Widal test.



6. Ovulation takes place on the 14th day of menstrual cycle. Why?



7. What is Colostrum?



**8.** How do some species of insects and frogs avoid being detected easily by the predators?



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9. Mention the use of statin.



**1.** What is inbreeding depression? How is it controlled?



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**2.** Define biodiversity Write any two types of biodiversity.



**3.** Why has T.H. Morgan selected fruit flies for his genetical experiments?



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**4.** Differentiate seasonal breeders from continuous breeders.



**5.** What are analogous organs? Give an example.



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**6.** Draw a well labelled diagram of an antibody molecule.



7. Name any four recent extinct organisms as per IUCN Red list.



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**8.** Draw a neat labelled diagram of a typical agarose gel electrophoresis.



**1.** Explain in brief the separation and isolation of DNA fragments.



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**2.** Mention any three characteristics of cancer cell ?



**3.** What is ecological succession? Distinguish primary succession from secondary succession.



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**4.** What is parthenogenesis? Give two examples.



**5.** State Hardy-Weinberg equilibrium and mention the factors affecting the equilibrium of a population.



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**6.** What is artificial hybridisation? By which technique is it achieved?



- **7.** With reference to ecological succession define the following terms.
- (i) Climax community
- (ii) Sere(s)
- (iii) Pioneer species.



- **8.** Write the karyotype of the following syndromes:
- (i) Down's syndrome.

(ii) Klinefelter's syndrome.

(iii) Turner's syndrome.



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## Part D Section I

List the salient features of the Human Genome



**2.** Explain the process of translation in protein synthesis.



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**3.** Draw a neat labelled diagram of sectional view of human female reproductive system.



- **4.** (a) What are multiple alleles? Give an example.
- (b) Write the symptoms of Klinefelter's syndrome.



**5.** What is infertility? How is infertility treated by assisted reproductive technologies like GIFT and ICSI?



**6.** Explain the structure of megasporangium.



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Part D Section li

1. Write a brief account of functioning of

'Electrostatic Precipitator' with diagram.



2. (a) what is Gene theraphy? Give an example

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(b) Write a note on biography with reference to 'Basmati Rice'.



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**3.** What is inbreeding? Mention the significance of inbreeding.



**4.** Describe the role of microbes in the production of industrial products.



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**5.** (a) What is Adaptation?

(b) Write the causes and symptoms of 'Altitude sickness'.

cWhat is Brood Parasitism"? Give an example.

