

BIOLOGY

BOOKS - SUPER COMPANION 5 IN 1

SUPPLEMENTARY EXAM QUESTION PAPER JUNE 2018

Part A

1. Define Menarche?



2. Name the disease caused by Haemophilus influenzae.



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3. Mention the importance of selectable markers in plasmids.



4. Which is the fish caught in South Africa in 1938, which was thought to be extinct?



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5. Name the hormone released by the ovary in the later phase of pregnancy.



6. Why meristems are preferred in tissue culture?



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7. Mention the type of antibody present in the colostrum.



8. Why mammals of colder climate generally have shorter ears and limbs?



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9. Name the unit used for measurement of thickness of Ozone in a column of air.



10. Mention the commercial importance of Monascus Purpureus.



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Part B

1. Differentiate between menstrual cycle and estrous cycle.



2. What is test cross? Mention its significance.



3. What are analogous organs? Give an example.



4. Mention the objectives of biofortification.



5. Draw a neat labelled diagram of structure of an antibody.



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6. What are palindromic nucleotide sequences? Write the restriction site for Eco-RI enzyme.



7. Name any two species which have become extinct due to over exploitation.



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8. What are sacred grooves? Give an example.





1. Define asexual reproduction. Mention asexual reproductive structures in penicillium and sponge.



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2. Draw a neat labelled diagram of a typical Anatropous ovule of angiosperms.



3. Write a note on colour blindness.



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4. What is adaptive radiation?



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5. What are ecological pyramids? Draw an ideal pyramid of energy and mention its units.



6. What is biopsy test? Mention any two techniques of cancer detection and diagnosis.



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7. Write the important use of the following in r-DNA technology.

(a)P.C.R. (b) Ethidium bromide (c) Bioreactor (r

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8. Describe the process of primary succession on bare rocks.



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Part D Section I

1. (a) What are false fruits? Give an example.

(b)Write the characteristic features of insect pollinated flowers.



2. Draw a neat labelled diagrammatic view of human male reproductive system.



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3. (a) Explain the following assisted reproductive technologies:

- (i) IVF-ET (ii)ZIFT (iii) ICSI
- (b) Name any two hormone producing IUD's.



4. Explain the law of independent assortment with reference to seed shape and seed colour in garden tea plant.



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5. Briefly describe the various steps involved in plant breeding.



- **6.** (a) Mention the chemical linkages between the components of DNA.
- (b) Differentiate Euchromatin from Heterochromatin.



Part D Section li

1. What are VNTR's? Mention the steps to detect VNTR's in identifying criminals in forensic investigations.

- 2. (a) Draw a neat labelled diagram of typical biogas plant.
- (b) Mention the beneficial role of anaerobic bacteria in secondary sewage treatment.



3. List the benefits of transgenic animals.



- **4.** (a) Write any four factors that influence population density.
- (b) Draw a graph showing exponential growth curve.

What is sexual deceit?



- 5. Write a short note on the following:
- (a) Green bouse gases (b) Catalytic converter

- (c) Ultra-violet B (d) Ozone layer
- (e) Electrostatic precipitator.

