



# BIOLOGY

## BOOKS - SRIJAN BIOLOGY (ENGLISH)

### SAMPLE QUESTION PAPER 3

#### Part I

1. Answer the question briefly in one two sentence:

What is a generative cell?



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2. Answer the question briefly in one two sentence:

What is phenotype?



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3. The first amino acids taking part in protein synthesis is .



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4. Answer the question briefly in one two sentence:

Name the hormone crucial in parturition.



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5. Answer the question briefly in one two sentence:

Define Cistron?



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6. Answer the question briefly in one two sentence:

What is an antigen?



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7. Answer the question briefly in one or two sentence:

During which stage of cell division are spermatids formed from the secondary spermatocytes?





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**8.** Define the following terms:

Birth rate



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**9.** The correct surgical procedure as a contraceptive method is

A. Ovariectomy

B. Hysterectomy

C. Vasectomy

D. Castration

**Answer: A**



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**10.** A nucleoside differs from a nucleotide. It lacks the

A. Base

B. Sugar

C. Phosphate group

D. Hydroxyl group

**Answer: C**



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**11. Opium is obtained from :**

A. *Papaver somniferum*

B. *Cannabis sativa*

C. *Erythroxylum coca*

D. Datura metel

**Answer: A**



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**12. Lichens are the association of**

A. Bacteria and Fungus

B. Algae and Bacteria

C. Fungus and Algae

D. Fungus and Virus



**Answer: C**



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**13.** Give one significant contribution of each of the scientist :

Baltimore



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**14.** Give one significant contribution of each of the scientist :

## Jacob and Monad



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**15.** Give one significant contribution of the scientist :

Francis Crick



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**16.** Give one significant contribution of the scientist :

Watson and Crick



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**17. Define the term: Implantation**



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**18. Define the term: Linkage**



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**19.** Give reason

Cell division is a mode of reproduction.



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**20.** Give reason

Nucleotide ratio in RNA is highly variable.



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**21.** Answer the question briefly in one two sentence:

What is a generative cell?



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**22.** Answer the question briefly in one two sentence:

What is phenotype?



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**23.** The first amino acids taking part in protein synthesis is .



[Watch Video Solution](#)

**24.** Answer the question briefly in one two sentence:

Name the hormone crucial in parturition.



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**25.** Answer the question briefly in one two sentence:

Define Cistron?





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**26.** Answer the question briefly in one two sentence:

What is an antigen?



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**27.** Answer the question briefly in one or two sentence:

During which stage of cell division are

spermatids formed from the secondary spermatocytes?



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**28.** Answer the question briefly in one two sentence:

Define birth rate.



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29. The correct surgical procedure as a contraceptive method is

A. Ovariectomy

B. Hysterectomy

C. Vasectomy

D. Castration

**Answer: A**



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30. A nucleoside differs from a nucleotide. It lacks the

A. Base

B. Sugar

C. Phosphate group

D. Hydroxyl group

**Answer: C**



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31. Opium is obtained from :

A. *Papaver somniferum*

B. *Cannabis sativa*

C. *Erythroxylum coca*

D. *Datura metel*

**Answer: A**



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**32.** Lichens are the association of

A. Bacteria and Fungus

B. Algae and Bacteria

C. Fungus and Algae

D. Fungus and Virus

**Answer: C**



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**33.** Give one significant contribution of each of the scientist :

Baltimore



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**34.** Give one significant contribution of each of the scientist :

Jacob and Monad



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**35.** Give one significant contribution of the scientist :

Francis Crick



**Watch Video Solution**

**36.** Give one significant contribution of the scientist :

Watson and Crick



**Watch Video Solution**

**37. Define the term: Implantation**



**Watch Video Solution**

**38. Define the term: Linkage**



**Watch Video Solution**

**39. Give reason**

Cell division is a mode of reproduction.



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**40.** Give reason

Nucleotide ratio in RNA is highly variable.



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**Part II**

**1.** What are the major functions of male accessory ducts and glands?



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2. Placenta has endocrine functions. Does it have other functions too ? Explain.



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3. Define self-incompatibility. How do self-incompatible plants pollinate?



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4. What are test tube babies.





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5. Define and distinguish back cross and test cross



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6. Mention two functions of the codon AUG.



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7. What are molecular scissors so called? Write their use in biotechnology.



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8. Differentiate innate and acquired immunity.



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9. What is a biodiversity hotspot?



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**10.** Explain Down.s syndrome.



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**11.** Differentiate between aneuploidy and polyploidy.



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**12.** Name any three methods of contraception.



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**13.** Expand the abbreviation HIV.



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**14.** Expand the abbreviations:

CMI



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**15.** Expand the following abbreviations:

IMR



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**16.** What are the components of Reproductive Health?



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**17.** List four points of significance of reproductive health in a society. Name any two areas related to reproductive health which have improved over the past 50 years in our country.



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**18.** True line breed refers to



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**19.** Draw a labelled diagram of the T.S. of a mature anther.



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**20.** (a) Draw the longitudinal section of a flower showing growth of pollen tube upto the embryo sac. Label the following parts :

(i) Stigma

(ii) Pollen tube

(iii) Integument



(iv) Chalazal end

(v) Nucellus

(vi) Synergids

(b) What is double fertilisation in Angiosperms? Why is it so called ?



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21. Explain how insulin can be produced using recombinant DNA technology



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**22.** Mention four features of pBR322.



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**23.** What are the steps involved in PCR ?



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**24.** What are two strategies for biodiversity conservation?



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**25.** Sacred forests are traditional protected area.



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**26.** How does over exploitation of beneficial species affect biodiversity ? Explain with the help of one example.



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**27.** State four causes and four consequences of population growth.



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**28.** Explain the role of DNA polymerase present in E.coli.



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**29.** What are the major functions of male accessory ducts and glands?



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**30.** Placenta has endocrine functions. Does it have other functions too ? Explain.



[Watch Video Solution](#)

**31.** Define self-incompatibility. How do self-incompatible plants pollinate?



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**32.** What are test tube babies.



**Watch Video Solution**

**33.** How do the back cross and test cross from each other?



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**34.** Mention two functions of the codon AUG.



**Watch Video Solution**

**35.** What are molecular scissors so called?

Write their use in biotechnology.



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**36.** Differentiate innate and acquired immunity.



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**Watch Video Solution**



**40.** Name any three methods of contraception.



**Watch Video Solution**

**41.** Expand the following abbreviations :

HIV



**Watch Video Solution**

**42.** Expand the abbreviations:

CMI



**Watch Video Solution**

**43.** Expand the following abbreviations:

IMR



**Watch Video Solution**

**44.** What are the components of Reproductive Health?



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**45.** List four points of significance of reproductive health in a society. Name any two areas

related to reproductive health which have improved over the past 50 years in our country.





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**46.** How is pure line in an animal raised?

Explain.



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**47.** Draw a labelled diagram of the T.S. of a

mature anther.



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**48.** Draw a well labelled diagram of the longitudinal section of a pistil showing pollen germination .



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**49.** Explain how insulin can be produced using recombinant DNA technology



**Watch Video Solution**

**50.** Mention four features of pBR322.



**Watch Video Solution**

**51. Answer the**

What is a primer? What is its role in PCR.



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**52. Differentiate between the in-situ and ex-situ strategies for conservation of biodiversity.**



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**53.** Answer the

Why sacred groves are highly protected ?



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**54.** Answer the

Elaborate how invasion by an alien species reduces the biodiversity of an area.



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**55.** State five causes and five consequences of population growth.



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**56.** Explain the role of DNA-dependant RNA polymerase in transcription.



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