



# BIOLOGY

## BOOKS - SRIJAN BIOLOGY (ENGLISH)

### SELF ASSESSMENT PAPER 06

#### Part I

1. Define antibodies.



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2. What is antrum ?



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3. Name the process by which RNA is synthesized from DNA?



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4. What are baculoviruses?



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5. Give the full form of ELISA. Which disease can be detected using it? Discuss the principle underlying the test.



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6. What is recombinant DNA vaccine? Give two examples.



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7. Write a short note on cryopreservation



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8. Name first transgenic cow.



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9. The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of

chromosomes in the microspore mother cells  
of the same plant shall be:

A. 20

B. 10

C. 40

D. 15

**Answer:**



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10. Z Z | ZW type of sex determination is seen in

A. Platypus

B. Snails

C. Cockroach

D. Peacock

**Answer:**



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**11.** The gene sequence that codes for proteins are:

A. Exons

B. Introns

C. Control regions

D. mRNA

**Answer:**



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12. How many types of antibodies are present ?

A. 5

B. 3

C. 2

D. 4

**Answer:**



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**13.** Expand the following abbreviations:

MTP



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**14.** Expand the following abbreviations:

IUCD



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**15.** Expand the following abbreviations:

MMR



**Watch Video Solution**

**16.** Expand the following abbreviations:

IMR



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**17. Define the following:**

Syngamy



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**18. Define the following:**

Immunity



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**19.** Give reasons for the why Genetic code is said to be 'universal'.



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**20.** Give reasons:

Addiction is self destructive.



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**21.** Define antibodies.



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22. What is antrum ?



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23. Name the process by which RNA is synthesized from DNA?



[Watch Video Solution](#)

**24.** What are baculoviruses?



**Watch Video Solution**

**25.** Give the full form of ELISA. Which disease can be detected using it? Discuss the principle underlying the test.



**Watch Video Solution**

**26.** What is recombinant DNA vaccine? Give two examples.



**Watch Video Solution**

**27.** What is cryopreservation ?



**Watch Video Solution**

**28.** Give a brief answer

Name first transgenic cow.



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**29.** The number of chromosomes in the shoot tip cells of a maize plant is 20. The number of chromosomes in the microspore mother cells of the same plant shall be:

A. 20

B. 10

C. 40

D. 15



**Answer:**



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**30.** ZZ/ZW type of sex determination is seen in

A. Platypus

B. Snails

C. Cockroach

D. Peacock

**Answer:**



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**31.** The gene sequence that codes for proteins are:

- A. Exons
- B. Introns
- C. Control regions
- D. mRNA

**Answer:**



32. How many types of antibodies are present ?

A. 5

B. 3

C. 2

D. 4

**Answer:**



**33.** Expand the following abbreviations:

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**34.** Expand the following abbreviations:

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**35.** Expand the following abbreviations:

MMR



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**36.** Expand the following abbreviations:

IMR



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**37.** Define the following:

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**Watch Video Solution**

**38.** Define the following:

Immunity



**Watch Video Solution**

**39.** Give reasons for the  
why Genetic code is said to be 'universal'.



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**40.** Give reasons:

Addiction is self destructive.



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1. Differentiate between : Fertilisation and Parturition



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2. Why are menstrual cycles absent during pregnancy.



**Watch Video Solution**



**3.** State two goals of the Human Genome Project.



**Watch Video Solution**

**4.** What is conception? Name two assisted conception methods.



**Watch Video Solution**

5. Define auto-immune diseases. Give two examples.



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6. How has *Agrobacterium tumefaciens* been suitably modified to act as a cloning vector?



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7. Explain brood parasitism with an example.



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8. List the specific symptoms of typhoid. Name the causative agent.



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9. What is Ringworm? What are the different types of ringworm.



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**10. Differentiate between : Fertilisation and Parturition**



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**18.** What is Ringworm? What are the different types of ringworm.



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1. What roles do enzymes play in detergents that we use for washing clothes? Are these enzymes produced by some unique microorganisms?



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2. Describe biofertilizers with examples.



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3. Explain allergy in immune system.



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4. Mention the cause and the body system affected by ADA deficiency in humans.



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5. Name any two methods used to introduce recombinant DNA into host cell.



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6. Suggest any three features of plants that will prevent insect and pest infestation.



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7. What are two strategies for biodiversity conservation?



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8. What are the events taking place in the ovary and uterus during follicular phase of the menstrual cycle.



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



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**10.** Draw a well labelled diagram of L.S of ovule showing the structure of embryo sac. Label any six parts.



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**11.** State the significance of enzymes in detergents used for washing clothes.



**Watch Video Solution**

**12.** Describe biofertilizers with examples.



**Watch Video Solution**

**13.** Explain allergy in immune system.



**Watch Video Solution**

**14.** Mention the cause and the body system affected by ADA deficiency in humans.



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**15.** Name the vector used for transferring ADA-DNA into the recipient cells in humans. Name the recipient cells.



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**16.** Suggest any three features of plants that will prevent insect and pest infestation.



**Watch Video Solution**

**17.** Explain two different ways of biodiversity conservation.



**Watch Video Solution**

**18.** What are the events taking place in the ovary and uterus during follicular phase of the menstrual cycle.



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**19.** Describe longitudinal section of a pistil showing pollen germination. Explain the events in the embryo sac during the process of fertilisation. Which resulting stages give rise to the embryo and the endosperm respectively?



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**20.** Draw a labelled diagram of the VS of an ovule just before fertilisation.







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## Part II Section C

1. Explain enzyme-replacement therapy to treat adenosine deaminase deficiency? Mention two disadvantages of this procedure.



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2. Give a brief account of genetic engineering.



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3. Represent diagrammatically the E.coli cloning vector pBR322.



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4. Answer the following questions based on Hershey and Chase's experiments:

Name the kind of virus they worked with and why?



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5. Answer the following questions based on Hershey and Chase's experiments:

Why did they use two types of culture media to grow viruses in? Explain.



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6. Answer the following questions based on Hershey and Chase's experiments:

What was the need for using a blender and later a centrifuge during their experiments ?



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7. Answer the following questions based on Hershey and Chase experiments:

State the conclusion drawn by them after the experiments.



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8. Following the collision of two trains a large number of passengers were killed. A majority

of them are beyond recognition Authorities want to hand over the dead bodies to their relatives. Name a modern scientific method and write the procedure that would help in the identification of kinship.



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9. Give an example of an ecological pyramid which is always upright. Justify your answer.



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**10.** How is child affected if it has grown from the zygote formed by an XX-egg fertilized by a Y-carrying sperm ? What do you call this abnormality.



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**11.** Write note on:

(i) Haemophilia

(ii) Downs Syndrome



**Watch Video Solution**

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