



# BIOLOGY

## BOOKS - SARAS PUBLICATION

### Model Solved Paper 2020 (3)

#### Exercise

1. Continuous variation is due to?

A. Effect of polygenes

B. Effect of environment

C. Effect of polygenes and environment

D. Effect of one or more genes

**Answer:**



**Watch Video Solution**

2. When red eyed female *Drosophila* is crossed with white eyed male, the F<sub>2</sub> offspring would be.

- A. Females are with white eye and males are with red eye
- B. Male are with red eye and females are with yellow eye
- C. Both males and femlae are with red eye
- D. Both males and female are with white eye

**Answer:**



**Watch Video Solution**

3. How can we reverse the sterility of F1 hybrid?

A. Genetic Engineering

B. Protoplasmic fusion

C. Induced mutation

D. Induced chromosomal aberration

**Answer:**



**Watch Video Solution**

4. In biosensors Green Fluorescent protein is used which is isolated from A and spliced with B

A. A- Chlamydomonas, B-E.coli

B. A-Gelidium, B-bacillus subtilis

C. A-Aequorea victoria B-Arabidopsis thaliana

D. A-Asparagus B-Acacia melanoxylon

**Answer:**



**Watch Video Solution**

5. Which one of the following is not a carbon sequestration method?

A. Forest conservation and soil conservation

B. Carbon foot print

C. Biochar

D. Increasing the number of animals

**Answer:**



**Watch Video Solution**

6. The disadvantage of pureline selection is

A. It is difficult to distinguish between hereditary variation from environment variation

B. new genotypes are never so they are less stable to environmental variation

C. The genotype is unchanged for a long period of time

D. The plant show more heterozygosity

**Answer:**



**Watch Video Solution**

7. Assertion (A): Rice is the stape food for most of the people in the world. Reason(R): It is easily digestible and calorie rich food.

A. (A) is correct: (R) is wrong

B. (A) is wrong, (R) is cor-rect



C. (A) and (R) is correct: but (R) does not explain (A)

D. (A) and (R) is correct, but (R) explain (A)

**Answer:**



**Watch Video Solution**

**8. What are embryoids?**



**Watch Video Solution**

9. Differentiate species ecology from community ecology.



[Watch Video Solution](#)

10. State the ten percent law.



[Watch Video Solution](#)

11. How to do test for homozygosity of a trait in plants?



[Watch Video Solution](#)

**12.** How does pollen tube grow through a solid style?



**Watch Video Solution**

**13.** Draw the flow chart for heterozygous tall x homozygous dwarf *Pisum sativum* plants.



**Watch Video Solution**

**14.** Draw the diagram showing four strand double cross over.



**Watch Video Solution**

**15.** What is the naming procedure for restriction endonuclease? Give an example.



**Watch Video Solution**

**16.** Of the total sunlight, only 2-10% of the solar energy is used by green plants for photosynthesis. Explain why?



**Watch Video Solution**

**17.** Enumerate the characteristic features of anemophilous plants.



**Watch Video Solution**

**18.** Do you believe that geographic information system will conserve environment? If so write its methods and importance.



**Watch Video Solution**

**19.** Human beings are unisexual animals, the type of syngamy in human beings is

A. Autogamy

B. Exogamy

C. Hologamy

D. Paedogamy

**Answer:**



**Watch Video Solution**

**20.** Match the following and find the correct answer.

A. Gametogenesis → fertilization →

blastocyst → gastrulation → organo-

gen-esis → parturition

B. Gametogenesis → cleavage →

gastrulation → blastocyst →

organogenesis → parturition

C. Gametogenesis → fertilization →

blastocyst → cleavage → gastrulation

→ parturition → organogenesis

D. Gametogenesis → fertilization →

cleavage → organogenesis →



blastocyst → gastrulation →

parturition

**Answer:**



**Watch Video Solution**

21. Which one of the following is not true regarding cervical cancer?

A. Primary prevention begins with HPV vaccination

B. Avoiding tobacco usage

C. Preventing early marriage

D. Practising polygamy

**Answer:**



**Watch Video Solution**

**22.** Find out the incorrect pair.

A. Cheese-Lactococcus

B. Curd-Saccharomyces cerevisiae

C. Idli-Leuconostoc mesenteroids

D. Bread-Yeast

**Answer:**



**Watch Video Solution**

**23.** Insulin molecules is made of two polypeptide chains. The chain A has (i) amino acids B chain has (ii) amino acids?

A. i.26 ii-27

B. i-22 ii.29

C. i.21 ii.30

D. i.20 ii.31

**Answer:**



**Watch Video Solution**

**24.** Periyar wild life sanctuary in Kerala is famous for

A. Indian Tiger and Asiatic elephant

B. Indian Lion and Indian Elephant

C. Spiny ant eater scaly ant eater

D. Anaconda snake and python

**Answer:**



**Watch Video Solution**

**25. Who is honoure as Forest man of India?**

A. Sunderlal Bahuguna

B. Jadav payeng

C. Amrinder Singh

D. M.S. Swaminathan

**Answer:**



**Watch Video Solution**

**26.** Enumerate the causes for male infertility.



**Watch Video Solution**

**27.** What is known as RNA world?



**Watch Video Solution**

**28.** Differentiate relative dating from absolute dating.



**Watch Video Solution**

**29.** What is a fermenter or bioreactor ?



**Watch Video Solution**

**30.** List out the fauna of Trans Himalayan region.



**Watch Video Solution**

**31.** Which is referred to as biomagnification?



**Watch Video Solution**

**32.** Draw a gemmule and label any 2 parts.



**Watch Video Solution**



**33.** Explain the penetration mechanism of a sperm into an egg.



**Watch Video Solution**

**34.** What is the role of connecting links in evolution?



**Watch Video Solution**

**35.** Differentiate oligopotency from unipotency.



**Watch Video Solution**

**36.** HGP is useful in tracing human history.  
How?



**Watch Video Solution**

**37.** Explain gene switch on and off mechanism in E.coil. Sex linked inheritable diseases mostly affects men. Explain it with an ex-ample.



**Watch Video Solution**

**38.** AIDS is not disease but it facilitates the attack by other organisms. Explain why?



**Watch Video Solution**

**39.** Explain the properties of pedosphere.



**Watch Video Solution**