

Sub: Biology

Standard: 12th (Science)

Date: 03/12/2018

Time : 3 Hours

Total Marks: 70

General Instructions:

- 1) All questions are compulsory.
- 2) **Section A** contains Q. No. 1 to 4 of Multiple Choice Questions (MCQ) carrying one mark each. Q. No. 5 to 8 are very Short Answer (VSA) type of questions carrying one mark each.
- 3) **Section B** contains Q. No. 9 to 18 of Short Answer (SA) type of questions carrying two marks each. Internal choice is provided to only one question.
- 4) **Section C** contains Q. NO. 19 to 27 of Short Answer (SA) type of questions carrying three marks each. Internal choice is provided to only one question.
- 5) **Section D** contains Q.No.28 to 30 of Long Answer (LA) type of questions carrying five marks each. Internal choice is provided to each question.

SECTION-A

Write the most appropriate answer from the given options:

Q.1 Which of the following is responsible for the expression of a trait?

- (a) Recon (b) Muton (c) Cistron (d) Codon

Q.2 Where is antigen D present?

- (a) On the Rhesus factor (b) On the surface of red blood cells
(c) On the A antigen (d) On the AB antigen

Q.3 Oxygen liberated during photosynthesis comes from_____

- (a) CO_2 (b) H_2O (c) glucose (d) Chlorophyll

Q.4 Find the mismatched pair:

- (a) Metacentric-V –shaped (b) Sub-metacentric- L- shaped
(c) Acrocentric- J-shaped (d) Telocentric- S- shaped

Answer the following questions in one sentence each:

- Q.5 Explain the synthetic theory of evolution.
- Q.6 What is corpus luteum? Give the importance of corpus luteum.
- Q.7 Why do arid plants have evolved C_4 pathway of photosynthesis?
- Q.8 Enlist the types of cancer.

SECTION-B

Answer the following questions in short:

- Q.9 With the help of suitable example, explain protandry.

OR

Distinguish between Self pollination and Cross pollination.

- Q.10 What is sex-linkage? Explain the inheritance of haemophilia
- Q.11 Enlist the genes used in gene therapy.
- Q.12 Sketch and label VS of Kidney.
- Q.13 Describe the concept of single cell protein.
- Q.14 Write a note on 'Struggle for existence'.
- Q.15 Write a short note on acute renal failure.
- Q.16 Name two edible varieties of mushrooms. Give nutritional values of these mushrooms.
- Q.17 Why is it said that "Indian economy is mainly based agriculture"
- Q.18 Describe the composition of urine in brief.

SECTION-C

Answer the following questions:

- Q.19 State and explain the law of Independent assortment with a suitable example.
- Q.20 Distinguish between Cyclic and Noncyclic photophosphorylation.
- Q.21 Describe the experiment of Hershey and Chase to prove that DNA is the genetic material.

OR

Distinguish between DNA and RNA.

- Q.22 Define decomposition and describe the process and products of decomposition.
- Q.23 What are the sources of Water pollution?

- Q.24 What is plant breeding? Describe the breeding of crop plants for disease resistance and high yield.
- Q.25 Describe biopiracy and biopatents.
- Q.26 Describe the development of embryo in angiosperms.
- Q.27 Write a short note on reproductive health.

SECTION-D

Answer the following questions:

- Q.28 What is anaerobic respiration? Describe its different steps.

OR

Give the significance of glycolysis and Krebs cycle.

- Q.24 Describe different parts of the human eye.

OR

Describe the different parts of the human ear.

- Q.30 Explain the internal structure of the human heart.

OR

Describe the external structure of the human heart.

VINAYAK CLASSES