
2010

Section: A

Questions: 1 – 8

ii - iii

Section: B

Questions: 9 – 17

iii - iv

Section: C

Questions: 18 – 26

iv - v

Section: D

Questions: 27 – 29

v

Section: A

Question: 1 **

[1]

The pathogen that causes elephantiasis is

- a. Wucheria bancrofti
- b. Treponema pallidum
- c. Eutamoeba histolytica
- d. Ascaris lumbricoides

Answer:

Question: 2 **

[1]

The pathogen that causes malaria is

- a. Female anopheles
- b. Female culex
- c. Mycobacterium
- d. Plasmodium

Answer:

Question: 3 **

[1]

ELISA test is for detection of

- a. Hepatitis, tuberculosis and AIDS
- b. AIDS, STD and hepatitis
- c. Typhoid, Hepatitis and AIDS
- d. STD, tuberculosis and AIDS

Answer:

Question: 4

What is Antrum?

[1]

Answer:

Antrum is a general term for a cavity or chamber which may have specific meaning in reference to certain organs or sites in the body.

Question: 5 **

What is reproductive health?

[1]

Question: 6

What is genetic engineering?

[1]



Answer:

The techniques which change the chemistry of genetic material (DNA and RNA) to introduce these into host organisms and thus alter the phenotype of the host organism are called Genetic Engineering.

Question: 7

Name the biotic factors of the environment. [1]

Answer:

See topics in 'Biotic'.

Question: 8 **

Name the bird, which has recently become extinct. [1]

Answer:

Javan Buff-rumped Woodpecker, *Meiglyptes tristis tristis* (Java, Indonesia, c. 1920)

Section: B

Question: 9 ** [2]

Name the inbuilt mechanism that preserves the integrity of a species by preventing hybridization.

Question: 10 **

What are retro viruses? [2]

Question: 11 **

What is meant by polygenic traits? [2]

Question: 12 ** [2]

Name the disease / disease against which the DPT vaccine brings about immunity in the body?

Question: 13 **

Mention two characteristics of homo habits ancient ape like man had. [2]

Question: 14 ** [2]

How will you find out whether a given plant is homozygous dominant and heterozygous dominant?

OR

Describe the term transcription.



Question: 15 **

How has human population increased to a manageable proportion in recent times? Give two reasons. [2]

Question: 16 **

Name the nitrifying bacteria of the soil. Why are they called chemoautotrophic? [2]

Question: 17 **

Name any five hybrid varieties of crop plants which have been developed in India. [2]

Section: C

Question: 18 **

Why is second half of menstrual cycle called secretory phase in human female? List the changes that occur in uterus during the phase. [3]

Question: 19 **

Name the graphic display of the E.C.G. of a normal person. What do these P waves, QRS and T waves represent? [3]

Question: 20 **

Sometimes a gene which carries a major disadvantage in a homozygous condition confers an advantage in heterozygous condition. Explain this with suitable example. [3]

Question: 21 **

What will be the kind of children born to a normal father and carrier mother for the trait of hemophilia? [3]

OR

Describe the two situations in which the independent assortment of genes results in 50% recombination.

Question: 22 **

Write the pairs of contrasting characters of position of flower, colour of unripe pod, shape of ripe pod and colour of cotyledons (seed). Which Mendel has selected for his experiments on cross breeding garden. [3]

Question: 23 **

Distinguish between menstrual and oestrous cycle. [3]



Question: 24 **

What are sacred groves? What is their role in conservation? [3]

Question: 25 **

Name any two viruses which can modify the central dogma of molecule biology. Explain the steps involved in bringing out these modifications. [3]

Question: 26 **

Name any three scientific methods of contraceptives. Explain two of these. [3]

Section: D

Question: 27 ** [5]

In what way the life span of a differentiated normal cell is different from the life span of cancer cell? Mention four different categories of cancer.

OR

- a. Who is the father of Immunology?
- b. In regard to transplant of organ, what are Isograft, Allograft and Xenograft?

Question: 28 ** [5]

Who proposed one gene one enzyme hypothesis?

- a. What is the experiment to prove the above hypothesis?
- b. Why has it been changed to one gene one polypeptides hypothesis?

OR

Draw a labeled diagram of Male Reproductive system.

Question: 29 ** [5]

What is apiculture? How is it important in our lives?

OR

What is bio magnification and describe the role of DD+ in food chain.

Answer:

See topics on 'Bio-magnifications'.

****Out of syllabus. Answer will be provided up on request**

