

TIRUVANNAMALAI DT - MHS GIRITHARAN PET
BIOLOGY FULL PORTION TEST-2
STANDARD X-SCIENCE
PART-I

TIME : 3hrs

MARKS : 75

Answer all the questions**(12 × 1=12)**

1. Kreb's cycle takes place in
 a) chloroplast b) mitochondrial matrix c) stomata d) inner mitochondrial membrane
2. The body of leech has
 a) 23 segments b) 33 segments c) 38 segments d) 30 segments
3. During transpiration there is loss of
 a) carbon dioxide b) oxygen c) water d) none of the above
4. Vomiting centre is located in
 a) medulla oblongata b) stomach c) cerebrum d) hypothalamus
5. Which one is referred as "Master Gland"?
 a) Pineal gland b) Pituitary gland c) Thyroid gland d) Adrenal gland
6. After fertilization the ovary develops into _____
 a) seed b) seed coat c) fruit d) seedling
7. The number of chromosomes found in human beings are _____.
 a) 22 pairs of autosomes and 1 pair of allosomes. c) 46 autosomes
 b) 22 autosomes and 1 allosome d) 46 pairs autosomes and 1 pair of allosomes.
8. The term Ethnobotany was coined by
 a) Khorana b) J.W. Harsbberger c) Ronald Ross d) Hugo de Vries
9. DNA fingerprinting is based on the principle of identifying ----- sequences of DNA
 a) single stranded b) mutated c) polymorphic d) repetitive
10. Cancer of the epithelial cells is called
 a) Leukemia b) Sarcoma c) Carcinoma d) Lipoma
11. Soil erosion can be prevented by
 a) deforestation b) afforestation c) over growing d) removal of vegetation
12. Which software is used to create animation ?
 a) Paint b) PDF c) MS Word d) Scratch

PART-II**Answer any seven questions. Questions No.22 is compulsory.****(7 × 2 =14)**

13. Draw and label the structure of oxysomes.
14. Match columns I, II and III correctly.

Organs	Membranous Covering	Location
Brain	pleura	abdominal cavity
Kidney	capsule	mediastinum
Heart	meninges	enclosed in thoracic cavity
Lungs	pericardium	cranial cavity

15. Who discovered Rh factor? Why was it named so?
16. Define reflex arc.
17. State whether True or false, If false write the correct statement.
 a) Pituitary gland is divided into four lobes.
 b) Estrogen is secreted by corpus luteum.
18. Define triple fusion.
19. What is metastasis?
20. What is Scratch?

21. **Assertion (A):** Pituitary gland is referred as “Master gland”.

Reason (R): It controls the functioning of other endocrine glands.

- If both A and R are true and R is correct explanation of A
- If both A and R are true but R is not the correct explanation of A
- A is true but R is false
- Both A and R are false

22. What are the consequences of deforestation?

PART-III

Answer any seven questions. Questions No.32 is compulsory.

(7 × 4=28)

- Differentiate Aerobic and Anaerobic respiration
- a) What does CNS stand for?
b) How does leech suck blood from the host?
- Enumerate the functions of blood.
- Voluntary and involuntary actions.
- Why are the human testes located outside the abdominal cavity? Name the pouch in which they are present .
- Explain the structure of a chromosome.
- How do you differentiate homologous organs from analogous organs?
- Match the following

Column A

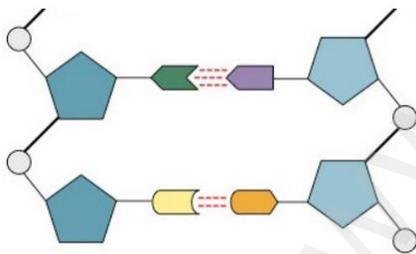
- Sonalika
- IR 8
- Saccharum
- Mung No. 1
- TMV – 2
- Insulin
- Bt toxin
- Golden rice

Column B

- Phaseolus mungo*
Sugarcane
Semi-dwarf wheat
Ground nut
Semi-dwarf Rice
Bacillus thuringiensis
Beta carotene
first hormone produced using rDNA technique

31. Differentiate between Type-1 and Type-2 diabetes mellitus

32. Label the parts of the DNA in the diagram given below. Explain the structure briefly.



PART-IV

Answer all the questions

(3 × 7=21)

- Describe the structure of spinal cord. (OR)
b) With a neat labelled diagram describe the parts of a typical angiospermic ovule.
- a) Write the theories on origin of life (OR)
b) Write the Smoking Hazards and Effects of Tobacco
- a) Suggest measures to overcome the problems of an alcoholic. (OR)
b) Enumerate the importance of forest.

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