S.S.C. PUBLIC EXAMINATIONS, MARCH 2011

General Science -II (BIOLOGY) 20E(A)

(English Version)

Time : 2½ Hours **Parts A and B** **Maximum Marks : 50**

Time : 2 Hours **Part - A** **Marks : 35**

SECTION -I *4 x 1 = 4*

NOTE : *1. Answer ANY FOUR of the following questions. 2. Each question carries ONE mark.*

1. Why Photosynthesis is considered as the basic life process?
2. What is Apical Dominance?
3. What is External Fertilization ?
4. Which type of malnutrition causes Marasmus?
5. What happens if antibiotics are indiscriminately taken ?
6. How is soil useful to plants ?

SECTION -II *5 × 2 = 10*

NOTE : *1. Answer ANY FIVE Questions choosing at least TWO from each Group. A and B.*
2. Each question carries TWO marks

Group A

7. Write an equation for Photosynthesis showing all the requirements and the products formed.
8. What are Respiratory Substrates ? Give two examples.
9. What is a Mixed Gland ? Give an example.
10. Why is Vagus nerve more important than the others ?

Group B

11. Write two advantages of Vegetative Propagation ?
12. What do you understand by Sexual Dimorphism ?
13. What is Iodised Salt ? Why is it advisable to take iodised salt ?
14. Write the different methods of Agro-forestory ?

SECTION -III *4 x 4 = 16*

NOTE : *1. Answer ANY FOUR questions, choosing at least TWO from each Group. A and B.*
2. Each question carries FOUR marks.

Group A

15. How do you prove that Carbon dioxide is essential for Photosynthesis ?
16. What is Hypertension ? How is it caused ? Mention the preventive steps to be taken.
17. What are Auxins ? How do they affect plant growth ?
18. Write a brief account of Adrenal glands.

Group B

19. What are the differences between Asexual reproduction and Sexual reproduction?
20. What are the modes of HIV transmission ?
21. What are the effects of Kwashiorkor on children ?
22. What first-aid will you render for Fractures ?

SECTION -IV

1 x 5 = 5

NOTE : *1. Answer ANY ONE of the following questions. 2. This question carries (5) Five marks.*

23. Draw the diagram showing the respiration in Amoeba by diffusion and label the parts.
24. Draw a neat diagram showing the structure of Ovule in plants and label the parts.

GENERAL SCIENCE, Paper - II

Time : 30 minutes **Marks : 15**

Part - B

I.Pick up the correct answer and fill in the bracket with the capital letter of the correct answer chosen. *10 x ½ =5*

1. The process in which energy stored in Carbohydrates realeased is known as .....
   A) Photosynthesis B) Respiration ( )
   C) Reproduction D) Excretion
2. Only Aerobic respiration is observed in one of the following ..... ( )
   A) Muscles B) Yeast C) Tetanus bacteria D) Germinating seeds
3. Normal blood pressure of human is ..... ( )
   A) 80/120 B) 100/120 C) 120/100 D) 120/80
4. Iodine is necessary for the production of which hormone? ( )
   A) Parathormone B) Vasopressin C) Glucagon D) Thyroxine
5. The part of the Brain that helps in analysing a problem ..... ( )
   A) Diencephalon B) Cerebellum
   C) Medulla oblongata D) Cerebrum
6. In stem cuttings, a slanting cut is made in this part of stem ..... ( )
   A) Below the node B) Above the node
   C) On the node D) Across the node
7. The micronucleus of Paramoecium controls ..... ( )
   A) Respiration B) Digestion C) Excretion D) Reproduction

8. Deficiency of Iron causes ..... ( )

A) Diabetes B) Rickets C) Anaemia D) Scurvy

9. Vitamin 'C' helps in the absorption and storage of ..... ( )

A) Iodine B) Iron C) Sulphur D) Sodium

10. Renewable energy resource is ..... ( )

A) Solar Energy B) Coal C) Natural Gas D) Petrol

II. Fill in the blanks with the correct answers. Each question carries ½ mark. *10 x ½ = 5*

11. Iodine can be used to test the presence of _____

12. The first stage of respiration is called _____

13. In Earthworm, haemoglobin is present in _____

14. The vessel that pumps blood to lungs is called _____ heart.

15. The gland that is present in the neck near Trachea is _____

16. Haploid plants are obtained commonly by introducing _____ in culture media.

17. If Ozone layer weakens, the _____ rays of the Sun reach the Earth.

18. Sunlight converts cholesterol present in the food to _____ vitamin.

19. Over-eating and excess intake of energy result in _____

20. _____ function as Carbon sinks.

III. Match the following. *10 x ½ = 5*

(i)

Group A		*Group B*
21. Melvin Calvin	( )	(A) Blood groups
22. Pleura	( )	(B) Azolla
23. Neutrophils	( )	(C) Carbon fixation
24. Karl Land Steiner	( )	(D) Lungs
25. Bio-fertilizer	( )	(E) Citric acid cycle
		(F) Microscopic policemen
		(G) Heart

(ii)

Group A		*Group B*
26. Conjugation	( )	(A) Neuron
27. Chrysanthemum	( )	(B) Paramoecium
28. Nissl Granules	( )	(C) Esmarch
29. Beriberi	( )	(D) Suckers
30. First Aid	( )	(E) Thiamin
		(F) Amoeba
		(G) H.G. Hopkins