

KENDRIYA VIDYALAYA SANGATHAN, LUCKNOW REGION
SESSION ENDING EXAMINATION TERM-II (2021-22)
CLASS-XI
BIOLOGY (044)

Max.Marks:-35

Time Allowed:-2 Hours

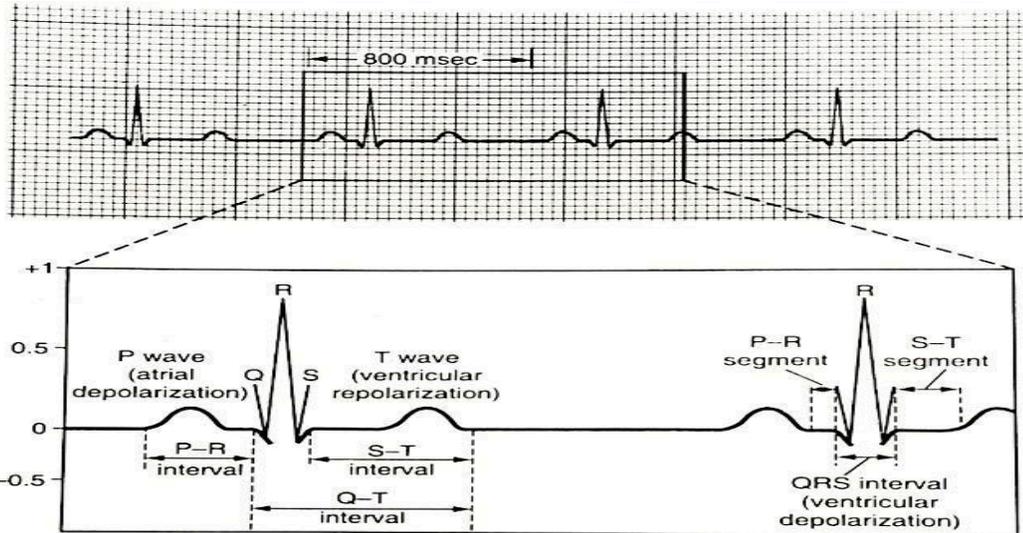
General Instructions:-

- (i) All questions are compulsory.
- (ii) The question paper has **three** Sections and **13** questions. All questions are compulsory.
- (iii) Section-A has 6 questions of 2 marks each; Section-B has 6 questions of 3 marks each; and Section-C has a case – based question of 5 marks.
- (iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- (v) Wherever necessary, neat and properly labelled diagrams should be drawn.

Q.No		Marks
SECTION - A		
1	How does cytokinesis in plant cells differ from that in animal cells?	2
2	Name the location where Light Reactions takes place in the chloroplast. What are the End-Products of Light Reaction? OR Why is the colour of leaf kept in dark frequently yellow, or pale green? Which pigment do you think is more stable?	2
3	Define R.Q. What is its value for fats?	2
4	Which one of the plant growth regulators (PGRs) would you use if you are asked to:- (i) Induce rooting in a twig. (ii) Quickly ripen a fruit. (iii) Induce growth in axillary buds. (iv) Induce immediate stomatal closure in leaves.	2
5	Terrestrial animals are generally either Ureotelic or Uricotelic, not Ammonotelic, why?	2
6	Nandita has observed that her household maid has developed a ball like bulging in the front part of her neck. She wondered what it is? And what is the reason of this excessive growth? Can you satisfy her curiosity with reasonable answer? OR Which hormonal deficiency is responsible for the following:- (i) Diabetes mellitus (ii) Cretinism	2

SECTION - B		
7	<p>Name the stage of cell cycle at which one of the following events occur:-</p> <p>(i) Chromosomes are moved to spindle equator.</p> <p>(ii) Centromere splits and chromatids separate.</p> <p>(iii) Pairing between homologous chromosomes takes place.</p> <p style="text-align: center;">OR</p> <p>List three main differences between mitosis and meiosis.</p>	3
8	<p>The diagram given below shows stages in the light-independent reactions of photosynthesis. Answer the following:-</p> <p>(i) At which stage NADPH is oxidized?</p> <p>(ii) What are A, B and C? Name the three labels</p> <p>(iii) At what stages ATP is converted into ADP?</p>	3
9	Describe the important steps in muscle contraction.	3
10	What are the main steps in aerobic respiration? Where does it take place?	3
11	Explain the process of generation and conduction of nerve impulse with diagram.	3

On the basis of diagram write the answers of the questions given below:-



12

3

- (i) Name the machine used to measure the above graph.
- (ii) What QRS complex shows?
- (iii) What is the clinical significance of ECG?

SECTION-C

For the first time in the ongoing COVID-19 wave, the number of cases in India crossed the 3 lakh mark. The country recorded 3, 13,603 new COVID-19 cases on January 19, 2022, a 27% increase from a week ago. The total number of infections has reached 3.8 crore, and the active cases have crossed the 18.9 lakh mark. Data for Sikkim, Arunachal Pradesh, Jharkhand, Ladakh, Lakshadweep and Tripura were not available. Maharashtra recorded 43,697 infections on January 19, 2022, followed by Karnataka (40,499) and Kerala (34,199). On January 18, 2022, 18.6 lakh tests were conducted, the highest on a single day in the ongoing wave. The test positivity rate (TPR) was 16.4%. As of January 19, 90.4% of the eligible population has been vaccinated with at least one dose, while 65.7% have received both doses. In the 15-17 years age cohort, 51.8% of the population has received its first dose.

13

5

- (i) Name the city and country from which COVID -19 spread to other countries.
- (ii) Which three states recorded maximum cases of infection as on 19 January, 2022?
- (iii) What is the percentage of population (between the age group of 15-17 years) that is vaccinated as on January 19, 2022?
- (iv) Give any two preventive measures that should be taken to avoid COVID-19 infection?
- (v) Write the name of recent variant of COVID-19 virus

OR

Animals accumulate ammonia, urea, uric acid, carbon dioxide, water and ions like Na^+ , K^+ , Cl^- , phosphate, sulphate etc., either by metabolic activities or by other means like excess ingestion. These substances have to be removed totally or partially. Ammonia, urea and uric acid are the major forms of nitrogenous wastes

excreted by the animals. Ammonia is the most toxic form and requires large amount of water for its elimination, whereas uric acid, being the least toxic, can be removed with a minimum loss of water.

A survey of the animal kingdom presents a variety of excretory structures. They depend on their habitats and the nature of the excretory products. Flame cells are the excretory structures in Platyhelminthes. Nephridia are the tubular excretory structures of Annelids. Malpighian tubules are the excretory structures of most of the insects. Green glands perform the excretory function in crustaceans and mammals have kidneys as their excretory structures. Name the excretory structures of:-

- (i) Flatworms.
- (ii) Earthworms
- (iii) Cockroaches
- (iv) Prawns.
- (v) Humans