

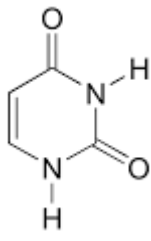
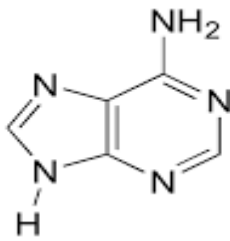
SRI SATHYA SAI VIDYA VIHAR, INDORE
ANNUAL EXAMINATION- FEBRUARY, 2019
CLASS: XI
SUBJECT: BIOLOGY

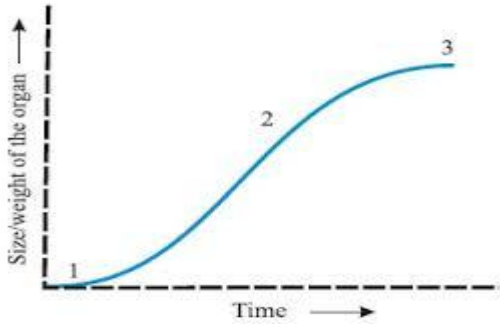
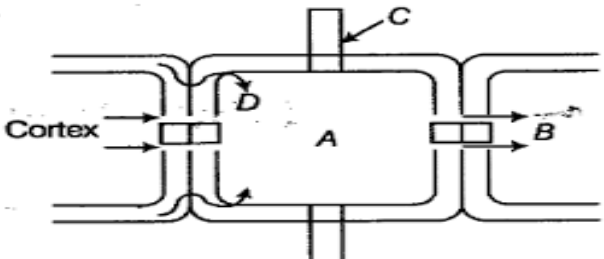
TIME: 3 Hrs



MAX MARKS: 70

GENERAL INSTRUCTIONS:

- All questions are compulsory.
- The question paper consists of four sections A, B, C and D.
- Internal choice is given in all the sections. A student has to attempt only one of the alternatives in such questions.
- Section–A contains 5 questions of 1 mark each.
- Section–B has 7 questions of 2 marks each.
- Section–C is of 12 questions of 3 marks each.
- Section–D has 3 questions of 5 marks each.
- Wherever necessary, the diagrams drawn should be neat and properly labelled.
- **Total number of printed pages: 4**
- **Total number of Questions: 27**

	Section A	
Q1	In which region of the plant production of auxin in abundant amount occurs.	1
Q2	List two purposes for which Magnesium is required essentially to the plants.	1
Q3	Identify the given figure as purine or pyrimidine? <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  (A) </div> <div style="text-align: center;">  (B) </div> </div>	1
Q4	What is the excretory product from the kidney of: a) Reptiles b) Marine fishes.	1
Q5	Give the name and function of a fluid filled double membranous layer which surrounds the lungs. OR How is the entry of food prevented in the respiratory tract?	1
	Section B	
Q6	Both gymnosperms and angiosperms bear seeds then why are they classified separately? OR What is the role of capsule in life history of moss?	2
Q7	If you are provided with microscopic preparations of transverse section of meristematic tissue and permanent tissue. How will you identify it?	2

Q8	Mention the special function performed by a) Tap root of beet root b) Axillary buds of Bougainvillea c) Tap root of radish d) Fleshy leaves of onion.	2
Q9	Give the terms for the following: a) The gap between two successive mitotic divisions. b) Division in which chromosome number is halved. c) Phase in cell cycle where DNA is synthesized. d) Division of nuclear material. OR Distinguish between metaphase of mitosis and metaphase of meiosis I.	2
Q10	In the figure of sigmoid growth curve below label segments 1, 2 and 3. 	2
Q11	What are red tides? Why are they harmful?	2
Q12	Write the medical terms for the following disorders: a) Faeces are retained within the colon as the bowel movements occur irregularly. b) A difficulty in breathing causing wheezing due to inflammation of bronchi and bronchioles. c) Acute chest pain when no oxygen is reaching to heart muscles. d) Inflammation of glomeruli of kidney.	2
Section C		
Q13	Describe the vascular tissue system with the help of the diagram.	3
Q14	Name the end products of aerobic and anaerobic fate of glycolysis. List two ways by which molecules of ATP are produced in glycolysis during aerobic respiration in a cell. OR Discuss “the respiratory pathway is an amphibolic pathway.”	3
Q15	Observe the diagram given and answer the following questions. a) Name the cell A and B. b) Identify C and name the substance it is made of. c) Name the pathway of water movement represented as D. 	3

Q16	<p>A cyclic process is occurring in C_3 plant, which is light dependent and needs O_2. This process does not produce energy rather it consumes energy.</p> <p>a) What is the name of the process?</p> <p>b) Where does it occur</p> <p>c) What are end products of this process?</p> <p style="text-align: center;">OR</p> <p>Give schematic representation of nodule formation in plants.</p>	3
Q17	<p>a) Out of three types of dentition, which type provides separate socket for tooth in the jaw bone.</p> <p>b) Draw the transverse section of gut.</p>	3
Q18	<p>a) What is portal vein? Mention its significance.</p> <p>b) What is stroke volume? What is its relation with cardiac output?</p>	3
Q19	<p>a) Name the type of joint present between:</p> <p>i) Carpel /metacarpal of thumb</p> <p>ii) Femur/acetabulum</p> <p>b) Differentiate between pectoral and pelvic girdle.</p> <p style="text-align: center;">OR</p> <p>a) Explain with the help of diagram how does a muscle return to its original form during relaxation?</p> <p>b) What causes muscle fatigue?</p>	3
Q20	<p>a) What does an enzyme do in terms of energy requirement of a reaction?</p> <p>b) Give an example of co enzyme.</p> <p>c) Distinguish between apoenzyme and co enzyme.</p>	3
Q21	Mention the features that will mark the completion of Anaphase and Telophase in mitotic cell division.	3
Q22	Mention three differences and three similarities between mitochondria and chloroplast.	3
Q23	<p>a) What is the function of inclusion bodies in prokaryotic cell</p> <p>b) Where are they present?</p> <p>c) Give two examples of inclusion bodies.</p> <p style="text-align: center;">OR</p> <p>Differentiate between electron microscopic structure of cilia/ flagella and centriole.</p>	3
Q24	<p>a) Identify the given organism A and B.</p> <p>b) To which Phylum do they belong?</p> <p>c) Mention the unique features of the phylum on the basis of following points:</p> <p>i) Excretion</p> <p>ii) Reproduction</p> <p>iii) Circulatory system</p> <p>iv) Locomotion</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <p>(A)</p> <p>(B)</p> </div>	3

	Section D	
Q25	<p>a) In which segment does the following structures lie in the earthworm's body?</p> <ul style="list-style-type: none"> i) Spermathecae ii) Pharynx iii) Gizzard iv) Intestine v) Septal nephridia vi) Typhlosole vii) Pharyngeal nephridia. viii) Ovary <p>b) How male frogs can be distinguished from a female frog.</p> <p style="text-align: center;">OR</p> <p>a) Name the locomotory appendages of cockroach on the basis of external morphology.</p> <p>b) Distinguish between smooth muscle and striated muscle.</p> <p>c) Differentiate between tendon and ligament.</p>	5
Q26	<p>a) Differentiate between:</p> <ul style="list-style-type: none"> i) Resting potential and action potential ii) Cerebrum and cerebellum iii) Rods and cones <p>b) Diagrammatically represent the mechanism of action of any steroid hormone.</p> <p style="text-align: center;">OR</p> <p>Draw a labeled diagram to show different parts of human eye and give the location and function of the following:</p> <p>a) Cornea b) Iris c) Vitreous humor</p>	5
Q27	<p>a) Briefly explain chemiosmotic hypothesis.</p> <p>b) Give comparison between cyclic and non cyclic photophosphorylation.</p> <p style="text-align: center;">OR</p> <p>Explain the process of biosynthetic phase of photosynthesis occurring in chloroplast.</p>	5