



Model Question Paper

Biology

(10 Class)

Maximum Marks : 40

Time : 2.30 mts.

I. Write answers to the following questions.

Each question carries four marks.

(4 × 4 = 16)

1. Compare Nutrition in plants and Animals (AS-1)

(OR)

Raju asked his teacher, he gets tired while playing games. Write reasons and process for it. (AS-1)

2. How plants absorb water through root hairs ? (AS-1)

(OR)

Describe dialysis process in man.

3. Examine the table given below write answers to questions. (AS-4)

Sl.No.	Name	Age	B.P. Reading	Remark
1	Ravi	38	120/80	N.B.P.
2.	Ramu	36	90/70	L.B.P.
3.	Somu	40	140/110	H.B.P.
4.	Madhu	45	150/120	H.B.P.

- A) What matter you observing after analysing the given information.
B) What is the relation of Age and B.P.
C) What are the effects of high B.P. and low B.P.
D) What represents Numerator ? What represents Denominator ?

Read the following matter answer the given questions.

To understand the functional relationship between these the phases of cell cycle. Dr. N. Rao and his research associate. Dr. Johnson conducted experiments on cell fusion technique. His



researches revealed that the cell cycle is sequential unidirectional and controlled by a series of chemical signals. His experiments are considered to be a milestone in the cell cycle studies.

G_2 : 3.5 hrs M : 1 hr.

1. Identifying above diagram findout cell cycle gap.
 2. What does the word cell fusion process ?
 3. G_1 , S, G_2 stages are called what ?
 4. The duration of M stage is higher than inter stage - what is the reason ?
4. Describe organs and systems participating in digestion. Write their functions briefly. (AS-3)

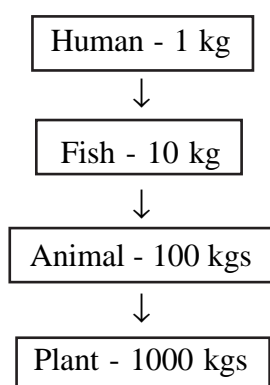
(OR)

Suma selected mainly round yellow wrinkled green pea seeds. She crossed these plants with her friends. Write results in

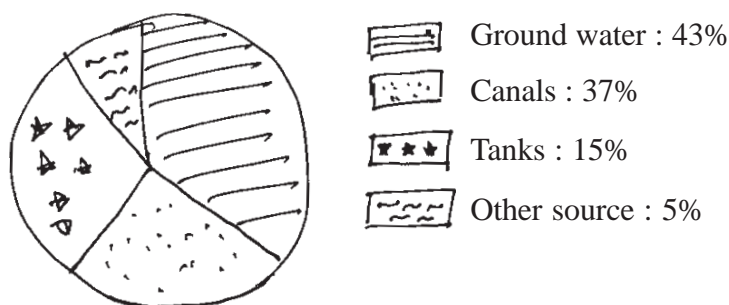
II. Short questions

(6 × 2 = 12)

1. Why number of organisms decrease more from producers to consumers. (A.S-1)
2. Observe flow chart and describe.



3. Given diagram describing AP's water sources. Write water conservation methods. (A.S-4)





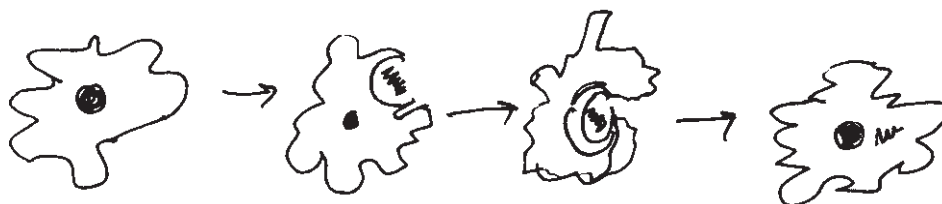
4. Ravi's father wants to grow potato crop in his field. He wants to discuss some doubts with Agricultural Officer. Write what questions he will ask to clarify his doubts.
- 5.
6. Some students are killing grasshoppers on grassland ecosystem for fun. How you will argue ? Write reasons. (A.S-1)

III. Very short questions.

1. Tilak didnot take food even though he felt hungry. After sometime he gets relief from hungry. Write reasons for it. (A.S-1)
2. What happens absence of mitotic cell division in organisms. (A.S-2)
3. In order to identify onion roots under microscope.
4. Observe the following chart and write answers. (A.S-1)

$\frac{\text{♀}}{\text{♂}}$	Y	y
Y	YY	Yy
y	Yy	yy


- A) Above chart shows what ?
- B) What is phenotypic ratio of F_1 generation
- C) Draw synapse diagram and label its parts (A.S-5)
- D) Write slogans are conservation of water (A.S-6)
5. Draw the diagram of Synaps and label its parts.
6. Prepare some slogans on conservation of water.
7. Observe the diagrams given below. Write your observations.





IV. Choose the correct answer and write in the brackets.

$$\left(10 \times \frac{1}{2} = 5\right)$$

1. Saliva pH with nature ()
a) Acid b) Base c) A and B d) None
2. In cell cycle given below stage is divided into G_1 , S and G_2 stages ()
a) Prophase b) Interphase c) Metaphase d) All
3. It took long time clotting of blood when Rani's finger was cut. Imagine what will be the reason. ()
a) Defeciciency of Vitamin-D b) Defeciciency of Vitamin-K
c) More blood is Rani's body d) Less blood in Rani's body
4. Every day Vikki's brother in a given time passes urine on bed. What is the reason ()
a) Less production of advenaline b) More production of Vassopresin
c) No production of advenaline d) Vassopresin not at all release
5. To test for the presence of carbohydrates in wheat floor. The following are mixed ()
a) first Saliva next Iodine b) first Saliva next Jiline
c) first Iodine next Saliva d) first Jiline next Iodine
6. A student observe pollengrain on a slide with microscope. He observed the fallowing structure. ()

"x" denotes what.
a) Acid b) Base c) A and B d) None
7. Photosynthesis takes place in chlorophylls and produced glucose and carbohydrates. What will happen if chlorophyll is absent. ()
a) Production of Carbohydrates b) Plant dies not place
c) Plant grows more d) All
8. Heart is an important organ for in circulation. For proper functioning of heart every one
a) Taking Nutritious diet b) Doing exercise ()
c) Developing smoking habit d) A and B
9. Sujatha told to cut grass and green plants to keep the surroundings clean. This is opposed by Raffee. Why ? ()
a) Need more labour b) Takes more time
c) Disturbs equilibrium d)



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1. Describe formation of urine in nephron. Why nephrons are called structural and functional unit of a kidney. (A.S-1)

(OR)

Write main differences of the following

()

- (a) Mitosis - Meiosis division
 - (b) Photosynthesis - Respiration
 - (c) F1 Generation - F2 Generation
 - (d) Soaking pit - percolation tank
2. Write different stages of photosynthesis. (AS-1)

(OR)

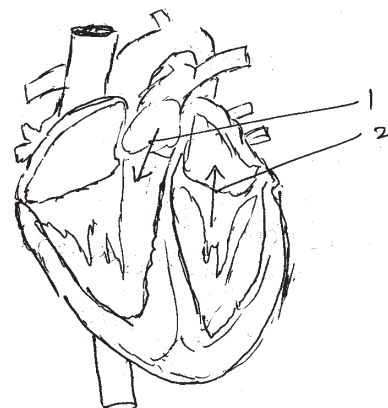
Write your opinion on evolutionary evidences of the following information. In all these animals forelimbs are structurally similar but perform different functions according to the habitat in which they live.

3. To understand the activity of Saliva. What test to be conduct on carbohydrates ? Write what precautions to fallow while doing activity.

(OR)

Deepaks father wants to grow coloured flowers and big fruit plants. What methods he has to fallow ? Describe why ?

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4. Observe the given heart diagram. (A.S-5)
- A) Draw flow of deoxygenated blood.
 - B) 1, 2 Blood flowing ways showing in diagram correct or not. Write reasons.
 - C) From which bloods heart receives blood.
 - D) How lub dub sound produced by heart.



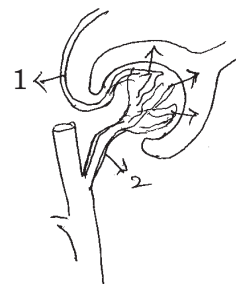
(OR)

What is ecological pyramid ? What concepts are revealed by pyramid of Biomass ?

II. Short answer questions.

(6 × 2 = 12)

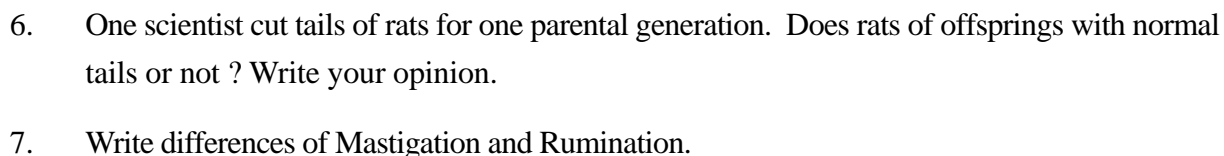
- 1. After knowing human digestive and excretory systems. Do you change your food habits ?
- 2. Prepare an interview questionnaire on fossile fuels who managing a petrol bunk ? (A.S-1)
- 3. Draw flow chart showing law of independant assortment ? (A.S-2)
- 4. What will happen if diagram is absent in the body ? (A.S-2)
- 5. How you appreciate continuety of life by cell division.
- 6. Observe the given diagram.
Name 1, 2 parts given in diagram. Why 2 blood vessel is larger than 1 bloode vessel.



III. Very short answer questions.

(7 × 2 = 14)

- 1. What is the reason of folding of leaves by touch me not plant when they are touch.
- 2. Write two slogans to provide awareness on conservation of ground water.
- 3. What will happen if phytoplanktons are absent in a pond Ecosystem ?
- 4. How green plants respire in the absence of Sunlight.
- 5. Taking the fallowing food chain as example draw pyramid of biomass.
Grass - Eagle - Herbivours - Carnivours





8. Correct one of the following ()
- a) When diaphragm contracts volume of thoracic cavity increases
 - b) When diaphragm contracts volume of thoracic cavity decreases
 - c) When diaphragm relaxes volume of thoracic cavity increases
 - d) When diaphragm relaxes volume of thoracic cavity decreases
9. What part is developed into a seed ()
- a) 1 b) 2 c) 3 d) 4
10. Why Mendal select pea plants for his experiments ()
- a) consists of unisexual flowers b) consists of bisexual flowers
 - c) conducting self fertilization d) b and c



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I. Write answers to the following questions.

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1. Write reasons for the following.
 - (i) In blood circulation why blood from stomach and intestine transport through liver and to heart. Why not directly to heart ?
 - (ii) Before blood transfusion why donor has to know the blood group of recipient.
 - (iii) Veins are only valves. Why valves are absent in arteries ?
 - (iv) Why arteries are situated in deeper parts of the body ? (A.S-1)
2. A boy conducted an experiment factors responsible for photosynthesis. He took a plant grown in a pot. He kept the potted plant in dark for 24 hrs. Second day morning he fixed a black paper in the middle of selected leaf and kept the potted plant in sunlight for few hours. Write answers to the following questions.
 - (i) What factor he wants to know in photosynthesis ? Why ? (A.S-3)
 - (ii) Is there any control in this experiment ? Describe if it is ?
 - (iii) Before conducting experiment why he kept the plant in dark for 24 hours.
 - (iv) Write different steps student conducting experiments to recognise the presence of carbohydrates.
3. Analyse the table given below.

Animal Name	Weight of the body	Heart weight	Heart beat for minutes
Blue Whale	1,50,000 kgs	750 kgs	7
Elephant	3000 kgs	12 - 21 kgs	46
Human man	60 - 70 kgs	300 grams	70 - 80
Coaltit bird	8 grams	0 - 15 grams	1200



1. In the above table which animal is with more body weight ?
 2. Reason for heart weight less than body weight ?
 3. What is the relation between weight of the body and weight of the heart.
 4. Why rate of heart beat is more in animals with less weight.
 5. Why rate of heart beat is less in animals with more body weight.
 6. What is the relationship between weight of the heart and its number of heart beats.
4. What is dialysis ? In what conditions dialysis is conduct ? Describe the process of dialysis with a diagram. (A.S-1)

II. Short answer questions.

(6 × 2 = 12)

1. Write differences between Hormones and enzymes. (A.S-1)
2. Why Mendel selected pea plants for his genetic experiments (A.S-1)
3. Describe double circuit circulation with the help of a diagram.
4. What will happen if natural resources are exhausted rapidly. (A.S-6)
5. If decomposers are eliminated from food web what will happen.
6. When we get angry it doesn't stay for a long time and it is controlled after sometime. What is the reason ?

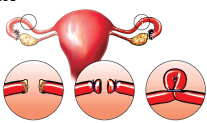
III. Very short answer questions.

(7 × 1 = 7)

1. Why blood should maintain constant osmotic blood pressure ?
2. What is difference between Reflex arc and
3. What questions you will ask in an interview a person using vehicle on the consumption of petrol.
4. Is there any difference in number of chromosomes when 8 months child is compared with 18 years old person.
5. How Basophils are different from Neutrophils ?
6. Draw a diagram of food in Oesophagus. The process of movement is called.
7. Write two slogans on the wastage of electricity to make awareness to the people.



IV. Multiple choice questions.

1. What factor doesn't increase the rate of respiration. ()
a) light intensity b) humidity c) temperature d) గాఢత
2. Nerve impulse takes place with ()
a) Ventricular systole b) Ventricular diastole
c) Auricular systole d) None
3. Reflex arc is controlled by ()
a) Brain b) Vertebral column
c) Autonomous nervous system d) Paripharal nervous system
4. What is the life span of Carpus leuteum after pregnancy ()
a) 4 days b) 10 days c) 14 days d) 25 days
5. Reason for yellow colour of urine ()
a) Urochrome b) Vasopressin c) Creatine d) Oestrogen
6. Stopping the usage of insecticides means ()
a) Control on using insecticides
b) Ban on insecticides
c) Fallowing Eco-friendly agricultural methods
d) Bio-chemical reaction
7. Use of soaking pit ()
a) Supply water to irrigation b) To increase underground water level
c) Storage of rain water d) To stop floods in rainy season
8. Given diagram shows what ()

a) Surgery to heart valve b) Surgery to Ureters
c) Surgery to spermatozoa d) Surgery to female falloplan tube
9. Reasons for decrease of ground water ()
a) less rain fall b) deforestation c) No controll on borewells d) All
10. A tank filled completely with pistia plants means ()
a) formation of imbalance in Ecosystem b) increase of producers
c) decrease of consumers d) All