



# KJB SCIENCE SCHOOL

A PREMIER INSTITUTE OF EDUCATION

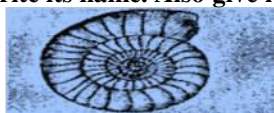
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TEST - {BIOLOGY : X }:- CHAPTER:- BIOLOGY 2,3 ,4 \$All [set---A] M.M:-55

## Dheeraj Asnani –99% {SECOND TOPPER OF AGRA DISTRICT}

Kashish Goyal -99 Astha Nigam-98 Nidhi Saraswat-98 Siddesh Tripathi-98 Nikita Saraswat-97  
Saurabh Lalwani-97 Sweta Sikarwar-97 Rishabh Singh- 96 Ishu Yadav-96 Srijan Mehta -- 95  
Rashmi Dhanwani-95 Raksha – 95 Adesh Choudhary-95 Suyash Goyal --95 Pushpanjali -- 95  
Rishi Amoria -- 95 Yash Saxena-95 Salil Gupta – 95 Vardhan Dogre—95 Lalit Gaur -- 95

- Q.1 Which of the following is/are biodegradable? Agricultural wastes, vegetable peels, polythene bags, aluminum foils.[1]  
Q.2 Phytoplankton → Zooplanktons → fish → fish-eating bird. In the above food chain, which of the organisms will have  
(i) Maximum available energy? (ii) Maximum concentration of pesticides? [1]  
Q.3 Name the scientist who came up with the idea of evolution of species by natural selection in 19th century . [1]  
Q.4 State & define scientific term used for progressive accumulation of harmful chemicals at each trophic level of foodchain[1]  
Q.5 List any two common methods by which solid wastes of urban areas are disposed off. [1]  
Q.6 A basket of vegetable contains carrot, potato, radish, and tomato. Which of them represent correct homologous structure.  
Q.7 Consider a food chain of the following- fish, crab, plankton, shark. Arrange these in proper order of trophic level. [1]  
Q.8 In the following food chain 40J of energy was available to the Hawks. How much energy would have been present in the plants ?  
Plants → Rats → Snakes → Hawks.[2]  
Q.9 Explain the homologous and analogous organs. Identify analogous and homologous organs amongst the following – wings of an insect, wings of a bat, forelimbs of lizard, forelimbs of bird.[3]  
Q.10 Fossil fuels are being increasingly used as source of energy. List any two reasons for replacing these by alternate sources of energy. [2]  
Q.11 Who proposed the theory of origin of life on the earth .Explain it.[3]  
Q.12 What will be the sex & genotype of embryo if an egg is fertilized by the sperm having (a) 22+x and (b) 22+y composition  
Q.13 Give the pair of contrasting traits of the following characters in plant and mention which one is recessive and which is dominant? (a) yellow seed (b) axial position of flower . [2]  
Q.14 List any three reasons due to which construction of large dams is opposed. [2]  
Q.15 What is the difference between the food habits of organisms belonging to the first and third trophic level ? Give one example of each of the organisms belonging to these trophic levels. [2]  
Q.16 What is speciation? Name two factors influencing the process of speciation.[2]  
Q.17 “Burning fossil fuels is a cause of (i) acid rains and (ii) global warming”. Justify this statement. [2]  
Q.18 Look at the given picture and write its name. Also give its significance in the study of evolution of organisms.



- Q.19 Pure-breed pea plants A are crossed with pure breed pea plants B. It is found that the plants who look like A do not appear in F<sub>1</sub> generation but B re-emerge in F<sub>2</sub> generation. Which of the plants A & B: (i) tall, (ii) dwarf ? Give reason .[2]  
Q.20 (i) Name the type of sex chromosome present in human male and human female. (ii) With the help of a flow chart determine genetically in human beings the sex of the offspring if a sperm carrying X - chromosome fertilizes the egg ?  
Q.21 Distinguish between food chain and food web? (2)  
Q.22 Government has declared a locality as a tiger reserve to protect the tigers. A group of local people of that area also joined the government in the effort of saving tigers and planted more forest trees and other vegetation in the area and near by. i] In what way, this step by the local people help to increase the population of tigers in this area?  
ii] How does this step influence the other species of organisms in the forest ?  
iii] What is the value we learn from the act of the local people?[3]  
Q.23 What are the different ways in which individuals with a particular trait may increase in a population? [3]  
Q.24 ADITYA is walking by a store along with his friend ARPIT .Both of them see a poster on the wall saying ‘Say No to Plastics’. ARPIT disagrees with the content of the poster and recounts the uses and advantages of plastic. ADITYA contradicts him saying that plastics are harmful to environment.  
a) Which values are being disrespected by ARPIT by not agreeing with ADITYA?  
b) How will ADITYA convince him that plastics are harmful to the environment?  
c) Government has banned the use of plastics and has asked to use paper bags or jute bags instead. How will you get the decision implemented effectively? [3]  
Q.25 How is ozone formed in upper atmosphere? Why is damage to ozone layer harmful to us? What causes this damage? [3]  
Q.26 Aditya and Arpit are friends. Aditya belongs to a rich family and he believes in throwing and discarding the things after use while Arpit does not like wastage and she reused the things. Based on above information answer the following questions :- 1. How reusing the things avoid wastage. 2. List any two examples where you can reuse the things. 3. What change can you make in your habits to become more Eco-friendly.[3]