2nd PRE BOARD ASSIGNMENT 2018 – 19

Class X **SUBJECT –BIOLOGY**

1. Name a common nutrient that is absorbed in the small intestine and reabsorbed by the kidney tubules. (1)
2. The presence of a particular group of bacteria in water bodies indicates contamination. Identify the group. (1)
3. In a flowering plant, summarize the events that take place after fertilization. (2)
4. Pertaining to endocrine system, what will you interpret if –
   (i)You observe swollen neck in people living in the hills.
   (ii)Over secretion of growth hormone takes place during childhood.
   (iii) Facial hair developes in boys aged 13 . (3)
5. A variegated leaf with green and yellow patches is used for an experiment to prove that chlorophyll is required for photosynthesis. Before the experiment the green portions (A) and the pale yellow portions (B),are observed. What will be the colour of 'A' just before and after the starch test? Also write the equation of photosynthesis and mark as well as validate from which molecule the by-product is obtained. (3)
6. How is ozone both beneficial and damaging? How can we prevent the damaging effect of ozone? (3)
7. The flow of energy between various components of the environment has been extensively studied. Give an outline of the findings. (3)
8. Write the role of the following in human digestive system :-
   (a)digestive enzymes (b)hydrochloric acid (c)Villi (3)
9. In a pea plant round seed is dominant over wrinkled. If a cross is carried out between these two plants, give answer to the following questions:-
   (i)Mention the genes for the traits of parents
   (ii)State the trait of F1 hybrid'
   (iii)Write the ratio of F2 progeny obtained from the cross. What is the name of the cross? (3)
10. (a) Draw the diagram of female reproductive system and match and mark the part(s):-
    (i) Where block is created surgically to prevent fertilization ?
    (ii) Where copper T is inserted?
    (iii) Inside which condom can be placed?
    (b)Why more and more people prefer to use condoms? What is the principle behind use of comdoms ? (5)
11. Name the phenomenon that governs the following –
    (i)Green beetles living in green bushes are not eaten by the crows.
    (ii)Number of blue beetles in green bushes increases, only because the red beetles living there were trampled by a herd of elephants.

(iii) No 'medium height plants' are obtained in F1 generation, upon crossing pure tall and dwarf pea plants.

(iv) Tails of mice are surgically removed for several generations; still mice had tails in the following generations.

(v) A migrant beetle reproduces with the local populations, as a result genes of migrant beetle enter the new population. (5)

12. (a) What are fossils and how is age of fossils determined ?

(b) During artificial selection, which features of wild cabbage were selected to give rise to (i) cabbage (ii) cauliflower .

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13. In the experimental set up on 'CO_2 is released during respiration', if one forgets to keep the vial with KOH in the conical flask, how will the result vary ? Give details. (2)

14. When observed under high power of the microscope, chain of buds is visible in the microscopic view . In which organism can it be observed ? Explain the process. (2)

15. You soak seeds of bean and observe them after 2 to 3 days . Illustrate your observations with the help of diagram. (2)

REVISION ASSIGNMENT FOR PRE-BOARD-2 2018-19-CHEMISTRY (CLASS X)

1. A) In the refining of silver, the recovery of silver from silver nitrate solution involved in displacement of copper metal. Write down the reaction involved.
   B) On heating blue colour powder of copper II nitrate in a boiling tube, copper oxide (black), oxygen gas, and a brown gas X is formed. Identify the brown gas X.
2. A) What happen chemically when quick lime is added to water.
   B) How will you taste for the gas which is liberated when hydrochloric acid reacts with an active metal.
3. A) Name two salts that are used in black and white photography.
   B) Why does tooth decay start when the pH of mouth is lower than 5.5?
4. Two solutions X and Y have pH value of 3.5 and 10 respectively. Which of these will turn litmus solution blue to red and which will turn phenolphthalein from colourless to pink?
5. A) How does the concentration of hydronium ions (H_3O^+) affected when a solution of an acid is diluted.
   B) Fresh milk has pH of 6. When it changes into curd, will its pH value increase or decrease?
6. A) What is the chemical name of plaster of Paris?
   B) Which is the real bleaching agent present in bleaching powder?
   C) Why is the electrolysis of concentrated solution of sodium chloride known as chlor-alkali process.
7. A) Which of the following metals will melt at body temperature-
   gallium, Aluminium, Caesium, magnesium
   B) name two metals which will displace hydrogen from dilute acid and two metal which will not.
   C) Why do silver articles becomes black on prolongs exposed to air.
   D) Arrange the following metals in decreasing order of their reactivity-
   Fe, Zn, Na, Cu, Ag,
   E) Why does a little addition of carbon in iron make it more useful?
8. A) What is rust?
   B) What is corrosion?
   c) What are alloy? Give two examples.
9. A) Give the name of the functional group-
   a) –OH b) $-\overset{|}{C}=O$
   B) Why is pure Ethanoic acid called glacial ethanoic acid?
10. What is homologous series? Write its character.
11. A) What change will you observe if you taste soap with litmus papper?
    B) Would you be able to check if water is hard by using detergent? Give reason.
12. What was dobereiner's basis of classifying elements? Give an example.
13. A) What do you understand by groups and period in the periodic table?
    B) In how many groups and periods the modern periodic table of element is divided?
    C) Which period is longest periodic table?
    D) Element X forms a chloride with formula XCl_2, which is a solid with a high melting point. X would most likely be the same group of the periodic table as Na, Mg, Al, Si.
14. A) What is a thermit reaction? State one use of this reaction.
    B) What is 24 carat gold? How will you convert it into 18 carat gold.
15. A) List two taste for experimentally distinguishing between an alcohol and carboxylic acid and describe how these tests are performed?
    B) What happens when
    i) Ethanol is oxidised with alkaline $KMnO_4$ or acidified $K_2Cr_2O_7$
    ii) Ethanoic acid reacts with sodium metal.
    iii) Ethanoic acid reacts with sodium carbonate.
    iv) Ethanoic acid reacts with sodium hydroxide.

Assignment for Class 10

Class: Xth **Subject. Physics**

1. The image of an object formed by a mirror is real, inverted and is of magnification -1. If the image is at the distance of 30 cm from the mirror, where is the object placed? Find the position of the image if the object is now moved 20 cm towards the mirror. What is the nature of the image obtained? Justify your answer with the help of ray diagram.
2. Poof the formula of || combination of resistance.
3. What is meant by power of a lens? You have three lenses L1, L2 and L3 of powers +10D, +5D and -10D respectively. State the nature and focal length of each lens. Explain which of the three lenses will form a virtual and magnified image of an object placed at 15 cm from the lens. Draw the ray diagram in support of your answer.
4. Two lamps, one rated 100 W at 220 V and the other 200 W at 220V are connected (i) in series and (ii) in parallel to electric main supply of 220V. Find the current drawn in each case.
5. (a)What is meant by the term 'power of accommodation'? Name the component of eye that is responsible for the power of accommodation. (b) A student sitting at the back bench in a class has difficulty in reading. What could be his defect of vision? Draw ray diagrams to illustrate the image formation of the blackboard when he is seated at the (i) back seat (ii) front seat. State two possible causes of this defect. Explain the method of correcting this defect with the help of a ray diagram.
6. (i) With the help of an activity, explain the method of inducing electric current in a coil with a moving magnet. State the rule used to find the direction of electric current thus generated in the coil.
7. Define resistivity deduce the formula of resistivity.
8. Write the characteristics of magnetic field lines also draw the diagrams of magnetic field lines of a bar magnet .
9. State maxwell's Right Hand Thumb Rule state and write its one application
10. Write the short note on the following
    (1)electric fuse (2) earthing and (3) short circuiting .
11. Write the energy conversion in thermal power plant and Hydel power plant. Also write two limitations of each .
12. What is solar cell write the name of two elements which is used to fabricate it also write its two advantage and two disadvantages.
13. Show the ray diagram using concave mirror when object is placed
    (1)at C
    (2)between F and C and
    (3)between F and P. also write the nature of image formed .
14. (a) state the laws of refraction write the cause of refraction.
    (b)What do you mean by absolute refractive index write its unit (c)show the refraction of light through glass slab .
15. Sunita takes a mirror which is depressed at the centre and mounts it on a mirror stand. An erect and enlarged image of her face is formed. She places the mirror on a stand along a meter scale at 15 cm mark. In front of this mirror, she mounts a white screen and moves it back and forth along the meter scale till a sharp, well-defined inverted image of a distant tree is formed on the screen at 35 cm mark.
    (i) Name the mirror and find its focal length.
    (ii) Why does Sunita get sharp image of the distant building at 35 cm mark?
16. (a) Write the following functions of the eye Iris, Pupil ,ciliary muscle and retina.
    (b)What do you mean by power of accommodation?
17. What is myopia? what are causes? How it can be corrected also show its ray diagram of defective eye and corrective eye.

18. Show the diagram of (1)refraction of light through glass prism(2) Dispersion of light and (3)recombination of white light in prisms.
19. Give reason of the followings
    (1) stars do not seems on their actual
    (2) formation of rainbow
    (3) sun appear red during sunset
    (4)early sunrise and delayed sunset