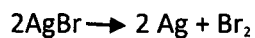


WORK SHEET
SUBJECT – CHEMISTRY

CHEMICAL REACTIONS AND EQUATIONS

1. On what basis is a Chemical Equation balanced?
2. What happens chemically when quicklime is added to water filled in a bucket?
3. What change in color is observed when white silver chloride is left exposed to sunlight? State the type of chemical reaction in this change.
4. Why do gold and platinum not corrode in moisture?
5. Why do potato chips manufacturers fill the packet of chips with nitrogen gas?
6. A zinc plate was put into a solution of copper sulphate kept in a glass container. It was found that blue color of the solution gets fader and fades with the passage of time. After a few days when zinc plate was taken out of the solution, a number of holes were observed on it.
 - (a) State the reason for changes observed on the zinc plate
 - (b) Write the chemical equation for the reaction involved.
7. Write any two observations in an activity which may suggest that a chemical reaction has taken place. Give an example in support of your answer.
8. Identify the type of reaction from the following equation :
 - (a) $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$
 - (b) $\text{Pb}(\text{NO}_3)_2 + 2\text{KI} \rightarrow \text{PbI}_2 + 2\text{KNO}_3$
 - (c) $\text{CaO} + \text{H}_2\text{O} \rightarrow \text{Ca}(\text{OH})_2$
 - (d) $\text{CuSO}_4 + \text{Zn} \rightarrow \text{ZnSO}_4 + \text{Cu}$
9. Using balanced chemical equation explain the difference between a displacement reaction and a double displacement reaction?
10. Give an example each for thermal decomposition and photochemical decomposition reactions. Write the relevant balanced chemical equations also.
11. A white salt on heating decomposes to give brown fumes and a residue is left behind.
 - (a) Name the salt
 - (b) Write the equation for the decomposition reaction
12. What happens when an aqueous solution of sodium sulphate reacts with an aqueous solution of barium chloride? Write the balanced chemical reaction for the reaction and name the type of reaction.
13. When the powder of a common metal is heated in an open china dish, its color turns black. However, when hydrogen is passed over the hot black substance so formed, it regains its original color. Based on the above information, answer the following questions :
 - (a) What type of chemical reaction takes place in each of the two given steps?
 - (b) Name the metal initially taken in the powder form. Write balanced chemical equation for both reactions.
14. When magnesium ribbon burns in air or oxygen, a product is formed. State the type of chemical reaction and name the product formed in the reaction. Write balanced chemical equation of this reaction.
15. Give two examples from everyday life situations, where redox reactions are taking place.

16. Write the essential condition for the following reaction to take place:



Write one application of the reaction.

17. Write chemical equation for the reaction taking place when :

- (a) Iron react with steam
- (b) Magnesium reacts with dilute HCl
- (c) Copper is heated in air.

18. Write balanced chemical equation for the reaction that take place during respiration. Identify the type of combination reaction that takes place during this process and justify the name. Give one more example of this type of reaction.

19. A metal nitrate "A" on heating gives yellowish brown colored metal oxide along with brown gas "B" and a colorless gas "C". Aqueous solution of "A" on reaction with potassium iodide forms a yellowish precipitate of compound "D". Identify A,B, C & D. Also identify the types of both the reaction. Metal present in "A" is used in alloy which is used for soldering purposes.

20. Write the balanced chemical equations for the following reaction and identify the type of reaction :

- (a) Thermite reaction , Iron (III) oxide reacts with aluminum and gives molten iron and aluminum oxide
- (b) Chlorine gas is passed in an aqueous potassium iodide solution to form potassium chloride solution and solid iodine.

21. A substance X which is an oxide of a group 2 element is used intensively in the cement industry. This element is present in bones also. On treatment with water, it forms a solution which turns red litmus blue. Identify X and also write the chemical reaction involved.

22. Explain corrosion. Why do we apply paint on iron articles?

Chemistry Summer Assignment

ACIDS, BASES AND SALTS

WORKSHEET- Class X

Very short answer type questions

1. How will you test for the gas which is liberated when hydrochloric acid reacts with a metal?
2. Which bases are called alkalis? Give an example.
3. Write a balanced chemical equation for the reaction between sodium carbonate and hydrochloric acid indicating the physical state of the reactants and products.
4. Write a balanced chemical equation for neutralization reaction, mentioning the physical state of the reactants and products.
5. What is the colour of litmus in ammonium hydroxide solution?
6. What is the cure for bee sting? Why?
7. Name an indicator which indicates the various levels of hydrogen ion concentration.
8. Which acid and base are used in the formation of the following salts (i) CuSO_4
(ii) NaNO_3

Short answer type questions

9. Name the natural source of each of the following acids (a) citric acid (b) oxalic acid (c) lactic acid (d) tartaric acid.
10. 15 ml of water and 10 ml of sulphuric acid are to be mixed in a beaker.
 - a. State the method that should be followed with reason.
 - b. What is this process called?
11. A student detected the pH of four unknown solutions A, B, C and D as follows: 11, 5, 7 and 2. Predict the nature of the solution.
12. Classify the following salts into acidic, basic and neutral:
. Potassium sulphate, ammonium chloride, sodium carbonate, sodium chloride.
13. The soil in a field is highly acidic. List any two materials which can be added to this soil to reduce its acidity. Give the reason for your choice.
14. Explain how antacid works.
15. How is tooth decay related to pH? How can it be prevented?

Short answer type questions (3 marks)

1. Explain the action of dilute hydrochloric acid on the following with chemical equations
(a) Magnesium ribbon (b) sodium hydroxide (c) crushed egg shells

2. A white powder is added while baking breads and cakes to make them soft and fluffy. Write the name of the powder? Name its main ingredients. Explain the function of each ingredient.
3. A white coloured powder is used by doctors for supporting fractured bones. Write chemical name and formula of the powder. When this white powder is mixed with water a hard solid mass is obtained. Write balanced chemical equation for the change.
4. A gas X reacts with lime water and forms a compound Y which is used as a bleaching agent in chemical industry. Identify X and Y. Give the chemical equation for the reaction involved.
5. What is baking soda chemically called? Give reaction involved in its preparation. Write one of its uses.
6. Name the compound which is obtained from baking soda and is used to remove permanent hardness of water. Write its chemical formula. How is it prepared from NaCl?

Long answer type questions

1. (a) Explain the following chemical properties of acids with the help of balanced chemical equations.
 - When an acid reacts with a metal carbonate
 - When an acid reacts with a metal bicarbonate
 - When an acid reacts with a metal oxide(b) You are given three solutions A, B and C with pH values 2, 10 and 13 respectively. Write which solution has more hydrogen ion concentration. State the nature of each.
2. (a) Identify the acid and the base whose combination gives the common salt that you use in food. Write its formula and chemical name of this salt. Name the source from where it is obtained.

(b) what is rock salt? Mention its colour and the reason due to which it has this colour.
3. (a) state the chemical properties on which the following uses of baking soda are based:
 - As an antacid
 - As soda acid fire extinguisher
 - To make cake soft and spongy(b) How washing soda is obtained from baking soda? Write balanced chemical equation.

INTERNATIONAL INDIAN SCHOOL , DAMMAM
METALS AND NON-METALS - WORKSHEET 2018-19

VERY SHORT ANSWER QUESTIONS

1. Give exceptions for the following
 - a) all metals exist as solids at room temperature
 - b) Non- metals are non-lustrous
 - c) Non-metals do not conduct electricity
 - d) Metals are hard
 - e) Solid non-metals are hard
 - f) Metals are solid at room temperature
 - g) Metals have high melting and boiling point
2. What is amalgum ?
3. Why do metals like gold occur free in nature ?
4. What is gangue
5. What is aqua regia
6. Which are the allotropes of carbon

SHORT ANSWER QUESTIONS

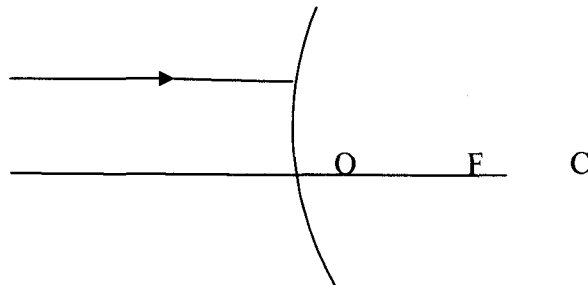
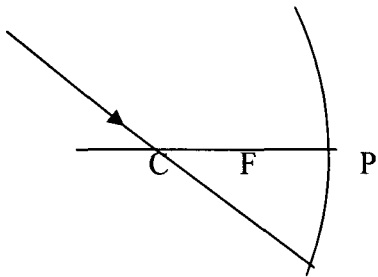
1. List the physical properties of the metals
2. With the help of equation ,show that Al_2O_3 is an amphoteric oxide
3. Why there is no evolution of hydrogen when nitric acid reacts with metals
4. What is electrovalent bond. Show the formation of $NaCl$, Na_2O , MgO , $MgCl_2$ with the help of electron-dot representation
5. Write the properties of ionic compounds
6. What is an alloy ? Write the composition of brass , bronze and solder
7. What is the reactivity series of metals ?
8. How are the metals of the high reactivity extracted from their ores
9. What do you mean by roasting and calcination . Give examples
10. Write short note on
 - a. anodising
 - b. galvanisation
 - c. electrolytic refining
 - d. thermite process
11. Why do metals like sodium and potassium is stored under kerosene
12. Why do ionic compounds have high melting point ?
13. Why do the metals with reactivity cannot be extracted by reduction of oxides
14. How do silver,copper and iron corrode when exposed to the atmosphere
15. Write balanced chemical reaction for
 - a)iron with steam
 - b) calcium and potassium with water
 - c) steam passed over red hot steam
 - d) zinc sulphide heated in air
 - e) cinnabar heated in air
 - f) manganese dioxide is heated with aluminium oxide powder
 - g) How is copper obtained from copper (ii)sulphide .Write equation

LONG ANSWER QUESTIONS

1. Explain the reaction of various metals with oxygen with suitable equations
2. Why aluminium oxide is called as an amphoteric oxide .
3. Metallic oxides are generally basic in nature while non-metallic oxides are acidic in nature . Illustrate with suitable examples.
4. Explain the reaction of various metals with acids with suitable equations .
5. With a neat labeled diagram ,explain the process of electrolytic refining of copper
6. Write an activity to prove that moisture and oxygen is necessary to form rust.
7. What are the ways to prevent corrosion of iron ?
8. How are the metals middle in the reactivity series extracted from its ores

Class: X
Physics Summer Assignment
Chapter: Light Reflection and Refraction

1. What is light? What is its nature?
2. What is the speed of light in vacuum?
3. What is a mirror?
4. What is the focal length of a plane mirror?
5. Differentiate between real and virtual image.
6. What type of image is formed on a cinema screen?
7. A concave mirror is a part of sphere of radius 40 cm. What is the focal length of the mirror?
8. Radius of curvature of a mirror is 20 cm. What type of mirror is it?
9. Magnification of a mirror is $+2/3$. What type of mirror is it?
10. Complete the following diagrams:-



11. Magnification of a mirror is -1 . What type of mirror is it? What is the position of object and image? Give the nature of image.
12. Name the type of mirror used:-
 - (i) as a reflector in search light
 - (ii) as side view mirror in vehicles.
 - (iii) by the dentist
 - (iv) as a shaving mirror
13. Wherever you may stand in front of mirror, your image is always erect & same sized, what type of mirror is it?
14. (a) A ray of light strikes the mirror at an angle of 20° . What is the angle of reflection?
(b) Give the angle of incidence and reflection for normal incidence.
15. A candle is kept in front of plane mirror at distance of 15 cm. What is distance between candle & its image?
16. Radius of curvature of a mirror is $+24\text{cm}$. Name the kind of mirror and give the characteristics of the image formed by it.
17. Define refraction.
18. State the laws of refraction.
19. How does the lateral displacement depend upon:- (a) Thickness of the glass slab. (b) Angle of incidence
20. What is the lateral displacement when a ray of light falls normally on a glass slab?
21. Refractive index of water with respect to air is 1.33, what is refractive index of air with respect to water?
22. Under what condition, the angle of refraction will be equal to the angle of incidence?
23. Refractive index of glass is 1.65, what is the speed of light in glass?
24. If refractive indices of alcohol & water are 1.36 and 1.33 respectively, which of the two is optically denser?

25. A 1cm high object is placed at a distance of $2F$ from a convex lens, what is the height of the image formed?
26. Focal length of a lens is 25 cms. What is its power?
27. Where should an object be placed for using a convex lens as magnifying glass?
28. Power of a lens is 0.4 D. what is its focal length?
29. Why does a stick, partly immersed in water, appear to be bent? Explain with a diagram.
30. A small electric lamp is placed at the focus of a convex lens. What is the nature of the beam of light produced by the lens?
31. Light travels from rarer medium 1 to denser medium 2. Angle of incidence & refraction are 45° & 30° resp.
- Calculate the refractive index of second medium with respect to the first.
 - Calculate the refractive index of the first medium with respect to the second.
32. Find the position, nature and size of the image of an object 3 cm high placed at a distance of 9 cm from a concave mirror of focal length 18 cm.
($v = 18$ cm, $h = 6$ cm)
33. An object 4 cm high is placed 40 cm in front of a concave mirror of focal length 20 cm. find the distance from the mirror, at which a screen be placed to obtain a sharp image.
($v = -40$ cm)
34. A convex lens has focal length of 30 cm. at what distance should object be placed from the lens so that it forms an image at 60 cm on other side of the lens? Find the magnification produced by the lens. ($v = -60$ cm, $m = -1$)
35. An arrow 2.5cm high is placed at a distance of 25 cm from a diverging mirror of focal length 20 cm. find the nature, position and size of the image formed
(11.1, 1.11cm).
36. The image formed by a convex mirror of focal length 30 cm is a quarter of the object, what is the distance of object from the mirror?
(-90 cm)
37. An erect image 3 times the size of the object is obtained with a concave mirror of radius of curvature 36 cm. calculate the position of the object.
(-12cm)
38. A concave lens has focal length of 15 cm. at what distance should an object be placed from the lens so that it forms an image at 10 cm from the lens? Find the magnification of the lens.
(-30cm, $1/3$)
39. A 2 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 10 cm. the distance of the object from the lens is 15 cm. find the nature, position and size of the image. (30cm, -4cm)
40. The image obtained with a convex lens is erect and its length is 4 times the length of the object. If the focal length of the lens is 20 cm, calculate the object and image distance.
(-15 cm, -60cm)
41. A concave lens of focal length 25 cm and a convex lens of focal length 20 cm are placed in contact with each other. What is the power of this combination? What is the focal length of the combination? (1D, 1m)

1. 'The human eye is like a camera'. Justify the statement.
2. The eye lens forms an inverted real image of the object on the retina. But we perceive objects as they are. How is it possible?
3. We are not able to see objects clearly for some time when we enter from bright light to a room with dim light. After sometime, however, we are able to see things in the dim-lit room. Why is it so?
4. A person is not able to read the book comfortably but is able to read the matter written at far-off distance
Name the defect of vision he is suffering from.
What is the cause for this defect?
With the help of the ray diagram show that how can this defect be corrected.
5. Why is a normal eye not able to see clearly the objects placed at 10 cm?
6. What is hypermetropia? Draw ray diagrams to show the image formation of an object by:
 - {i} Hypermetropic eye,
 - {ii} Correction made with a suitable lens for hypermetropic eye.
7. The ciliary muscles of a normal eye are there in:
 - a) most relaxed
 - b) most contracted state
 In which of the two cases is the focal length of the lens more. Explain
8. What is cataract? How is it corrected?
9. The power of accommodation of the eye usually decreases with ageing. Why does it happen?
How is it corrected?
10. Which angle in a prism is known as the angle of the prism.
11. Why do we see the seven colours when white light disperses?
Which colour deviates the least?
12. Trace the path of a ray of light passing through a glass prism and label it.
13. A monochromatic beam of light does not split when it passes through a prism while a beam of White light does. How are the two cases different from each other? Explain.
14. Name the scientist who used a glass prism to obtain the spectrum of sunlight for the first time.
15. A person is able to see objects clearly when these are lying at a distance between 50 cm and 30cm from his eye.
 - a) What kind of defect of vision is he suffering from?
 - b) What kind of lenses will he require to increase the range of vision from 25cm to infinity. Explain
16. The near point of a hypermetropic person is 75cm. Calculate the focal length and power of the lens used in his spectacles.
17. Far point of a normal human eye is at infinity. Will the far point of a myopic person be at infinity or less than infinity?
18. The far point of a myopic person is 150cm in front of eye. What is the nature and power of the lens required to correct this problem?

19. With the help of a diagram show the arrangement of prisms so that a beam of light entering into the arrangement emerges out as a beam of white light.
20. A glass prism splits a beam of white light into seven colours but a glass slab does not. Why?
21. Name the three phenomenon of light responsible for the formation of Rainbow. Draw a labeled diagram for the same.
22. Can we also see a rainbow on a sunny day? Give a situation to support your answer.
23. Where is the rainbow formed in the sky with respect to sun? Diagrammatically support your answer.
24. We generally observe the apparent random wavering or flickering of objects seen through a turbulent stream of hot air rising above a fire or a radiator. Explain the phenomenon.
25. Why do stars twinkle but planets do not?
26. The Sun is visible to us about 2 minutes before the actual sunrise, and about 2 minutes after the actual sunset. Why? Draw a labeled diagram for the same.
27. What is tyndal effect.
28. Discuss the phenomenon of scattering.
29. Why is the colour of the clear Sky Blue?
30. The sky appears dark to passengers flying at very high altitudes. Why?
31. 'Danger' signal lights are red in colour. Why?
32. Why do we observe difference in colours of the Sun during sunrise, sunset and noon? Support your answer with a labeled diagram.
33. Demonstrate the phenomenon of scattering with the help of an activity.

LIFE PROCESSES CLASS 10

Nutrition

I. Very Short Answer Questions

1. Define-nutrition, autotrophs.
2. What are heterotrophs?
3. Give two examples of parasites in plants.
4. Mention the two types of nutrition
5. Give two examples of heterotrophic nutrition in plants.
6. Define photosynthesis.
7. Which reaction of photosynthesis takes place in light?
8. Which phase of photosynthesis does not require light?
9. Name the site of photosynthesis.
10. Name the acid produced in our stomach? What happens if there is excess of acid in the stomach?
11. Give the appropriate terms to the following statements:
(a) Any substance taken into the body for purpose of providing nutrition.
(b) Conversion of complex food particles into simpler food particles in presence of enzymes.
12. Name the following :
 - a) Reserved food in plants and animals.
 - b) Enzyme produced by salivary glands
13. Which part of the alimentary canal absorb the digested food? How is it designed to absorb digested food?

II. Short Answer Questions

1. Mention the two different types of nutrition in brief.
2. What is heterotrophic nutrition? Briefly mention.
3. Differentiate between autotrophic and heterotrophic modes of nutrition.
4. What is parasitic nutrition? Briefly explain with two examples in animals.
5. Give the overall reaction for photosynthesis.
6. How does the Amoeba intake food? Briefly mention
7. What is peristaltic movements? Name one enzyme present in pancreatic juice and give its function.
8. Write the functions of stomach, teeth and small intestine.
9. Write any two functions of saliva.
10. What is the role of: (a) Bile juice, (b) HCl, and (c) Mucus?
11. Give the function of the following in the alimentary canal:
 - a) Liver
 - b) Gall Bladder
 - c) villi

II. Long Answer Questions

1. What is nutrition? Give the autotrophic nutrition in plants in brief.
2. Classify the heterotrophic mode of nutrition. Write in brief about each of them.
3. Mention the main steps in the process of photosynthesis. Write in short about each step
4. What is the role of saliva?
5. Describe briefly how digestion of carbohydrates, proteins and fats takes place in our body.

Respiration

I. Very Short Answer Questions

1. What is the main source of energy to our body?
2. Why do aquatic organisms breathe faster than terrestrial animals ?
3. Mention the two steps in which glucose is broken down to release energy.
4. Mention the two types of respiration.

5. Give two examples where anaerobic respiration takes place.
6. What is breathing?
7. Which gas is taken in during inspiration by animals?
8. What is respiratory organ of Rohu fish?

II. Short Answer Questions

1. Give the anaerobic and aerobic respiration reactions.
2. What is fermentation?
3. What is aerobic respiration? Give its reaction.
4. What is anaerobic respiration? Give its reaction.
5. Draw the structure of stomata and label it.
6. How are alveoli designed to maximize exchange of gases?
7. How does inspiration or inhalation process take place in human beings?

III. Long Answer Questions

1. Why do we get cramps during vigorous muscular activities? Explain the aerobic breakdown of glucose with the help of a schematic diagram.
2. Describe the process of exchange of gases in tissues.

Circulation

I. Very Short Answer Questions

1. Name the components of human circulatory system.
2. Name three types of blood cells.
3. Which fluid in the human body bathes tissues or cells? How is it formed?
4. Which cells of blood help in clotting of blood at site of injury?
5. Name two body fluids circulated in body.
6. Name the process of:
 - (a) Removal of water from plants in vapour form by leaves
 - (b) Transfer of photosynthetic products to other parts of plant.

II. Short Answer Questions

1. How does transport of materials take place in human beings?
2. What is transpiration pull?
3. How is movement of water and sucrose different in plants?
4. Draw the internal structure of heart and label the following parts in it:
Left ventricle, Vena cava from lower body, Aorta, Pulmonary veins.
5. Write about the different types of blood vessels in brief.
6. What is lymph? How is it different from blood?

II. Long Answer Questions

1. How is water moved in plants? Explain the physical forces that help in the process.
2. What is double circulation? Briefly explain it.
3. What is the role of heart chambers in blood circulation in human heart?

Excretion

Very Short Answer Questions

1. What is excretion?
2. Name the excretory organs and excretory unit of man.
3. Name the excretory organs of Amoeba and plants.
4. Name the organs that eliminate these in organisms:
 - (a) CO₂, (b) Water, (c) Urea.
5. What is Bowman's capsule?

6. Name the excretory wastes of plants.

II. Short Answer Questions

1. What is excretion? Give two excretory wastes removed by kidney.
2. Mention the excretory wastes of animals. How are they removed?
3. Draw a labelled diagram of excretory system of human.
4. How do plants excrete wastes?

II. Long Answer Questions

1. Briefly explain the structure of excretory system of human.
2. How is urine formed? Briefly explain it.

2018,19

Class X BIOLOGY

CONTROL AND COORDINATION

1 mark questions :-

1. Name the part of the brain which controls posture and balance of the body.
2. Give one example for chemotropism.
3. How is spinal cord protected in our body?
4. A potted plant is made to lie horizontally on the ground.
Which part of the plant will show
 - i) Positive geotropism
 - ii) Negative geotropism.
5. Name the hormone that helps in regulating level of sugar in our blood. Name the gland that secretes it.
6. Which endocrine gland secretes growth hormone?
7. Name the main hormone secreted by thyroid gland and state one function.
8. Why is pituitary gland called the master gland?
9. Which plant hormone makes the shoot bend towards the sunlight?
10. What is a synapse?

2 mark questions :-

1. Name the hormone secreted by human testes . State its functions.
2. Justify that the pancreas and gonads perform dual functions.
3. which is the largest part of the brain . what are the functions performed by it.
4. What is meant by receptors and effectors ? Give one example for each.
5. How does our body respond when adrenaline is secreted into the blood?
6. Why are some patients of diabetes treated with insulin?
7. what are phyto hormones ? write two important functions of auxin.
8. How is brain protected from injury and shock?
9. How is the movement of leaves of the sensitive plant different from the movement of the shoot towards light ?
10. List the functions of testosterone and estrogen.

3 mark questions :-

- 1 . Draw the structure of neuron and label the following parts .
 - i) Where information is acquired
 - ii) Through which information travels as an electrical impulse.
2. What causes a tendril to encircle around the object in contact? Explain the process involved.
- 3 . What is chemotropism ? Give an example. Give two examples each for photo and hydro tropisms.
4. Name any three endocrine glands in human body and briefly write the function of each of them.
5. Name the hormone associated with the following :-
 - i) increased sugar level in the blood
 - ii) changes at puberty in boys
 - iii) Inhibits growth of plants
 - iv) dwarfism
 - v) goitre

5mark questions :-

- 1 What is endocrine system? What are the functions? Name the endocrine glands in the body and mention the hormones and functions.
- 2 What is reflex arc ? Draw a neat labelled diagram and explain the process. Give any two examples for reflex actions.
- 3 What are the major parts of the brain . Explain with the help of a neat labelled diagram.
- 4 What are tropic movements? Explain with examples.
- 5 What constitutes the central and peripheral nervous systems ? How are the components of the central nervous system protected?

**HOW DO ORGANISMS REPRODUCE?
CLASS-X, SUB-BIOLOGY**

VERY SHORT ANSWER TYPE(1 MARK)

- Q1) Name a plant where buds develop on the leaves to produce new plants.
- Q2) A large variety of plants like banana, rose and sugarcane are grown by vegetative means. Give reasons.
- Q3) what do we call the undifferentiated mass of cells formed during tissue culture?
- Q4) Mention a disadvantage of vegetative propagation.
- Q5) Describe fragmentation in *Spirogyra* with the help of diagram.
- Q6) How does sexual reproduction result in variation /diversity of characters in the offspring?
- Q7) How many male gametes are formed by a pollen grain?
- Q8) What is ovulation?
- Q9) Why are petals scented and coloured?
- Q10) Which organ enables the developing foetus to obtain nourishment from the mother's blood?
- Q11) Name the structure formed after fertilization of ovum by the sperm.
- Q12) What is menopause?
- Q13) Name the causative organism of AIDS.
- Q14) Name the female gonad and female gametes.
- Q15) Name two biotic agents of pollination.
- Q16) Name two abiotic agents of pollination.
- Q17) What happens if the mature ovum is not fertilized in a female?
- Q18) What does the term 'menarche' signify?
- Q19) Write name of one male and one female sex hormone.

SHORT ANSWER TYPE-1(2MARKS)

- Q1) Define reproduction. why is it important?
- Q2) Mention two features of asexual reproduction.
- Q3) Mention the two most common methods of asexual reproduction in plant.
- Q4) Name the type of reproduction involved in the following;
- (i) a slice of bread has greenish –yellow patches.
 - (ii) Potato in the store-room starts sprouting.
- Q5) Mention two fungi that reproduce asexually by spore formation.(Rhizopus,yeast)
- Q6) How do organisms reproduce by budding?
- Q7) Give the name of a unicellular and a multicellular organism which reproduce by budding.(hint yeast,hydra)
- Q8) Name any two curable sexually transmitted diseases?
- Q9) Give two reasons why frequent pregnancies must be controlled.
- Q10) How do barrier methods prevent fertilization?
- Q11) Describe surgical methods of birth control?
- Q12) Reproduction is linked to stability of population of a species.Justify this statement.
- Q13) Why changes are observed in the uterus if fertilization doesnot take place?
- Q14) Why changes are observed in the uterus subsequent to implantation of young embryo?
- Q15) Give two reasons for the appearance of variation among the offspring formed by sexual reproduction.

SHORT ANSWER TYPE-11(3 MARKS)

- Q1) Describe the different methods of natural vegetative propagation.
Q2) How does *plasmodium* reproduce by multiple fission?
Q3) Describe budding in yeast?
Q4) Describe asexual reproduction. How do the following organisms reproduce?
a) Amoeba b) Plasmodium c) Hydra
Q5) What is the significance of vegetative propagation?
Q6) What is the significance of pollination? describe its types.
Q7) What changes occur in girls and boys in the age group of 10-14 years?
Q8) Mention the events taking place when the ovum is fertilized in fallopian tube till it is implanted the uterus of a human female.
Q9) Mention the methods used for birth control.
Q10) Mention the gland and their functions associated with the male reproductive system.
Q11) Distinguish between a gamete and a zygote. Explain their roles in sexual reproduction.
Q12) What is placenta? Mention its role during pregnancy.
Q13) Describe sexually transmitted diseases (STDs) and mention the ways to prevent them.
Q14) What is the role of villi on the walls of placenta?
Q15) What is semen?
Q16) Why testes is located outside the human body?
Q17) What is tissue culture and its importance?

LONG ANSWER TYPE QUESTIONS (5 MARKS)

- Q1) Describe the human male reproductive system in detail.
Q2) Describe the human female reproductive system in detail.
Q3) Write two point of difference between sexual and asexual mode of reproduction. Describe why variation is observed in the offspring formed by sexual reproduction.
Q4) Draw a well labeled diagram of a pistil showing pollen tube growth and its entry into the ovule.
Q5) What do you mean by puberty? what is the pubertal age in human males and females?
List some changes that occur at the time of puberty in male and female?
Q6) Mention the function of the following organs:
1) testes 2) vas deferens 3) urethra 4) scrotum 5) penis
Q7) Describe different methods of population control in human beings in detail

DIFFERENTIATE

- 1) Binary fission and multiple fission
- 2) Binary fission and budding
- 3) Binary fission and fragmentation
- 4) Tubectomy and vasectomy

DIAGRAMATIC QUESTIONS

- 1) Budding in *Bryophyllum* and in Hydra
- 2) Spore formation in Rhizopus.
- 3) Binary fission in Amoeba.
- 4) Fragmentation in Spirogyra.
- 5) Regeneration in Planaria
- 6) Multiple fission in Plasmodium
- 7) Male and female reproductive system.
- 8) Germination of seed
- 9) longitudinal section of bisexual flower.
