KENDRIYA VIDYALAYA E.C.RLY.SAMASTIPUR
HOLIDAY HOME WORK
CLASS –IX
SUB:- BIOLOGY

Q1. Define Cell.

Q2. Who discovered cell?

Q3. Who discovered Nucleus?

Q4. Name largest cell.

Q5. Define diffusion

Q6. Define osmosis.

Q7. Who proposed cell theory? State cell theory

Q8. Differentiate between prokaryotic cell and Eukaryotic cell.

Q9. What happens when

(i) Plant cell is placed in isotonic solution

(ii) Plant cell is placed in Hypotonic solution

(iii) Plant cell is placed in Hypertonic solution

Q10. Why plasma membrane is called semipermeable selective membrane?

Q11. With suitable diagram explain the structure and function of following cell organelles

(i) Nucleus (ii) Mitochondria (iii) Golgi complex (iv) E.R (v) Chloroplast (vi) cell wall

Q12. Write function of RER and SER

Q13. Why mitochondria is called "power house of the cell"?

Q14. Why lysosome is known as "Suicide bag"?

Q15. With suitable diagram differentiate between plant cell and animal cell (Three differences)

Q16. Draw plant cell and animal cell as seen under electron microscope

Q17. Write notes on:-

(i) Ribosome (ii) Plastids (iii) Tonoplast & cell sap (iv) Mitosis and meiosis cell division.

Q18. Define Tissue.

Q19. What do you mean by meristematic tissue?

Q20. Explain different types of meristematic tissue on the basis of their location & function.

Q21. What do yoy mean by permanent tissue?

Q22. Differentiate between simple permanent tissue and complex permanent tissue.

Q23. Differentiate between parenchyma, collenchyma and sclerenchyma on the basis of their cell wall & function.

Q24.Name vascular tissue. Write constituents of xylem and phloem. Write the function of xylem & phloem.

Q25. Write the role of epidermis cork and stomata.

Q26. Why blood is called fluid connective tissue?

Q27. Write notes on Tendon, Ligament, adipose tissue & muscular tissue

Q28. Draw well- labeled diagram of Neuron/ Nerve cell.

KENDRIYA VIDYALAYA E.C.RLY.SAMASTIPUR
HOLIDAY HOME WORK
CLASS –X
SUB:- BIOLOGY

Q1. Define Life process.Name some basic life process.

Q2. What do you mean by nutrient and nutrition ?

Q3. Name mode of nutrition.

Q4. Differentiate between Autotrophs and Heterotrophs.

Q5. Write three events occurring during photosynthesis

Q6. Name the pigment that traps solar energy.

Q7. Where photosynthesis takes place in plants?

Q8. Write different steps involved in the process of nutrition in animals.

Q9. How Amoeba engulf their food materials?

Q10. Draw well- labeled diagram of human digestive system?

Q11. What do you mean by Peristaltic movement?

Q12. Write role of acid/ HCL (hydrochloric acid) in stomach

Q13. Write the role of mucus in stomach.

Q14. Name the site where complete digestion of food takes place in human alimentary canal.

Q15. What do you mean by emulsification? Write role of bile juice.

Q16. Differentiate between breathing and respiration.

Q17. Define respiration. Differentiate between Aerobic respiration and Anaerobic respiration.

Q18. Write the pathways of breakdown of glucose.

Q19. Draw well- labeled diagram of human respiratory system.

Q20. How many molecules of oxygen is carried by one molecule.

Q21. Name some animals and their respiratory system.

Q22. What is alveoli? Write its function.

Q23. Draw well- labeled diagram on Human heart.

Q24. What do you mean by double circulation of blood in human heart.

Q25. By flow diagram show the pathways of blood circulation in human heart

Q26. Differentiate between Artery and Vein.

Q28. What is lymph? Write its function.

Q29. Define excretion?

Q30. Draw well- labeled diagram of human excretory system

Q31. Briefly explain the process of urine formation / excretion in human being.

Q32. Draw well-labeled diagram of Nephron.

Q33. How plants get rid of their excretory products.

Q34. How impulse / stimuli id transmitted through nerve cell/ neuron.

Q35.Briefly explain tropic movement in plant smith suitable diagram.

Q36. What is plants hormone? Write function of various plant hormones.

Q37. Write notes on Human brain, Reflex action, Reflex arc & endocrine gland hormone function.

DR.B.P.KARN,PGT(BIO)

KENDRIYA VIDYALAYA E.C.RLY.SAMASTIPUR
HOLIDAY HOME WORK
CLASS –XII
SUB:- BIOLOGY

Q1. Define reproduction. Write its significance.

Q2. What do you mean by clones?

Q3. Explain different phases of plant life cycle.

Q4. Differentiate between asexual and sexual method of reproduction.

Q5. What are vegetative propagules ? Name the vegetative propagules of the following plants- Ginger, Potato, Agave, Bryophyllum water hyacinth onion.

Q6. With example differentiate between monoecious abd dioecious plants.

Q7. Water Hyacinth (Terror of Bengal) is known as an invasive weeds, why ?

Q8. Name the asexual reproductive structure of following – Penicillium,sponge, chamydomonas.

Q9. Define syngamy. Differentiate between external syngamy and Internal syngamy.

Q10. Why are offsprings of oviparous animals at a greater risk as compared to offsprings of viviparous animals .

Q11. Write notes on the following. Hermaphrodite , parthenogenesis, zoospores, seasonal breeders, oestrus cycle.

Chapter:-2 Sexual reproduction in following plants.

Q1 Draw well- labeled diagram of following-

- **(i) Mature pollen grain/ mature microspore of angiosperm.**
- **(ii) T.S of mature enlarged anther/ microsporangia.**
- **(iii) A typical anatropous ovule**
- **(iv) A mature embryo- sac**
- **(v) L.S of monocot seed**
- **(vi) L.S of an embryo of grass.**
- **(vii) Dicot embryo**
- **(viii) Double fertilization (L.S)**

Q2. Name the organic materials the exine and intine of an angiospores pollen grains are made of .

Q3. What is tapetum? Write its function.

Q4. Explain double fertilization schematically.

Q5. What is pollination? Explain its type.

Q6. Write the characteristics of wind, water and insect pollinated flowers.

Q7. Differentiate between chasmogamous and cleistogamous flower. How does cleistogamy ensure autogamy?

Q8. Give your openion regarding pollen – pistil interaction with its importance.

Q9. What is filiform apparatus? Write its function .

Q10. Mention strategies adopted by flowering plants of a) self pollination (Autogamy) and for crosspollination (Xenogamy/Allogamy)/ Contrivances or Devices for selfpollination & crosspollination

Q11. Trace the development of male gametophyte and femalegametophyte with suitable diagram and explanation.

Q12. Write notes on the following-

Emasculation, Parthenogenesis, Parthemocarpy, Agamopermy, Apomixis with their importance, Endosperm Development, Free Nuclear endosperm, syngamy, False fruit, true fruit, polyembryony, Albuminous seed.

Chapter 3- Human Reproduction

Q1. Why do testes in mammals (human) descend in scroturo ?

Q2. Write the location and function of Sertoli cells in human.

Q3. What are Leydig's cell? where are they located ?What is their function?

Q4. Where egg is fertilized by sperm in human female reproductive system?.

Q5. At what stage is the mammalian embryo implanted in the uterus?

Q6. When do spermatogenesis and oogenesis initiate (start)in human males and females respectively.

Q7. Where is acrosome present in human? Write its function.

Q8. Differentiate between spermatogenesis and spermiation.

Q9. Why is breast feeding recommended during the initial period of infants growth?

Q10.write the function of following-

(i) Zona pellucida (ii) Fetal ejection reflex (iii) corpus luteum (iv) oxytocin (v) ovulatory phases (vi) LH surge (vii) Seminal plasma (viii) Hormonal Control of spermatogenesis in humans (ix) Parturition in human (x) placenta act as an endocrine gland

Q11. With suitable diagram differentiate between spermatogenesis & oogenesis (5 points differences)

Q12. Briefly explain Menstrual cycle in human female

Q13. Draw well- labeled diagram of following-

i) Human male reproductive system (ii) Sectional view of a seminiferous tubules (iii) Structure if human sperm (iv) Human female reproductive system (v) Selection view of ovary (v) Ovum surrounding by few sperms (fertilization) (vii) Blastocyst

Q14. Comment upon-

i) Implantation (ii) Menopause (iii) Menarche (iv) Placenta (v) colostrum(vi) Estrogen

Chapter 4- Reproductive Health

Q1. Explain- RCH,IMR,MMR,IUD,MTP,STD,RTI,IVF,ZIFT,IUT,GIFT,ICSI,AI,IUI,CDRI

Q2. What is amniocentesis? Write its advantage and disadvantage

Q3. When and why MTP is necessary.

Q4. List any four characteristic of an ideal contraceptive .

Q5. Name two IUCD that affect the motility of sperm

Q6. What is lactational amenorrhea?

Q7. What is coitus interrupts?

Q8. Why do some women use " Saheli Pills"? .

Q9. What are the commonly used barrier methods of contraception ?

Q10. Enlist the causes of population explosion.

Q11. Name two copper releasing IUDs. How does CuT act as an effective contraceptive for human female.

Q12. Name two hormone releasing IUD. Why it is considered a good contraceptive to space children.

Q13. Write notes on Tubectmy and Vasectomy (Permanent method of birth control .

Q14. Describe the different method of embryo transfer/ Test tube baby

Q15. Berifly explain the methods to assist (help) infertile couples to children .

Q16. Write notes on STDs. Write its preventive measures.

Q17. Write notes on RCH.