

Dear Parents,



Session 2018-2019 is progressing quite well. We just had our 'Orientation Session' with Primary, Middle and Secondary schoolers parents and it was heartening to see your approach, co-operation and support. APS family extends gratitude for it.

A warm welcome to students who have joined our school this session. We stand committed to providing quality education to our children. The teachers follow a detailed plan of instruction that is guided by CBSE and AWES. SAMC is our pillar of strength as our teachers focus on holistic development of our students. We shall certainly continue to implement our 'Systems Approach' to support all students by using interventions to help each child make academic progress. Progress is best assured when student, parents and school are working towards same goal. It's like when every player is an active member, the team is sure to be the best and everyone is a winner. So let's strive to be all winners!

For Summer Break Assignments, practice sheets are devised to ensure revisions for coming assessment. Kindly go to the website: www.apsbinnaguri.org and follow these steps for the same

Steps to download:

- i. Browse the website→ Home page (first page of the website)
- ii. Then check the Bulletin Board→ link will be available.

OR

Home Page→ Click on 'APS News' option→ Choose Holiday Homework option from the dropdown menu.

We would also seek your co-operation to help lift up academics. We would welcome parents to offer their names for substitute facilitators/ teachers, judges for events round the year. Kindly e-mail at apsbinnaguri1@gmail.com or give your details at Front Desk.

We truly believe that an entire community is needed to empower our students to become successful citizens. I look forward to a great year and working with such an amazing community.

Awaiting your constructive suggestions.

ARMY PUBLIC SCHOOL BINNAGURI
PRACTICE SHEET
BIOLOGY
CLASS – XII

Chapter – 1 *Reproduction in organisms*

1. What type of organisms can be called immortal?
2. Define clone.
3. How does spongilla reproduces?
4. Define gemmule.
5. How is *Bryophyllum* multiplied?
6. Define syngamy.
7. What is “Terror of Bengal”?
8. What is monoecious condition?
9. How does Amoeba reproduces asexually?
10. Give reason – Some organisms like Honeybees are called parthenogenic animals.
11. How has sex originated?
12. What is importance of zygote?
13. Why is sexual reproduction better than asexual reproduction?
14. Write a note on oestrus cycle.
15. Differentiate between menstrual and oestrus cycle.
16. What is ovoviparous condition? Give example.
17. A moss plant produces a large no. of antherozoids but relatively only a few egg cells. Why?

18. Why only few papaya plants bears fruits not all.
19. Differentiate bet. Annual and biennial plants. Provide one example of each.
20. Why do algae and fungi shift to sexual mode of reproduction just before the onset of adverse condition?
21. Describe the various modes of asexual reproduction.
22. Write down the various natural method of vegetative reproduction giving suitable example.

23. Describe the events of sexual reproduction.
24. Vivipary automatically limits the number of offspring in a litter. How?
25. List the changes observed in an angiosperm flower subsequent to pollination and fertilization.

CH – 2 Sexual Reproduction in Flowering Plants

1. Give a natural example of Parthenocarpy.
2. Write the detailed location of sporopollenin.
3. Name a disease caused by pollen. Name the related plant ?
4. Define chasmogilly. Give example.
5. Secretion of pollenkit takes place in pollen grain.
6. What is herkogamy?
7. Write the importance of cleistogamy. Give an example of cleistogamous flower.
8. Mention the reason for difference in ploidy of zygote and primary endosperm nucleus in angiosperm.

9. If you squeeze a seed of orange, you might observe many embryos of different sizes. How is it possible?
10. How many haploid cells are present in a mature female gametophyte of a flowering plant. name them.
11. Differentiate bet. Perisperm and endosperm.
12. Make a list of any three out breeding devices that flowering plants have developed.
13. Describe the development of angiospermic embryo.
14. Describe the structure of a pollen grain and the process of its germination.
15. Why fertilization in a angiosperm is referred to as double fertilization? Draw a neat diagram of T.S of embryo of maize.
16. Write the fate of egg cell and polar nuclei after fertilization.
17. Farmers keep beehives near the fields sown with sunflower plant.
 - a. Why is the practice carried out?
 - b. What conclusion would you derive from the same.
18. "incompatibility is a natural barrier in the fusion of gametes". Justify the statement. The meiocytes of an onion plant contains 32 chromosomes. Work out the no. of chromosomes found in its endosperm.
19. Draw and label the enlarged view of microsporangium of an Angiosperm. State the function of its innermost wall layer. Which part of its secrete sporopollenin?
20. Why does the zygote begin to divide only after the division of a PEC? What is polyembryoni and how can it be commercially exploited?

CH -3 HUMAN REPRODUCTION

1. What do you mean by primary sex organs?
2. What is follicular atresia?
3. Mention the function of trophoblast in human embryo.
4. What changes take place in spermatocytogenesis?
5. Write the contents of acrosome.
6. Write any two changes that take place during spermatogenesis.
7. Expand ABP, MPF.
8. Which layer of uterus is glandular?
9. How Leydig cells help in spermatogenesis?
10. Name and write function of the inner and outer wall of uterus.
11. What is amenorrhea? How does it help to avoid pregnancy?
12. Give a flow chart of hormonal control of oogenesis.
13. When and where are primary oocytes formed in human female? In which stage theca is formed?
14. Explain the role of all accessory glands in human male reproductive system.
15. Specify the endocrine function of corpus luteum. How does it influence uterus? Why is it essential?
16. A woman has conceived and implantation has occurred in her. Explain in points the sequence of changes upto parturition which takes place within her body.
Draw a detailed diagram of spermatozoan.
17. What is oogenesis? Diagrammatically explain the process.
18. What are the four extra embryonic membranes? Write the function of each. How amniocentesis is useful?
19. With the help of a graph explain the various stages of human menstrual cycle. How does **Luteolysis** takes place?

20. Write the role of sertoli cells in spermatogenesis. How APF helps in fertilization. Draw the structure of an ovum.

CH – 4 REPRODUCTIVE HEALTH

1. Expand IVF-ET.
2. Name the causal organism of Gonorrhoea.
3. What does i-pill contain?
4. Give two example of copper T.
5. When MTP is legally allowed?
6. Why 'Saheli' is a well accepted contraceptive pill?
7. Describe the lactational amenorrhea method.
8. How does periodic abstinence works?
9. What is secondary infertility? Write the causes of infertility in males.
10. Is sex education necessary in schools? Why?
11. Mention the primary aim of ' Assisted Reproductive Technology' (ART) programme.
12. What is the significance of progesterone-oestrogen combination as a contraceptive measure?
13. What are the advantages of natural methods of contraception over artificial methods?
14. All reproductive tract infections or RTIs are STDs but all STDs are not RTIs. Justify with example.
15. Discuss the modes of action and advantages / disadvantages of hormonal contraceptives.
16. Write and explain the various steps of IVF. Comment on the essential features required for an ideal contraceptives.
17. A. what does GIFT represent?
B. how does CU-T and CU-7 act as contraceptive devices?
18. Write a short note on STDs giving suitable examples.
19. Diagrammatically explain tubectomy. After tubectomy, is it possible for a women to show menstruation?
20. Explain the various natural contraceptive methods in details.

Ch – 5. Principles of inheritance and variation

1. Define clone and remets.
2. What is pleiotrophy?
3. Give two examples of multiple allelism.
4. What do you mean by *cis* and *trans* arrangement?
5. What is trisomy? Give an example.
6. What is limitation of linkage group?
7. How back cross is helpful?
8. What is sex linked inheritance?
9. How sex is determined in Drosophila?
10. Differentiate bet. Continuous and discontinuous variation.
11. Explain codominance giving a suitable cross.
12. Give reason – sickle cell anemia in humans is a result of point mutation.
13. Snapdragon shows incomplete dominance for flower color. Workout a cross and explain the phenomenon. How is this inheritance different from Mendelian pattern of inheritance? Explain.

14. Write the scientific name of fruit fly. Why did Morgan prefer to work with fruit flies for his experiments? State any three reasons.
15. A couple with normal vision bears a color blind child. Workout a cross to show how it is possible and mention the sex of the effected child.
16. Explain the causes, inheritance pattern and symptoms of any two Mendelian genetic diseases.
17. Show complete linkage by the help of a cross. Show the inheritance pattern of human blood croup.
18. Explain one monohybrid and dihybrid cross giving suitable cross.
19. Show the inheritance pattern of haemophilia. Differentiate Haemophilia and Thalassemia.
20. How Turner syndrome and Down's syndrome is caused? How does test cross help to determine the genotype of an individual?
