

GYANODAYA GURUKUL SCHOOL

HALF YEARLY EXAM(2019-20)

CLASS- XII

SUB – BIOLOGY

TIME- 3 HRS

F. M- 70

INSTRUCTIONS:

1. All questions are compulsory.
2. Section A consists of objective questions , each question carries 1 mark.
3. Section B consists of very short answer type questions, each question carries 2 marks.
4. Section C consists of short answer type questions , each question carries 3 marks.
5. section D consists of long answer type questions, each question carries 5 marks

QUESTION

SECTION – A

Q1. Product of sexual reproduction generally generates

- a) prolonged dormancy
- b) new genetic combination leading to variation
- c) large biomass
- d) longer viability of seeds

Q2. Seedless banana is

- a) parthenocarpic fruit

- b) multiple fruit
- c) drupe fruit
- e) true fruit

Q3. In a type of apomixis known as adventitive embryony, embryos develop directly from the

- a) nucellus or integument
- b) zygote
- c) synergids or antipodals of embryo sac
- d) accessory embryo sacs in the ovule

Q4. The embryo at 16 celled stage is known as

- a) morula
- b) gastrula
- c) blastula
- d) blastomere

Q5. Foetal ejection reflex in human female is induced by

- a) differentiation of mammary glands
- b) pressure exerted by amniotic fluid
- c) release of oxytocine from pituitary
- d) fully developed foetus and placenta

Q6. Pollen tube tablets are available in the market for

- a) invitro fertilization
- b) breeding programmes
- c) supplementing foods
- d) ex-situ conservation

Q7. Saheli is an oral contraceptive pill that has very high contraceptive value with little side effects . it is because

- a) it is taken once in a week
- b) it contains synthetic progesterone
- c) it has non-steroidal components
- d) it decreases risk of cancer

Q8. Point mutation involves

- a) change in the single base pair
- b) duplication
- c) deletion
- d) insertion

Q9. Sickle –cell anaemia is

- a) caused by substitution of valine by glutamic acid in the beta globin chain of haemoglobin
- b) caused by change in single base pair of DNA
- c) characterized by elongated sickle like RBCs with a nucleus
- d) an autosomal linked dominant trait

Q10. A character which is expressed in hybrid is called

- a) dominant b) recessive
- c) co-dominant d) incomplete dominance

Q11. What is the base pairing rule of Watson and Crick?

Q12. Man produces two types of sperm . Is it true or false?

Q13. What is the location of the gene for haemophilia?

Or

Who started the scientific study of mutation?

Q14. Name any copper releasing IUD.

Q15. Menstrual cycle ceases during pregnancy. (true/false)

Q16. Where are the sperms stored in the male?

Or

What does head of sperm consist of?

Q17. Fill in the blanks:

Flowers which do not open are

Or

A mature typical embryo sac contains Cells and nuclei

Q18. How many pollen grains and ovules are likely to be formed in the anther and the ovary of an angiosperm bearing 25 microspore mother cells and 25 megaspore mother cells respectively?

Q19. Why are date palm plants referred to as monoecious?

Or

Name the type of flower which favours cross pollination.

Q20. What is life span?

Or

What is clone?

SECTION- B

Q21. Give the significance of sexual reproduction.

Or

Differentiate between parthenocarpy and parthenogenesis.

Q22. Draw a well labelled diagram of a mature ovule , showing its internal structure.

Or

Write a note on the need and significance of pollination in plants.

Q23. What is sexual dimorphism?

Or

Give the adaptation of male and female gametes.

Q24. Comment on the reproductive and child health care programme of the government to improve the reproductive health of the people.

Or

The present population growth rate in india is alarming . suggest ways to check it.

Q25. Why mendel selected pea plants for his experiments?

Q26. What is test cross? Explain with the help of punnet square.

Q27. Define genetic material.

SECTION-C

Q28. Write a short note on central dogma of molecular biology.

Q29. What are the various causes of human genetic disorders?

Or

Write a short account of chromosomal theory of inheritance.

Q30. Suggest and explain any 3 assisted reproductive technologies to an infertile couple.

Q31. Draw a labelled diagram of the reproductive system in a human female.

Or

Explain the steps in the formation of an ovum from an oogonium in humans.

Q32. Write the characters of insect pollinated flowers.

Q33. "incompatibility is a natural barrier in fusion of gamets." Justify the statement.

Or

Mention any three strategies adopted by floweing plants to prevent self pollination.

Q34. Differences between oviparous and viviparous animals.

SECTION- D

Q35. Give an account of the formation of blastocyst in human species.

Or

Why is the development of a rational outlook on birth control necessary in india today ?

Enlist the different methods of birth control.

Q36. Why are haemophilia and red-green colour blindness observed usually in men? Can women also develop these disorders? Explain.

Or

How would you distinguish between klinefelter's syndrome and Turner's syndrome?

Q37. How did Griffiths and avery show experimentally that DNA is the genetic material?

Or

How did Hershey and Chase prove that DNA is the genetic material?