

## Perfect solution to all problems

Tips, Tricks, General Knowledge, Current Affairs, Latest Sample, Previous Year, Practice Papers with solutions.

# CBSE 12th Biology 2017 Unsolved Paper All India

Buy solution: http://www.4ono.com/cbse-12th-biology-previous-year-solved-papers/

ono com 40no com 40no

## CBSE 12th Biology 2017 Unsolved Paper All India

TIME - 3HR. | QUESTIONS - 26
THE MARKS ARE MENTIONED ON EACH QUESTION

## SECTION - A

- Q.1. Name the type of cross that would help to find the genotype of a pea plant bearing violet flowers. 1 mark
- Q.2. State two postulates of Oparin and Haldane with reference to origin of life. 1 mark
- Q.3. A herd of cattle is showing reduced fertility and productivity. Provide one reason and one suggestion to overcome this problem. I mark
- Q.4. What are Cry genes? In which organism are they present? 1 mark
- Q.5. An electrostatic precipitator in a thermal power plant is not able to generate high voltage of several thousands. Write the ecological implication because of it. 1 mark

## SECTION - B

- Q.6. A pollen grain in angiosperm at the time of dehiscence from an anther could be 2-celled or 3-celled. Explain. How are the cells placed within the pollen grain when shed at a 2-celled stage? 2 marks
- Q.7. Differentiate between the genetic codes given below: 2 marks
  - (a) Unambiguous and Universal
  - (b) Degenerate and Initiator

ono.com 40no.com 40no.com

- Q.8. Mention one application for each of the following: 2 marks
- (a) Passive immunization
- (b) Antihistamine
- (c) Colostrum
- (d) Cytokinin-barrier
- Q.9. Name the microbes that help production of the following products commercially:

2 marks

- (a) Statin
- (b) Citric acid
- (c) Penicillin
- (d) Butyric acid
- Q.10. List four benefits to human life by eliminating the use of CFCs. 2 marks

OR

Suggest two practices giving one example of each, that help protect rare or threatened species.

**SECTION - C** 

- Q.11. (a) Can a plant flowering in Mumbai be pollinated by pollen grains of the same species growing in New Delhi? Provide explanations to your answer. 3 marks
  - (b) Draw the diagram of a pistil where pollination has successfully occurred. Label the parts involved in reaching the male gametes to its desired destination.
- Q.12. Both Haemophilia and Thalassemia are blood related disorders in humans. Write their causes and the difference between the two. Name the category of genetic disorder they both come under. 3 marks
- Q.13. (a) List the two methodologies which were involved in human genome project. Mention how they were used.  $3 \ marks$ 
  - (b) Expand 'YAC' and mention what was it used for.

- Q.14. Write the characteristics of Ramapithecus, Dryopithecus and Neanderthal man. 3 marks
- Q. 15. Name a human disease, its causal organism, symptoms (any three) and vector, spread by intake of water and food contaminated by human faecal matter. 3 marks

OR

- (a) Why is there a fear amongst the guardians that their adolescent wards may get trapped in drug/alcohol abuse?
- (b) Explain 'addiction' and dependence' in respect of drug/alcohol abuse in youth.
- Q. 16. (a) Write the desirable characters a farmer looks for in his sugarcane crop.
- (b) How did plant breeding techniques help north Indian farmers to develop cane with desired characters? 3 marks
- Q.17. Secondary treatment of the sewage is also called Biological treatment. Justify this statement and explain the process. 3 marks
- Q.18. (a) Explain the significance of palindromic nucleotide sequence in the formation of recombinant DNA. 3 marks
- (b) Write the use of restriction endonuclease in the above process.
- Q.19. Describe the roles of heat, primers and the bacterium Thermus aquaticus in the process of PCR. 3 marks
- Q.20. Explain the various steps involved in the production of artificial insulin. 3 marks
- Q.21. (a) "Organisms may be conformers or regulators." Explain this statement and give one example of each. 3 marks
  - (b) Why are there more conformers than regulators in the animal world?
- Q.22. Describe the inter-relationship between productivity, gross primary productivity and net productivity.

.

ono.com 4ono.com 4ono.com

### SECTION - D

- Q.23. It is commonly observed that parents feel embarrassed to discuss freely with their adolescent children about sexuality and reproduction. The result of this parental inhibition is that the children go astray sometimes. 4 marks
  - (a) Explain the reasons that you feel are behind such embarrassment amongst some parents to freely discuss such issues with their growing children.
  - (b) By taking one example of a local plant and animal, how would you help these parents to overcome such inhibitions about reproduction and sexuality?

## SECTION - E

- Q.24. (a) When a seed of an orange is squeezed, many embryos, instead of one are observed. Explain how it is possible. 5 marks
  - (b) Are these embryos genetically similar or different? Comment.

### OR

- (a) Explain the following phases in the menstrual cycle of a human female:
- (i) Menstrual phase
- (ii) Follicular phase
- (iii) Luteal phase
- (b) A proper understanding of menstrual cycle can help immensely in family planning. Do you agree with the statement? Provide reasons for your answer. 5 marks
- Q.25. (a) Compare, giving reasons, the J-shaped and S-shaped models of population growth of a species. 5 marks
  - (b) Explain 'fitness of a species' as mentioned by Darwin.

#### OR

- (a) What is an ecological pyramid? Compare the pyramids of energy, biomass and numbers.
- (b) Write any two limitations of ecological pyramids.

- Q.26. (a) Describe the structure and function of a t-RNA molecule. Why is it referred to as an adapter molecule? 5 marks
- (b) Explain the process of splicing of hn-RNA in a eukaryotic cell.

OR

Write the different components of a lac-operon in E. coli. Explain its expression while in an 'open' state.



Buy solution: http://www.4ono.com/cbse-12th-biology-previous-year-solved-papers/