

APEEJAY SCHOOL, SCHOOL, SHEIKH SARAI-I

Biology		Maximum Marks : 70
Class – XII		
Time allowed : 3 Hrs.		
1.	Write two features of pollen grains of wind pollinated plants.	1
2.	What are blastomeres ?	1
3.	Due to error during transcription, ATG of DNA formed UAG in mRNA. What would happen to the polypeptide chain during translation? Why?	1
4.	Mention the brain capacity of Homo habilis and Homo sapiens.	1
5.	Name two semi dwarf varieties of wheat introduced into all wheat growing regions of India.	1
6.	What is the role of bacterium in production of Swiss cheese ?	1
7.	Why is the length of a food chain generally limited to three to four trophic levels ? Explain.	1
8.	Name any two conventional methods of in situ conservation.	1
9.	What is the mode of asexual reproduction in Yeast, Sponges, Penicillium and Chlamydomonas?	2
10.	Differentiate between albuminous and exalbuminous seeds. Give an example for each.	2
11.	What is amniocentesis ? How is it performed?	2
12.	Explain briefly how the principle of natural selection can be applied to the development of resistance in mosquitoes for DDT.	2
13.	State the Hardy-Weinberg principle. State any two factors that affect Hardy-Weinberg equilibrium.	2
14.	Define inbreeding depression. How can it be got rid of in cattle?	2
15.	Name the microbes which yield cyclosporine A and statins. How are these substances used?	2
16.	Differentiate between pioneer community and climax community. Give two points.	2
17.	Why is secondary succession faster than primary succession ? Give two points.	2
18.	Describe the causes of biodiversity loss on the Earth.	2
19.	Draw a neat diagram of the L.S. of a mature anatropous ovule and label six important parts.	3
20.	What is ART ? Mention the steps in this procedure.	3
21.	Explain the phenomenon of multiple allelism and codominance by taking the example of ABO blood group in human beings.	3

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[P.T.O.]

22. Why is haemophilia generally observed in men? Under what condition can women also suffer from this disorder? **3**
23. Name the group of viruses to which HIV belongs. Represent schematically the life cycle of HIV in the host cell. **3**
24. Briefly describe the various steps involved in plant breeding. **3**
25. Draw a labelled diagram of a biogas plant. Why is cow dung an ideal material for generation of biogas? **3**
26. What does lac operon consist of? Diagrammatically represent the lac operon in its active state. **3**
27. Expand MOET. Describe the process and its use in animal breeding. **3**
28. (a) Draw a flowchart to show the hormonal control of the human male reproductive system. **3**
- (b) What is spermatogenesis? What are the stages of this process? **2+3**
29. (a) Draw a neat and labeled diagram to show continuous and discontinuous synthesis of DNA. **3**
- (b) Who performed 'Blender' experiment? Explain its steps. What did it prove? **2+3**
30. (a) What are conformers? Why have they not evolved mechanisms for temperature regulation or osmoregulation? **3**
- (b) Why is logistic growth model considered more realistic? Draw the logistic growth curve and give its equation. **2+3**