

**INTERNATIONAL INDIAN SCHOOL – DAMMAM**  
**FIRST TERM EXAMINATION – 2013-2014**  
**CLASS: XI - BIOTECHNOLOGY**

**Time allowed: 3 hrs**

**Total Marks: 70**

**General Instructions:**

*(1) All questions are compulsory.*

*(2) There is no overall choice. However internal choice has been provided in one question of three marks and two questions of five marks. You have to attempt only one of the choices in such questions. Question paper contains four sections.*

*(3) Question numbers 1 to 6 are very short answer questions, carrying 1 mark each.*

*(4) Question numbers 7 to 14 are short answer questions, carrying 2 marks each.*

*(5) Question numbers 15 to 25 are also short answer questions, but carrying 3 marks each.*

*(6) Question numbers 26 to 28 are long answer questions, carrying 5 marks each.*

*(7) Use of calculators is not permitted. However, you may use log tables if necessary*

**Section – A (1 Mark)**

1. What is anomeric carbon?
2. Define the generation time of the culture
3. Name the protein present in microtubules and microfilaments
4. Why are endocrine glands known as ductless glands
5. What are sequenators?
6. Differentiate between totipotent and multipotent

**Section – B (2 Marks)**

7. Define patent. List the patenting strategies
8. What do you mean by glycosidic bond?
9. What are ampholytes?
10. Write a note on RUBISCO?
11. What is meant by density gradient centrifugation?
12. Give two good manufacturing practices
13. What are the epithelial tissues?
14. Define nucleosome

**Section – C (3 Marks)**

15. Write a short note on growth media used for the growth of bacteria
16. Explain alpha helices and beta pleat structure of proteins
17. State the advantages of gel permeation chromatography
18. Draw and explain the structure of a neuron

OR

Draw and explain the structure of chloroplast

19. What is the role of light in photosynthesis
20. (a) Define IU unit of enzyme  
(b) What do you mean by feed back inhibition
21. Name and describe the two types of partition chromatography
22. Describe the Ninhydrin test
23. Explain Watson and Crick model of DNA?
24. Differentiate between mitosis and meiosis
25. Write a note on Go phase and S phase in cell cycle

**Section – D (5 Marks)**

26. Give the schematic representation of Krebs cycle. Also mention its importance
27. Explain Watson and Crick model of DNA

OR

Write a note on simple and complex plant tissues

28. With the help of a schematic diagram explain Nitrogen cycle

OR

With the help of a diagram explain the features of a fermenter?