

**Model
Questions for
Introduction to Biotechnology and
Bioinformatics
FSAQ 3210 (1+1)**

COURSE TEACHER

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**Centurion
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1. Multiple Choice Questions

1. Fill in the blanks: [5x0.5=2.5]
- a)is an example of primary database
 - b) Hybridoma is a fusion of cells
 - c) AquaAdvantage Salmon is
 - d) Competitive ELISA measures amount ofin a sample
 - e) DNA structure as a double helix was first reported by.....
2. Matching Table: [5x0.5=2.5]

| | |
|------------------------------|-------------------------|
| Double ringed nitrogen bases | Salvage pathway |
| Thymidine kinase | Exons |
| Single ringed nitrogen bases | selection of hybridomas |
| Coding regions in DNA | Pyrimidines |
| HAT medium | Purines |

3. Choose the correct answer or True/ False statement: [5x1=5]
- a) GloFish is a genetically modified food fish []
 - b) Green biotechnology applies to agriculture []
 - c) Western blotting is used to detect RNA []
 - d) DNA vaccines can lead to insertion mutagenesis []
 - e) First commercial licensed DNA vaccine was against IPNV disease []
4. Differentiation or define or abbreviations or statement: [5x1=5]
- a) Define genetic code
 - b) Expand the acronyms ELISA, rDNA, HGPRT
 - c) Enlist common primary and secondary biological databases
 - d) Difference between prokaryotic and eukaryotic cell
 - e) Expand the acronyms NCBI, BLAST, DDBJ, PDB

(Answer any Three)

[3x5=15]

- 5. Explain briefly the principle of ELISA and discuss different types of ELISA [5]
- 6. Write a short note on Hybridoma technology and differentiate between monoclonal and polyclonal antibodies [5]
- 7. Discuss about the DNA vaccines and write down the advantages of DNA vaccines [5]
- 8. Write a note on blotting. Enlist its types and explain any one type by a flowchart [5]

9. Define bioremediation and give an account on its types [5]

10. Write short notes on any **One**: - [5]

- a) Polymerase chain reaction
- b) DNA structure

