

## Biology Fsc Part 1 Chapter 7 Online Test

Sr	Questions	Answers Choice
1	Generally, the function of a protein depends on its	A. One dimensional structure B. Two -dimensional structure C. Three- dimensional structure D. Four-dimensional structure
2	In x-ray diffraction technique, the diffraction pattern is used to.	A. Make good quality crystal B. Create a density map C. Make density gradient D. Diagnose disease
3	The limitation of homology modeling is	A. Depends on protein function B. Only specific for carbohydrates C. Requires a template structure with maximum similarities D. None of above
4	Which of the following is not the area in computational biology.	A. Genomics B. Ergonomics C. Proteomics D. Bioinformatics
5	The first step in x-ray crystallography is	A. Protein crystallization B. Production of a diffraction pattern C. Creating density map D. Determination of protein structure
6	What is the primary focus of structural biology	A. Studying metabolic pathways B. Determining 3D atomic level structures of macromolecules C. Gene sequencing D. Gene expression
7	Which data base stores 3D structures of macromolecules.	A. PDB B. Ensembl C. GenBank D. BLAST
8	Which one of the following is a sequence alignment tool that compares a query sequence to a database of sequences.	A. FASTA B. BLAST C. BEMBL D. PDB
9	If two proteins have structural homology what can be inferred.	A. They likely share functional similarities B. They have identical DNA sequences C. They share orthologs D. Does not give clue about unknown gene
10	Sequencing, assembling and analyzing the function and structure of genomes is studied in.	A. Bioinformatics B. Genomics C. Proteomics D. Structural biology
11	Orthology differ from paralogous in	A. Orthologs arise from speciation B. Orthologs arise from gene duplication and paralogous from speciation C. Orthologs have identical genetic sequence D. Both a and c
12	A researcher is studying a newly discovered protein. Linked to a rare disease. The protein's sequence shows no match in BLAST, the next possible step is	A. Modify protein sequence B. Check for structural homology using PDB C. Reanalyze the protein structure D. Go for x-ray crystallography
13	The first step in x-ray crystallography experiment is.	A. Compute an electron density B. Build a model of your molecule C. Measure a diffraction pattern D. Grow a crystal

14	The tool used for sequence alignment in bioinformatics	<p>A. FASTA  B. PDB  C. Gen Bank  D. Ensembl</p>
15	The active site of enzyme is important in designing a drug, because.	<p>A. It determines enzyme physiology  B. It is where a substrate binds  C. It provides information about drug  D. It is made up of lipids</p>
16	the biologist compare protein structures to unknown genes.	<p>A. To assign possible functions  B. To study novel proteins  C. To discover drugs  D. To make an act</p>
17	Human histone H1, and Human histone H1,2 are.	<p>A. Paralog  B. Ortholog  C. Metalog  D. Both a and b</p>
18	A researcher wants to search protein and nucleotide databases to identify sequence homology, which one is most appropriate to study.	<p>A. Uni Port KB  B. FASTA  C. Gen Bank  D. Swiss port</p>
19	The place on a disease causing molecule where a drug can work are called.	<p>A. Drug targets  B. Off targets  C. Counter target  D. Active</p>
20	How did structural biology contribute to COVID-19 research.	<p>A. By measuring blood sugar level  B. By sequencing the human genome  C. By determining 3D structure of spike protein  D. By analyzing bacterial cell wall</p>