

## Biology Fsc Part 1 Chapter 7 Online Test

Sr	Questions	Answers Choice
1	Orthologs are.	A. Genes in same species B. Human histone H1,1 and H1,2 C. Sequences in different species D. Arise from same ancestral gene
2	The field that uses computational tools to analyze biological data is.	A. quantum physics B. Geography C. Geo Physics D. Computational biology
3	A genome browser providing information on genome sequences, gene models and comparative genomics for various species is.	A. Ensembl B. Gen Bank C. FASTA D. BLAST
4	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
5	Which data base stores 3D structures of macromolecules.	A. PDB B. Ensembl C. GenBank D. BLAST
6	Protein misfolding is associated with which of the following diseases.	A. Hypertension B. Gout C. Alzheimer's D. Influenza
7	Orthology differ from paralogs in	A. Orthologs arise from speciation paralogs from gene duplication B. Orthologs arise from gene duplication and paralogs from speciation C. Orthologs have identical genetic sequence D. Both a and c
8	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
9	How did structural biology contribute to COVID-19 research.	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
10	What is primary role of computational biology	A. Using computer algorithms to analyze data B. Identifying genetic mutations C. Studying protein functions D. Analyzing the expression patterns
11	The protein domains are.	A. Functional and structural units within protein B. Secondary structural elements C. Linear sequences of amino acids D. Specific regions for post translational modification
12	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
13	The tool used for sequence alignment in bioinformatics	A. FASTA B. PDB C. Gen Bank D. Ensembl
		A. Similarity in sequences due to

14	What is sequence homology.	<p>shared ancestry</p> <p>B. 3D-structure of proteins due to shared ancestry</p> <p>C. Large scale study of proteins</p> <p>D. none of above</p>
15	Which technique is used to determine the 3D-structure of proteins.	<p>A. Electron microscopy</p> <p>B. Mass spectrometry</p> <p>C. X-ray crystallography</p> <p>D. spectrometry</p>
16	Mapping the entire set of protein produced by an organism and to understand their interactions and role in cellular process, is achieved in.	<p>A. Genomics</p> <p>B. Proteomics</p> <p>C. Bioinformatics</p> <p>D. Biodynamics</p>
17	The limitation of homology modeling is	<p>A. Depends on protein function</p> <p>B. Only specific for carbohydrates</p> <p>C. Requires a template structure with maximum similarities</p> <p>D. None of above</p>
18	Which bioinformatics tools acts like a Google Search for DNA sequences.	<p>A. Photoshop</p> <p>B. BLAST</p> <p>C. PDB</p> <p>D. Excel</p>
19	Sequencing, assembling and analyzing the function and structure of genomes is studied in.	<p>A. Bioinformatics</p> <p>B. Genomics</p> <p>C. Proteomics</p> <p>D. Structural biology</p>
20	EMBL is a link for.	<p>A. GenBank</p> <p>B. EMBL</p> <p>C. PDB</p> <p>D. DDBJ</p>