

PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, SEPTEMBER 2019

M.Sc. Biotechnology

Semester IV

Paper Name: Genomics & Proteomics

Date: 03/03/2020

Paper Code: 11202252

Time: 1hr 30min

Max. Marks: 40

Instructions:

1. All questions are compulsory and options are given in first and second question only.
2. Numbers to the right of question indicate the marks of respective question.

Q. 1	Attempt any one question of the following. (i) Describe X-ray crystallography (ii) Yeast two hybrid system with one biological example	(08)
Q. 2	Attempt any three questions of the following. (i) In-silico structure prediction methods for protein (ii) Discuss NCBI in detail (iii) EMBL and its different operational sites in European country (iv) DNA microarray (v) Discuss different proteomic methods for protein	(12)
Q. 3	Do as directed. Attempt all five questions. (i) Protein chips (ii) Name two protein biomarkers in detection of disease (iii) Full name of GROMACS (iv) Threading method (v) RMSD	(05)
Q. 4	Write correct option in your answer sheet for following 15 multiple choice questions.	(15)

MCQ 1	ROG involved in			
	(A)	Ab-initio	(B)	Threading
	(C)	Homology	(D)	None of these
MCQ 2	Saheli is a			
	(A)	vaccine	(B)	Antidot
	(C)	Centrochoman	(D)	None of these
MCQ 3	Genion used for			
	(A)	All	(B)	Adding of buffer
	(C)	Adding of solute	(D)	Adding of solvent
MCQ 4	CD helps in-----structure			
	(A)	Tertiary	(B)	Secondary
	(C)	Primary	(D)	Quaternary
MCQ 5	Structural database is			
	(A)	Swiss prot	(B)	Uniprot
	(C)	DDBJ	(D)	PDB
MCQ 6	ITC stands for			
	(A)	Iso temperature counting	(B)	Isothermal calorimetry
	(C)	A & B	(D)	Isothermal counting

MCQ 7	SPR used in -----interaction			
	(A)	Protein-protein	(B)	Protein – DNA
	(C)	both	(D)	None of these
MCQ 8	Hinxton related to			
	(A)	EBI	(B)	NCBI
	(C)	GenBank	(D)	DDBJ
MCQ 9	RMSD is -----			
	(A)	Backbone calculation	(B)	Side chain calculation
	(C)	Radius calculation	(D)	Temperature calculation
MCQ 10	MALDI MS/MS is a -----			
	(A)	Mass calculation	(B)	m/z ratio
	(C)	both	(D)	None of these
MCQ 11	Primers are			
	(A)	Coding sequences	(B)	Long DNA stretch
	(C)	5' to 3' prime sequences	(D)	None
MCQ 12	Ni – NTA used in			
	(A)	Ion -exchange	(B)	Hydrophobic
	(C)	Affinity	(D)	All
MCQ 13	Dextran is			
	(A)	Simple sugar	(B)	Complex sugar
	(C)	Binary sugar	(D)	None
MCQ 14	Editconf command for			
	(A)	Configure the protein	(B)	Edit the protein
	(C)	Defining the box	(D)	None of these
MCQ 15	NCBI is -----database			
	(A)	Primary	(B)	Composite
	(C)	Secondary	(D)	None

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