

PREVIEW QUESTION BANK

Module Name : SCPH01 Biochemistry - ENG
Exam Date : 27-Oct-2023 Batch : 09:30-12:30

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negativ Marks
Objective Question				
1	967001	A good lab experiment report should be organized into 1. introduction, results and discussion/conclusions 2. introduction, methodology, results and discussion/conclusions 3. methodology, results, discussion and conclusions 4. methodology, results and conclusions A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
Objective Question				
2	967002	Which among the following is correct phrase to write in the methodology section of research paper? 1. Add one gram of NaOH 2. We added one gram of NaOH 3. One gram of NaOH was added 4. Then add one gram of NaOH A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
Objective Question				
3	967003	Which of the following is not a reference management tool? 1. Paperpile 2. Mendley 3. Zotero 4. Prism A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0

Objective Question

4	967004	Which of the following is a unit to represent amount? 1. Molar 2. Mole 3. Litre 4. Atom A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

5	967005	Which among the following is not a statistical package? 1. SPSS 2. R 3. Metlab 4. MS Excel A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

6	967006	Among the following enzyme activities of an enzyme which one represent the most accurate and precise value 1. 12.4±0.6 2. 12.1±0.1 3. 12.0±0.6 4. 12.2±0.4 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

7	967007		4.0	0.0
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ENTREZ is a

1. search engine
2. database
3. tool to compare keywords
4. ontology assignment tool

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

8	967008	4.0	0.0
Which among the following is a plagiarism detection software?			
1. Turnitin 2. Grammerly 3. Quilbot 4. Mendley			
A1 : 1			
A2 : 2			
A3 : 3			
A4 : 4			

Objective Question

9	967009	4.0	0.0
Which of the following doesn't constitute plagiarism?			
1. forgetting to include a source in bibliography 2. paraphrasing without attribution 3. using someone else's work to build hypothesis 4. using someone's idea/work without giving proper credit			
A1 : 1			
A2 : 2			
A3 : 3			
A4 : 4			

Objective Question

10	967010	4.0	0.0

Describing somebody else's work by changing the words and restructuring the sentences is called as

1. paraphrasing
2. moderation
3. plagiarism
4. remodification

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

11	967011	A value that can be counted, measured or categorized is called as 1. variable 2. random sample 3. population 4. sample A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

12	967012	Which of the following will follow binomial distribution? 1. Height of students in a class 2. Number of people in which disease is cured by taking a drug 3. Number of accidents on a road 4. Rolling a dice A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

13	967013		4.0	0.0
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Mode is

1. Most frequently occurring term
2. value in the middle when numbers have been listed in a rank order
3. value in the middle when numbers have been listed in ascending order only
4. value in the middle when numbers have been listed in descending order only

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

14	967014	Protein estimation using a standard curve is an example of 1. regression analysis 2. correlation analysis 3. cause and effect assertion 4. precision and accuracy A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

15	967015	What are the condition in which Type-1 error occurs? 1. The null hypothesis get accepted even if it is false 2. The null hypothesis get rejected even if it is true 3. Both the null and alternative hypothesis are rejected 4. Both the null and alternative hypothesis are accepted A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

16	967016		4.0	0.0
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Which among the following can't be used to find related work of a research paper?

1. references mentioned in the paper
2. papers that have been cited the research paper
3. by H-index of authors
4. using MeSH term

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

17	967017	Online journals are considered better than the print only journals because 1. most online journals are open access 2. online journals are easy to access 3. content of online journals can be searched more easily 4. low cost of publication A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

18	967018	What is the difference between a barplot and histogram? 1. Barplot is for catagorical data while histogram is for continuous data 2. Barplot is for continuous data while histogram is for catagorical data 3. Barplot is for continuous data while histogram is for discrete data 4. Barplot is for catagorical data while histogram is for discrete data A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

19	967019		4.0	0.0
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Which of the following option is wrong in context of the following statement?

To reject the null hypothesis at 95% confidence limit the calculated probability that the two samples belong to the same population must fall below

1. 1 in 20
2. 5%
3. $p < 0.05$
4. $p < 0.5$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

20	967020	Which of the following is not a part of research	4.0	0.0
		1. Defining and redefining problem 2. Hypothesis formulation 3. Making deduction 4. Writing report		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

21	967021	Which among the following is FALSE in context of qualitative research?	4.0	0.0
		1. It is highly replicable 2. The outcome is based on subjective experiences 3. The conclusion is difficult to generalize in a large population 4. The outcome is prone to misrepresentation		
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

22	967022		4.0	0.0
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Development of COVAXIN (covid vaccine) is an example of

1. Exploratory research
2. Experimental research
3. Applied research
4. Qualitative research

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

23 967023 4.0 0.0

Experiments on which of the following doesn't require ethical approval

1. Human
2. All vertebrate Animals
3. Bacteria
4. Monkeys

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

24 967024 4.0 0.0

Which of the following doesn't require literature review?

1. Title
2. Introduction
3. Discussion
4. Conclusion

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

25 967025 4.0 0.0

Which of the following is not a citation style?

1. MLA
2. PLA
3. APG
4. CMS

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

26 967026

4.0 0.0

- (A). The main purpose of descriptive research is to report the state of affair as it exists today.
- (B). The main purpose of analytical research is to use facts or information already available and analyze them to make critical evaluation of the situation.
- (C). Conceptual research is data-based research, whose conclusion can be verified by experimentation.
- (D). Emperical research is data-based research, whose conclusion can be verified by experimentation.

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (A), (C) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

27 967027

4.0 0.0

- (A). In random sampling each item has equal chance of being selected.
- (B). In systematic sampling each n th item is selected.
- (C). Cluster sampling involves grouping the data into cluster and selecting an individual from the cluster
- (D). Stratified sampling is used for homogenous data.

Choose the **correct** answer from the options given below:

1. (A), (B) and (C) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

28 967028

4.0 0.0

(A). When a sample is exposed to usual condition, it is called as control group.

(B). When a sample is exposed to some treatment, it is called as experimental group

(C). The main purpose of exploratory research is to formulate a problem for more precise investigation.

(D). The main purpose of experimental research is to check the validity of a hypothesis.

Choose the **correct** answer from the options given below:

1. (A), (B) and (C) only.

2. (A), (B) and (D) only.

3. (A), (B), (C) and (D).

4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29 967029

4.0 0.0

(A). Number mentioned at the jersey of football player is an example of nominal scale

(B). Nominal scale is random.

(C). In the nominal scale no relationship can be derived among the items.

(D). Ranking of students on the basis of marks obtained by them is an example of ordinal scale.

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.

2. (A), (B) and (C) only.

3. (A), (B), (C) and (D).

4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

30 967030

4.0 0.0

- (A). The data that we want to ideally analyze is called as population.
- (B). The data on which we work and assume it to be a representative of the complete data is called as sample.
- (C). The larger is the sample size greater is the variability
- (D). All samples must have identical mean, median and mode.
- Choose the **correct** answer from the options given below:

1. (A) and (B) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

31 967031

4.0 0.0

- (A). A frequency distribution is said to be positively skewed if the frequency curve has a longer tail towards the higher values.
- (B). A frequency distribution is said to be negatively skewed if the frequency curve has a longer tail towards the lower values.
- (C). For positively skewed distribution Mean>median>mode
- (D). Negatively skewed distribution has no effect
- Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (A), (C) and (D) only.
3. (A), (B), and (C).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

32 967032

4.0 0.0

- (A). Information collected for the first time is called as primary data.
- (B). Information that is already available is called as secondary data.
- (C). Observation, interview, questionnaire and feedback forms are tools to collect primary data.
- (D). Observation, interview, questionnaire and feedback forms are tools to collect secondary data.

Choose the **correct** answer from the options given below:

1. (A), (B) and (C) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

33 967033

4.0 0.0

Match List-I with List-II

List-I	List-II
Process	Meaning
(A). Processing of data	(I). Simplification of recording answers
(B). Editing	(II). Grouping the data on the basis of some common characteristics
(C). Coding	(III). Accuracy, completeness, uniformity and consistency of gathered information is examined
(D). Classification	(IV). Process to eliminate any error or mistake

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (I), (B) - (IV), (C) - (III), (D) - (II)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

34 967034

4.0 0.0

Match List-I with List-II

List-I	List-II
Type	Attribute
(A). Linear correlation	(I). relationship between three or more variables are determined
(B). Multiple correlation	(II). relationship between two variables
(C). Correlation coefficient	(III). Strength of association
(D). Scatter diagram	(IV). change in one variable is equal to the change in another variable

Choose the **correct** answer from the options given below:

1. (A) - (IV), (B) - (I), (C) - (III), (D) - (II)
2. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

35 967035

4.0 0.0

Match List-I with List-II

Type of test	Used for
(A). Z-test	(I). Comparison of variance of two independent samples
(B). T-test	(II). Significance for mean
(C). Chi-square	(III). Significance of difference between the means of two samples
(D). F-test	(IV). Comparison of sample variance to a theoretical population variance

Choose the **correct** answer from the options given below:

1. (A) - (II), (B) - (III), (C) - (IV), (D) - (I)
2. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

36

967036

Match **List-I** with **List-II**

List-I	List-II
Type of plagiarism	Definition
(A).Mosaic Plagiarism	(I). the writer tacks on a new opening part of the first sentence in the hope that the reader won't notice that the rest of the paragraph is simply copied from the source.
(B). Paraphrase	(II). verbatim copying of sentence(s)
(C). Word-for-Word	(III). phrases and terms are lifted from the source and sprinkled in among your own prose
(D). Exact	(IV) substituting your own words and sentences for those of the original

Choose the **correct** answer from the options given below:

1. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

2. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)

3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)

4. (A) - (III), (B) - (II), (C) - (I), (D) - (IV)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0

0.0

Objective Question

37

967037

4.0

0.0

Match List-I with List-II

List-I	List-II
Type of intellectual property right	Description
(A). patent	(I). Ornamental or aesthetic aspect of a useful article, which must appeal to the sense of sight and may consist of the shape and/or pattern and/or colour of article.
(B). trade mark	(II). Right given by the law to creators of literary, dramatic, musical and artistic works and producers of cinematograph films and sound recordings.
(C). Copyright	(III). Visual symbol/word that indicate the source of the goods, a signature, name, device, label, numerals, or combination of colours used, or services, or other articles of commerce to distinguish it from other similar goods or services originating from another
(D). Industrial design	(IV). scientific inventions having potential for industrial application are being protected

Choose the **correct** answer from the options given below:

1. (A) - (IV), (B) - (III), (C) - (II), (D) - (I)
2. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

38 967038

- (A). Patenting is done to keep the invention secret
- (B). Patent is supposed to promote research
- (C). Only a very few patents can make money
- (D). Each country has their own patent rule

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (A), (C) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 0.0

Objective Question

39	967039	Arrange the steps in order (A). Grant of patent (B). Registration of patent application (C). Filing a patent (D). Patent search process Choose the correct answer from the options given below: 1. (C), (D), (B), (A). 2. (A), (B), (C), (D). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

40	967040	(A). Impact factor of a journal for year x of a journal = A/B. A = number of times articles published in years $x - 1$ and $x - 2$ were cited by indexed journals in year x. B = total number of 'citable items' published by that journal in years $x - 1$ and $x - 2$. (B). An individual has H-index h if h of N papers have at least h citations each, and remaining $(N - h)$ papers have less than h citations each. (C). G-index: Given a set of articles ranked in decreasing order of the number of citations that they received, the G-index is the (unique) largest number g such that the top g articles together received at least g^2 citations (D). An individual has H-index h if $(N - h)$ papers have at least h citations each, and the remaining h of N papers have less than h citations each. Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

41	967041		4.0	0.0
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Which of the following are methods of Dissemination of Research findings?

- A. Research Paper publishing
- B. Poster presentation in a conference
- C. Discussion among family/friends
- D. Oral presentation in Conference

- 1. (A), (B) and (D) only.
- 2. (A), (B) and (C) only.
- 3. (A), (B), (C) and (D).
- 4. (B) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

42 967042

4.0 0.0

Arrange the following in increasing order.

- (A). micro Litre
- (B). milli Litre
- (C). Litre
- (D). Nano Litre

Choose the **correct** answer from the options given below:

- 1. (D), (A), (B), (C).
- 2. (A), (B), (C), (D).
- 3. (B), (A), (D), (C).
- 4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

43 967043

4.0 0.0

Which of the following are part of the current trend termed a Onehealth approach?

- (A). human diseases
- (B). environmental health
- (C). veterinary health
- (D). antibiotic resistance

Choose the **correct** answer from the options given below:

1. (A), (B), (C) and (D) only.
2. (A), (B) and (C) only.
3. (A), (B), and (D) only
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

44 967044 4.0 0.0

Which of the following is NOT part of Bibliography?

- (A). Footnotes
- (B). Personal communication
- (C). References
- (D). Webpage

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (B) and (D) only.
3. (A) and (D) only.
4. (B) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

45 967045 4.0 0.0

Which of the following institutions is NOT involved in formulating guidelines related to human/animal ethics and Biosafety?

- (A). CSIR (Council of Scientific and Industrial Research)
- (B). DBT (Department of Biotechnology)
- (C). ICMR (Indian Council of Medical Research)
- (D). ICSSR (Indian Council of Social Science Research)

Choose the **correct** answer from the options given below:

1. (A) and (D) only.
2. (A), (B) and (D) only.
3. (A), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

46 967046

4.0 0.0

The main functions of Data Analysis are:

- (A). Researcher can analyse data for thinking about the problem
- (B). Researcher study the original records of data before analysis
- (C). Researcher analyze available data for examining statement of problem
- (D). Researcher can not explore new facts about problem

Choose the **correct** answer from the options given below:

1. (A), (B) and (D) only.
2. (A), (B) and (C) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

47 967047

4.0 0.0

Which among the following countries have been successful in sending probe to the South pole of the moon?

- (A). America
- (B). France
- (C). Russia
- (D). India

Choose the **correct** answer from the options given below:

1. (D) only.
2. (A), (B) and (D) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

48	967048	STEM cell research holds great potential to cure degenerative diseases. Which of the following sources can be used as a source of STEM cells for an individual? (A). Placenta (B). Milk tooth pulp (C). Nails (D). Hair Choose the correct answer from the options given below: 1. (A) and (B). 2. (A), (B) and (D) only. 3. (A), (B) and (C) only. 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

49	967049		4.0	0.0
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A researcher received a paper for review, which he rejected citing lack of experimental clarity. He however submitted the same data for publication under his own name. This will be considered an act of

- (A). Plagiarism
- (B). Data Fabrication
- (C). Ethical misconduct
- (D). Data Falsification

Choose the **correct** answer from the options given below:

1. (C) only.
2. (A) and (C) only.
3. (A), (B), (C) and (D).
4. (B), (C) and (D) only.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

50	967050	Correlation coefficient was calculated for two variables in an experiment. Which of the following can be a valid value? (A). -1 (B). + 1 (C). + 2.5 (D). - 2.5 Choose the correct answer from the options given below: 1. (A) and (B) only. 2. (A) and (D) only. 3. (A), (B), (C) and (D). 4. (B) and (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

51	967051		4.0	0.0
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Which one of the following is synthesized as an essential amino acid?

1. Glycine
2. Alanine
3. Valine
4. Tyrosine

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52 967052

4.0 0.0

Which of the following chromatographic technique separates analytes on the basis of their molecular weights.

1. Partition Chromatography
2. Size exclusion chromatography
3. Ion-exchange chromatography
4. Adsorption chromatography

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53 967053

4.0 0.0

Which one of the following statements can explain the phenomenon of MHC restriction?

1. Restriction of B cells receptor specificity by MHC molecules
2. Restriction of T cells receptor specificity by MHC molecules
3. Determination of antibody specificity against an antigen
4. Antibody production

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

54 967054

4.0 0.0

Acetylation of chromatin leads to.

1. Condensation of chromatin
2. Gene expression
3. Gene silencing
4. Activation of topoisomerases

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

55	967055	Which of these RNAs is not synthesized by a living cell? 1. miRNA 2. hnRNA 3. siRNA 4. snRNA A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

56	967056	Choose the factor that does not participate in T cells differentiation. 1. Antigens 2. Cytokines 3. Adjuvants 4. Antibody A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

57	967057		4.0	0.0
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In a protein inhibitor interaction, the protein loses its conformation. Out of the following, which technique can be used to study the conformational changes in the protein?

1. Optical rotatory dispersion
2. Circular Dichroism
3. Mass spectrometry
4. Electron spin resonance spectroscopy

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

58 967058 4.0 0.0

The Lesch-Nyhan (L-N) syndrome is an inherited disorder associated with a virtually complete deficiency of an enzyme of purine metabolism. Which of the following is an incorrect statement about this disease?

1. L-N syndrome is a sex linked defect i.e., the gene of the enzyme is on the X chromosome
2. L-N syndrome is caused by a variety of genetic mutations in the gene coding for adenine phosphoribosyltransferase
3. L-N syndrome results in many neurologic abnormalities
4. L-N syndrome decreases the ability of the patient to salvage nucleotide bases.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

59 967059 4.0 0.0

NK cells and Cytotoxic T cells (CTL) kill a pathogen infested cell by injecting their cytotoxic granules into the target cells. In this context, which of the following statement is correct.

1. CTL are more lethal than NK cells
2. They kill target cells in a non-specific manner
3. NK cells can kill the target cells faster than CTL
4. CTL requires the help of B cells to kill the target cell

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

60 967060 4.0 0.0

Which of the following proteins is not involved in the formation of clathrin-coated vesicles?

1. Adaptor protein
2. Membrane cargo protein
3. Soluble cargo protein
4. Kinesin

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

61 967061 4.0 0.0

In protein biosynthesis:

1. Each amino acid is added to its proper place to a growing polypeptide chain through the "adaptor" function of tRNA.
2. Each amino acid recognizes its own codon by a direct interaction with the mRNA template
3. Each amino acid is first attached to an anticodon specific for it
4. A given codon and its anticodon must have identical base sequences for proper base pairing

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 967062 4.0 0.0

Which of the following techniques/ tools can be used for mRNA quantification?

1. Surface Plasmon Resonance (SPR)
2. Real-Time PCR
3. Mass spectrometry
4. Conventional PCR

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 967063 4.0 0.0

Distinct expression of gene products two or multiple alleles of a gene in a cell, without influencing the expression of each other, is known as.

1. Codominance
2. Incomplete dominance
3. Transformation
4. Linkage

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

64 967064 4.0 0.0

An increase in the ratio of Bax/ Bcl-2 proteins in a cell results in

1. The cell will undergo programmed cell death
2. The cell will follow an unprogrammed cell death
3. The cell will divide fast
4. The cell will loose its ability to differentiate

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

65 967065 4.0 0.0

Why conditional lethal mutants are preferably used for studying bacteriophage assembly rather than lethal mutants?

1. Conditional mutations invariably produce lethal mutations
2. Conditional mutations produce lethal mutations only under a given experimental condition
3. Conditional mutation will never produce lethal mutation.
4. Lethal mutations are experimentally easy to regulate

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

66 967066 4.0 0.0

Which one of the following databases is not used for nucleotide sequence analysis?

1. Genebank (NCBI)
2. ENA (EMBL-EBI)
3. DDBJ
4. UniProt

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

67 967067 4.0 0.0

Flow cytometer cannot be used for which one of the following applications.

1. Immune cells phenotyping
2. Quantification of intracellular cytokines
3. Study of cellular apoptosis
4. Determination of charge distribution on a protein

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

68 967068 4.0 0.0

BLAST search is not used for.

1. Protein sequence alignment
2. Carbohydrate sequence alignment
3. Translated nucleotide sequence alignment
4. Nucleotide sequence alignment

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

69 967069 4.0 0.0

Which one of the following enzymes can be linked with cellular senescence?

1. Topoisomerase
2. DNA gyrase
3. DNA helicase
4. Telomerase

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

70 967070 4.0 0.0

A mutation can grossly alter the three-dimensional structure of a protein, if.

1. A valine is substituted for leucine
2. There is a change in the amino acid residue at the N-terminus
3. There is a change in the amino acid residue at the C-terminus
4. A proline is added in the middle of an α -helix

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

71 967071 4.0 0.0

The presence of a non-competitive inhibitor.

1. Leads to both an increase in $V_{\max}$ and K_m of the reaction
2. Leads to decrease in the observed $V_{\max}$
3. Leads to decrease in K_m and $V_{\max}$
4. Leads to an increase in K_m without affecting $V_{\max}$

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

72 967072 4.0 0.0

Acetyl CoA is generated primarily in the mitochondria, however, fatty acid synthesis from acetyl CoA occurs in the cytosol. By which one of the following mechanisms does acetyl CoA leaves the mitochondria and enters the cytosol?

1. The acetyl group is transferred to carnitine to form acetyl carnitine, which is transported across the inner mitochondrial membrane to cytosol.
2. Acetyl CoA condenses with oxaloacetate to form citrate, which is transported to cytosol where it is cleaved to generate acetyl CoA and oxaloacetate.
3. The mitochondrial membrane permits the export of acetyl CoA by active transport
4. Acetyl CoA reacts with CO₂ to form malonyl CoA, which is transported across the mitochondrial membrane

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

73	967073	Which of the following category of electrons does not participate in the image formation by an electron microscope.	4.0	0.0
1. Transmitted electrons 2. Back scattered electrons 3. Secondary electrons 4. Photo-electrons				
A1 : 1				
A2 : 2				
A3 : 3				
A4 : 4				

Objective Question

74	967074	Complementarity determining regions (CDR) are present in which of the following.	4.0	0.0
1. Antibodies 2. Antigens 3. Haptens 4. Mitogens				
A1 : 1				
A2 : 2				
A3 : 3				
A4 : 4				

Objective Question

75	967075		4.0	0.0
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The term "Energy Charge" is related to.

1. ATP to ADP ratio inside cell
2. Net charge of the cell
3. NADPH to NADP ratio inside the cells
4. Phosphorylation potential on the cell membrane

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76	967076	Analytical biochemistry comprises various tools and techniques that are based on the properties of analytes. In the following options, choose the correct techniques that justify their principle. (A). Svedberg Unit and sedimentation coefficient can be used to determine molecular weight of a protein (B). Electron microscope can provide both topological and morphological information (C). Electrophoretic mobility and molar absorption coefficient are used in separation techniques (D). Partition chromatography and Affinity chromatography have similar principle Choose the correct answer from the options given below: 1. (A), (B) and (D) 2. (A), and (B) 3. (A), (B), (C) and (D). 4. (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

77	967077	(A). Isotype, allotype and idio type are same form of the antibodies (B). Interleukin is a cytokine (C). Toll-like receptors (TLRs) and Nod-like receptors (NLRs) are present on phagocytic cells (D). MHC-II is required for presentation of intracellular antigens Choose the correct answer from the options given below: 1. (A), (B) and (C) 2. (A), (B) and (D) 3. (A), (B), (C) and (D). 4. (B), and (C)	4.0	0.0
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		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

78	967078	(A). Conformation and configuration are same for a biomolecule (B). Gibbs free energy is related with equilibrium constant and standard reduction potential (C). Polysaccharides have fixed molecular weights (D). The globular protein structure is largely determined by the presence of α-helix in the polypeptide Choose the correct answer from the options given below: 1. (A), (B) and (C) 2. (A), (B) and (D) 3. (B), and (D) 4. (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

79	967079	(A). Cathepsins are found in lysosomes (B). Hormones can act as secondary messengers (C). Monensin is used to stop transport of protein from endoplasmic reticulum to Golgi body (D). Glycation and glycosylation are same processes Choose the correct answer from the options given below: 1. (A), (B) and (C) 2. (A), (B) and (D) 3. (A), (B), (C) and (D). 4. (B), (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

80	967080		4.0	0.0
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- (A). Sanger's and Maxim-Gilbert's methods are used for DNA sequencing
- (B). Quorum sensing is found in yeast
- (C). Site directed mutagenesis is used to modify the gene sequence
- (D). Lipofectamine is used to transfer DNA in mamalian cells

Choose the **correct** answer from the options given below:

1. (A), (B) and (D)
2. (A), (C) and (D)
3. (A), (B), (C) and (D).
4. (B), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

81 967081

4.0 0.0

What is the correct sequence of oxidation of monounsaturated fatty acid ?

- (A). Oleoyl CoA
- (B). Cis- Δ^3 -dodecenoyl CoA
- (C). Acetyl CoA
- (D). Trans- Δ^2 -dodecenoyl CoA

Choose the **correct** answer from the options given below:

1. (A), (B), (D), (C).
2. (A), (B), (C), (D).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

82 967082

4.0 0.0

In Kreb's cycle, following metabolites are synthesized in which order.

- (A). Oxaloacetate
- (B). Citrate
- (C). Isocitrate
- (D). Glyoxalate

Choose the **correct** answer from the options given below:

1. (A), (B), (C), (D).
2. (A), (C), (B), (D).
3. (B), (C), (A), (D).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

83	967083	Arrange the following aliphatic amino acids in their increasing number of carbon atoms. (A). Alanine (B). Glycine (C). Leucine (D). Valine Choose the correct answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (B), (D), (C). 3. (B), (A), (D), (C). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

84	967084		4.0	0.0
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Arrange the order of the following to determine molecular weight and amount of a protein in a cell.

- (A). Extraction
- (B). Sonication
- (C). Immunoblotting
- (D). Electrophoresis

Choose the **correct** answer from the options given below:

1. (A), (B), (C), (D).
2. (A), (B), (D), (C).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

85 967085

4.0 0.0

Arrange the order of steps to amplify a gene by Polymaerase Chain reaction (PCR).

- (A). Denaturation
- (B). Extention
- (C). Annealing
- (D). Amplification

Choose the **correct** answer from the options given below:

1. (A), (B), (C), (D).
2. (A), (C), (D), (B).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86 967086

4.0 0.0

If a pathogen enters a human body what would be correct course of immune response for its elimination.

- (A). Identification of pathogen
- (B). Activation of an immune cell
- (C). Proliferation of immune cell
- (D). Differentiation of immune cell

Choose the **correct** answer from the options given below:

1. (D), (B), (A), (C).
2. (A), (B), (C), (D).
3. (B), (A), (D), (C).
4. (A), (B), (D), (C).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 967087 4.0 0.0

In a protein the following non-covalent bonds (interactions) are present.

- (A). Disulphide bonds
- (B). Hydrogen bonds
- (C). Peptide bonds
- (D). Electrostatic bonds

Choose the **correct** answer from the options given below:

1. (A) and (B)
2. (A), (B) and (D)
3. (B) and (D).
4. (B), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

88 967088 4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). Glucose	(I). Phosphofructokinase
(B). Fructose-6-phosphate	(II). Pyruvate kinase
(C). 3-phosphoglycerate	(III). Hexokinase
(D). Phosphoenol pyruvate	(IV). Phosphoglycerate mutase

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (IV), (B) - (II), (C) - (I), (D) - (III)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (I), (C) - (IV), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

89 967089

4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). Restriction digestion	(I). T4 DNA ligase
(B). Ligation	(II). Xho I
(C). Transformation	(III). Blue and white
(D). Clone Selection	(IV). Competent cell

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (II), (B) - (I), (C) - (III), (D) - (IV)
3. (A) - (II), (B) - (I), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

90 967090

4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). HLA-DP6	(I). Locus
(B). H-2K	(II). Pseudogene
(C). Congenic	(III). Allele
(D). Gene Conversion	(IV). Back cross

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (III), (B) - (I), (C) - (IV), (D) - (II)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

91 967091

4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). Endotoxin	(I). DNA Vaccine
(B). Toxoid	(II). Inactivated toxin
(C). Can transfect antigen presenting cells	(III). Not secreted
(D). Gene undergo conversion	(IV). Pilin

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (IV), (B) - (II), (C) - (III), (D) - (I)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (II), (C) - (I), (D) - (IV)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

92 967092

4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). Separation of ATP and ADP	(I). X-ray absorption spectroscopy
(B). Peptide mass finger printing	(II). Size exclusion chromatography
(C). Molecular weight determination	(III). Isoelectric focussing
(D). Mass absorption coefficient	(IV). MALDI-TOFF

Choose the **correct** answer from the options given below:

1. (A) - (III), (B) - (IV), (C) - (II), (D) - (I)
2. (A) - (IV), (B) - (II), (C) - (III), (D) - (I)
3. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 967093

4.0 0.0

Match **List-I** with **List-II**

List-I	List-II
(A). Haplotypes	(I). Programmed cell death
(B). Chimeric antibodies	(II). Gene cloning
(C). Connexins	(III). Species identification
(D). Aging of cell	(IV). Cell to cell communication

Choose the **correct** answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)
2. (A) - (III), (B) - (II), (C) - (IV), (D) - (I)
3. (A) - (I), (B) - (II), (C) - (IV), (D) - (III)
4. (A) - (III), (B) - (IV), (C) - (I), (D) - (II)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94 967094

Which of the following applies to lac operon model?

- (A). Trp repressor
- (B). Operator-repressor-inducer
- (C). Glucose-lactose
- (D). cAMP

Choose the **correct** answer from the options given below:

1. (A), (B) and (D)
2. (A), (B) and (C)
3. (B), (C) and (D)
4. (A), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

95 967095

What are the functions of T lymphocytes.

- (A). Production of Pro-inflammatory cytokines
- (B). Production of Anti-inflammatory cytokines
- (C). Production of cytotoxic grannules
- (D). Production of colony stimulating factors

Choose the **correct** answer from the options given below:

1. (A), (B) and (C)
2. (A), (B) and (D)
3. (A), (B), (C) and (D).
4. (B), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

96 967096

4.0 0.0

Which of the following is wrong about Liposomes?

- (A). They can deliver drugs
- (B). They can deliver vaccines
- (C). They can deliver lecithin
- (D). They can act as an adjuvant

Choose the **correct** answer from the options given below:

1. (C) and (D)
2. (B) and (D)
3. (A) and (B)
4. (B) and (C)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

97 967097

4.0 0.0

Structure of chromatin involves which of the following histone proteins.

(A). B2H

(B). H1

(C). H4

(D). H2A

Choose the **correct** answer from the options given below: Save

1. (A), (B) and (D)

2. (A), (B) and (C)

3. (B), (C) and (D)

4. (A), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

98 967098

4.0 0.0

Which of the following is not related to DNA fingerprinting.

(A). DNA chips

(B). Hypervariable minisatellites

(C). Tissue microarray

(D). Multiplex ligation-dependent probe identification

Choose the **correct** answer from the options given below:

1. (A), (B) and (C)

2. (A), (B) and (D)

3. (B), (C) and (D)

4. (A), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

99 967099

4.0 0.0

Arrange the order of sequences to quantify a protein of interest that is being expressed by a mammalian cell.

- (A). Isolation
- (B). Quantification
- (C). Identification
- (D). Separation

Choose the **correct** answer from the options given below:

1. (A), (D), (C), (B).
2. (A), (B), (C), (D).
3. (B), (A), (D), (C).
4. (C), (B), (D), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

100 967100

4.0 0.0

Which of the following statement applies to the structure of double helical B-DNA.

- (A). Within the double helix there are 10 base pairs per turn
- (B). The forces that stabilize the DNA double helix are hydrogen bond
- (C). The separation of the two strand of the double helix requires energy
- (D). The molar amount of adenine plus thymine equals the molar amount of guanine plus cytosine

Choose the **correct** answer from the options given below:

1. (A), (B) and (D)
2. (A), (B) and (C)
3. (A), (B), (C) and (D).
4. (B), (C) and (D)

A1 : 1

A2 : 2

A3 : 3

A4 : 4