

PREVIEW QUESTION BANK

Module Name : SCPH04 Bio-Physics - 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	970001	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	970002	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	970003	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	970004	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	970005	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	970006	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	970007		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	970008	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	970009	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	970010	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	970011	A value that can be counted, measured or categorized is called as 1. variable 2. random sample 3. population 4. sample	4.0	0.0
		A1 : 1 A2 : 2 A3 : 3 A4 : 4		

Objective Question

12	970012	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	4.0	0.0
		A1 : 1 A2 : 2 A3 : 3 A4 : 4		

Objective Question

13	970013		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	970014	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	970015	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	970016		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	970017	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	970018	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	970019		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	970020	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	970021	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	970022		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 970023

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 970024

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 970025

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 970026

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 970027

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	970028	(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.	4.0	0.0
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

29	970029	(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.	4.0	0.0
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

30	970030		4.0	0.0
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- (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 970031

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 970032

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 970033

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 970034

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 970035

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 970036

4.0 0.0

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:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

37 970037

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 970038

- (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	970039	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	970040	(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	970041		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 970042

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 970043

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 970044 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 970045 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 970046

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 970047

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	970048	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	970049		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	970050	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	970051		4.0	0.0
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Which of the following can be classified as Prokaryotes?

1. Fungi
2. Archaea
3. Algae
4. Protists

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

52 970052

4.0 0.0

Which of the following amino acids (all mentioned in the series) have Non-polar side chains?

1. Leu, Pro, Phe, Trp
2. Leu, Pro, Thr, Phe
3. Leu, Pro, Phe, Ser
4. Leu, Tyr, Phe, Ser

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53 970053

4.0 0.0

Vasopressin is a hormone that is involved in controlling Blood Pressure. It is what kind of molecule ?

1. Carbohydrate
2. Steroid
3. Peptide
4. Lipid

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

54 970054

4.0 0.0

Which of the following molecules is responsible for triggering muscle cramps in athletes after a tiring run?

1. Glycogen
2. Lactic Acid
3. Insulin
4. Deoxyhaemoglobin

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

55 970055

4.0 0.0

Cell organelles involved in protein translation are:

1. Golgi body
2. Ribosomes
3. Endoplasmic reticulum
4. Lysosome

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

56 970056

4.0 0.0

In an SDS-PAGE experiment, the PAGE is an acronym for ?

1. Poly Acrylamide Gene Electrophoresis
2. Poly Acrylamide Gel Electrophoresis
3. Poly Acyl Gel Electrophoresis
4. Poly AAA Gene Electroporation

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

57 970057

4.0 0.0

Which of the following techniques can be used for determining the structure of a biological macromolecule ?

- (A). X-ray crystallography
- (B). NMR
- (C). Electron microscopy
- (D). Circular Dichroism Spectroscopy

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

58 970058

4.0 0.0

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

List-I	List-II
Cell component/Organelle	Macromolecule that are primary constituent of cell organelle
(A) Cell wall	(I). mostly lipids
(B). Cell membrane	(II). mostly carbohydrate
(C). Ribosomes	(III). mostly DNA
(D). nucleolus	(IV) mostly proteins

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

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

59	970059	Arrange the following Electromagnetic waves in the order of INCREASING wavelength (A). Radio waves (B). Ultra Violet rays (C). X-rays (D). Visible Rays Choose the correct answer from the options given below: 1. (C), (B), (D), (A) 2. (A), (B), (C), (D). 3. (B), (A), (D), (C). 4. (C), (A), (D), (B). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

60	970060	The chemical entity responsible for specific Blood type - O, A , B or AB is 1. peptide 2. oligosaccharide 3. Ubiquitin 4. monosaccharide A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

61	970061	Which of the following proteins have a HAEM prosthetic group? (A). Myoglobin (B). Haemoglobin (C). Cytochrome (D). Serum Albumin 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.	4.0	0.0
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A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

62	970062	Arrange the particles emitted during radioactive decay in the INCREASING order of penetration power (A). Alpha particles (B). Beta particles (C). Gamma rays Choose the correct answer from the options given below: 1. (A), (B), (C). 2. (C), (B), (A) 3. (C), (A), (B) 4. (B), (A), (C) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

63	970063	A researcher has expressed a protein with a HIS-Tag attached at the N-terminus. He is now planning to purify this protein through Affinity chromatography. He will most probably need which of following types of entity attached to the resin ? 1. Avidin 2. Nickel ions 3. IgG 4. Biotin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

64	970064		4.0	0.0
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Which of the following cells are considered part of the INNATE immune system?

1. RBC
2. B cells
3. T cells
4. Macrophages

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

65 970065

Typical length of a Hydrogen Bond (H-Bond) will be

1. 0.1 Angstrom
2. 0.3 Angstrom
3. 10 Angstrom
4. 3 Angstrom

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 0.0

Objective Question

66 970066

Which of the following are examples of Electromagnetic waves?

- (A). Sound waves
- (B). Heat waves
- (C). Radio waves
- (D). Micro waves

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

4.0 0.0

Objective Question

67	970067	In the equation $y = mx + c$ (representing a straight line), the c represents the 1. the x intercept 2. the y intercept 3. the slope of the line 4. the origin of the line A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

68	970068	In any triangle, for which Pythagoras theorem would be applicable, 1. Atleast one angle has to be a right angle (90 deg), other two will be obtuse angles 2. Atleast one angle has to be a right angle (90 deg), one can be obtuse angle 3. Atleast one angle has to be a right angle (90 deg), other two can be acute angles 4. Atleast one angle has to be a right angle (90 deg), Both other angles have to be 45 deg A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

69	970069	A PhD student has a 2M stock solution of NaCl. He needs to dilute it to 0.1M for his current expriment. How many mL of water does he need to add to 1 mL of stock solution to make the required dilution ? 1. 18 mL 2. 20 mL 3. 19 mL 4. 10 mL A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

70	970070		4.0	0.0
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According to Bradford protein estimation assay, a student has determined that the protein concentration in his sample is 2.5 mg/mL. He has 400 micro litres of this sample. The total amount of protein in this sample is ?

1. 10 mg
2. 1 mg
3. 100 micrograms
4. 10 micorgrams

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

71 970071

4.0 0.0

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

List-I	List-II
(Biomolecules)	(Function/Process involved)
(A). Chaperones	(I). Protein translation
(B). mRNA	(II). Protein folding
(C). DNA polymerase	(III). Part of ribosome assembly
(D). rRNA	(IV). DNA synthesis

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

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

72 970072

4.0 0.0

Which of the following techniques can be used for determining the binding affinities of a ligand-protein interaction?

- (A). BLI (Bio Layer Interferometry)
- (B). SPR (Surface Plasmon Resonance)
- (C). CD (Circular dichroism spectroscopy)
- (D). ITC (Iso thermal calorimetry)

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

73	970073	The popular algorithm BLAST used for searching similar protein/nucleotide sequences in a database is based on 1. GLOBAL similarity score among two sequences 2. LOCAL similarity score among two sequences 3. UNGAPPED similarity score among two sequences 4. MINIMUM similarity score among two sequences A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

74	970074	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : In a gel filtration chromatography experiment, the protein with a larger molecular weight exits the column first. Reason (R) : because it feels higher gravity due to its higher molecular weight In light of the above statements, choose the <i>correct</i> answer from the options given below. 1. Both (A) and (R) are true and (R) is the correct explanation of (A). 2. Both (A) and (R) are true but (R) is NOT the correct explanation of (A). 3. (A) is true but (R) is false. 4. (A) is false but (R) is true. A1 : 1	4.0	0.0
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A2 : 2

A3 : 3

A4 : 4

Objective Question

75	970075	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : A protein stops showing its enzyme activity when UREA is added to the solution. On removal of Urea by dialysis, the enzyme activity is regained Reason (R) : Urea causes unfolding of the protein and removal of urea results in refolding of protein In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true and (R) is the correct explanation of (A). - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

76	970076	Human ears cannot hear all frequencies of Sound waves. Select the correct range that humans can hear 20 Hz to 2,000 Hz 20 Hz to 20,000 Hz 2000 Hz to 20,000 Hz 200 Hz to 2000 Hz A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

77	970077		4.0	0.0
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Arrange the following in the INCREASING order of their Specific heat capacity

- (A). Gold
- (B). Water
- (C). Iron
- (D). Alcohol

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

1. (A), (C), (D), (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

78	970078	Cell organelles that have their own DNA are (A). Chloroplast (B). Mitochondria (C). Lysosomes (D). Peroxisomes Choose the correct answer from the options given below: 1. (B) only. 2. (A), (B) and (D) only. 3. (A), (B), (C) and (D). 4. (A) and (B) only.	4.0	0.0
		A1 : 1 A2 : 2 A3 : 3 A4 : 4		

Objective Question

79	970079	In the process of Nitrogen fixation, the atmospheric nitrogen is first converted to "X" by bacteria and some other organisms, which is then converted into compounds usable by other organisms. What is X ? 1. Aminoacids 2. Nitrate 3. Urea 4. Ammonia	4.0	0.0
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A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

80	970080	Given below are two statements, one is labelled as Assertion (A) and other one labelled as Reason (R). Assertion (A) : Juvenile Diabetes (found in young people) is often termed as Type I Diabetes Reason (R) : Type I Diabetes is defined as a condition in which the body does not make enough insulin In light of the above statements, choose the <i>correct</i> answer from the options given below. - Both (A) and (R) are true . - Both (A) and (R) are true but (R) is NOT the correct explanation of (A). (A) is true but (R) is false. (A) is false but (R) is true. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

81	970081	Arrange the following types of RNA in the INCREASING ORDER of SIZE (A). miRNA (B). rRNA (C). tRNA Choose the correct answer from the options given below: (B), (C), (A). (A), (B), (C). (B), (A), (C). (A), (C), (B). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

82	970082		4.0	0.0
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In the Equation $V = IR$, if V is Voltage and I is the current, then R is ?

1. Relative tension of the wire
2. Relative length of the wire
3. Resistance of the wire
4. Relative heat capacity of the wire

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

83	970083	When light travels from one medium to another, it bends away or towards the normal, in a phenomenon known as Refraction. When light travels from a denser to a rarer medium, the refracted light ray bends... 1. Away from the normal 2. Towards the normal 3. Cannot be predicted 4. May not change A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

84	970084	The source of Sun's energy is 1. The nuclear fission of Hydrogen 2. The nuclear fusion of Hydrogen 3. The combustion of Carbon to Carbon monoxide and Carbon dioxide 4. The radioactive decay of Uranium A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

85	970085		4.0	0.0
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When a Satellite is launched, it requires certain kinetic energy to overcome the earth's gravitational pull. This is often expressed in terms of

1. Anti-gravitational velocity
2. Orbital Velocity
3. Escape velocity
4. Anti-gravitational potential

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

86 970086 4.0 0.0

The 4th period of the MODERN Periodic Table will have

1. 8 elements
2. 18 elements
3. 32 elements
4. 12 elements

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

87 970087 4.0 0.0

Which of the following are commonly used as pH indicators?

- (A). Phenolphthalein
- (B). Coomassie Blue
- (C). Methyl Orange
- (D). Acetic Acid

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

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

88	970088	The bonds formed by "Lateral" overlapping of orbitals are known as 1. d bonds 2. sigma bonds 3. pi bonds 4. ionic bonds A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

89	970089	Which of the following are "Allotropes" of Carbon? (A). Diamond (B). Fullerene (C). Coke (D). Lamp black Choose the correct answer from the options given below: 1. (A), (B) and (D) only. 2. (A) and (B) only. 3. (A), (B), (C) and (D) only 4. (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

90	970090	Urea is one of the most commonly used fertilisers. It provides the plants with 1. Both Nitrogen and Calcium 2. Calcium 3. Nitrogen 4. Both Nitrogen and Carbondioxide A1 : 1 A2 : 2	4.0	0.0
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A3 : 3

A4 : 4

Objective Question

91 970091

4.0 0.0

Arrange the following compounds in the DECREASING Order of Interatomic distance between the two Carbons

(A). C₂H₆(B). C₂H₄(C). C₂H₂

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

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

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

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

4. (B), (C), (A).

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

92 970092

4.0 0.0

DNA structure is known as the famous "double helix" structure. Which of the following molecules has a "Triple helix" structure?

1. rRNA

2. Myoglobin

3. Neurodendrite

4. Collagen

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 970093

4.0 0.0

The organism *Saccharomyces cerevisiae*, often used in biology as a model organism representing eukaryotes, is

1. Worm

2. Protozoa

3. Fruit Fly

4. Yeast

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94	970094	The test for detection of Covid-19 involves PCR. The acronym PCR stands for ? 1. Polyvirus Chain Reaction 2. Polymerase Chain Reaction 3. Polymerase Covid Reaction 4. Polyvirus Covid Replication	4.0	0.0
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

95	970095	When the rate on any reaction DOES NOT depend on the concentration of Substrates, it is termed as a 1. Zero-order kinetics 2. First-order kinetics 3. Steady state kinetics 4. Equilibrium kinetics	4.0	0.0
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

96	970096	For the mRNA translation to start correctly, the ribosome needs to recognize a correct start site on mRNA. This start signal comes after a highly conserved purine-rich segment in mRNA known as the 1. Initiation sequence 2. Poly A head sequence 3. Shine-Dalgarno sequence 4. Poly G head sequence	4.0	0.0
		A1 : 1		
		A2 : 2		
		A3 : 3		
		A4 : 4		

Objective Question

97	970097	Some organisms are known as Extremophiles since they can inhabit environmental habitats that are extreme in terms of pH, temperature etc. Among these "halophiles" are the kind of organism that can tolerate 1. high pressure conditions 2. high pH (alkaline) conditions 3. low pH (acidic) conditions 4. High salt conditions A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

98	970098	Recombination of DNA requires physical breakage and reunion of DNA strands. The model for this mechanism is now known as the 1. Holliday model 2. Replicon model 3. Replication fork model 4. Promoter model A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

99	970099	The cellular metabolic pathway involving conversion of Glucose to Pyruvate is called 1. Citric acid cycle 2. Gluconeogenesis 3. Krebs cycle 4. Glycolysis A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	0.0
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Objective Question

100	970100		4.0	0.0
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Many hormones in human body are steroids. The common precursor for many of these is

1. Cholesterol
2. Coenzyme A
3. Porphyrin
4. Pyruvate

A1 : 1

A2 : 2

A3 : 3

A4 : 4