

# Andhra Pradesh State Council of Higher Education

**Question Paper Name:** Applied Life Sciences  
**Subject Name:** Applied Life Sciences  
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**Duration:** 180  
**Total Marks:** 180  
**Display Marks:** Yes  
**Share Answer Key With Delivery Engine:** Yes

## Applied Life Sciences

**Group Number :** 1  
**Group Id :** 62321738  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 180  
**Revisit allowed for view? :** No  
**Revisit allowed for edit? :** No  
**Break time:** 0  
**Group Marks:** 180  
**Revisit allowed for group Instructions? :** Yes  
**Maximum Instruction Time:** 0  
**Minimum Instruction Time:** 0

## Teaching and Research Aptitude

**Section Id :** 62321775  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 82  
**Number of Questions to be attempted:** 82  
**Section Marks:** 90  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 623217223  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 6232176698 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes**  
**Single Line Question Option : No Option Orientation : Vertical**

**Wrong Marks : 0**

If there is unrest in the college, the main reason may be

**Options :**

Management

1.

System of education

2.

Teacher

3.

Student

4.

Question Number : 2 Question Id : 6232176699 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Students like the teacher most because he

Options :

Gives more marks

1.

Maintains student discipline

2.

Shows concern about students

3.

Avoids meeting the students

4.

Question Number : 3 Question Id : 6232176700 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A teacher can prevent the fluctuations of attention of the students in the classroom by

Options :

Reprimanding them

1.

Using proper stimulus

2.

3. Implementing rules strictly

4. Repeating the important points

Question Number : 4 Question Id : 6232176701 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Teacher should correct the work done by the students by following one of the techniques

Options :

1. Ill treatment

2. Pass and fail

3. Good relationship

4. Bad Affect

Question Number : 5 Question Id : 6232176702 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Over – motivation by teacher in the class room leads to

Options :

1. Ill treatment

2. Good environment

3. Good relationship

4. Bad Affect

Wrong Marks : 0

‘Achievement Motivation’ can be influenced mostly by

Options :

1. Reinforcement by teacher
2. Environment
3. Teaching – learning material
4. Self – Evaluation by student

Wrong Marks : 0

A teacher can identify a disabled with the help of

Options :

1. Who is affected by the environment
2. Who may not be affected by the environment
3. Who is well with the other people
4. Who is equally competent with others

Wrong Marks : 0

The full form of ‘ITEP’ is

Options :

1. Integrated Teacher Education Programme
2. Intensive Teacher Education Programme
3. Inclusive Teacher Education Programme
4. In-service Teacher Education Programme

Question Number : 9 Question Id : 6232176706 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If a teacher wish to improve his classroom teaching well, he should better involve?

Options :

1. Personal Activity
2. School programmes
3. Governmental Activities
4. Action Research

Question Number : 10 Question Id : 6232176707 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following is not a measure of dispersion

Options :

1. Standard deviation
2. Variance

3. Quartile deviation

3.

4. Mean

4.

Question Number : 11 Question Id : 6232176708 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An appropriate source to find out descriptive information is

Options :

1. Directory

1.

2. Bibliography

2.

3. Encyclopaedia

3.

4. Dictionary

4.

Question Number : 12 Question Id : 6232176709 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The term “ Control Group” is used in

Options :

1. Historical research

1.

2. Experimental research

2.

3. Survey research

3.

4. Descriptive research

4.

Wrong Marks : 0

The following is not related to plagiarism

Options :

1. Academic dishonesty
2. Branch of Journalistic ethics
3. Stealing and publication of another author
4. Self-citations

Wrong Marks : 0

As sample size increases the following is true

Options :

1. Sampling error increases
2. Sampling error decreases
3. Non sampling error decreases
4. Level of significance increases

Wrong Marks : 0

The full form of APA in citation is

Options :

1. American psychological Association

2. American Philosophical Association

3. All people Alphabets

4. American Pedagogical Association

Question Number : 16 Question Id : 6232176713 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Scaling method is used to measure

Options :

1. Quantitative variables

2. Attributes

3. Associations

4. Relations

Question Number : 17 Question Id : 6232176714 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The data collected from records is called

Options :

1. Census data



2. Primary data

3. Secondary data

4. Field data

Question Number : 18 Question Id : 6232176715 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The Null hypothesis contains

Options :

1. Population parameter

2. Sample statistic

3. Sampling distribution

4. Estimator

Sub-Section Number:	2
Sub-Section Id:	623217224
Question Shuffling Allowed :	Yes

Question Id : 6232176716 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension  
Questions : No

Question Numbers : (19 to 27)

Question Label : Comprehension

**Read the following passage and answer the questions given:**

From the 1920s onwards, we also find an increasingly active engagement of women in the freedom struggle. Much has been said – and with justice – about the co-option of women’s struggle for subjectivity into the nationalist agenda. Yet our analysis would remain simplistic if we do not admit that the increasing active participation of women in these nation – wide movements was changing the parameters of man-woman relationship both within the movement and in society in general in subtle and indirect ways. It was also making dents in the ideological boundaries within which the consciousness of the middle class woman traditionally operated. The experience of participating in the Non-cooperation Movement and courting arrest involved a perception of oneself that did not tally with traditionally – constructed self – images. Then again when women, in their contact with armed revolutionaries, graduated from the role of giving shelter and hiding arms to that of participating in or even leading armed action, they had to breach very stiff barriers of conventional behaviour. There is no doubt that the strategies of the armed revolutionaries imposed severe control over women’s sexuality and that the ultimate leadership in armed struggle remained with the men. Yet it cannot be denied that this participation demanded that women should create new roles for themselves and in doing so should transgress norms of gender and class relationship. This process became more pronounced when women joined mass-movements organized by the Leftist forces.

**Sub questions**

**Question Number : 19 Question Id : 6232176717 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Wrong Marks : 0**

What was the turning point in our Freedom Movement from 1920s?

**Options :**

1. Withdrawal of women from the Movement
2. Passive role of women in the Movement
3. Increasingly active engagement of women

## Conflict between men and women

4.

Question Number : 20 Question Id : 6232176718 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What was the option of women in those times?

Options :

1. Subjectivity into the national agenda
2. Mere observation of the movement
3. Supporting men from home'
4. Non – interfering attitude

Question Number : 21 Question Id : 6232176719 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Why were the parameters of man – woman relationship changed

Options :

1. Imposition of British culture on Indian society
2. Women's opposition to male domination
3. Increase in the rate of women's education
4. Active participation of women in the Movement

Question Number : 22 Question Id : 6232176720 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The ideological boundaries of the middle class women of 1920s were

Options :

1. Steadfast
2. Modified
3. Dangerous
4. Strengthened

Question Number : 23 Question Id : 6232176721 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What were the reasons for transformation of traditionally constructed self-image of women?

Options :

1. Women's active participation in the freedom struggle
2. Women taking part in Non-cooperation Movement'
3. Women courting arrest and going to jail
4. All of the other options

Question Number : 24 Question Id : 6232176722 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Why did women breach stiff barriers of convention?

Options :

1. To lead armed action
2. To discourage the male activists and revolutionaries
3. To disconnect themselves from the Movement

## To control their sexuality

4.

Question Number : 25 Question Id : 6232176723 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How did the men revolutionaries keep the ultimate leadership in armed struggle with them?

Options :

1. By restricting women to household chores
2. By sending women to educational institutes
3. By encouraging them to learn handicrafts
4. By imposing severe control over women's sexuality

Question Number : 26 Question Id : 6232176724 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

What did women do in order to create new roles for themselves?

Options :

1. Trained their children to be patriotic
2. Abided by the norms of society
3. Transgressed gender and class
4. Honed their skills

Question Number : 27 Question Id : 6232176725 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

To further their role in armed revolution, women joined mass movements organized by

Options :

1. Mahatma Gandhi

2. Leftists

3. Arya Samaj

4. Azad Hind Fauj

Sub-Section Number:	3
Sub-Section Id:	623217225
Question Shuffling Allowed :	Yes

Question Number : 28 Question Id : 6232176726 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

One of the following is not related to the areas of Johari Window's interpersonal communication.

Options :

1. Hidden Area

2. Known Area

3. Blind Area

4. Unknown Area

Question Number : 29 Question Id : 6232176727 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

The questioning device of communication “who says what in which channel to whom with what effect?”. Suggested by

Options :

1. Herald Laswell
2. Herald Lasky
3. George Gerbene
4. Herbert spencer

Question Number : 30 Question Id : 6232176728 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The purpose of the freedom in communication results in

Options :

1. Authority
2. Reduction
3. Control
4. Demotivation

Question Number : 31 Question Id : 6232176729 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Computer Assisted Instruction (CAI) is based on one of the following principle.

Options :

1. Classical conditioning
2. Sender conditioning

3. Operant conditioning

4. Respondent conditioning

Question Number : 32 Question Id : 6232176730 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Berlo's model of communication has the following four elements

Options :

1. Source, message, noise, barrier

2. Source, message, channel, receiver

3. Source, channel, receiver, feedback

4. Source, receiver, message, medium

Question Number : 33 Question Id : 6232176731 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Community radio comes under

Options :

1. Instructional Media

2. Social Media

3. Mass Media

4. Digital Media

Question Number : 34 Question Id : 6232176732 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0



‘Diorama’ is an extension of the following

Options :

1. Four Dimension
2. Uni – Dimension
3. Two – Dimension
4. Three – Dimension

Question Number : 35 Question Id : 6232176733 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In a ‘Dyad’ communication, the number of persons involved are

Options :

1. 3
2. 4
3. 2
4. 5

Question Number : 36 Question Id : 6232176734 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

‘Hermeneutics’ is a branch of knowledge, whose main role of the teacher is to

Options :

1. Teach the philosophy of behaviour
2. Interprets the meanings of codes

3. Indicates the process of communication

4. Announces political statements

Question Number : 37 Question Id : 6232176735 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number that comes next in the sequence 4, 60, 212 is \_\_\_\_\_.

Options :

1. 339

2. 345

3. 508

4. 612

Question Number : 38 Question Id : 6232176736 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the missing number in the sequence  $33\frac{1}{3}$ ,  $37\frac{1}{2}$ ,  $42\frac{6}{7}$ , \_\_\_\_\_, 60.

Options :

1. 50

2. 45

3.  $46\frac{3}{5}$

4. 55

Question Number : 39 Question Id : 6232176737 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which term comes next in the sequence YEB, VHG, SKL, PNQ, \_\_\_\_\_?

Options :

1. MQV

2. MOR

3. ROS

4. SQT

Question Number : 40 Question Id : 6232176738 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A man purchased 20 watches for a cost of ₹200 and sold them for ₹300. What is the percentage of profit he got?

Options :

1. 50

2. 40

3. 60

4. 100

Question Number : 41 Question Id : 6232176739 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If  $x : y = 3 : 4$ , then  $(5x + 3y) : (4x + 7y) =$

Options :

1. 11 : 8

2.  $8 : 11$

3.  $27 : 40$

4.  $40 : 27$

**Question Number : 42 Question Id : 6232176740 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Wrong Marks : 0**

The average marks of 23 students is 45 and the average marks of another 27 students is 55. Then the average marks of all the students put together is

**Options :**

1. 50

2. 50.4

3. 48

4. 48.5

**Question Number : 43 Question Id : 6232176741 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Wrong Marks : 0**

The difference between the compound interest and the simple interest on a certain sum for two years at the same interest rate 8% per annum is 64. Then the sum is in rupees

**Options :**

1. 15,000

2. 12,000

3. 10,000

4. 8,000

Question Number : 44 Question Id : 6232176742 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

In a certain code 4523 is written as 5476 and 2871 is written as 7128. Then the code for 2018 is

Options :

1. 7981

2. 9001

3. 7901

4. 5798

Question Number : 45 Question Id : 6232176743 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

A train passes a pole of height 3 meters in 10 seconds and a platform of 130 meters long in 36 seconds. Then the speed of the train in km/h is

Options :

1. 25

2. 18

3. 50

4. 27

Sub-Section Number: 4  
Sub-Section Id: 623217226  
Question Shuffling Allowed : No

Wrong Marks : 0

Which word does not belong with the other?

Options :

1. Congar
2. Leopard
3. Elephant
4. Lion

Wrong Marks : 0

The word in the bottom row one related in the same way as the words in the top row.

For each item find the word that completes the bottom row of words

Candle, Lamp, Flood light

Hut, Cottage, \_\_\_\_\_.

Options :

1. Tent
2. City'
3. Dwelling
4. House

Wrong Marks : 0

In the following a statement is given. The statement is followed by two conclusions.

Identify which of the given conclusions logically follows:

Statement: Some actors are singers. All the singers are dancers.

- Conclusions :
1. Some actors are dancers
  2. No singer is actor

Options :

1. Only (1) conclusion follows
2. Only (2) conclusion follows
3. Both (1) and (2) follows
4. Neither (1) nor (2) follows

Question Number : 49 Question Id : 6232176747 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In the following series, you will be looking a pattern. Fill the blank in the series.

SCD, TEF, UGH, WKL, \_\_\_\_\_.

Options :

1. CMN
2. UJI
3. VIJ
4. IJT

Question Number : 50 Question Id : 6232176748 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In the following series, you will be looking pattern. Fill the blank in the series.

BCB, DED, FGF, HIH \_\_\_\_\_.

Options :

1. JKJ
2. HJH
3. IJI
4. JHJ

Question Number : 51 Question Id : 6232176749 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Here are some words translated from an artificial language:

Heplesh means cloudburst

Srenchoch means pinball

Resbosrench mean minepin

Which word could mean Clonalnine?

Options :

1. Leshsrench
2. Haplresho
3. Haploch
4. Ochhapl

Question Number : 52 Question Id : 6232176750 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0



If the day after the day after tomorrow is four days before Monday. What day is it today?

Options :

1. Tuesday
2. Wednesday
3. Thursday
4. Monday

Question Number : 53 Question Id : 6232176751 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Rama is younger than Rao

Raju was born after Rama

If the above two statements are true, then which the following statement is correct?

Options :

1. Rao is older than Raju
2. Rama is older than Raju
3. Both Rao and Rama are older than Raju
4. None of the other options

Question Number : 54 Question Id : 6232176752 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Knowledge based on memory is known as

Options :

1. Direct perception

2. Indirect perception

3. Inference

4. Analogy

Question Number : 55 Question Id : 6232176753 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Study the following tabular statement which indicates the performance of department of surgery of a hospital for the period January to July 2019. Based on this information answer the question given below.

Month	Total successful operations		Total unsuccessful operations
	ENT	Eyes	
January	4	6	6
February	6	2	8
March	6	4	4
April	8	4	6
May	4	4	4
June	2	4	6
July	1	3	8

The total number of successful operations performed during the months having 31 days of the given period is

Options :

1. 32

2. 48

3. 26

4. 40

Question Number : 56 Question Id : 6232176754 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Study the following tabular statement which indicates the performance of department of surgery of a hospital for the period January to July 2019. Based on this information answer the question given below.

Month	Total successful operations		Total unsuccessful operations
	ENT	Eyes	
January	4	6	6
February	6	2	8
March	6	4	4
April	8	4	6
May	4	4	4
June	2	4	6
July	1	3	8

The percentage of successful operations from January to April of the year 2019

Options :

1. 40

2. 60.5

3. 62.5

4. 64

Question Number : 57 Question Id : 6232176755 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Study the following tabular statement which indicates the performance of department of surgery of a hospital for the period January to July 2019. Based on this information answer the question given below.

Month	Total successful operations		Total unsuccessful operations
	ENT	Eyes	
January	4	6	6
February	6	2	8
March	6	4	4
April	8	4	6
May	4	4	4
June	2	4	6
July	1	3	8

If there are 50 more operations left to be performed, then how many operations must be successful in order to make the overall percentage of successful operations to 60?

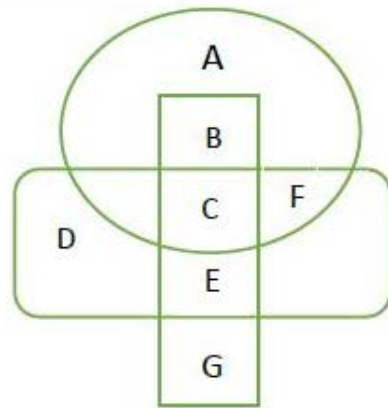
Options :

1. 42
2. 32
3. 38
4. 36

Question Number : 58 Question Id : 6232176756 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Study the following figure carefully and answer the question given below. In the figure ○ represents the students studying Mathematics, □ represents the students studying Physics and ▭ represents the students studying Chemistry.



Students who study Mathematics and Physics only are represented by

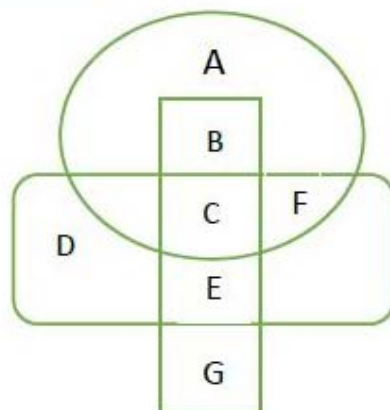
Options :

1. C
2. E
3. A
4. B

Question Number : 59 Question Id : 6232176757 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Study the following figure carefully and answer the question given below. In the figure ○ represents the students studying Mathematics, □ represents the students studying Physics and ▭ represents the students studying Chemistry.



Students who study Chemistry only are represented by

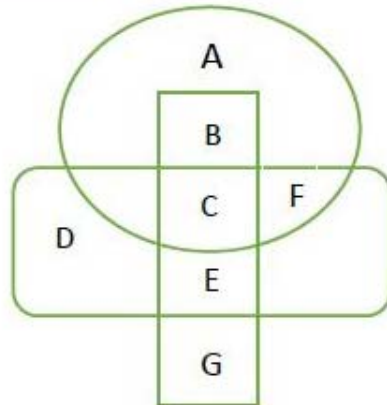
Options :

1. B, G D and F
2. D and F
3. C, D, E and F
4. D, E and F

Question Number : 60 Question Id : 6232176758 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Study the following figure carefully and answer the question given below. In the figure ○ represents the students studying Mathematics, □ represents the students studying Physics and □ represents the students studying Chemistry.



Students who study all the three subjects, i.e., Mathematics, Physics and Chemistry

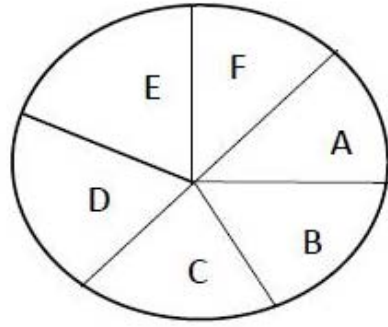
Options :

1. C, D and F
2. B and C
3. C and F
4. C

Question Number : 61 Question Id : 6232176759 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following Pie chart represents the percentage distribution of the expenditure incurred in publishing a book. Study the chart carefully and answer the question given below.



A – Printing cost 20%, B – Paper cost 25% C – Binding cost 20%, D – Royalty 15%  
E – Promotion cost 10%, F – Transportation cost.

If for a certain type of books, the publisher has to pay 24000 rupees towards Royalty, then the amount to be paid towards the transportation is in rupees.

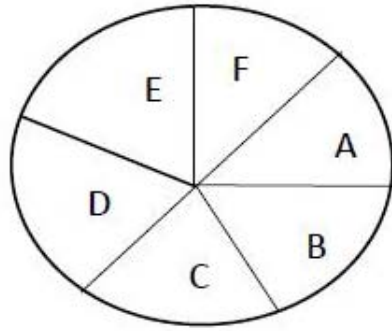
Options :

1. 16000
2. 12000
3. 10500
4. 16800

Question Number : 62 Question Id : 6232176760 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following Pie chart represents the percentage distribution of the expenditure incurred in publishing a book. Study the chart carefully and answer the question given below.



A – Printing cost 20%, B – Paper cost 25% C – Binding cost 20%, D – Royalty 15%  
E – Promotion cost 10%, F – Transportation cost.

The angle of the sector corresponding to the expenditure incurred on the binding cost, is in degrees.

Options :

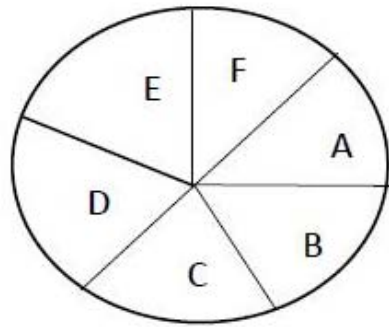
1. 36
2. 48
3. 72
4. 54

Question Number : 63 Question Id : 6232176761 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0



The following Pie chart represents the percentage distribution of the expenditure incurred in publishing a book. Study the chart carefully and answer the question given below.



A – Printing cost 20%, B – Paper cost 25% C – Binding cost 20%, D – Royalty 15%  
E – promotion cost 10%, F – Transportation cost.

If for a certain edition of a book, the paper cost in rupees 55000, then the expenditure involved for the printing and the transportation together is in rupees

Options :

1. 50000
2. 66000
3. 45000
4. 38750

Sub-Section Number: 5  
Sub-Section Id: 623217227  
Question Shuffling Allowed : Yes

Question Number : 64 Question Id : 6232176762 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following pollutants (s) can cause cancer in humans.

Options :

1. Mercury
2. Lead

Ozone

3.

Pesticides

4.

Question Number : 65 Question Id : 6232176763 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which year Biosphere reserve project was initiated in India?

Options :

1. 1986

2. 1984

3. 1989

4. 1985

Question Number : 66 Question Id : 6232176764 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Phytoplanktons are the members of

Options :

1. Grass land ecosystem

2. Forest ecosystem

3. Aquatic ecosystem

4. Desert ecosystem

Question Number : 67 Question Id : 6232176765 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Photosphere is described as the

Options :

1. Lower layer of atmosphere
2. Wave length of solar spectrum
3. Visible surface of the sun from which radiation emanates
4. Global warming

Question Number : 68 Question Id : 6232176766 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

The earthquake waves which have transverse movements are known as

Options :

1. Secondary waves
2. Tidal waves
3. Primary waves
4. Surface waves

Question Number : 69 Question Id : 6232176767 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

A lunar eclipse occurs when.

Options :

1. Sun, Moon and Earth are not in the same line
2. Earth comes between the Sun and the Moon
3. Moon comes between the Sun and the Earth
4. Sun comes between the Earth and the Moon

Question Number : 70 Question Id : 6232176768 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

“Joy water fall” is located in

Options :

1. Karnataka
2. Kerala
3. Andhra Pradesh
4. Maharashtra

Question Number : 71 Question Id : 6232176769 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The central pollution Board was established under the following Act in India.

Options :

1. Water (Prevention and control of pollution) Act, 1974
2. Air (Prevention and control of pollution) Act, 1981
3. Urban area (Prevention and control of pollution) Act, 1976
4. Noise pollution (Regulations and control) Act, 2013

Question Number : 72 Question Id : 6232176770 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

According to Andhra Pradesh government sand mining policy announced on 4<sup>th</sup> September 2019, the stock yards are operated by.

Options :

1. APMDC
2. APPCB

3. CREDAI

4. AP Green Tribunal

Question Number : 73 Question Id : 6232176771 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The full form of FTP is

Options :

1. File Transaction Protocol

2. File Truncation Protocol

3. File Transfer Protocol

4. File Transfer Processing

Question Number : 74 Question Id : 6232176772 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

With regard to computer memory which of the following statement (s) is/are true.

(i) ROM is volatile memory

(ii) RAM is volatile memory

(iii) Secondary memory is volatile

Options :

1. (i) only

2. (ii) only

3. Both (i) and (ii)

4. (i) and (iii) only

Question Number : 75 Question Id : 6232176773 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If binary equivalent of the decimal number 48 is 110000, then the binary equivalent of decimal numbers 51 is

Options :

1. 110010
2. 110011
3. 110001
4. 110100

Question Number : 76 Question Id : 6232176774 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is not open source software?

Options :

1. Internet explorer
2. Open office
3. Fedora Linux
4. Apache HTTP server

Question Number : 77 Question Id : 6232176775 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Fire wall in computers is used for

Options :

1. Security
2. Data transmission

3. Authentication

4. Monitoring

Question Number : 78 Question Id : 6232176776 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

IC chips for computer are made of

Options :

1. Silver

2. Aluminium

3. Silicon

4. Steel

Question Number : 79 Question Id : 6232176777 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following protect computer system from hackers.

Options :

1. Antivirus

2. Backup

3. Hard disk

4. Firewall

Question Number : 80 Question Id : 6232176778 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

“IT for mass” is a plan scheme.

Options :

1. Department of electronics and information technology
2. University grants commission
3. MHRD
4. AICTE

Question Number : 81 Question Id : 6232176779 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The full form of NPTEL is

Options :

1. National Programme on Technology Enhanced Learning
2. National Programme on Technology Enforced Learning
3. National Project for Technology Enhanced Learning
4. National Project for Technology Enforced Learning

Question Number : 82 Question Id : 6232176780 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The first Open University was set up in the State of

Options :

1. New Delhi
2. Arunachal Pradesh
3. Tamil Nadu
4. Andhra Pradesh



Question Number : 83 Question Id : 6232176781 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

During Vedic period the students who studied in Gurukula lived in

Options :

1. Ashram
2. Guru's house
3. Parents' home
4. Forest

Question Number : 84 Question Id : 6232176782 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The concept of 'Smritimana' given by Yagya-Valkya was based on the principle of

Options :

1. Accuracy
2. Purity
3. Yagna
4. Memorization

Question Number : 85 Question Id : 6232176783 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The Buddhist Education was offered in

Options :

1. Home
2. Sanghas
3. Ashramas

#### 4. Congregation

Question Number : 86 Question Id : 6232176784 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In an Open University one of the system of evaluation will be

Options :

1. Formal Assessment
2. Summative evaluation
3. Self – evaluation
4. Formative evaluation

Question Number : 87 Question Id : 6232176785 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

‘Build school in every village’ was propagated by

Options :

1. Robert De Nobilli
2. St Xavier
3. St. Thomas
4. Robert Clive

Question Number : 88 Question Id : 6232176786 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An illiterate and ignorant nation can never make any solid progress and must fall back  
in the race for life” said by

Options :

1. M.K. Gandhi

2. Sarvepalli Radhakrishnan

3. G.K. Gokhale

4. Raja Ram Mohan Roy

Question Number : 89 Question Id : 6232176787 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The original meaning of 'Vandemataram' sung by students in the schools is

Options :

1. Long live the King

2. King is the God

3. King and God are alive

4. God save the King

Question Number : 90 Question Id : 6232176788 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

'Shikshak Samakhya' (Teacher Empowerment) was initiated and first began in the state of Madhya Pradesh by UNICEF emphasizes on

Options :

1. Teacher effectiveness

2. Teachers' creativity

3. Teacher autonomy

4. Teachers' creativity and Teacher autonomy

Section Id :	62321776
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	90
Number of Questions to be attempted:	90
Section Marks:	90
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	623217228
Question Shuffling Allowed :	Yes

Question Number : 91 Question Id : 6232176789 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

The buffer system that acts in the cytoplasm of all cells

Options :

1. Bicarbonate
2. Acetate
3. Phosphate
4. Chloride

Question Number : 92 Question Id : 6232176790 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Which Class of enzymes catalyze the transfer of electrons?

Options :

1. Transferases
2. Oxidoreductases
3. Isomerases

## 4. Hydrolases

Question Number : 93 Question Id : 6232176791 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Kornberg enzyme is

Options :

1. DNA polymerase I
2. DNA polymerase II
3. DNA polymerase III
4. DNA polymerase IV

Question Number : 94 Question Id : 6232176792 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The G-protein subunit  $G\alpha_{t1}$  is distributed in the following tissue

Options :

1. Brain
2. Retina
3. Myeloid
4. Epithelium

Question Number : 95 Question Id : 6232176793 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the halophile organism from the following

Options :

1. *Methanococcus*

2. *Dunaliella*

3. *Sulfolobus*

4. *Eschericia*

Question Number : 96 Question Id : 6232176794 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The synthesis of an immunoglobulin in either a secretory or membrane bound form is governed by?

Options :

1. Allelic exclusion

2. Class switching

3. Different RNA processing

4. Affinity maturation

Question Number : 97 Question Id : 6232176795 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The phynotypic ratio of Mendel's trihybrid cross in F2 generation

Options :

1. 18 : 9 : 9 : 9 : 9 : 6 : 3 : 1

2. 27 : 9 : 9 : 9 : 3 : 3 : 3 : 1

3. 36 : 9 : 6 : 3 : 3 : 3 : 3 : 1

4. 45 : 3 : 3 : 3 : 3 : 3 : 3 : 1

Question Number : 98 Question Id : 6232176796 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is used as a default scoring matrix in BLAST?

Options :

1. PAM 62
2. BLOSUM 62
3. BLOSUM 60
4. BLOSUM 80

Question Number : 99 Question Id : 6232176797 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Choose the correct statement(s) about thermostable DNA polymerase used in PCR:

- 1) Taq pol has no proof-reading ability;
- 2) Taq pol has 5' → 3' exonuclease activity;
- 3) pfu pol has 3' → 5' exonuclease activity;
- 4) Til pol has no 3' → 5' exonuclease activity

Options :

1. 1 and 2
2. 1, 2 and 3
3. 2, 3 and 4
4. 1, 2, 3 and 4

Question Number : 100 Question Id : 6232176798 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Brevitoxins belong to the category of

Options :

1. Paralytic shellfish poisoning
2. Amnesic shellfish poisoning

3. Neurotoxic shellfish poisoning

4. Diarrhetic shellfish poisoning

Question Number : 101 Question Id : 6232176799 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Which of the following virus is not used as gene therapy vector?

Options :

1. Retrovirus

2. Adenovirus

3. Adeno-associated virus

4. Polyomavirus

Question Number : 102 Question Id : 6232176800 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Which of the chemical is typically used for fixation as well as for staining in the processing for transmission electron microscopy?

Options :

1. Glutaraldehyde

2. Glutamic acid

3. Ozone

4. Osmium tetroxide

Question Number : 103 Question Id : 6232176801 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0



The uncommon amino acid which is found in elastin

Options :

1. 4-hydroxy proline
2. 6-N-methyl lysine
3.  $\gamma$ -carboxy glutamate
4. Desmosine

Question Number : 104 Question Id : 6232176802 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Uncompetitive inhibitors

Options :

1. Bind only to the ES complex at a site distinct from active site
2. Bind to either E or ES complex at a site distinct from active site
3. Bind permanently to an active site of E forming a covalent bond
4. Bind permanently to an active site of E forming a very stable non-covalent interaction

Question Number : 105 Question Id : 6232176803 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Primase associated with which enzyme synthesizes the RNA primase at the DNA replication fork?

Options :

1. Single strand binding protein

2. Polymerase

3. Ligase

4. Helicase

Question Number : 106 Question Id : 6232176804 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Each molecule of calmodulin contains how many binding sites for calcium?

Options :

1. One

2. Two

3. Three

4. Four

Question Number : 107 Question Id : 6232176805 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Under the stress conditions, bacteria accumulate the following:

Options :

1. ppGp (Guanosine triphosphate)

2. ppGpp (Guanosine tetraphosphate)

3. pppGpp (Guanosine pentaphosphate)

4. pppGppp (Guanosine hexaphosphate)

Question Number : 108 Question Id : 6232176806 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Antigen recognition by T cells in the absence of co-stimulation results in?

Options :

1. Upregulation of B7.1
2. T cell apoptosis
3. T cell anergy
4. Downregulation of B7.1

Question Number : 109 Question Id : 6232176807 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many alleles of a single gene forming four different phenotypic blood groups namely A, B, AB & O

Options :

1. One
2. Two
3. Three
4. Four

Question Number : 110 Question Id : 6232176808 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

When using a cladistic approach to systematics, which of the following is considered as most important for classification?

Options :

1. Shared primitive characters
2. Analogous primitive characters

3. Shared derived characters

4. Overall phenotypic similarity

Question Number : 111 Question Id : 6232176809 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the cloning vector that carries an origin of replication for the  $2\mu$  plasmid

Options :

1. Yeast episomal plasmid (YEp)

2. Yeast integrative plasmid (YIp)

3. Yeast replicative plasmid (YRp)

4. Yeast conservative plasmid (YCp)

Question Number : 112 Question Id : 6232176810 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

One of the following is a pentacyclic alkaloid

Options :

1. Eilantin

2. Amphimedine

3. Cystodytin

4. Varamine

Question Number : 113 Question Id : 6232176811 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following properties are true for prions?

- 1) PrP<sup>sc</sup> is protease resistant protein;
- 2) Gene for PrP<sup>c</sup> normally express in brain;
- 3) PrP<sup>c</sup> is a GPI-linked membrane protein;
- 4) PrP<sup>sc</sup> form has a high content of beta sheets as compared to PrP<sup>c</sup>

Options :

1. 1 and 2
2. 2 and 4
3. 1, 3 and 4
4. 1, 2, 3 and 4

Question Number : 114 Question Id : 6232176812 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The oil immersion objective with NA of 1.45 was observed under light microscopy using a green light of wavelength 514nm, and if the NA of the condenser is 0.95, what will be the limit of resolution?

Options :

1. 216nm
2. 261nm
3. 612nm
4. 514nm

Question Number : 115 Question Id : 6232176813 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The number of polypeptide chains present in RNA polymerase of *E. coli*

Options :

1. Two

2. Three

3. Four

4. Five

Question Number : 116 Question Id : 6232176814 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An example for induced fit model of enzyme

Options :

1. Chymotrypsin

2. Hexokinase

3. Lysozyme

4. Enolase

Question Number : 117 Question Id : 6232176815 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Base excision repair (BER) of eukaryotic DNA is initiated by the following enzyme

Options :

1. DNA polymerase

2. AP endonuclease

3. Phosphodiesterase

4. DNA glycosylase

Question Number : 118 Question Id : 6232176816 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the substrate for nitric oxide synthase that produces the second messenger nitric oxide

Options :

1. Alanine
2. Arginine
3. Aspartic acid
4. Glycine

Question Number : 119 Question Id : 6232176817 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A bacterial culture has an initial cell density of  $0.5 \times 10^4$  cells/ml. If its generation time is 30min, what is the cell density at the end of 2hr 30min?

Options :

1.  $0.5 \times 10^4$  cells/ml
2.  $1.6 \times 10^4$  cells/ml
3.  $160 \times 10^4$  cells/ml
4.  $16 \times 10^4$  cells/ml

Question Number : 120 Question Id : 6232176818 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The following four groups of mice were studied for the factor required for mast cell generation. In which mice, mast cell generation is most likely to be deficient?

Options :

1. IL-3 deficient
2. GM-CSF deficient
3. G-CSF deficient

# Erythropoietin deficient

4.

Question Number : 121 Question Id : 6232176819 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

One of the following is not showing the environmental dependent sex-determining mechanism

Options :

1. Echiuroid sea worm

1.

2. Hymenopteran wasp

2.

3. *Agama agama*

3.

4. *Chrysema picta*

4.

Question Number : 122 Question Id : 6232176820 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The alignment procedure that tries to align regions with high levels of matches without considering the alignment of rest of the sequence is

Options :

1. Multiple sequence alignment

1.

2. Pairwise alignment

2.

3. Global alignment

3.

4. Local alignment

4.

Question Number : 123 Question Id : 6232176821 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A restriction enzyme *notI* with an 8-bp recognition site produces restriction fragments that should have average size of

Options :



1. 4096 bp
2. 65536 bp
3. 40320 bp
4. 52630 bp

Question Number : 124 Question Id : 6232176822 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Identify the pink salmon

Options :

1. *Oncorhynchus gorbuscha*
2. *Orcorhynchus nerka*
3. *Oncorhynchus kisutch*
4. *Oncorhynchus keta*

Question Number : 125 Question Id : 6232176823 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Severe acute respiratory syndrome (SARS) is

Options :

1. caused by a variant of *Pneumococcus pneumonia*
2. caused by a variant of common cold virus (Corona virus)
3. an acute form of asthma

4. caused by the variant of DNA virus

Question Number : 126 Question Id : 6232176824 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In visible spectrophotometry, which of the following detectors can be used to achieve the amplification of photoelectrons by secondary emission of electrons?

Options :

1. Photovoltaic cells
2. Photo tubes
3. Photo multiplier tubes
4. Photo amplifier cells

Question Number : 127 Question Id : 6232176825 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the protein that is rich in alanine and glycine

Options :

1. Keratin
2. Collagen
3. Myosin
4. Fibroin

Question Number : 128 Question Id : 6232176826 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Na<sup>+</sup>/glucose cotransporter binds

Options :

1. Three sodium ions and two glucose molecules
2. Two sodium ions and two glucose molecules
3. One sodium ion and one glucose molecule
4. Two sodium ions and one glucose molecule

Question Number : 129 Question Id : 6232176827 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Approximately 80 percent of cell's RNA is

Options :

1. rRNA
2. mRNA
3. tRNA
4. hnRNA

Question Number : 130 Question Id : 6232176828 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

One of the following promotes apoptosis

Options :

1. Bcl-X
2. Bcl-w

3. Bcl-2

4. Bax

Question Number : 131 Question Id : 6232176829 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following infectious agents cross the blood brain barrier?

Options :

1. *Streptococcus pneumoniae*

2. *Avastrovirus*

3. *Rotavirus*

4. *Streptococcus pyrogens*

Question Number : 132 Question Id : 6232176830 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Th<sub>1</sub> response is characterized by the secretion of which of the following combinations of cytokines?

Options :

1. IFN $\gamma$  and IL-12

2. IFN $\gamma$  and IL4

3. IFN $\beta$  and IL-12

4. IL4 and IL-17

Question Number : 133 Question Id : 6232176831 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Based on linkage map of human X-Chromosome, the gene for the following disease is located on the short arm

Options :

1. Haemophilia-A
2. Proton Colour Blindness
3. Lesch-Nyhan syndrome
4. Duchenne Muscular Dystrophy

Question Number : 134 Question Id : 6232176832 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Databases such as CATH and SCOP are used to identify

Options :

1. The structural family to which a protein belongs
2. The genetic family to which a protein belongs
3. Homologous proteins
4. Analogous proteins

Question Number : 135 Question Id : 6232176833 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Mung bean nuclease could be used for

Options :

1. DNA synthesis
2. Trimming double stranded regions of RNA

Trimming single stranded regions  
of DNA

3.

Removal of phosphate groups from the  
ends of the DNA

4.

Question Number : 136 Question Id : 6232176834 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An androdioecous red algal species

Options :

1. *Porphyra tenera*

2. *Porphyra kuniedai*

3. *Porphyra yezoensis*

4. *Porphyra angusta*

Question Number : 137 Question Id : 6232176835 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is not related to HIV?

Options :

1. HIV belongs to lentivirus subform

2. gp 120 is the membrane protein that HIV uses  
to attach to host cells

3. Long terminal repeat contains the  
promoter for HIV transcription

3.

HIV genome contains one copy of each genome

4.

Question Number : 138 Question Id : 6232176836 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Molar absorption coefficient of tyrosine is  $200\text{M}^{-1}\text{Cm}^{-1}$  at 260nm. What concentration (g/L) of this amino acid will give absorption of 1 in a cell of 0.5cm path length at 260nm (Tyrosine MW- 181 g/mol)?

Options :

1. 1.81

2. 18.1

3. 181

4. 0.18

Question Number : 139 Question Id : 6232176837 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The name of glycosaminoglycan that does not contain the uronic acid

Options :

1. Keratan sulphate

2. Chondroitin 4-sulphate

3. Hyaluronan

4. Heparin

Question Number : 140 Question Id : 6232176838 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In general, the most variable period in cell cycle is

Options :

1. G<sub>1</sub> Phase
2. G<sub>2</sub> Phase
3. S Phase
4. M Phase

Question Number : 141 Question Id : 6232176839 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Wobble hypothesis was proposed by

Options :

1. James Watson
2. Francis Crick
3. Francois Jacob
4. Jacques Monad

Question Number : 142 Question Id : 6232176840 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical  
Wrong Marks : 0

Identify the nonfibrillar collagen type restricted to basement membrane

Options :

1. Type I
2. Type II
3. Type III



## Type IV

4.

Question Number : 143 Question Id : 6232176841 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following transport mechanisms is not employed by prokaryotes?

Options :

1. Endocytosis

2. Active transport

3. Passive transport

4. Group translocation

Question Number : 144 Question Id : 6232176842 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Pepsin digestion of immunoglobulin G yields?

Options :

1.  $F(ab)_2$  fragment and low molecular weight fragments

2. 2Fab fragments and  $F_c$  fragment

3. One heavy chain and one light chain

4. One light chain

Question Number : 145 Question Id : 6232176843 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Transmission of bacterial genes to a recipient cell through their incorporation into an autonomous conjugative plasmid is known as

Options :

1. Transformation
2. Conjugation
3. Transduction
4. Sexduction

Question Number : 146 Question Id : 6232176844 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is a data retrieving tool?

Options :

1. PHB
2. EMBL
3. ENTREZ
4. FASTA

Question Number : 147 Question Id : 6232176845 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following technique is used to monitor RNA transcripts, both temporally and spatially?

Options :

1. *In situ* hybridization
2. Southern blotting

3. Northern blotting

4. Western blotting

Question Number : 148 Question Id : 6232176846 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

How many larval stages *Macrobrachium* undergoes to reach post larval stage during development?

Options :

1. Nine

2. Ten

3. Eleven

4. Twelve

Question Number : 149 Question Id : 6232176847 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following phage undergoes non-integrative lysogenic phase?

Options :

1. M13

2. T7

3. PI

4.  $\lambda$

Question Number : 150 Question Id : 6232176848 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

A primer with the sequence ATCGGATTCAGGTC is to be used in a PCR reaction. What is the  $T_m$  of this oligonucleotide?

Options :

1. 42°C

2. 52°C

3. 20°C

4. 62°C

Question Number : 151 Question Id : 6232176849 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The lipid in which two phosphatidic acids share a single glycerol

Options :

1. Phosphatidyl choline

2. Phosphatidyl serine

3. Cardiolipin

4. Ether lipid

Question Number : 152 Question Id : 6232176850 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The motor protein that moves along microfilaments

Options :

1. Kinesin

2. Dyenin

3. Myosin

4. Dynactin

Question Number : 153 Question Id : 6232176851 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which Initiation Factor (IF) is a GTP-binding protein in prokaryotes?

Options :

1. IF-I
2. IF-2
3. IF-3
4. IF-4

Question Number : 154 Question Id : 6232176852 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Connexons joining cardiac muscle cells are composed of the following connexins

Options :

1. Cx36
2. Cx43
3. Cx45
4. Cx57

Question Number : 155 Question Id : 6232176853 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Rocky mountain spotted fever is due to

Options :

1. *Trypanosoma brucei*
2. *Wuchereria bancrofti*
3. *Rickettsia rickettsia*

## *Leishmania donovani*

4.

Question Number : 156 Question Id : 6232176854 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which statement is not true with reference to Natural Killer cells: 1) Mediate lysis of tumour cells and virus infected cells; 2) Cause perforin-induced pore formation; 3) Protect killing of normal cells due to the expression of high levels of class I MHC; 4) Have only activation receptors

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 157 Question Id : 6232176855 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

McClintock's discovery of Transposons is on which chromosome of maize?

Options :

1. 3<sup>rd</sup> Chromosome

2. 5<sup>th</sup> Chromosome

3. 7<sup>th</sup> Chromosome

4. 9<sup>th</sup> Chromosome

Question Number : 158 Question Id : 6232176856 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the genome of poliovirus

Options :

1. Plus ssRNA
2. Linear dsDNA
3. Circular dsDNA
4. Minus ssRNA

Question Number : 159 Question Id : 6232176857 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following is/are useful marker(s) for genetic or physical mapping of human chromosomes?

- 1) Restriction fragment length polymorphism
- 2) Expressed sequence tags
- 3) Short tandem repeat polymorphism
- 4) Sequence tagged sites

Options :

1. 1 and 2
2. 1, 2 and 3
3. 2, 3 and 4
4. 1, 2, 3 and 4

Question Number : 160 Question Id : 6232176858 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the marine molluscan borer

Options :

1. Limnoriids
2. Sphaeromatids

3. Chelurids

4. Teredines

Question Number : 161 Question Id : 6232176859 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Viruses can be isolated from clinical samples by cultivation in the following except?

Options :

1. Tissue Culture

2. Embryonated eggs

3. Animals

4. Chemically defined media

Question Number : 162 Question Id : 6232176860 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Fluorescence recovery after photobleaching in live cells is used to determine?

Options :

1. Membrane bound proteins

2. Nucleic acid organization

3. Mobility of proteins

4. Location of cell organelles

Question Number : 163 Question Id : 6232176861 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The predominant hexokinase isozyme of liver is

Options :



1. Hexokinase I

2. Hexokinase II

3. Hexokinase III

4. Hexokinase IV

Question Number : 164 Question Id : 6232176862 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

One of the following is a marker that normally directs many hydrolytic enzymes from the Golgi to lysosomes

Options :

1. Glucose 6-Phosphate

2. Mannose 6-Phosphate

3. Fructose 6-Phosphate

4. Galactose 6-Phosphate

Question Number : 165 Question Id : 6232176863 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which Release Factor (RF) in bacteria can recognize the stop codons UAA and UAG

Options :

1. RF-1

2. RF-2

3. RF-3

4. RF-4

Question Number : 166 Question Id : 6232176864 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the tumor suppressor gene responsible for colorectal cancer

Options :

1. PTEN
2. APC
3. VHL
4. RB

Question Number : 167 Question Id : 6232176865 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Transformation of normal cyanobacterial cells into heterocyst involves

Options :

1. Synthesis of nitrogenase and retention of photosystem I
2. Synthesis of nitrogenase and loss of photosystem I
3. Loss of nitrogenase but retention of photosystem I
4. loss of both nitrogenase and photosystem I

Question Number : 168 Question Id : 6232176866 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

In phylogenetics, a derived trait that is unique to a given taxon is known as

Options :

1. Apomorphy

2. Plesiomorphy

3. Autapomorphy

4. Synapomorphy

Question Number : 169 Question Id : 6232176867 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

An interaction between two alleles at a single locus whereby one allele induces a heritable change in other allele is called

Options :

1. Adaptive mutation

2. Paramutation

3. Preadaptive mutation

4. Random mutation

Question Number : 170 Question Id : 6232176868 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the gene that was used widely in the production of crops resistant to the herbicide Bromoxynil

Options :

1. aro A

2. bar

3. psb A

4. bxn

Question Number : 171 Question Id : 6232176869 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The nucleotide analogue used in DNA sequencing by chain termination method is?

Options :

1. 1', 3' -dideoxy nucleoside triphosphate
2. 2', 3' -dideoxy nucleoside triphosphate
3. 2', 4' -dideoxy nucleoside triphosphate
4. 2', 5' -dideoxy nucleoside triphosphate

Question Number : 172 Question Id : 6232176870 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Name the Polymerase Chain Reaction (PCR) that can even detect the presence of very low number of pathogens in the prawn host i.e., in the initial stage of infection

Options :

1. Reverse Transcription PCR
2. Real Time PCR
3. Multiplex PCR
4. Nested PCR

Question Number : 173 Question Id : 6232176871 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which one of the following methods used to find evolutionary tree is also referred as the “minimum evolutionary method”?

Options :

1. Distance Method
2. Maximum Parsimony Method
3. Fitch and Margolish Method

## 4. UPGMA Method

Question Number : 174 Question Id : 6232176872 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

If the  $t_{1/2}$  of an irreversible first order reaction  $S \rightarrow P$  is 2 hours, what is the time (hrs.) required to reach 75% completion of reaction?

Options :

1. 2.0

2. 3.0

3. 4.0

4. 1.0

Question Number : 175 Question Id : 6232176873 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The four enzymes of  $\beta$  oxidation are separate and soluble entities in

Options :

1. Gram Positive Bacteria

2. Gram Negative Bacteria

3. Peroxisomes

4. Glyoxysomes

Question Number : 176 Question Id : 6232176874 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The enzyme marker for outer mitochondrial membrane

Options :

1. Cytochrome oxidase
2. Adenylate kinase
3. Malate dehydrogenase
4. Monamine oxidase

Question Number : 177 Question Id : 6232176875 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Identify the zinc finger involved in cardiac muscle development

Options :

1. TFIIIA
2. Egr
3. GATA
4. Zif268

Question Number : 178 Question Id : 6232176876 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

The stem cells from human embryo were first isolated by

Options :

1. Thomson
2. Kohler
3. Lindermann
4. Sanger

Question Number : 179 Question Id : 6232176877 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Which of the following are expected to be the abundant inhabitants of nitrate and sulfate rich soil naturally depleted for oxygen?

Options :

1. *Pseudomonas* and *Azotobacter*
2. *Pseudomonas* and *Desulfovibrio*
3. *Azotobacter* and *Thiobacillus*
4. *Nitrosomonas* and *Nitrobacter*

Question Number : 180 Question Id : 6232176878 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Wrong Marks : 0

Frameshift mutations are caused by

Options :

1. Nitrous acid
2. Hydroxylamine
3. Acridine orange
4. Alkylating agents