

Andhra Pradesh State Council of Higher Education

Notations :

- 1.Options shown in green color and with ✓ icon are correct.
- 2.Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	Bio Technology 19th Oct 2022 Shift 1
Duration :	120
Total Marks :	140
Display Marks:	No
Share Answer Key With Delivery Engine :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Research Methodology

Section Id :	549470383
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	59
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 54947027249 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is the independent variable in the process of teaching learning?

Options :

Student

1. ✘

Parents

2. ✘

Teacher

3. ✔

Education Institution

4. ✘

Question Number : 2 Question Id : 54947027250 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is the pioneer in the concept of micro-teaching?

Options :

Oxford University

1. ✘

Stanford University

2. ✔

Delhi University

3. ✘

Madras University

4. ✘

Question Number : 3 Question Id : 54947027251 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When a student asks a question for which the teacher has no direct, correct answer, he should

Options :

Ask the student to find out the answer himself from the library

1. ✘

Tell the student not to put irrelevant questions

2. ✘

Provide some vague answer to satisfy the student

3. ✘

Tell the student that he would tell correct answer later

4. ✔

Question Number : 4 Question Id : 54947027252 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is appropriate in the context of teacher- student relationship?

Options :

Informal and intimate

1. ✘

Cordial and peaceful

2. ✔

Indifferent

3. ✘

Restricted to classroom dynamic

4. ✘

Question Number : 5 Question Id : 54947027253 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assertion (A): Formative learning tends to accelerate the process of learning.

Reason (R): As against summative evaluation formative evaluation is highly reliable.

Choose the correct answer from the following code:

Options :

Both (A) and (R) are true, and (R) is not the correct explanation of (A).

1. ✘

Both (A) and (R) are true, and (R) is the correct explanation of (A).

2. ✘

(A) is true, but (R) is false.

3. ✔

(A) is false, but (R) is true.

4. ✘

Question Number : 6 Question Id : 54947027254 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

During which year, Educational T V was introduced in India?

Options :

1. ✘ 1971

2. ✘ 1961

3. ✔ 1968

4. ✘ 1978

Question Number : 7 Question Id : 54947027255 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The primary objective of N C T E – is _____

Options :

1. ✔ To maintain standards in education colleges.

2. ✘ To open education colleges.

3. ✘ To provide grant aid to education colleges.

4. ✘ To promote research in education.

Question Number : 8 Question Id : 54947027256 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The quality of research is primarily adjudicated on the basis of

Options :

1. ✔ The rigour with which it was carried out .

2. ✘ The place of publication

3. ✘ The manner in which the action is taken on recommendations.

Quantitative aspects.

4. ✖

Question Number : 9 Question Id : 54947027257 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A research which has explored ideas based on the new facts through the study of the past is called.

Options :

Historical research

1. ✔

Mythological research

2. ✖

Content analysis

3. ✖

Philosophical research

4. ✖

Question Number : 10 Question Id : 54947027258 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not a research method?

Options :

Historical

1. ✘

Survey

2. ✘

Philosophical

3. ✘

Observation

4. ✔

**Question Number : 11 Question Id : 54947027259 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

_____ is not required in experimental researches.

Options :

Manipulation

1. ✘

Controlling

2. ✘

Content analysis

3. ✔

Observation

4. ✘

**Question Number : 12 Question Id : 54947027260 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which of the following, a satisfactory statistical quantitative method should not possess?

Options :

Measurability

1. ✘

Flexibility

2. ✔

Appropriateness

3. ✘

Comparability

4. ✖

Question Number : 13 Question Id : 54947027261 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is specifically related to a research design?

- A. Designing Hypothesis
- B. Choice of field inquiry
- C. Sample selection
- D. Formulation of plan
- E. Deciding the tools to be employed in data collection

Options :

B, C, and D

1. ✖

A, B, and C

2. ✖

3. ✓ C, D, and E

4. ✘ B, D and E

Question Number : 14 Question Id : 54947027262 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The acronym SPSS stands for:

Options :

1. ✘ Software Package for Social Sciences

2. ✓ Statistical Package for Social Sciences

3. ✘ Statistical Package for Studies in sociology

4. ✘ Statistical Package for social studies

Is Section Default? :

null

Question Id : 54947027263 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Question Numbers : (15 to 21)

Read the following passage carefully and answer the questions from 15 to 21:

For the mobility-impaired, highly trained canines called ‘service dogs’ can pick up dropped keys, open and close drawers, retrieve prepared meals, help a person in and out of bathtub, dial 911, push and pull wheelchairs, help operate a car or van and pull off gloves, shoes, socks and jackets. Other dogs provide specific assistance to those who suffer seizures (sudden attacks of illness) and require special medication. And, of course, the helping dogs provide companionship, play and give unconditional love to the people they assist. It is thirty odd years now since the placement of the first assistance dog. But only in recent years, with the rising independent movement among disabled people has the idea begun to sored widely. While most service-dogs are trained to work with people who rely on wheelchairs, other categories of helping dogs include hearing –dogs who alert their owners to sounds, such as doorbells, phones, cooking times, alarm clocks, smoke alarms and seizure dogs which carry medication in their packs and are trained to dial 911 on large keypad phones.

Sub questions

Question Number : 15 Question Id : 54947027264 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which kind of dogs, alerts their owners to sounds, such as doorbells and phones?

Options :

1. ✘ Service dogs

2. ✘ Canines

3. ✘ Seizure dogs

4. ✔ Hearing dogs

Question Number : 16 Question Id : 54947027265 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The service-dogs are

Options :

1. ✘ Paid highly

2. ✘ Less in number

3. ✔ Multiple taskers

Employees

4. ✖

Question Number : 17 Question Id : 54947027266 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The idea of assistance dogs became popular due to

Options :

1. ✔

Independent movement among the disabled

2. ✖

awareness in hospitals

3. ✖

Independence of the country

4. ✖

Both independent movement among the disabled and awareness in hospitals

Question Number : 18 Question Id : 54947027267 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The categorie of helping –dogs is

Options :

domestic, service and seizure dogs

1. ✘

service, hearing and seizure dogs

2. ✔

hunting and domestic dogs

3. ✘

hearing and domestic dogs

4. ✘

**Question Number : 19 Question Id : 54947027268 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

The passage makes a distinct difference between

Options :

service and helping dogs

1. ✔

service dogs and canines

2. ✘

canines and ordinary dogs

3. ✘

Both service dogs and canines and canines and ordinary dogs

4. ✘

Question Number : 20 Question Id : 54947027269 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

State the noun form of ‘ trained’

Options :

train

1. ✘

trainer

2. ✘

training

3. ✔

trainee

4. ✖

Question Number : 21 Question Id : 54947027270 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which dogs are trained to work with people who rely on wheelchairs?

Options :

Hearing dogs

1. ✖

Siezure dogs

2. ✖

Service dogs

3. ✔

Street dogs

4. ✖

Is Section Default? : null

Question Number : 22 Question Id : 54947027271 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is Berol's Linear Model of communication?

Options :

1. ✘ S-M-R-C
2. ✘ S-R-M-C
3. ✔ S-M-C-R
4. ✘ S-R-C-M

Question Number : 23 Question Id : 54947027272 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Communication which has no beginning or end is known as _____

Options :

1. ✔ Process
2. ✘ Meditation

Interaction

3. ✘

Transaction

4. ✘

**Question Number : 24 Question Id : 54947027273 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Which of the following does not contribute to effective communication?

Options :

Adequate medium

1. ✘

Clarity in language

2. ✘

Listen poorly

3. ✔

Home communication skill

4. ✘

Question Number : 25 Question Id : 54947027274 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____An example of channel communication.

Options :

Face – to – face conversation

1. ✓

Noise

2. ✘

Feedback

3. ✘

Context

4. ✘

Question Number : 26 Question Id : 54947027275 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the following, which indicates the problem arising from expression?

Options :

Wrong assumption

1. ✘

Cultural barriers

2. ✘

Selecting perception

3. ✘

Semantic problems

4. ✔

Question Number : 27 Question Id : 54947027276 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In India, _____ is not the concern for mass media.

Options :

Privacy

1. ✘

Manipulation

2. ✘

Integration of society

3. ✔

Security

4. ✘

Question Number : 28 Question Id : 54947027277 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

2, 9, 28, 65, 126, 217, 344, _____

Options :

361

1. ✘

362

2. ✘

369

3. ✘

513

4. ✔

Question Number : 29 Question Id : 54947027278 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

B, D, G, I, L, N _____

Options :

1. ✘ N
2. ✘ O
3. ✔ Q
4. ✘ P

Question Number : 30 Question Id : 54947027279 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When “PAT” is coded as “QRBCUV”, then how will you code “GRACE”?

Options :

1. ✘ HISTBCDEGF
2. ✔ HISTBCDEFG
3. ✘ HISBTCDEFG

HISTBCEDFG

4. ✘

Question Number : 31 Question Id : 54947027280 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

E is the son of A; D is the son of B; E is married to C; C is the daughter of B. How is D related to E?

Options :

Brother

1. ✘

Uncle

2. ✘

Brother-in-law

3. ✔

Father-in-law

4. ✘

Question Number : 32 Question Id : 54947027281 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

$\frac{1}{5}$ th of Eiffel tower is painted with bronze, $\frac{1}{4}$ th maroon and the rest, golden. If the height of golden-colored part is 450m, what is the height of Eiffel tower?

Options :

2,250m

1. ✘

750m

2. ✔

1000m

3. ✘

1,250m

4. ✘

Question Number : 33 Question Id : 54947027282 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Pankaj from the home with a speed of 30km/h, reaches the school late by 20 minutes. Next day by increasing the speed by 15km/h, reached the school late by 8 minutes. How far is the school from home?

Options :

35 km

1. ✘

2. ✓ 18 km

3. ✘ 20km

4. ✘ 27km

Question Number : 34 Question Id : 54947027283 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If 30 men carry out a piece of work in 27 days, how many days is required for 18 men to perform another piece of work, which is 3 times bigger

Options :

1. ✓ 135 days

2. ✘ 120 days

3. ✘ 150 days

180 days

4. ✘

Question Number : 35 Question Id : 54947027284 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If two liters of water is evaporated by boiling 8 liters of sugar solution with 5% sugar, findout the percentage of sugar in the remaining solution?

Options :

1. ✘ 8%

2. ✔ $6\frac{2}{3}\%$

3. ✘ 9%

4. ✘ 10%

Question Number : 36 Question Id : 54947027285 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A reasoning started with a particular statement and concluded with a universal statement is known as _____

Options :

Deductive reasoning

1. ✘

Transcendental reasoning

2. ✘

Inductive reasoning

3. ✔

Abnormal reasoning

4. ✘

Question Number : 37 Question Id : 54947027286 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is not an argument?

Options :

Devadutt does not eat during day, so he must be eating at night.

1. ✘

Devadutt eats in the night, so he does not eat during the day

2. ✘

If Devadutt is growing fat and if he does not eat during the day, he will be eating at night.

3. ✔

Since Devadutt does not eat in the day, he must be eating in the night.

4. ✘

Question Number : 38 Question Id : 54947027287 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Two propositions with the same subject and predicate terms, but different in quality are termed as:

Options :

Contrary

1. ✘

Subaltern

2. ✘

Subalternation

3. ✘

Contradictory

4. ✓

Question Number : 39 Question Id : 54947027288 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Inductive reasoning presupposes _____

Options :

God created the world

1. ✘

Uniformity of nature

2. ✘

Law of the nature

3. ✘

Unity of nature.

4. ✓

Question Number : 40 Question Id : 54947027289 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Venn diagram is a kind of diagram to

Options :

1. ✘ Represent but not assess the validity of elementary inferences of syllogistic form.
2. ✔ Represent and assess the validity of elementary inferences of syllogistic form.
3. ✘ Represent and assess the truth of elementary inferences of syllogistic form.
4. ✘ Assess but not represent the truth of elementary inferences of syllogistic form.

Question Number : 41 Question Id : 54947027290 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Indian school of logic uses _____pramana to prove the existence of God.

Options :

1. ✘ Arthapatti
2. ✔ Anumana

Upamana

3. ✖

Pratyaksha

4. ✖

Question Number : 42 Question Id : 54947027291 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ Concept of Indian logic system denotes circumstantial implication.

Options :

Upamana

1. ✖

Anupalabdi

2. ✖

Pratyaksa

3. ✖

Arthapatti

4. ✔

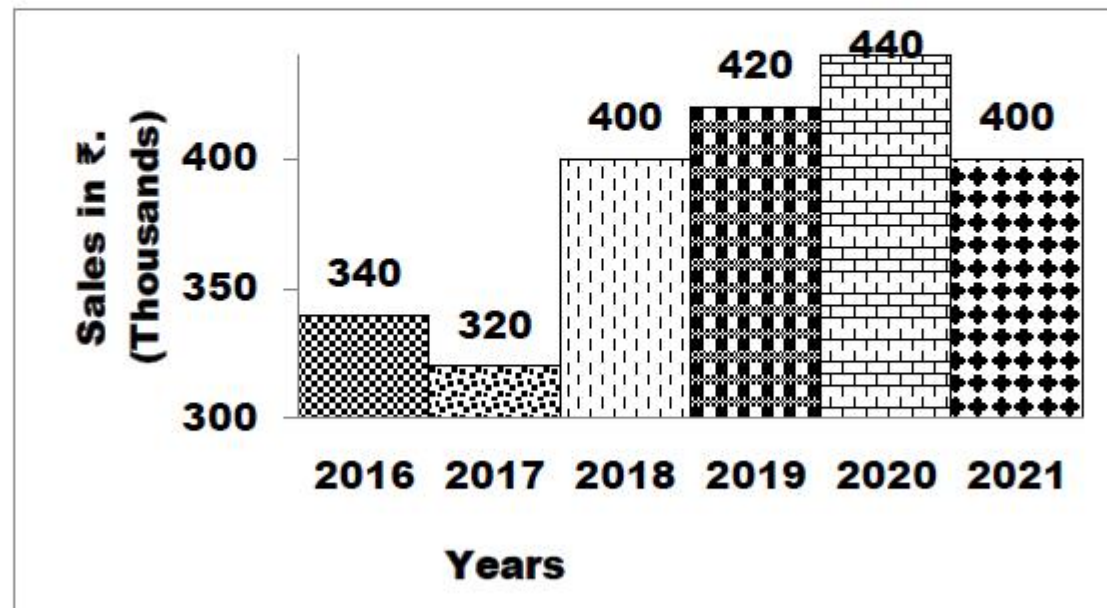
Is Section Default? :

null

Question Id : 54947027292 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0
Question Numbers : (43 to 45)

Note:

Study the following bar chart carefully and answer the questions 43 to 45. It gives sales (in thousands) of a product over years 2016 - 2021.



Sub questions

Question Number : 43 Question Id : 54947027293 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are the average sales for the period 2018 to 2021?

Options :

1. ✘ 425

2. ✘ 430

3. ✘ 420

4. ✔ 415

Question Number : 44 Question Id : 54947027294 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The sales of 2017 are _____ times of sales 2018.

Options :

1. ✘ 1.25

2. ✔ 0.8

3. ✘ 8.25

8

4. ✘

Question Number : 45 Question Id : 54947027295 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In which year, the percentage of increase over the previous year is the least?

Options :

1. ✘ 2016

2. ✔ 2020

3. ✘ 2018

4. ✘ 2019

Is Section Default? : null

Question Id : 54947027296 Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (46 to 49)

Note:

Study the following table carefully and answer the questions from 46 to 49. It consists of data on marks obtained by various candidates in different subjects

Students	Subjects (Max Marks)					
	Maths (150)	Chemistry (130)	Physics (120)	Geography (100)	History (100)	Comp Science (100)
Ayush	90	50	90	60	70	80
Aman	100	80	80	40	80	70
Sajal	90	60	70	70	90	70
Rohit	80	65	80	80	60	60
Muskan	80	65	85	95	50	90
Tanvi	70	75	65	85	40	60
Tarun	65	35	50	77	80	80

Sub questions

Question Number : 46 Question Id : 54947027297 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Who among the following has obtained the highest aggregate marks?

Options :

1. ✘ Ayush

2. ✘ Aman

3. ✘ Sajal

4. ✔ Muskan

Question Number : 47 Question Id : 54947027298 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the average of marks obtained by all candidates in Physics?

Options :

1. ✘ 62.85

2. ✔ 74.28

3. ✘ 78.52

4. ✘ No answer

Question Number : 48 Question Id : 54947027299 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the average of marks obtained by Aman for all subjects?

Options :

1. ✘ 72

2. ✔ 75

3. ✘ 80

4. ✘ 85

Question Number : 49 Question Id : 54947027300 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the approximate percentage of marks obtained by Ayush?

Options :

1. ✘ 72

2. ✔ 73

3. ✘ 75

4. ✘ 78

Is Section Default? : null

Question Number : 50 Question Id : 54947027301 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following employs asynchronous communication?

- A) Video conferencing
- B) Email
- C) Forums
- D) Instant messaging

Choose the correct option.

Options :

1. ✘ A and C

2. ✘ B and D

3. ✔ B and C

4. ✘ A and D

Question Number : 51 Question Id : 54947027302 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Read the following two statements:

A) ICT is considered a subset of IT.

B) The “right to use” a piece of software is termed as copyright.

Which of the above statements(s) is/are correct?

Options :

1. ✔ Neither (A) nor (B)

2. ✘ Both (A) and (B)

3. ✘ (B) only

4. ✘ (A) only

Question Number : 52 Question Id : 54947027303 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following can be taken the digital library for education?

Options :

1. ✘ Swayam

2. ✘ MOOC

3. ✘ Sakshat

4. ✔ NPTEL

Question Number : 53 Question Id : 54947027304 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following lists computer memory sequentially from highest to lowest speed?

Options :

1. ✘ Secondary storage; Main Memory (RAM); Cache Memory; CPU Registers
2. ✘ CPU Registers; Cache Memory; Secondary storage; Main Memory (RAM)
3. ✘ Cache Memory; CPU Registers; Main Memory (RAM); Secondary Storage
4. ✔ CPU Registers; Cache Memory; Main Memory (RAM); Secondary Storage

Question Number : 54 Question Id : 54947027305 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Each computer connected to the internet should

Options :

1. ✘ Be an IBM PC
2. ✔ Have a unique IP address
3. ✘ Have a modern connection
4. ✘ Be internet compatible

Question Number : 55 Question Id : 54947027306 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following is exact format of Email address?

Options :

1. ✔ name@website.info
2. ✘ name@website@info
3. ✘ www.nameofebsite.com

name.website.com

4. ✖

**Question Number : 56 Question Id : 54947027307 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

_____ is the oldest soap opera telecasted in India.

Options :

Kahani Ghar Ghar Ki

1. ✖

Buniyaad

2. ✖

Kyunki Saas Bhi Kabhi Bahu Thee

3. ✖

Hum Log

4. ✔

**Question Number : 57 Question Id : 54947027308 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Indicate the name of the research station established for conducting research at Antarctica by Government of India

Options :

Yamunotri

1. ✘

UttariGangotri

2. ✘

DakshinGangotri

3. ✔

None of these.

4. ✘

Question Number : 58 Question Id : 54947027309 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following are priority areas related to the sustainable development Goals?

- i. No poverty
- ii. Peace, Justice and strong institutions
- iii. Zero hunger
- iv. Reducing urbanization

Choose the correct answer from the options given below.

Options :

(i) , (iii), (iv)

1. ✘

(ii), (iii), (iv)

2. ✘

(i), (ii), (iv)

3. ✘

(i), (ii), (iii)

4. ✔

Question Number : 59 Question Id : 54947027310 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The common feature between NO_2 , SO_2 , CO and SPM is _____

Options :

Are greenhouse gases

1. ✘

Are classified as secondary pollutants

2. ✘

Are classified as primary pollutants

3. ✔

Have equal role in causing acid rain

4. ✘

**Question Number : 60 Question Id : 54947027311 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Given below are an assertion and a reason:

Assertion (A):

Methaemoglobinaemia is a condition wherein blood is unable to carry and deliver enough oxygen to the body.

Reason (R):

Consumption of drinking water with high nitrate level may lead to Methaemoglobinaemia.

Choose the correct answer from the options given below:

Options :

1. ✘ Both (A) and (R) are true but (R) is not the correct explanation of (A).
2. ✔ Both (A) and (R) are true and (R) is the correct explanation of (A).
3. ✘ (A) is true, but (R) is false
4. ✘ (A) is false, but (R) is true.

Which of the following gases has the highest global warming potential?

Options :

Carbon dioxide

1. ✘

Sulphur hexafluoride

2. ✔

Chlorofluorocarbon

3. ✘

Methane

4. ✘

Question Number : 62 Question Id : 54947027313 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the percentage occurrence of earthquakes at plate boundaries?

Options :

90

1. ✔

2. ✘ 50

3. ✘ 80

4. ✘ 75

Question Number : 63 Question Id : 54947027314 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In which year, India Government has announced the National Action plan on Climate Change?

Options :

1. ✘ 2005

2. ✘ 2009

3. ✔ 2008

4. ✘ 2012

Question Number : 64 Question Id : 54947027315 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Radhakrishnan Commission, opined that the aim of Higher Education should be

Options :

1. ✘ To inculcate values Peace and harmony.

2. ✘ To develop great personalities who can contribute to politics, administration, industry and commerce

3. ✘ To impart traditional education to students.

4. ✔ To inculcate values Peace and harmony, and also develop great personalities who can contribute to politics, administration, industry and commerce

Question Number : 65 Question Id : 54947027316 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Value education makes a student.

Options :

Successful businessman

1. ✘

Good teacher

2. ✘

Able manager

3. ✘

Good citizen.

4. ✔

Question Number : 66 Question Id : 54947027317 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Among the appointees of the Governor, _____ can be removed by the President of India only?

Options :

Vice-Chancellor of a State University

1. ✘

Advocate-General

2. ✘

A member of the State Public Service Commission

3. ✓

Chief Minister of a State.

4. ✘

**Question Number : 67 Question Id : 54947027318 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

Where and when was the Second Buddhist Council held?

Options :

Sri Lanka in the first century BCE

1. ✘

Vaishali in 383 BCE

2. ✓

Pataliputra in 250 BCE

3. ✘

Mandalay in 1871 CE

4. ✘

Question Number : 68 Question Id : 54947027319 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In which of the following year, the Universities in the presidency towns were established in India?

Options :

1858

1. ✘

1857

2. ✔

1900

3. ✘

1909

4. ✘

Question Number : 69 Question Id : 54947027320 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

According to National Educational Policy, 2020, the Gross Enrolment Ratio in higher education would increased to _____ percent by 2035.

Options :

40

1. ✘

2. ✓ 50

3. ✘ 60

4. ✘ 70

Question Number : 70 Question Id : 54947027321 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In which of the following states, 50th Central University was established?

Options :

1. ✘ Tamil Nadu

2. ✓ Telangana

3. ✘ Tripura

4. ✘ Andhra Pradesh.

Bio Technology

Section Id :	549470384
Section Number :	2
Mandatory or Optional :	Mandatory
Number of Questions :	70
Section Marks :	70
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 71 Question Id : 54947027322 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

One can estimate the length M-phase by knowing the

Options :

1. ✘ S phase
2. ✘ Age of the cell
3. ✘ Generation time
4. ✔ Mitotic index

Question Number : 72 Question Id : 54947027323 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ triggers the release of PDGF to promote fibroblast division.

Options :

1. ✘ Organ failure
2. ✘ Electrolyte imbalance
3. ✔ Tissue Injury
4. ✘ Starvation

Question Number : 73 Question Id : 54947027324 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider this pathway: epinephrine → G-protein-linked receptor → G-protein → adenylyl cyclase → cAMP →. Identify the second messenger

Options :

1. ✘ GTP
2. ✘ G-protein
3. ✔ cAMP
4. ✘ Adenylyl cyclase

Question Number : 74 Question Id : 54947027325 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An bacterial operon contains three structural genes A, B and C in the same order. If polar mutation occurs in gene B, then the effect in protein would be observed in

Options :

1. ✘ in all proteins A,B and C
2. ✘ only in B and C
3. ✔ only in B
4. ✘ complete loss of proteins

Question Number : 75 Question Id : 54947027326 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Mitotic chromosomes are transcriptionally inactive because

Options :

1. ✘ Ribonucleoside triphosphates are sparingly available as they walk over to cytoplasm in the absence of a nuclear membrane
2. ✘ Energy needed for transcription is diverted towards spindle-apparatus formation

3. ✓ RNA polymerase, especially its σ -factor, gets denatured after getting combined with spindle forming molecules

4. ✘ Condensed form of chromatin prevents RNA polymerase from gaining access to DNA

Question Number : 76 Question Id : 54947027327 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The process that occurs at the 5' position of cytidine and often correlates with gene inactivation is

Options :

1. ✘ Gene conversion

2. ✘ Pseudogene

3. ✘ Gene rearrangement

4. ✓ DNA methylation

Question Number : 77 Question Id : 54947027328 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following compounds does not act as second messenger during signal processing?

Options :

1. ✘ cAMP
2. ✘ calcium ions
3. ✘ inositol 3,4,5-triphosphate
4. ✔ Triacylglycerol

Question Number : 78 Question Id : 54947027329 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

One of the given below is a correct combination of structural polysaccharides?

Options :

1. ✘ Cellulose, Starch, Glycogen
2. ✘ Cellulose, Chitin, Glycogen
3. ✔ Cellulose, Hemicellulose, Hyaluronic acid

Hemicellulose, Starch, Glycogen

4. ✘

Question Number : 79 Question Id : 54947027330 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ are the common structural components of heme and primary plant pigments.

Options :

1. ✘ Indole ring
2. ✔ Pyrrole ring
3. ✘ Benzene ring
4. ✘ Furan ring

Question Number : 80 Question Id : 54947027331 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The hyperchromic effect refers to

Options :

1. ✘ a change in the Optical Rotatory Dispersion of a DNA solution upon heating
2. ✘ a maximum rate of denaturation versus temperature for duplex DNA

3. ✓ an increase in the absorbance of light at 260 nm upon denaturation of DNA.

4. ✘ an increase in the absorbance of light at 260 nm when DNA-RNA hybrids are annealed.

Question Number : 81 Question Id : 54947027332 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When all or a piece of a chromosome becomes attached to another chromosome, the aberration is called a/ an

Options :

1. ✓ translocation

2. ✘ duplication

3. ✘ deletion

4. ✘ inversion

Question Number : 82 Question Id : 54947027333 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Binding of a signal molecule to which type of receptor leads directly to a change in the distribution of anions and/or cations on opposite sides of the membrane?

Options :

1. ✓ Ligand-gated ion channel
2. ✗ Phosphorylated receptor tyrosine kinase dimer
3. ✗ G-protein-linked receptor
4. ✗ Receptor tyrosine kinase

Question Number : 83 Question Id : 54947027334 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Copy number is defined as _____ in a single bacterial cell.

Options :

1. ✓ the number of plasmid DNA molecules present
2. ✗ the number of genomic DNA molecules
3. ✗ Both A and B together
4. ✗ Neither A nor B

Question Number : 84 Question Id : 54947027335 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Binding of single molecule to which type of receptor leads directly to a change in the distribution of anions and/or cations on opposite sides of the membrane?

Options :

1. ✘ Receptor tyrosine kinase
2. ✘ G-protein-linked receptor
3. ✘ Phosphorylated receptor tyrosine kinase dimer
4. ✔ Ligand-gated ion channel

Question Number : 85 Question Id : 54947027336 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Extra nuclear genetic material is found in

Options :

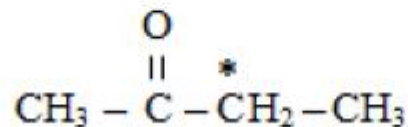
1. ✘ Ribosome
2. ✘ ER

3. ✓ Chloroplast

4. ✗ Centriole

Question Number : 86 Question Id : 54947027337 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is the multiplicity expected in the hydrogen NMR spectrum for the hydrogen atoms marked by a 'star' in the following compound?



Options :

1. ✓ Quartet

2. ✗ Heptet

3. ✗ Singlet

4. ✗ Triplet

Question Number : 87 Question Id : 54947027338 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following methods would give you the most precise and accurate information about where and when a given gene is expressed?

Options :

1. ✘ Insitu hybridization
2. ✘ Protein microarray
3. ✔ DNA microarray
4. ✘ Reporter gene fusion including introns

Question Number : 88 Question Id : 54947027339 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Elevated temperature of a column in HPLC may facilitate/lead to _____.

Options :

1. ✘ evaporation of analyte
2. ✘ bleeding
3. ✘ low resolution
4. ✔ increase in efficiency

Question Number : 89 Question Id : 54947027340 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A linear DNA fragment is (100%) labeled at one end and has three restriction sites for *Eco* RI. If it is partially digested by *Eco* RI so that all possible fragments are produced, how many of these fragments will be labeled and how many will not be labeled?

Options :

1. ✘ 4 labeled, 4 unlabeled
2. ✘ 3 labeled, 5 unlabeled
3. ✔ 4 labeled, 6 unlabeled
4. ✘ 3 labeled, 3 unlabeled

Question Number : 90 Question Id : 54947027341 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The sedimentation velocity of a particle increases with.

Options :

1. ✘ decrease in diameter
2. ✔ increase in diameter

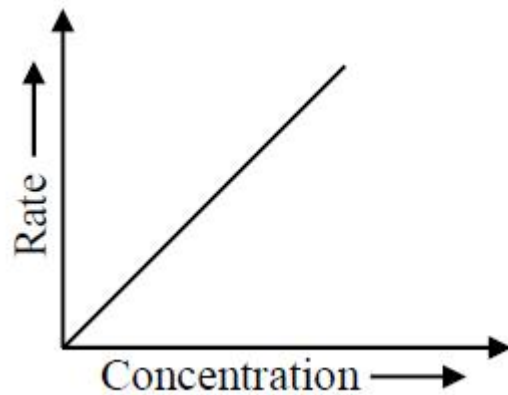
3. ✖ increase in length

4. ✖ decrease in length

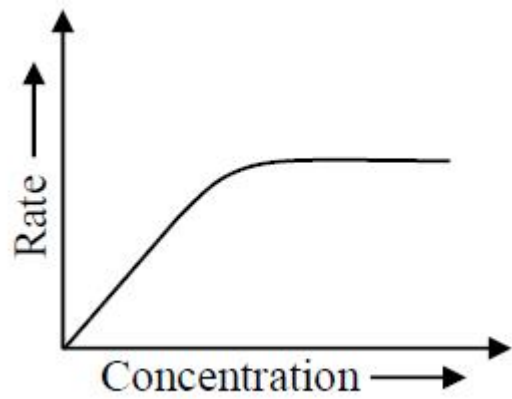
Question Number : 91 Question Id : 54947027342 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which one of the following graphs best represents the effect of substrate concentration on the rate of enzyme reaction?

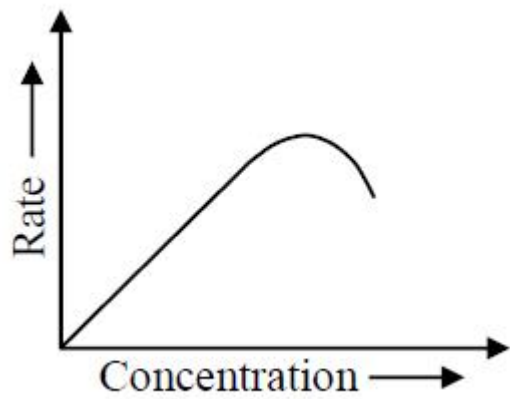
Options :



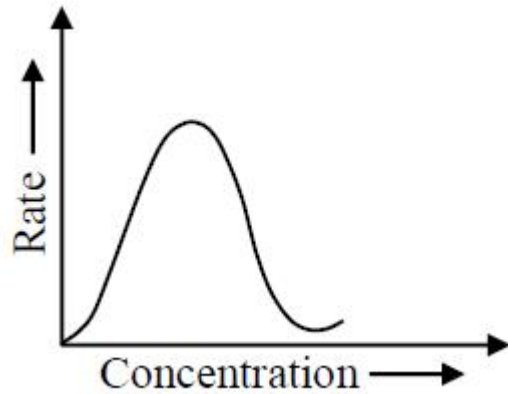
1. ✖



2. ✓



3. ✘



4. ✘

Question Number : 92 Question Id : 54947027343 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When substance A was added to an enzyme reaction, product formation decreased. The addition of more substrate did not increase product formation. From this we conclude that substance A could be

Options :

1. ✘ a cofactor
2. ✘ an allosteric enzyme
3. ✘ a competitive inhibitor
4. ✔ a non-competitive inhibitor

Question Number : 93 Question Id : 54947027344 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Antibiotic treatment regime is always prescribed in combination with multivitamin tablets to meet predominantly _____ requirement in the body.

Options :

1. ✘ cofactor
2. ✔ coenzyme
3. ✘ both cofactor and coenzyme
4. ✘ neither cofactor nor coenzyme

Question Number : 94 Question Id : 54947027345 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Transport of activated _____ is facilitated by _____ from cytosol to mitochondria during lipid oxidation.

Options :

1. ✘ bile acid, carnitine
2. ✔ fatty acid, carnitine
3. ✘ bile acid, creatine

fatty acid, creatine

4. ✘

Question Number : 95 Question Id : 54947027346 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The catalytic efficiency for an enzyme is defined as

Options :

1. ✔ k_{cat} / K_M

2. ✘ V_{max} / k_{cat}

3. ✘ k_{cat}

4. ✘ k_{cat} / V_{max}

Question Number : 96 Question Id : 54947027347 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a DNA molecule cytosine is 18%. Percentage of adenine would be

Options :

1. ✘ 32%

2. ✘ 64%

3. ✓ 36%

4. ✗ 18%

Question Number : 97 Question Id : 54947027348 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The property of “monocistronic” predominantly exhibited by _____.

Options :

1. ✗ Viruses

2. ✗ Bacteria

3. ✓ Eukaryotes

4. ✗ Prions

Question Number : 98 Question Id : 54947027349 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The total amount of DNA in a haploid genome and correlation between genome size and complexity is/are called as _____.

Options :

1. ✓ C-value and C-value paradox respectively
2. ✘ C-value paradox and C-value respectively
3. ✘ C-value only
4. ✘ C-value paradox only

Question Number : 99 Question Id : 54947027350 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Wobble base pairs function during protein synthesis by allowing a non Watson-Crick base pair to be formed between?

Options :

1. ✓ G at 5' end of the anticodon and U at the 3' end of the codon
2. ✘ G at the 3' end of the anticodon and U at the 5' end of the codon
3. ✘ A at the 5' end of the anticodon and G at the 3' end of the codon
4. ✘ A at the 3' end of the anticodon and G at the 5' end of the codon

Question Number : 100 Question Id : 54947027351 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Homologous DNA recombination mainly benefits cells by its role in

Options :

1. ✓ post replication repair of DNA
2. ✗ genetic recombination
3. ✗ unnatural recombination used by biotechnology
4. ✗ retroviral integration into the genome

Question Number : 101 Question Id : 54947027352 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Germ-line gene therapy

Options :

1. ✓ Heritable
2. ✗ Not heritable
3. ✗ Sometimes heritable
4. ✗ Unrelated to heritability

Question Number : 102 Question Id : 54947027353 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Type II restriction enzymes are highly dependent on _____ for their activity?

Options :

1. ✘ Fe^{2+}

2. ✘ Ca^{2+}

3. ✔ Mg^{2+}

4. ✘ Mn^{2+}

Question Number : 103 Question Id : 54947027354 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Carriers of a genetic disorder

Options :

1. ✘ Are indicated by solid symbols on a family pedigree

2. ✘ Are involved in consanguineous matings

3. ✘ Will produce children with the disease

4. ✓ Are heterozygotes for the gene that can cause the disorder

Question Number : 104 Question Id : 54947027355 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Extra chromosomal inheritance is the characteristic of

Options :

1. ✘ Virus
2. ✘ Archaeobacteria
3. ✘ Prokaryotes
4. ✓ Eukaryotes

Question Number : 105 Question Id : 54947027356 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Mice which differ from a chosen strain by a single chromosomal region, containing the gene under study is called as

Options :

1. ✘ Syngenic mice
2. ✘ Perigenic mice

3. ✓ Congenic mice

4. ✘ Agenic mice

Question Number : 106 Question Id : 54947027357 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The predominant antibody in saliva is

Options :

1. ✘ IgG

2. ✓ IgA

3. ✘ IgM

4. ✘ IgD

Question Number : 107 Question Id : 54947027358 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Immunological Synapse is constituted by_____

Options :

1. ✓ MHC, TCR and Antigenic peptide

2. ✘ MHC, CD4 and CD8
3. ✘ MHC, CD8 and TCR
4. ✘ MHC, CD4 and TCR

Question Number : 108 Question Id : 54947027359 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the cytokine that mediates systemic inflammation?

Options :

1. ✘ IL-10
2. ✔ TNF
3. ✘ TGF
4. ✘ NGF

Question Number : 109 Question Id : 54947027360 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Inflammation reaction is brought about by

Options :

1. ✘ Plasma cells
2. ✔ Mast cells
3. ✘ Macrophages
4. ✘ Adipose cells

Question Number : 110 Question Id : 54947027361 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The cells active in production of antibodies are

Options :

1. ✘ Kupffer cells
2. ✔ Plasma cells
3. ✘ Mast cells
4. ✘ Langerhans cells

Question Number : 111 Question Id : 54947027362 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The central region of blastodisc is known as

Options :

1. ✓ Area pellucida
2. ✘ Area vitellina
3. ✘ Area opaca
4. ✘ Area vasculosa

Question Number : 112 Question Id : 54947027363 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In humans, an individual with an XXY chromosomal complement will develop as

Options :

1. ✓ A male
2. ✘ A female
3. ✘ An hermaphrodite
4. ✘ A super female

Question Number : 113 Question Id : 54947027364 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Cartilage (bone forming tissue) and connective tissue of the vertebrate limb form from

Options :

1. ✘ The ectodermal epithelium of the limb bud
2. ✔ The mesodermal mesenchyme of the limb bud, derived from lateral plate ectoderm
3. ✘ Mesodermal cells that migrate into the limb bud from the somites
4. ✘ The polarizing region

Question Number : 114 Question Id : 54947027365 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What type of cell-cell signaling protein exerts its effect in gene expression through a receptor that is a transcription factor?

Options :

1. ✘ The Wnt protein
2. ✘ The Hedgehog protein, whose receptor is patched

3. ✘ Peptides like EGF and FGF, whose receptors are tyrosine kinases

4. ✔ Hydrophobic molecules like steroid hormones and retinoic acid

Question Number : 115 Question Id : 54947027366 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The process by which developing cells achieve their functional, mature identity as liver or muscle or nerve is called

Options :

1. ✘ Cleavage division

2. ✘ Pattern formation

3. ✘ Morphogenesis

4. ✔ Differentiation

Question Number : 116 Question Id : 54947027367 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Disarming of Ti plasmid refers to:

Options :

1. ✔ Removal of T-DNA only

2. ✘ Removal of 25bp repeats
3. ✘ Removal of T-DNA and 25bp repeats
4. ✘ Either removal of T-DNA or removal of 25bp repeats

Question Number : 117 Question Id : 54947027368 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Biochemically, Bt toxin is a:

Options :

1. ✔ protein
2. ✘ nucleic acid
3. ✘ carbohydrate
4. ✘ lipid

Question Number : 118 Question Id : 54947027369 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Hormone pairs required for a callus to differentiate are

Options :

1. ✓ Auxin and cytokinin
2. ✗ Auxin and gibberellin
3. ✗ Ethylene and gibberellin
4. ✗ Cytokinin and gibberellin

Question Number : 119 Question Id : 54947027370 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Plant breeders have an advantage over animal breeders in reproducing a desired type offspring because the plant breeders can employ

Options :

1. ✗ Gene mutation
2. ✗ Hybridization
3. ✓ Clonal propagation
4. ✗ Selection

Question Number : 120 Question Id : 54947027371 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In ATP synthesis, F_0 acts as

Options :

1. ✓ H^+ channel
2. ✗ Cl^- carrier
3. ✗ Electron carrier
4. ✗ ATPase

Question Number : 121 Question Id : 54947027372 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A heterologous protein to be expressed in the milk of a transgenic animal should be under the control of the promoter of the gene coding for

Options :

1. ✗ β - globin
2. ✓ β - lacto globulin
3. ✗ Prepro insulin

4. ✘ *lac Z*

Question Number : 122 Question Id : 54947027373 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which among the below is a major supplier of growth factors in animal cell culture technique?

Options :

1. ✔ FBS/FCS

2. ✘ BSA

3. ✘ HSA

4. ✘ OVA

Question Number : 123 Question Id : 54947027374 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following cells would be considered differentiated?

Options :

1. ✘ Blastomers

2. ✘ Spemann organizer

3. ✘ Myotome of the somate

4. ✔ Muscle cells

Question Number : 124 Question Id : 54947027375 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Cells deficient in hypoxanthine guanine phosphoribosyl-transferase (HPRT) enzyme rely on

Options :

1. ✘ Synthesis of purine deoxynucleotides by salvage pathway

2. ✔ Synthesis of purine deoxynucleotides by denovo pathway

3. ✘ Supply of hypoxanthine in the culture medium

4. ✘ Supply of thymidine in the culture medium

Question Number : 125 Question Id : 54947027376 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Animal cell culture is quite popular in raising

Options :

1. ✘ Hormones
2. ✘ Enzymes
3. ✘ Bacteria
4. ✔ Vaccine

Question Number : 126 Question Id : 54947027377 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In 1984, the Bhopal gas tragedy took place because methyl isocyanate

Options :

1. ✘ Reacted with CO₂
2. ✘ Reacted with DDT
3. ✘ Reacted with ammonia
4. ✔ Reacted with H₂O

Question Number : 127 Question Id : 54947027378 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

DDT and chlordane are agricultural chemicals that were once used widely but have now been banned in the United States. They belong to a class of compounds called

Options :

1. ✘ Chlorofluorocarbons
2. ✔ Chlorinated hydrocarbons
3. ✘ Fossil fuels
4. ✘ Acid precipitation

Question Number : 128 Question Id : 54947027379 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

CO is more toxic than CO₂ because

Options :

1. ✘ It affects the nervous system
2. ✘ It damages lungs
3. ✔ It reduces the oxygen carrying capacity of the haemoglobin

It forms acid with water

4. ✘

Question Number : 129 Question Id : 54947027380 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purity of bio ethanol or methylated spirit produced by fermentation is:

Options :

1. ✘ 99%

2. ✘ 99.5%

3. ✘ 99.2%

4. ✔ 99.7%

Question Number : 130 Question Id : 54947027381 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The theoretical growth of an organism is usually _____ the actual growth

Options :

1. ✘ Smaller than

2. ✘ Equal to

3. ✓ Greater than

4. ✘ Below the biotic potential of

Question Number : 131 Question Id : 54947027382 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The final electron acceptor in lactic acid fermentation is:

Options :

1. ✘ Lactate

2. ✓ Pyruvate

3. ✘ Sulphur

4. ✘ Oxygen

Question Number : 132 Question Id : 54947027383 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ultrafiltration process cannot be used for

Options :

1. ✘ Fractionation of proteins

2. ✘ Desalting
3. ✔ Harvesting of cells
4. ✘ Selective removal of solvent

Question Number : 133 Question Id : 54947027384 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Enzyme papain is used with success to

Options :

1. ✘ Increase meat production
2. ✘ Leaven bread
3. ✔ Tenderize meat
4. ✘ Ripen papaya fruit

Question Number : 134 Question Id : 54947027385 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Sodium Dodecyl sulphate (SDS) is used while separating proteins by polyacrylamide gel electrophoresis because

Options :

1. ✘ It helps in solubilization of proteins thereby making it easier to separate
2. ✔ It binds to proteins and confers uniform negative charge density thereby making them during electrophoresis
3. ✘ Decreases the surface tension of a buffer used for electrophoresis
4. ✘ Stabilizes the protein

Question Number : 135 Question Id : 54947027386 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In large scale fermentation process, air is sterilized by

Options :

1. ✘ Jute fiber
2. ✘ Membrane
3. ✘ Cotton fiber
4. ✔ Glass wool fiber

Question Number : 136 Question Id : 54947027387 Display Question Number : Yes Is Question Mandatory : No Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Phylogenetic relationship can be better understood by a:

Options :

1. ✓ Multiple sequence alignment
2. ✘ Dendrogram
3. ✘ Docking
4. ✘ FASTA

**Question Number : 137 Question Id : 54947027388 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

FASTA program is more sensitive for the comparison of

Options :

1. ✓ DNA- DNA comparison sequence
2. ✘ DNA-RNA comparison sequence
3. ✘ DNA-protein comparison sequence
4. ✘ Protein-protein comparison sequence

Question Number : 138 Question Id : 54947027389 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

_____ is the number of different alignment with score equal to or better than substitution score that are expected to occur by chance in a database search of this particular database

Options :

1. ✘ P-value
2. ✘ S-score
3. ✔ E-value
4. ✘ G-score

Question Number : 139 Question Id : 54947027390 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which of the following webserver is used to identify protein domains

Options :

1. ✘ BLOCKS
2. ✘ SMART

3. ✘ DomFISH

4. ✔ All of these

**Question Number : 140 Question Id : 54947027391 Display Question Number : Yes Is Question Mandatory : No Calculator : None
Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

A successful scientific experiment will result only in

Options :

1. ✘ Rejection of one or more hypothesis

2. ✔ Proving a hypothesis

3. ✘ Accepting many hypothesis

4. ✘ Confirming predictions