

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 :	Biotechnology 3rd May 2024 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 :	971036427
Section Number :	1
Mandatory or Optional :	Mandatory
Number of Questions :	66
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 : 97103630034 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 main objective of teaching?

Options :

1. ✘ To give information related to the syllabus
2. ✘ Help the students in getting jobs
3. ✔ To develop thinking capability of students

4. ✘ Prepare the students for examination.

Question Number : 2 Question Id : 97103630035 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 level of teaching learning?

Options :

1. ✘ Memory level

2. ✔ Differentiation level

3. ✘ Reflective level

4. ✘ Understanding level

Question Number : 3 Question Id : 97103630036 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

An effective teacher will ensure _____

Options :

1. ✘ Laissez-failure

2. ✘ Competition among students

3. ✔ Competition or cooperation as the situation demands

4. ✘ Cooperation among his students

Question Number : 4 Question Id : 97103630037 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Morphograph is the term associated with _____

Options :

1. ✔ Corrective spelling
2. ✘ Corrective learning
3. ✘ Corrective behavior
4. ✘ Corrective reading

Question Number : 5 Question Id : 97103630038 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 associated with micro-teaching ?

Options :

1. ✘ Knowledge acquiring
2. ✘ Skill training
3. ✔ Atomic teaching procedure

4. ✘ Content transfer

Question Number : 6 Question Id : 97103630039 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The main aim of 'National Council for Teacher Education' is _____

Options :

1. ✘ To promote research in education
2. ✔ To maintain standards in colleges of education
3. ✘ To provide grant to colleges of education
4. ✘ To open colleges in education

Question Number : 7 Question Id : 97103630040 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 a Massive Open Online Course (MOOCs) platform created by the MHRD, Govt. of India?

Options :

1. ✔ SWAYAM
2. ✘ PRATHAM

3. ✘ OPEN LEARN

4. ✘ FUTURE LEARN

Question Number : 8 Question Id : 97103630041 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 belong to a projected aid?

Options :

1. ✘ Overhead projector

2. ✔ Black board

3. ✘ Epidiascope

4. ✘ Slide projector

Question Number : 9 Question Id : 97103630042 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of formative evaluation is to _____

Options :

1. ✔ Accelerate student's learning performance

2. ✘ Provide a feedback to teacher effectiveness
3. ✘ Grade students learning outcomes
4. ✘ Check student's performance graph

Question Number : 10 Question Id : 97103630043 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assertion (A): Learning is a lifelong process

Reason (R): Learning to be useful must be linked with life process.

Choose correct answer from the following

Options :

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

Question Number : 11 Question Id : 97103630044 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

'Gyan Darshan' launched by IGNOU refers to which one of the following?

Options :

1. ✓ Satellite based educational T.V. channel
2. ✗ Educational F.M radio network
3. ✗ Global initiative of academic networks
4. ✗ Online courses

Question Number : 12 Question Id : 97103630045 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 sets of activities best indicate the cyclic nature of action research strategy?

Options :

1. ✗ Reflect, Observe, Plan, Act
2. ✓ Plan, Act, Observe, Reflect
3. ✗ Act, Plan, Observe, Reflect
4. ✗ Observe, Act, Reflect, Plan

Question Number : 13 Question Id : 97103630046 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 research types has a potential for enhancing teaching competencies?

Options :

1. ✘ Fundamental research
2. ✘ Applied research
3. ✘ Impact assessment research
4. ✔ Action research

Question Number : 14 Question Id : 97103630047 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 main aim of interdisciplinary research?

Options :

1. ✔ To bring out holistic approach to research
2. ✘ To over simplify the problem of research
3. ✘ To reduce the emphasis of single subject in research domain
4. ✘ To create a new trend in research methods

Question Number : 15 Question Id : 97103630048 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Manipulation is always a part of _____

Options :

1. ✘ Fundamental research
2. ✘ Descriptive research
3. ✔ Experimental research
4. ✘ Historical research

Question Number : 16 Question Id : 97103630049 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A thesis statement is _____

Options :

1. ✘ A fact
2. ✘ An observation
3. ✘ A discussion
4. ✔ An Assumption

Question Number : 17 Question Id : 97103630050 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 an indication of the quality of a research journal?

Options :

1. ✘ g-index
2. ✘ h-index
3. ✔ impact factor
4. ✘ i10-index

Question Number : 18 Question Id : 97103630051 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A hypothesis is a _____

Options :

1. ✘ Postulate
2. ✘ Law
3. ✘ Canon
4. ✔ Supposition

Question Number : 19 Question Id : 97103630052 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ethical norms in research do not involve guidelines for _____

Options :

1. ✘ Copyright

2. ✔ Thesis format

3. ✘ Patenting policy

4. ✘ Data sharing policies

Question Number : 20 Question Id : 97103630053 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 a research tool?

Options :

1. ✘ Illustration

2. ✘ Graph

3. ✔ Questionnaire

4. ✖ Diagram

Is Section Default? : null

Question Id : 97103630054 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 : (21 to 25)

Read the Passage and answer the following questions:

The Taj Mahal has become one of the world's best known monuments. This domed white marble structure is situated on a high plinth at the southern end of a four-quartered garden, evoking the gardens of paradise, enclosed within walls measuring 305 by 549 metres. Outside the walls, in an area known as Mumtazabad, were living quarters for attendants, markets, serais and other structures built by local merchants and nobles. The tomb complex and the other imperial structures of Mumtazabad were maintained by the income of thirty villages given specifically for the tomb's support. The name Taj Mahal is unknown in Mughal chronicles, but it is used by contemporary Europeans in India, suggesting that this was the tomb's popular name. In contemporary texts, it is simply called the illuminated tomb (Rauza-i-Munavvara).

Mumtaz Mahal died shortly after delivering her fourteenth child in 1631. The Mughal court was then residing in Burhanpur. Her remains were temporarily buried by the grief-stricken emperor in a spacious garden known as Zainabad on the bank of the river Tapti. Six months later, her body was transported to Agra, where it was interred in land chosen for the mausoleum. This land, situated south of the Mughal city on the bank of the Jamuna, had belonged to the Kachwaha rajas since the time of Raja Man Singh and was purchased from the then current raja, Jai Singh. Although contemporary chronicles indicate Jai Singh's willing cooperation in this exchange, extant farmans (imperial commands) indicate that the final price was not settled until almost two years after the mausoleum's commencement. Jai Singh's further cooperation was insured by imperial orders issued between 1632 and 1637 demanding that he provide stone masons and carts to transport marble from the mines at Makrana, within his 'ancestral domain', to Agra where both the Taj Mahal and Shah Jahan's additions to the Agra fort were constructed concurrently.

Work on the mausoleum was commenced early in 1632. Inscriptional evidence indicates much of the tomb was completed by 1636. By 1643, when Shah Jahan most lavishly celebrated the 'Urs ceremony for Mumtaz Mahal', the entire complex was virtually complete.

Sub questions

Question Number : 21 Question Id : 97103630055 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Marble stone used for the construction of Taj Mahal was brought from the ancestral domain of Raja Jai Singh. The name of the place where mines of marble were situated, is _____

Options :

1. ✘ Burhanpur
2. ✔ Makrana
3. ✘ Amber
4. ✘ Jaipur

Question Number : 22 Question Id : 97103630056 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The popular name Taj Mahal was given by____

Options :

1. ✘ Shah Jahan
2. ✘ Muntaz Mahal
3. ✘ Jai Singh
4. ✔ Europeans

Question Number : 23 Question Id : 97103630057 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Point out the true statement from the following.

Options :

1. ✘ Marble was not used for construction of the Taj Mahal.
2. ✘ Red sand stone is non-visible in Taj Mahal complex.
3. ✔ The Taj Mahal is surrounded by a four-quartered garden known as Chahr Bagh
4. ✘ The Taj Mahal was constructed to celebrate the 'Urs ceremony for Mumtaz Mahal'

Question Number : 24 Question Id : 97103630058 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the contemporary texts, Taj Mahal is known _____

Options :

1. ✘ Mumtazabad
2. ✘ Mumtaz Mahal
3. ✘ Zainabad
4. ✔ Rauza-i-Munavvara

Question Number : 25 Question Id : 97103630059 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The document indicating the ownership of land, where Taj Mahal was built, is known as __

Options :

1. ✓ Farman
2. ✗ Sale deed
3. ✗ Sale-purchase deed
4. ✗ Gift deed

Is Section Default? : null

Question Number : 26 Question Id : 97103630060 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Telephone is an example of _____

Options :

1. ✓ Linear communication
2. ✗ Non-linear communication
3. ✗ Circular communication

4. ✘ Mechanized communication

Question Number : 27 Question Id : 97103630061 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The mode of communication that involves a single source transmitting information to a large number of receivers simultaneously, is called _____

Options :

1. ✘ Group communication
2. ✔ Mass communication
3. ✘ Interpersonal communication
4. ✘ Intrapersonal communication

Question Number : 28 Question Id : 97103630062 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In communication, the language is _____

Options :

1. ✘ The non-verbal code
2. ✔ The verbal code

3. ✘ The symbolic code

4. ✘ The iconic code

Question Number : 29 Question Id : 97103630063 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Chatting in internet is _____ type of communication

Options :

1. ✘ Parallel communication

2. ✘ Grapevine communication

3. ✔ Verbal communication

4. ✘ Non-verbal communication

Question Number : 30 Question Id : 97103630064 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which group of communicating aspects does not disrupt the communication process in the class?

Options :

1. ✘ Evaluating - focusing - exaggerating

2. ✓ Focusing – illustrating - exaggerating

3. ✘ Evaluating – focusing - illustrating

4. ✘ Reversing – Evaluating – focusing

Question Number : 31 Question Id : 97103630065 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 termed as verbal communication?

Options :

1. ✘ The child was crying to the attention of the mother

2. ✘ Signal at the cross-road changed from green to orange

3. ✓ Professor RAM delivered the lecture in the class room

4. ✘ Deepika wrote a letter for leave application

Question Number : 32 Question Id : 97103630066 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The first Indian satellite for serving the educational sector is _____

Options :

1.

- ✘ INSAT-B
- 2. ✔ EDUSAT
- 3. ✘ INSAT-C
- 4. ✘ SATEDU

Question Number : 33 Question Id : 97103630067 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In analog mass communication, stories are _____

Options :

- 1. ✔ Static
- 2. ✘ Dynamic
- 3. ✘ Interactive
- 4. ✘ Exploratory

Question Number : 34 Question Id : 97103630068 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a certain code MANISH is written as NZMRHS, then how will RANJITA be written in the same code?

Options :

1. ✘ IZMPRGZ
2. ✘ IZMQRIZ
3. ✔ IZMQRGZ
4. ✘ IZMQRHZ

Question Number : 35 Question Id : 97103630069 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A is father of C and D is son of B. E is brother of A. If C is sister of D, how is B related to E?

Options :

1. ✘ Brother-in-law
2. ✔ Sister-in-law
3. ✘ Husband
4. ✘ Daughter

Question Number : 36 Question Id : 97103630070 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Complete the series Q1F, S2E, U6D, W21C, _____

Options :

1. ✘ Y66B

2. ✘ Y44B

3. ✔ Y88B

4. ✘ Z88B

Question Number : 37 Question Id : 97103630071 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If SHARP is coded as 58034 and PUSH is coded as 4658 then RUSH is coded as ____

Options :

1. ✘ 3568

2. ✔ 3658

3. ✘ 3685

4. ✘ 3583

Question Number : 38 Question Id : 97103630072 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

RIDE : LNBE :: HELP : ?

Options :

1. ✘ NINP

2. ✘ BAJP

3. ✔ BJJP

4. ✘ JPCH

Question Number : 39 Question Id : 97103630073 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The ratio of the boys and girls in a school is 7:6. If 100 boys join in the school, the ratio would become 5:4 then the number of girls in the school is _____

Options :

1. ✘ 200

2. ✘ 800

3. ✔ 1200

4. ✘ 1600

Question Number : 40 Question Id : 97103630074 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 least number to be subtracted from 696 to be it a perfect square?

Options :

1. ✘ 1

2. ✘ 16

3. ✔ 20

4. ✘ 71

Question Number : 41 Question Id : 97103630075 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a trader sold two cars each at Rs.325475 and gains 12% on the first and losses 12% on the second, then his profit or loss percentage on the whole is _____

Options :

1. ✘ 14.4% profit

2. ✔ 1.44% loss

3. ✘ 14.4% loss

4. ✘ 0%

Question Number : 42 Question Id : 97103630076 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

At what rate of interest is an amount doubled in two years, when compounded annually?

Options :

1. ✘ 30 %

2. ✘ 45.2 %

3. ✔ 41.4 %

4. ✘ 73.2 %

Question Number : 43 Question Id : 97103630077 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If 24 men can do a work in 35 days, how many men are required to complete the work in 21 days?

Options :

1. ✘ 38

2. ✘ 36

3. ✔ 40

4. ✘ 42

Question Number : 44 Question Id : 97103630078 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A train travels for 9 hours. It travelled the first half of the distance at 12 kmph and remaining distance at 15 kmph. Find the distance.

Options :

1. ✔ 120

2. ✘ 180

3. ✘ 920

4. ✘ 60

Question Number : 45 Question Id : 97103630079 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 groups of fractions is in descending order?

Options :

1. ✘ $\frac{8}{5}, \frac{9}{13}, \frac{6}{11}$

2. ✘ $\frac{8}{15}, \frac{6}{11}, \frac{9}{13}$

3. ✔ $\frac{9}{13}, \frac{6}{11}, \frac{8}{15}$

4. ✘ $\frac{6}{11}, \frac{8}{15}, \frac{9}{13}$

Question Number : 46 Question Id : 97103630080 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Consider the statements :

- I. I watch TV only if I am bored
- II. I am never bored when I have my brother's company
- III. Whenever I go to the theatre I take my brother along.

Which one of the following conclusions is valid in the content of the above statements.

Options :

1. ✘ If I am bored, I watch TV

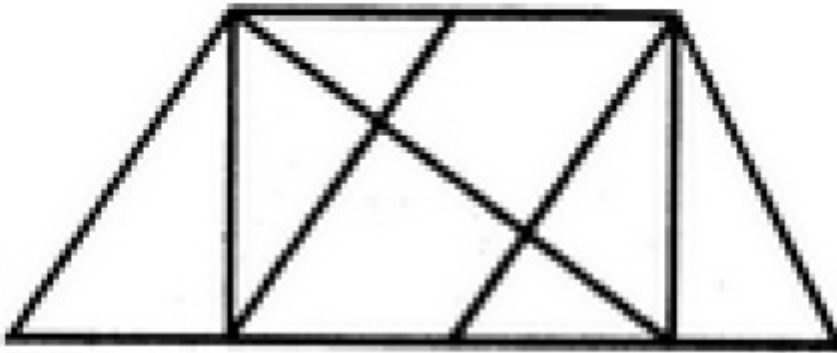
2. ✘ If I am bored, I seek my brother's company.

3. ✘ If I am not with my brother, then I watch TV

4. ✔ If I am not bored, I do not watch TV

Question Number : 47 Question Id : 97103630081 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Find the number of triangles in the given figure.



Options :

1. ✘ 8

2. ✘ 10

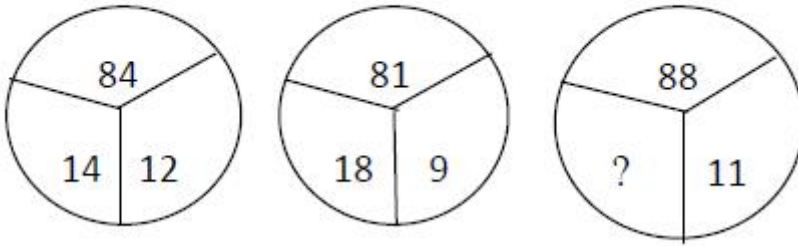
3. ✔ 14

4. ✘ 12

Question Number : 48 Question Id : 97103630082 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Select the missing number from the following.



Options :

1. ✘ 10

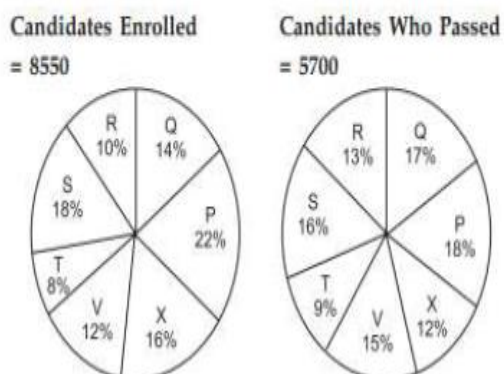
2. ✘ 12

3. ✘ 14

4. ✔ 16

Question Number : 49 Question Id : 97103630083 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What percentage of candidates passed the Exam from institute T out of the total number of candidates enrolled from the same institute?

Options :

1. ✘ 50%

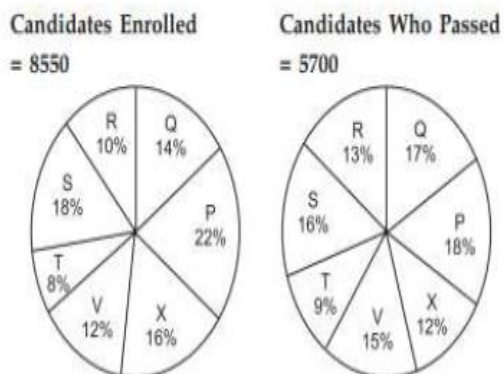
2. ✘ 62.5%

3. ✔ 75%

4. ✘ 80%

Question Number : 50 Question Id : 97103630084 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What is the ratio of candidates passed to the candidates enrolled from institute P?

Options :

1. ✘ 9 : 11

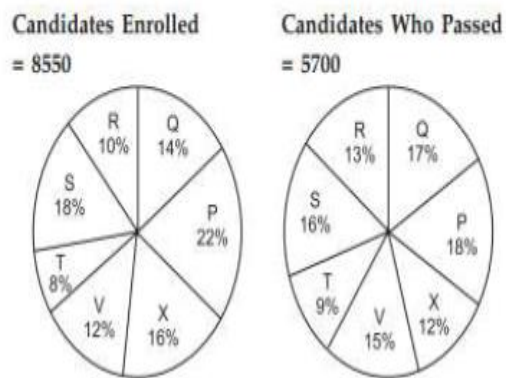
2. ✘ 14 : 17

3. ✔ 6 : 11

4. ✘ 9 : 17

Question Number : 51 Question Id : 97103630085 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



What is the percentage of candidates passed to the candidates enrolled for institutes Q and R together?

Options :

1. ✘ 68%

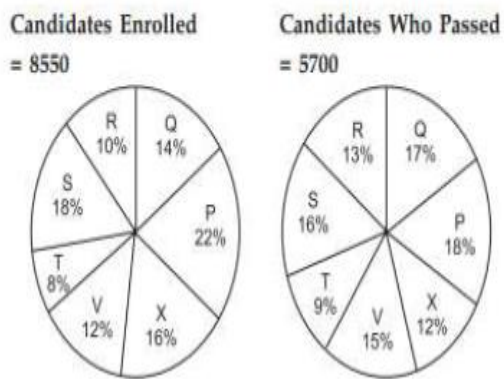
2. ✔ 83%

3. ✘ 74%

4. ✘ 65%

Question Number : 52 Question Id : 97103630086 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



Which institute has the highest percentage of candidates passed to the candidates enrolled?

Options :

1. ✘ Q

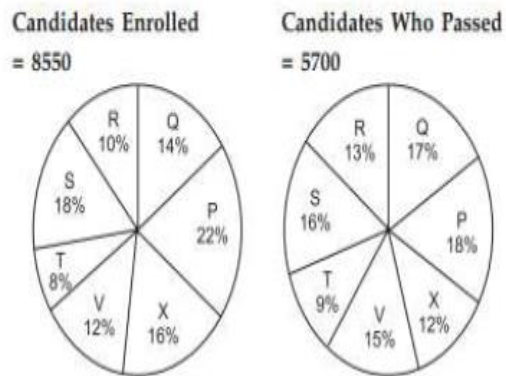
2. ✔ R

3. ✘ V

4. ✘ T

Question Number : 53 Question Id : 97103630087 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Study the following pie graphs carefully and answer the questions given below. Distribution of Candidates Enrolled For M.B.A. Entrance Examination And Those Who Passed In Different Institutes : P, Q, R, S, T, V and X.



The number of candidates passed from institutes S and P together exceeds the number of candidates enrolled from institutes T and R together by

Options :

1. ✘ 228
2. ✘ 279
3. ✔ 399
4. ✘ 407

Question Number : 54 Question Id : 97103630088 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 network device?

Options :

1. ✓ CPU

2. ✗ Switch

3. ✗ Hub

4. ✗ Router

Question Number : 55 Question Id : 97103630089 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A Gigabyte is equal to _____

Options :

1. ✗ 1024 bytes

2. ✗ 1024 kilobytes

3. ✓ 1024 megabytes

4. ✗ 1024 terabytes

Question Number : 56 Question Id : 97103630090 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A computer program that translates a program statement by statement into machine language is called _____

Options :

1. ✘ A compiler
2. ✔ An interpreter
3. ✘ A translator
4. ✘ A simulation

Question Number : 57 Question Id : 97103630091 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 correct for $(17)_{10}$.

Options :

1. ✘ $(10011)_2$
2. ✘ $(10111)_2$
3. ✔ $(10001)_2$

4. ✘ $(11001)_2$

Question Number : 58 Question Id : 97103630092 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 protocol supports to link from one webpage to another page?

Options :

1. ✘ HTML

2. ✘ IP

3. ✘ FTP

4. ✔ HTTP

Question Number : 59 Question Id : 97103630093 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 biggest news agency in India?

Options :

1. ✘ UNI

2. ✔ PTI

3. ✘ NAAP

4. ✖ Samachar Bharathi

Question Number : 60 Question Id : 97103630094 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The purpose of ICT use in education is to _____

Options :

1. ✖ Make teaching interesting
2. ✖ Attract students
3. ✔ Optimize learning process
4. ✖ Promote technology in teaching

Question Number : 61 Question Id : 97103630095 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 mobile payment application is developed by the National Payments Corporation of India based on UPI?

Options :

1. ✖ MYGOV

2. ✓ BHIM

3. ✗ UMANG

4. ✗ Phone pay

Question Number : 62 Question Id : 97103630096 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Assertion(A): Night time temperature in the central parts of a city are generally higher than those over the surrounding rural areas.

Reason(R): Radiation losses over the urban areas are less than that over the rural areas.

Choose the correct answer from the options given below.

Options :

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

2. ✗ Both (A) and (R) are true but (R) is not the correct explanation of (A).

3. ✗ (A) true, but (R) is false.

4. ✗ (A) is false, but (R) is true

Question Number : 63 Question Id : 97103630097 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 activity contributes more to water pollution than any other throughout world?

Options :

1. ✘ Industry
2. ✘ Hydroelectric power generation
3. ✘ Urbanization
4. ✔ Agriculture

Question Number : 64 Question Id : 97103630098 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 water-borne disease?

Options :

1. ✘ Cholera
2. ✘ Hepatitis
3. ✘ Typhoid
4. ✔ Dengue

Question Number : 65 Question Id : 97103630099 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 renewable natural resource?

Options :

1. ✘ Fresh water

2. ✘ Clean water

3. ✔ Salt

4. ✘ Fertile soil

Question Number : 66 Question Id : 97103630100 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The chemical formula for Baking soda is _____

Options :

1. ✘ NH_4Cl

2. ✔ NaHCO_3

3. ✘ $\text{Na}_2\text{CO}_3\text{H}_2\text{O}$

4. ✘ CH_3COOH

Question Number : 67 Question Id : 97103630101 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which was the Cultural Capital of Andhra Pradesh?

Options :

1. ✘ Tirupati

2. ✘ Visakhapatnam

3. ✔ Rajamahendravaram

4. ✘ Amaravathi

Question Number : 68 Question Id : 97103630102 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Koundinya wildlife sanctuary is located in which of the following states?

Options :

1. ✔ Andhra Pradesh

2. ✘ Kerala

3. ✘ Tamil Nadu

4. ✘ Karnataka

Question Number : 69 Question Id : 97103630103 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

National council for women education was established in _____

Options :

1. ✔ 1958

2. ✘ 1976

3. ✘ 1989

4. ✘ 1965

Question Number : 70 Question Id : 97103630104 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Autonomy in higher education system implies freedom in _____

Options :

1. ✘ Administration

2. ✓ Curriculum development

3. ✘ Finance

4. ✘ Policy-making

Biotechnology

Section Id :	971036428
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 : 97103630105 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 primary function of cyclin-dependent kinase (CDK) – cyclin complexes in cell cycle regulation?

Options :

1. ✘ DNA replication

2. ✘ Initiation of mitosis

3. ✔ Checkpoint control

4. ✘ Cell differentiation

Question Number : 72 Question Id : 97103630106 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which component of the plasma membrane is responsible for maintaining membrane asymmetry?

Options :

1. ✔ Phospholipids

2. ✘ Cholesterol

3. ✘ Glycoproteins

4. ✘ Integral proteins

Question Number : 73 Question Id : 97103630107 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which process involves the engulfment of large particles, such as bacteria or cellular debris, by the cell?

Options :

1. ✘ Exocytosis
2. ✔ Phagocytosis
3. ✘ Pinocytosis
4. ✘ Endocytosis

Question Number : 74 Question Id : 97103630108 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 main function of the rough endoplasmic reticulum (RER)?

Options :

1. ✘ Lipid synthesis
2. ✔ Protein synthesis
3. ✘ Carbohydrate metabolism
4. ✘ Detoxification

Question Number : 75 Question Id : 97103630109 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which cellular organelle is responsible for the mechanism of oxidative phosphorylation and ATP production?

Options :

1. ✓ Mitochondria
2. ✗ Chloroplast
3. ✗ Endoplasmic reticulum
4. ✗ Golgi apparatus

Question Number : 76 Question Id : 97103630110 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 a biological role of peptidoglycans?

Options :

1. ✗ Energy storage
2. ✓ Cell wall structure in bacteria
3. ✗ Enzyme catalysis
4. ✗ Oxygen transport

Question Number : 77 Question Id : 97103630111 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which lipid serves as a precursor for the synthesis of steroid hormones?

Options :

1. ✘ Triglycerides
2. ✘ Phospholipids
3. ✘ Sphingolipids
4. ✔ Cholesterol

Question Number : 78 Question Id : 97103630112 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which technique is commonly used for measuring the mass – to – charge ratio of one or more molecules?

Options :

1. ✘ NMR spectroscopy
2. ✔ Mass spectrometry
3. ✘ X-ray crystallography
4. ✘ Solid-phase peptide synthesis

Question Number : 79 Question Id : 97103630113 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 primary role of G-proteins in signal transduction cascade?

Options :

1. ✘ Enzyme catalysis
2. ✘ Cell adhesion
3. ✔ Intracellular signaling amplification
4. ✘ Oxygen transport

Question Number : 80 Question Id : 97103630114 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which vitamin is essential for blood clotting and bone health?

Options :

1. ✘ Vitamin A
2. ✘ Vitamin C
3. ✘ Vitamin D

4. ✓ Vitamin K

Question Number : 81 Question Id : 97103630115 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 primary purpose of the bacterial growth curve?

Options :

1. ✘ Determining bacterial size
2. ✘ Monitoring bacterial motility
3. ✓ Assessing population dynamics over time
4. ✘ Identifying bacterial species

Question Number : 82 Question Id : 97103630116 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 purpose of bacteriological media in microbiology?

Options :

1. ✘ Bacterial communication
2. ✘ Energy production

3. ✓ Providing a suitable environment for bacterial growth

4. ✗ DNA replication

Question Number : 83 Question Id : 97103630117 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ramachandran plot can be used to predict the following structure

Options :

1. ✗ Quaternary structure

2. ✗ Tertiary structure

3. ✗ Primary structure

4. ✓ Secondary structure

Question Number : 84 Question Id : 97103630118 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 an example of a temperate phage?

Options :

1. ✗ T4 phage

2. ✓ Lambda phage

3. ✘ T7 phage

4. ✘ Adenovirus

Question Number : 85 Question Id : 97103630119 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The melting temperature of DNA (T_m) is higher when the content of

Options :

1. ✘ A : T base pairs is higher

2. ✔ G : C base pairs is higher

3. ✘ G : C base pairs is lower

4. ✘ A : T base pairs is same as G:C base pairs

Question Number : 86 Question Id : 97103630120 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What microscopy technique is best suited for studying the internal structures of cells and organelles with high resolution?

Options :

1. ✘ Fluorescence microscopy

2. ✘ Scanning electron microscopy
3. ✔ Transmission electron microscopy
4. ✘ Phase-contrast microscopy

Question Number : 87 Question Id : 97103630121 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which spectroscopic technique is capable of providing the three-dimensional image of molecular structures?

Options :

1. ✘ UV-visible spectroscopy
2. ✘ Mass spectrometry
3. ✔ NMR spectroscopy
4. ✘ X-ray diffraction

Question Number : 88 Question Id : 97103630122 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Ion-exchange chromatography separates molecules based on their

Options :

1. ✓ Charge

2. ✗ Size

3. ✗ Affinity

4. ✗ Vapor pressure

Question Number : 89 Question Id : 97103630123 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In polyacrylamide gel electrophoresis (PAGE), separation of biomolecules is primarily based on differences in

Options :

1. ✓ Size

2. ✗ Charge

3. ✗ Affinity

4. ✗ Density

Question Number : 90 Question Id : 97103630124 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 primary application of autoradiography in biological sciences?

Options :

1. ✘ Determination of protein concentration
2. ✔ Visualization of radioactive isotopes in tissues
3. ✘ Measurement of pH in cellular environments
4. ✘ Analysis of enzyme activity

Question Number : 91 Question Id : 97103630125 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which enzyme classification system is based on the reaction type and the chemical nature of the reaction catalyzed?

Options :

1. ✘ IUB Classification
2. ✔ EC Number
3. ✘ Enzyme Function Classification
4. ✘ Catalytic Domain System

Question Number : 92 Question Id : 97103630126 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 primary factor affecting enzyme activity by altering the three-dimensional structure of the enzyme?

Options :

1. ✘ Temperature
2. ✔ pH
3. ✘ Substrate Concentration
4. ✘ Cofactors

Question Number : 93 Question Id : 97103630127 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Michaelis-Menten constant (K_m) represents

Options :

1. ✘ Maximum velocity of the enzyme reaction
2. ✔ Substrate concentration at half-maximal velocity

3. ✘ Enzyme concentration in the reaction

4. ✘ Rate of enzyme-substrate dissociation

Question Number : 94 Question Id : 97103630128 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In competitive inhibition, the inhibitor binds to the

Options :

1. ✔ Active site of the enzyme

2. ✘ Allosteric site of the enzyme

3. ✘ Substrate

4. ✘ Coenzyme

Question Number : 95 Question Id : 97103630129 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 end product of glycolysis under anaerobic conditions in humans?

Options :

1. ✔ Lactic acid

2. ✘ Pyruvic acid

3. ✘ Acetyl-CoA

4. ✘ Ethanol

Question Number : 96 Question Id : 97103630130 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Negative potential across plasma membrane is maintained by

Options :

1. ✔ Active transport

2. ✘ Passive transport

3. ✘ Endocytosis

4. ✘ Exocytosis

Question Number : 97 Question Id : 97103630131 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 two sets of terms related to various methods used in biological science. Choose the correct option.

Set A

- A Yeast two hybrid system
- B Taqman probe
- C Colony hybridization
- D RACE
- E 2D PAGE

Set B

- (i) Real time PCR
- (ii) Determining the ends of mRNA
- (iii) Identification of gene of interest
- (iv) Detection and analysis of proteins
- (v) Protein-protein interactions

Options :

1. ✓ A-(v); B-(i); C-(iii); D-(ii); E-(iv)
2. ✗ A-(i); B-(iii); C-(ii); D-(iv); E-(v)
3. ✗ A-(v); B-(ii); C-(iii); D-(i); E-(iv)
4. ✗ A-(iv); B-(ii); C-(iii); D-(v); E-(i)

Question Number : 98 Question Id : 97103630132 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The C-value paradox is related to

Options :

1. ✗ The number of codons in a gene
2. ✓ The inconsistency between genome size and organism complexity

3. ✘ The replication speed of DNA

4. ✘ The stability of nucleosomes

Question Number : 99 Question Id : 97103630133 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 process by which non-coding regions are removed from pre-mRNA to produce mature mRNA?

Options :

1. ✘ Transcription

2. ✔ Splicing

3. ✘ Translation

4. ✘ Replication

Question Number : 100 Question Id : 97103630134 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 term for the modification of RNA molecules by the addition of a 5' cap and a 3' poly-A tail?

Options :

1. ✘ Transcription

2. ✘ Translation

3. ✘ RNA editing

4. ✔ RNA processing

Question Number : 101 Question Id : 97103630135 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which enzyme is commonly used to generate complementary DNA (cDNA) from RNA

Options :

1. ✘ DNA ligase

2. ✘ Terminal nucleotide transferase

3. ✔ Reverse transcriptase

4. ✘ DNA polymerase-I

Question Number : 102 Question Id : 97103630136 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 purpose of southern hybridization in molecular biology?

Options :

1. ✘ Transfer of RNA molecules to a membrane
2. ✔ Identification of specific DNA fragments
3. ✘ Detection of protein expression
4. ✘ Analysis of gene expression patterns

Question Number : 103 Question Id : 97103630137 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which vector is commonly used for expression in plants?

Options :

1. ✘ Plasmid
2. ✘ Cosmid
3. ✘ Bacmid
4. ✔ Ti - plasmid based cointegrating vector

Question Number : 104 Question Id : 97103630138 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

In genetic engineering, what is the role of restriction endonucleases?

Options :

1. ✘ Joining DNA fragments together
2. ✘ Amplifying DNA sequences
3. ✔ Cutting DNA at specific recognition sites
4. ✘ Synthesizing RNA molecules

Question Number : 105 Question Id : 97103630139 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which technique involves the introduction of foreign DNA into bacterial cells to produce multiple copies of a gene of interest?

Options :

1. ✘ Electroporation
2. ✘ Microinjection
3. ✔ Transformation
4. ✘ Biolistics

Question Number : 106 Question Id : 97103630140 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 primary function of the thymus in the immune system?

Options :

1. ✘ Antibody production
2. ✘ Red blood cell formation
3. ✔ T lymphocyte maturation
4. ✘ Antigen presentation

Question Number : 107 Question Id : 97103630141 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which lymphoid organ is responsible for filtering and trapping pathogens from the blood, removing damaged blood cells, and storing platelets?

Options :

1. ✘ Bone marrow
2. ✘ Thymus
3. ✔ Spleen

4. ✘ Lymph nodes

Question Number : 108 Question Id : 97103630142 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of hypersensitivity reaction is known as a delayed hypersensitivity reaction?

Options :

1. ✘ Type I

2. ✘ Type II

3. ✘ Type III

4. ✔ Type IV

Question Number : 109 Question Id : 97103630143 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 antigen presenting cell ?

Options :

1. ✘ B cell

2. ✘ Dendritic cell

3.

✘ Macrophage

4. ✔ T cell

Question Number : 110 Question Id : 97103630144 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 purpose of adjuvants in vaccine?

Options :

1. ✘ Enhance the taste of the vaccine
2. ✘ Increase the shelf life of the vaccine
3. ✔ Boost the immune response to the vaccine
4. ✘ Improve vaccine administration

Question Number : 111 Question Id : 97103630145 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a crucial factor in the preparation of culture media for plant tissue culture?

Options :

1. ✔ pH of the media
2. ✘ Media colour

3. ✘ Ambient temperature

4. ✘ Plant height

Question Number : 112 Question Id : 97103630146 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a primary culture in animal cell and tissue culture?

Options :

1. ✘ The first step in culturing animal cells

2. ✔ A culture derived directly from an organism's tissue

3. ✘ A long-term established cell line

4. ✘ A culture medium without serum

Question Number : 113 Question Id : 97103630147 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of cell has the potential to differentiate various specialized cell types?

Options :

1. ✔ Embryonic stem cells

2. ✘ Meristematic cells

3. ✘ Muscle cells

4. ✘ Nerve cells

Question Number : 114 Question Id : 97103630148 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 different types of transplantation mentioned in the context of bone marrow transplantation?

Options :

1. ✔ Allogenic, autologous, syngenic, and congenic

2. ✘ Monogenic, polygenic, oligogenic, and multigenic

3. ✘ Heterozygous, homozygous, hemizygous, and heterozygous

4. ✘ Diploid, triploid, tetraploid, and pentaploid

Question Number : 115 Question Id : 97103630149 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 chemicals are most widely used for protoplast fusion?

Options :

1. ✘ Mannitol
2. ✔ Polyethylene glycol
3. ✘ Sorbitol
4. ✘ Mannol

Question Number : 116 Question Id : 97103630150 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which vector is commonly associated with the mechanism of gene transfer in insect cells?

Options :

1. ✘ Pox virus
2. ✔ Baculovirus
3. ✘ Vaccinia virus
4. ✘ SV40 virus

Question Number : 117 Question Id : 97103630151 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What are reporter genes used for in plant genetic engineering?

Options :

1. ✘ Enhancing crop yield
2. ✔ Visualizing gene expression
3. ✘ Improving disease resistance
4. ✘ Modifying oil quality

Question Number : 118 Question Id : 97103630152 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What technique is employed for molecular mapping and crop improvement using random DNA fragments?

Options :

1. ✘ RFLP
2. ✘ AFLP
3. ✘ QTL
4. ✔ RAPD

Question Number : 119 Question Id : 97103630153 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How is stress tolerance in plants commonly achieved through agricultural biotechnology?

Options :

1. ✘ Modifying seed colour
2. ✘ Enhancing photosynthesis
3. ✔ Engineering disease resistance
4. ✘ Altering protein quality

Question Number : 120 Question Id : 97103630154 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

On sequence analysis of double stranded DNA, the results showed the content of cytosine, C was 20%. What is the amount of A and T put together?

Options :

1. ✘ 20%
2. ✘ 30%
3. ✘ 50%

4. ✓ 60%

Question Number : 121 Question Id : 97103630155 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 a potential cause of male infertility?

Options :

1. ✗ Polycystic Ovary Syndrome (PCOS)
2. ✗ Ovulatory Dysfunction
3. ✓ Varicocele
4. ✗ Endometriosis

Question Number : 122 Question Id : 97103630156 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 primary purpose of cryoprotectants?

Options :

1. ✓ Prevent ice formation
2. ✗ Increase ice formation
3. ✗ Penetrate into the cells

4. ✘ Reduce the toxicity

Question Number : 123 Question Id : 97103630157 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In artificial insemination, where is sperm typically collected from?

Options :

1. ✘ Ovaries
2. ✔ Epididymis
3. ✘ Uterus
4. ✘ Fallopian tubes

Question Number : 124 Question Id : 97103630158 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which biotechnological approach is commonly used for livestock improvement in farm animals?

Options :

1. ✔ Somatic Cell Nuclear Transfer
2. ✘ In Vitro Fertilization

3. ✘ Immun contraception

4. ✘ Cryopreservation

Question Number : 125 Question Id : 97103630159 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 primary goal of embryo transfer in farm animals?

Options :

1. ✘ Cryopreservation of embryos

2. ✘ Live birth of transgenic animals

3. ✔ Improving livestock genetics

4. ✘ Inducing superovulation in females

Question Number : 126 Question Id : 97103630160 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 health care products is produced using recombinant DNA technology?

Options :

1. ✘ Aspirin

2. ✘ Penicillin

3. ✔ Insulin

4. ✘ Paracetamol

Question Number : 127 Question Id : 97103630161 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 following is NOT related to post-translational modifications in eukaryotes.

Options :

1. ✔ Poly A addition

2. ✘ Glycosylation

3. ✘ Phosphorylation

4. ✘ Addition of disulfide bonds

Question Number : 128 Question Id : 97103630162 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which method is commonly used for the removal of oil spills from water bodies?

Options :

1. ✘ Electrolysis
2. ✘ Chemical herbicides
3. ✔ Bioremediation
4. ✘ Incineration

Question Number : 129 Question Id : 97103630163 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is a renewable source of energy derived from the microbial breakdown of organic matter?

Options :

1. ✘ Nuclear energy
2. ✘ Solar power
3. ✔ Biogas
4. ✘ Wind energy

Question Number : 130 Question Id : 97103630164 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which global environmental problem is associated with the thinning of the ozone layer?

Options :

1. ✘ Acid rain
2. ✘ Greenhouse effect
3. ✔ Ozone depletion
4. ✘ Biodiversity loss

Question Number : 131 Question Id : 97103630165 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

First recombinant viral vaccine that is available in the market is

Options :

1. ✘ Polio
2. ✔ Hepatitis B
3. ✘ Influenza
4. ✘ Rubella

Question Number : 132 Question Id : 97103630166 Display Question Number : Yes Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The Human Genome Project (HGP) formally started in the year

Options :

1. ✘ 1993
2. ✘ 2003
3. ✔ 1990
4. ✘ 2010

Question Number : 133 Question Id : 97103630167 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which microbial metabolite is commonly used in the production of antibiotics, including penicillin and streptomycin?

Options :

1. ✔ Organic acids
2. ✘ Amino acids
3. ✘ Organic solvents
4. ✘ Vitamins

Question Number : 134 Question Id : 97103630168 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 following bacteria is the source of Taq DNA polymerase

Options :

1. ✘ *Thermococcus litoralis*
2. ✔ *Thermus aquaticus*
3. ✘ *Pyrococcus furiosus*
4. ✘ *Bacillus thruengensis*

Question Number : 135 Question Id : 97103630169 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which type of bonds form between adjacent segments of polypeptide chain of β sheet

Options :

1. ✘ Ionic bonds
2. ✘ Covalent bonds
3. ✘ Disulfide bonds
4. ✔ Hydrogen bonds

Question Number : 136 Question Id : 97103630170 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 primary function of BLAST in biological research?

Options :

1. ✘ Protein secondary structure prediction
2. ✘ Gene and Genome annotation
3. ✔ Database searching
4. ✘ Molecular phylogeny

Question Number : 137 Question Id : 97103630171 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which operating systems are mentioned as part of the "soft side" of computers in the context of biological research?

Options :

1. ✔ Windows and Linux
2. ✘ MacOS and Android
3. ✘ UNIX and iOS

4. ✘ DOS and Ubuntu

Question Number : 138 Question Id : 97103630172 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In the context of computer architecture, what does CPU stand for?

Options :

1. ✔ Central Processing Unit
2. ✘ Computer Programming Unit
3. ✘ Central Program Unit
4. ✘ Core Processing Unit

Question Number : 139 Question Id : 97103630173 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 purpose of the ClustalW tool in bioinformatics?

Options :

1. ✘ Protein docking
2. ✔ Multiple sequence alignment
3. ✘ Protein 3D structure prediction

4. ✘ Gene annotation

Question Number : 140 Question Id : 97103630174 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What statistical measure is used to quantify the spread of data in a dataset?

Options :

1. ✘ Mean

2. ✘ Median

3. ✔ Standard Deviation

4. ✘ Mode