Entrance Exam

2024



QUESTION PAPER

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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 :	Biochemistry 5th 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 :	971036559
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 : 97103639340 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 focus of Reflective Teaching?

Options :

1. ✖ Memorization

2. ✖ Understanding

3. ✔ Critical thinking

4. ✖ Repetition

Question Number : 2 Question Id : 97103639341 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 characteristics of adult learners?

Options :

1. ✖ Dependence on the teacher

2. ✔ Students have their own motivation

3. ✖ Passive learning style

4. ✖ Fixed mindset

Question Number : 3 Question Id : 97103639342 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In teaching, what does the term "Learner centred" approach emphasize?

Options :

1. ✖ Teacher's authority

2. ✔ Student involvement and active participation

3. ✖ Memorization of facts

4. ✖ Rote learning

Question Number : 4 Question Id : 97103639343 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is an example of an online teaching platform?

Options :

1. ✖ Digital Repository

2. ✖ Virtual Symposium

3. ✔ Swayam Prabha

4. ✖ Cybernetic Laboratory

Question Number : 5 Question Id : 97103639344 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 key characteristic of modern evaluation system?

Options :

1. ✖ Rigid structure

2. ✖ Sole reliance on exams

3. ✔ Continuous assessment

4. ✖ Limited feedback

Question Number : 6 Question Id : 97103639345 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 a VPN (Virtual Private Network) in ICT?

Options :

1. ✔ To provide a secure connection over a public network

2. ✖ To increase computer speed

3. ✖ To enhance graphics processing

4. ✖ To store large amounts of data

Question Number : 7 Question Id : 97103639346 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 purpose of Computer-Based Testing (CBT) in education?

Options :

1. ✖ Simplify teacher workload

2.

✖ Increase paper usage

3. ✔ Enhance test security

4. ✖ Reduce access to exams

Question Number : 8 Question Id : 97103639347 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 key characteristic of a quantitative research method?

Options :

1. ✖ Emphasis on subjective experiences

2. ✔ Focus on numbers and statistical analysis

3. ✖ Narrative storytelling

4. ✖ Historical analysis

Question Number : 9 Question Id : 97103639348 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 descriptive research?

Options :

1.

✖ Establishing cause and effect relationships

2. ✖ Exploring new theories

3. ✔ Describing and summarizing data

4. ✖ Analysing historical events

Question Number : 10 Question Id : 97103639349 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which approach to research emphasizes the objective measurement of observable phenomena?

Options :

1. ✖ Qualitative approach

2. ✖ Historical approach

3. ✔ Positivistic approach

4. ✖ Post-positivistic approach

Question Number : 11 Question Id : 97103639350 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What is common characteristic of qualitative research methods?

Options :

1. ✖ Large sample sizes

2. ✖ Emphasis on statistical analysis

3. ✔ In-depth exploration of phenomena

4. ✖ Experimental manipulations

Question Number : 12 Question Id : 97103639351 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruct

Time : 0

What is the first step in the research process?

Options :

1. ✖ Analysis of findings

2. ✔ Formulation of research questions

3. ✖ Data Collection

4. ✖ Conducting literature review

Question Number : 13 Question Id : 97103639352 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In research writing, what is the purpose of referencing?

Options :

1. ✖ To confuse the reader

2. ✖ To demonstrate the author's intelligence

3. ✔ To enable verification

4. ✖ To save space in the document

Question Number : 14 Question Id : 97103639353 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How does ICT (Information and Communication Technology) contribute to research?

Options :

1. ✖ By discouraging collaboration

2. ✖ By limiting access to information

3. ✔ By facilitating data collection, analysis, and dissemination

4. ✖ By promoting unethical practices

Question Number : 15 Question Id : 97103639354 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 key characteristic of effective communication?

Options :

1. ✖ Confusion

2. ✖ Misunderstanding

3. ✔ Clarity

4. ✖ Ambiguity

Question Number : 16 Question Id : 97103639355 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is an example of non-verbal communication?

Options :

1. ✖ Written letter

2. ✖ Text message

3. ✔ Facial expressions

4. ✖ Phone call

Question Number : 17 Question Id : 97103639356 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which ICT tool is used for storing, organizing, and manipulating data?

Options :

1. ✖ Browser

2. ✔ Spreadsheet

3. ✖ Presentation software

4. ✖ Email client

Question Number : 18 Question Id : 97103639357 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In a classroom setting, what is an essential aspect of effective communication?

Options :

1. ✖ One-way communication

2. ✖ Lack of feedback

3. ✔ Clear instructions and feedback

4. ✖ Ambiguous messages

Question Number : 19 Question Id : 97103639358 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 common barrier to effective communication?

Options :

1. ✖ Active listening

2. ✖ Clarity in expression

3. ✔ Language differences

4. ✖ Open communication channels

Question Number : 20 Question Id : 97103639359 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which form of communication reaches a large and diverse audience simultaneously?

Options :

1. ✖ Interpersonal communication

2. ✖ Group communication

3. ✔ Mass-Media communication

4. ✖ Intra-cultural communication

Is Section Default? : null

Question Id : 97103639360 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:

In terms of labour, for decades the relatively low cost and high quality of Japanese workers conferred considerable competitive advantage across numerous durable goods and consumer electronics industries (eg. Machinery, automobiles, televisions, radios). Then labour-based advantages shifted to South Korea, then to Malaysia, Mexico and other nations. Today, China appears to be capitalizing best on the basis of labour. Japanese firms still remain competitive in markets for such durable goods, electronics and other products, but the labour force is no longer sufficient for competitive advantage over manufacturers in other industrializing nations. Such shifting of labour-based advantage is clearly not limited to manufacturing industries. Today, a huge number of IT and service jobs are moving from Europe and North America to India, Singapore, and like countries with relatively well-educated, low-cost workforces possessing technical skills. However, as educational levels and technical skills continue to rise in other countries, India, Singapore, and like nations enjoying labour-based competitive advantage today are likely to find such advantage cannot be sustained through emergence of new competitors. In terms of capital, for centuries the days of gold coins and later even paper money restricted financial flows. Subsequently regional concentrations were formed where large banks, industries and markets coalesced. But today capital flows internationally at rapid speed. Global commerce no longer requires regional interactions among business players. Regional capital concentrations in places such as New York, London and Tokyo still persist, of course, but the capital concentrated there is no longer sufficient for competitive advantage over other capitalists distributed worldwide. Only if an organization is able to combine, integrate and apply its resources (eg. Land, labour, capital, IT) in an effective manner that is not readily imitable by competitors can such an organization enjoy competitive advantage sustainable overtime. In a knowledge-based theory of the firm, this idea is extended to view organizational knowledge as a resource with atleast the same level of power and importance as the traditional economic inputs.

Sub questions

Question Number : 21 Question Id : 97103639361 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which country enjoyed competitive advantages in automobile industry for decades?

Options :

1. ✖ South Korea

2. ✔ Japan

3. ✖ Mexico

4. ✖ Malaysia

Question Number : 22 Question Id : 97103639362 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Why labour-based competitive advantages of India and Singapore cannot be sustained in IT and service sectors?

Options :

1. ✖ Due to diminishing levels of skill

2. ✖ Due to capital-intensive technology making inroads

3. ✔ Because of new competitors

4. ✖ Because of shifting of labour-based advantage in manufacturing industries.

Question Number : 23 Question Id : 97103639363 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

How can an organisation enjoy competitive advantage sustainable overtime?

Options :

1. ✖ Through regional capital flows

2. ✖ Through regional interactions among business players.

3. ✖ By making large banks, industries and markets coalesced.

4. ✔ By effective use of various instrumentalities

Question Number : 24 Question Id : 97103639364 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is required to ensure competitive advantages in specific markets?

Options :

1. ✖ Access to capital

2. ✖ Common office buildings

3. ✔ Superior knowledge

4. ✖ Common metals

Question Number : 25 Question Id : 97103639365 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The passage also mentions about the trend of

Options :

1. ✔ Global financial flow

2. ✖ Absence of competition in manufacturing industry

3. ✖ Regionalisation of capitalists

4. ✖ Organizational incompatibility

Is Section Default? : null

Question Number : 26 Question Id : 97103639366 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 purpose of mass-media in society?

Options :

1. ✖ To confuse people

2. ✖ To entertain only

3. ✔ To inform, educate, and entertain

4. ✖ To restrict information flow

Question Number : 27 Question Id : 97103639367 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What can enhance group communication?

Options :

1. ✖ Lack of diversity in the group

2. ✖ Conflict avoidance

3. ✔ Open and honest communication

4. ✖ Minimal interaction

Question Number : 28 Question Id : 97103639368 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What letter comes next in the series: A, C, E, G, ___?

Options :

1. ✖ H

2. ✔ I

3. ✖ F

4. ✖ J

Question Number : 29 Question Id : 97103639369 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 next number in the series: 2, 5, 10, 17, ___?

Options :

1. ✖ 22

2. ✖ 24

3. ✔ 26

4. ✖ 28

Question Number : 30 Question Id : 97103639370 Display Question Number : Yes Is Questio

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

Time : 0

What is the missing number in the series: 8, 12, 18, __, 36?

Options :

1. ✖ 22

2. ✖ 24

3. ✖ 25

4. ✔ 26

Question Number : 31 Question Id : 97103639371 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the price of a product increases from Rs.50 to Rs.60, what is the percentage increase?

Options :

1. ✖ 10%

2. ✖ 15%

3. ✔ 20%

4. ✖ 25%

Question Number : 32 Question Id : 97103639372 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the cost price of an item is $40 and it is sold for $60, what is the profit percentage?

Options :

1. ✖ 20%

2. ✖ 30%

3. ✖ 40%

4. ✔ 50%

Question Number : 33 Question Id : 97103639373 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a shirt is purchased for Rs.30 and sold for Rs.25, what is the loss incurred?

Options :

1. ✔ Rs.5

2. ✖ Rs.10

3. ✖ Rs.15

4. ✖ Rs.20

Question Number : 34 Question Id : 97103639374 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the interest is calculated on both the principal and accumulated interest, it is known as

Options :

1. ✖ Simple Interest

2. ✔ Compound Interest

3. ✖ Discounting

4. ✖ Percentage

Question Number : 35 Question Id : 97103639375 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If a car travels at a speed of 60 km/h, how far will it travel in 2 hours?

Options :

1. ✖ 150 km

2. ✔ 120 km

3. ✖ 180 km

4. ✖ 90 km

Question Number : 36 Question Id : 97103639376 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 classical square of opposition used for in logic?

Options :

1. ✖ Evaluating analogies

2. ✔ Establishing the validity of arguments

3. ✖ Distinguishing deductive and inductive reasoning

4. ✖ Analysing fallacies

Question Number : 37 Question Id : 97103639377 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The structure of categorical propositions in logic are typically represented by

Options :

1. ✔ Venn diagrams

2. ✖ Analogies

3. ✖ Indian Logic

4. ✖ Deductive reasoning

Question Number : 38 Question Id : 97103639378 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 reasoning involves drawing specific conclusions from general principles?

Options :

1. ✖ Deductive reasoning

2. ✔ Inductive reasoning

3. ✖ Analogical reasoning

4. ✖ Fallacious reasoning

Question Number : 39 Question Id : 97103639379 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 a QR code in ICT?

Options :

1. ✖ To send emails

2. ✖ To scan documents

3. ✔ To store and retrieve information quickly

4. ✖ To create animations

Question Number : 40 Question Id : 97103639380 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which Indian Pramana deals with verbal testimony as a means of knowledge?

Options :

1. ✖ Pratyaksha

2. ✖ Anumana

3. ✔ Shabda

4. ✖ Upamana

Question Number : 41 Question Id : 97103639381 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 cloud computing service in ICT?

Options :

1. ✖ Microsoft Excel

2. ✔ Google Drive

3. ✖ Adobe Photoshop

4. ✖ Windows Media Player

Question Number : 42 Question Id : 97103639382 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is causation in research?

Options :

1. ✖ The process of proving a hypothesis

2. ✖ The final conclusion of a research study

3. ✖ The outcome of hypothesis testing

4. ✔ The relationship between variables where one influences the other

Question Number : 43 Question Id : 97103639383 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Identify the type of argument presented: ' just as a sword is the weapon of a warrior, a pen is the weapon of a writer'.

Options :

1. ✔ Analogical

2. ✖ Deductive

3. ✖ Inductive

4. ✖ Hypothetical

Question Number : 44 Question Id : 97103639384 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 table and answer the questions given below it.
Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In which month the unit B has a contribution of approximately 15% in the total sugar production?

Options :

1. ✖ August

2. ✖ June

3. ✔ July

4. ✖ April

Question Number : 45 Question Id : 97103639385 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 table and answer the questions given below it.
Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

Which of the following units shows continuous increase in the production of sugar over months?

Options :

1. ✔ A

2. ✖ B

3. ✖ C

4. ✖ D

Question Number : 46 Question Id : 97103639386 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 table and answer the questions given below it.
Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In the case of Unit E, in which of the following pairs of months the production of sugar was equal?

Options :

1. ✖ April & June

2. ✖ June & July

3. ✖ July & August

4. ✔ April & May

Question Number : 47 Question Id : 97103639387 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 table and answer the questions given below it.
Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

In the month of June, how many units have a share of more than 25% of the total production of sugar?

Options :

1. ✔ One

2. ✖ Three

3. ✖ Two

4. ✖ Four

Question Number : 48 Question Id : 97103639388 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 table and answer the questions given below it.
Production of sugar by six major production units of India in Million Tonnes

PRODUCTION UNITS						
MONTH	A	B	C	D	E	F
APRIL	310	180	169	137	140	120
MAY	318	179	177	162	140	122
JUNE	320	160	188	173	135	130
JULY	326	167	187	180	146	130
AUGUST	327	150	185	178	145	120

What was approximate percentage decrease in sugar production of unit B in June as compared to April?

Options :

1. ✖ 8 %

2. ✔ 10 %

3. ✖ 15 %

4. ✖ 18 %

Question Number : 49 Question Id : 97103639389 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What is considered as scientific misconduct?

Options :

1. ✔ Redundant publications

2. ✖ Transparent reporting of research methods

3. ✖ Acknowledging sources properly

4. ✖ Conducting research with integrity

Question Number : 50 Question Id : 97103639390 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which term refers to communication within an organization's internal network?

Options :

1. ✖ Internet

2. ✔ Intranet

3. ✖ E-mail

4. ✖ Extranet

Question Number : 51 Question Id : 97103639391 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 a web browser?

Options :

1. ✖ Sending emails

2. ✔ Accessing websites

3. ✖ Creating documents

4. ✖ Playing videos

Question Number : 52 Question Id : 97103639392 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 digital initiative in higher education?

Options :

1. ✖ Sending traditional mail

2. ✔ Conducting online courses

3. ✖ Using landline phones

4. ✖ Reading printed textbooks

Question Number : 53 Question Id : 97103639393 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What does "CC" stand for in an email?

Options :

1. ✔ Carbon Copy

2. ✖ Courtesy Copy

3. ✖ Computer Copy

4. ✖ Central Copy

Question Number : 54 Question Id : 97103639394 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 advantage of audio-conferencing?

Options :

1. ✖ Real-time visual interaction

2. ✔ Cost-effectiveness

3. ✖ Faster data transmission

4. ✖ Physical presence required

Question Number : 55 Question Id : 97103639395 Display Question Number : Yes Is Question

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

How does ICT contribute to governance?

Options :

1. ✖ By slowing down bureaucratic processes

2. ✖ By reducing transparency

3. ✔ By improving communication and decision-making

4. ✖ By increasing paperwork

Question Number : 56 Question Id : 97103639396 Display Question Number : Yes Is Questi

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

In a research study investigating the relationship between sleep duration and academic performance, "sleep duration" is an example of a

Options :

1. ✖ Hypothesis

2. ✖ Concept

3. ✔ Variable

4. ✖ Causation

Question Number : 57 Question Id : 97103639397 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 ICT, what does the term "Extranet" refer to?

Options :

1. ✖ Communication within an organization

2. ✖ Publicly accessible network

3. ✔ Restricted network for specific users

4. ✖ Email communication

Question Number : 58 Question Id : 97103639398 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which set of goals focuses on ending poverty, ensuring health, education, and environmental sustainability worldwide?

Options :

1. ✖ Kyoto Protocol

2. ✖ Rio Summit Goals

3. ✔ Sustainable Development Goals

4. ✖ Montreal Protocol

Question Number : 59 Question Id : 97103639399 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 human-induced activities that have a significant impact on the environment?

Options :

1. ✖ Natural activities

2. ✔ Anthropogenic activities

3. ✖ Environmental activities

4. ✖ Sustainable activities

Question Number : 60 Question Id : 97103639400 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which software tool is commonly used for statistical analysis in research?

Options :

1. ✖ Microsoft Excel

2. ✖ Adobe Photoshop

3. ✔ SPSS (Statistical Package for the Social Sciences)

4. ✖ Microsoft Word

Question Number : 61 Question Id : 97103639401 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 significance of using graphics in data presentation?

Options :

1. ✖ To confuse readers

2. ✖ To hide important findings

3. ✔ To simplify complex data

4. ✖ To increase word count

Question Number : 62 Question Id : 97103639402 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which resource is classified as a renewable energy source?

Options :

1. ✖ Nuclear energy

2.

✖ Fossil fuels

3. ✔ Solar energy

4. ✖ Geothermal energy

Question Number : 63 Question Id : 97103639403 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What international agreement aims to phase out substances responsible for ozone depletion?

Options :

1. ✖ Rio Summit

2. ✔ Montreal Protocol

3. ✖ Kyoto Protocol

4. ✖ Paris Agreement

Question Number : 64 Question Id : 97103639404 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 learning was emphasized in ancient India, focusing on traditional subjects like philosophy and literature?

Options :

1. ✖ Non-conventional learning

2. ✔ Conventional learning

3. ✖ Technical education

4. ✖ Skill-based education

Question Number : 65 Question Id : 97103639405 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

National Sample Survey Organization conducts survey on education and employment every _____.

Options :

1. ✖ One year

2. ✔ Five years

3. ✖ Six years

4. ✖ Ten years

Question Number : 66 Question Id : 97103639406 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

What marked the evolution of higher learning and research in Post Independence India?

Options :

1. ✖ Shift towards skill-based education

2. ✖ Emphasis on non-conventional learning

3. ✔ Establishment of new institutions and universities

4. ✖ Decline in professional education

Question Number : 67 Question Id : 97103639407 Display Question Number : Yes Is Questi

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

What does plagiarism refer to in research ethics?

Options :

1. ✖ Collaborating with other researchers

2. ✖ Citing sources properly

3. ✔ Using someone else's ideas without credit

4. ✖ Sharing research findings openly

Question Number : 68 Question Id : 97103639408 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

ICSSR is promoting research in the field of ----------.

Options :

1. ✖ Sciences

2. ✖ Technical education

3. ✔ Social sciences

4. ✖ Medicine

Question Number : 69 Question Id : 97103639409 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What aspect of education is concerned with the moral and ethical development of students?

Options :

1. ✖ Skill-based education

2. ✔ Value education

3. ✖ Technical education

4. ✖ Non-conventional learning

Question Number : 70 Question Id : 97103639410 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which Indian city hosted the 2023 International Film Festival of India (IFFI)?

Options :

1. ✖ Mumbai

2. ✖ Hyderabad

3. ✔ Goa

4. ✖ Kolkata

Biochemistry

Section Id :	971036560
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 : 97103639411 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

If the pH = pKa, the log of the ratio of dissociating acid and associated acid will be_____

Options :

1. ✖ Equal

2. ✔ Zero

3. ✖ Greater than 1

4. ✖ Less than 3

Question Number : 72 Question Id : 97103639412 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 common buffer system in biological systems?

Options :

1. ✖ Phosphate buffer system

2. ✖ Carbonic acid bicarbonate buffer system

3. ✖ Protein buffer system

4. ✔ Sulfate buffer system

Question Number : 73 Question Id : 97103639413 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The pH of human blood is typically around

Options :

1. ✖ 5.5

2. ✖ 7.0

3. ✔ 7.4

4. ✖ 9.0

Question Number : 74 Question Id : 97103639414 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Phase-contrast microscopy enhances the contrast of

Options :

1. ✖ Stained specimens

2. ✖ Bright-field specimens

3. ✔ Transparent specimens

4. ✖ Opaque specimens

Question Number : 75 Question Id : 97103639415 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

What will be the magnification of a macroscope with 10x eye piece and 40x objective.

Options :

1. ✖ 40x

2. ✔ 400x

3. ✖ 4000x

4. ✖ 40000x

Question Number : 76 Question Id : 97103639416 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In which microscope does a beam of electrons scan the specimen's surface to produce a 3D image?

Options :

1. ✖ Transmission electron microscope

2. ✔ Scanning electron microscope

3. ✖ Dark field microscope

4. ✖ Atomic force microscope

Question Number : 77 Question Id : 97103639417 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 a cryoprotectant in cryopreservation of biological samples?

Options :

1. ✔ Preventing ice formation

2. ✖ Enhancing cell growth

3. ✖ Accelerating enzyme activity

4. ✖ Increasing ice formation

Question Number : 78 Question Id : 97103639418 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Beer-Lambert law describes the relationship between

Options :

1. ✔ Absorbance, concentration, and path length

2. ✖ Absorbance, temperature, and time

3. ✖ Wavelength, frequency, and amplitude

4. ✖ Transmittance, concentration, and time

Question Number : 79 Question Id : 97103639419 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In mass spectrometer, the sample that has to be analyzed is bombarded with which of the following?

Options :

1. ✖ Protons

2. ✔ Electrons

3. ✖ Neutrons

4. ✖ Alpha particles

Question Number : 80 Question Id : 97103639420 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 commonly used to determine the structure of organic compounds?

Options :

1. ✔ NMR spectroscopy

2. ✖ UV-Vis spectroscopy

3. ✖ Infrared spectroscopy

4. ✖ Mass spectrometry

Question Number : 81 Question Id : 97103639421 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruct Time : 0

Which of the following will be an example of palindromic sequence?

Options :

1. ✖ AGTCCTGA

2. ✖ GTTCCAAG

3. ✔ ATTGCAAT

4. ✖ GTTGGAAC

Question Number : 82 Question Id : 97103639422 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In enzyme kinetics, the Michaelis-Menten constant (KM) is a measure of?

Options :

1. ✖ Enzyme concentration

2. ✔ Substrate concentration

3. ✖ Inhibitor concentration

4. ✖ Product concentration

Question Number : 83 Question Id : 97103639423 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 a microarray in genomics research?

Options :

1. ✖ Sequencing DNA

2. ✖ Identifying proteins

3. ✔ Studying gene expression

4. ✖ Analyzing RNA secondary structure

Question Number : 84 Question Id : 97103639424 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

During which phase of the cell cycle does cell division occur?

Options :

1. ✖ G1 phase

2. ✖ S phase

3. ✖ G2 phase

4. ✔ M phase

Question Number : 85 Question Id : 97103639425 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Isoenzymes are characterized by

Options :

1. ✔ Differences in amino acid composition and sequence

2. ✖ Differences in substrate specificity

3. ✖ Differences in pH optimum

4. ✖ Differences in molecular weight

Question Number : 86 Question Id : 97103639426 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 competitive inhibition of an enzyme is the inhibition of _____

Options :

1. ✔ Succinic dehydrogenase by malonic acid

2. ✖ Cytochrome oxidase by cyanide

3. ✖ Hexokinase by Glucose-6 phosphate

4. ✖ Carbonic anhydrase by carbon dioxide

Question Number : 87 Question Id : 97103639427 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which region of the electromagnetic spectrum does ESR spectroscopy primarily utilize?

Options :

1. ✖ Far infrared region

2. ✖ Infrared region

3. ✔ Microwave region

4. ✖ Near UV

Question Number : 88 Question Id : 97103639428 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The following hormones are responsible for "fight-or-flight" response

Options :

1. ✖ Thyroxine and melatonin

2. ✖ Insulin and glucagon

3. ✔ Epinephrine and norepinephrine

4. ✖ Oestrogen and progesterone

Question Number : 89 Question Id : 97103639429 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A reversed phase chromatography column typically has a stationary phase that is?

Options :

1. ✔ Hydrophobic

2. ✖ Hydrophilic

3. ✖ Positively charged

4. ✖ Negatively charged

Question Number : 90 Question Id : 97103639430 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which centrifuge type is suitable for isolating cellular components based on their sedimentation rates?

Options :

1. ✖ Analytical ultracentrifuge

2. ✖ Micro centrifuge

3. ✔ Differential centrifuge

4. ✖ Preparative ultracentrifuge

Question Number : 91 Question Id : 97103639431 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Microfilaments are composed of a protein called

Options :

1. ✖ Tubulin

2. ✔ Actin

3. ✖ Myosin

4. ✖ Chitin

Question Number : 92 Question Id : 97103639432 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Who is considered the "Father of Microbiology"?

Options :

1. ✖ Louis Pasteur

2. ✖ Robert Koch

3. ✔ Anton van Leeuwenhoek

4. ✖ Joseph Lister

Question Number : 93 Question Id : 97103639433 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 structure is NOT a part of the bacterial flagella?

Options :

1.

✖ Filament

2. ✔ Lamina

3. ✖ Basal body

4. ✖ Hook

Question Number : 94 Question Id : 97103639434 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 sub units of Prokaryotic ribosomes?

Options :

1. ✖ 60S, 40S

2. ✔ 50S, 30S

3. ✖ 70S, 30S

4. ✖ 60S, 30S

Question Number : 95 Question Id : 97103639435 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The generation time for *E. coli* is _____

Options :

1. ✔ 20 minutes

2. ✖ 35 minutes

3. ✖ 2 minutes

4. ✖ 13 minutes

Question Number : 96 Question Id : 97103639436 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The batch fermentation can be used to produce _____

Options :

1. ✖ Organic acids

2. ✖ Amino acids

3. ✖ Single Cell Protein

4. ✔ Antibiotics

Question Number : 97 Question Id : 97103639437 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Autoclaving is a method of sterilization using

Options :

1. ✖ Filtration

2. ✔ Moist Heat

3. ✖ Radiation

4. ✖ Chemicals

Question Number : 98 Question Id : 97103639438 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which immunoglobulin is the first to appear during a primary immune response?

Options :

1. ✖ IgA

2. ✔ IgM

3. ✖ IgG

4. ✖ IgE

Question Number : 99 Question Id : 97103639439 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

_____ is an immune process which uses antibodies to tag foreign pathogens for elimination by phagocytes.

Options :

1. ✔ Opsonization

2. ✖ Phagocytosis

3. ✖ Agglutination

4. ✖ Complement activation

Question Number : 100 Question Id : 97103639440 Display Question Number : Yes Is Quest 

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

Which enzyme is commonly used in enzyme linked immunosorbent assay (ELISA) for detection?

Options :

1. ✖ Amylase

2. ✖ Catalase

3. ✔ Alkaline phosphatase

4. ✖ Lipase

Question Number : 101 Question Id : 97103639441 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 role of memory cells in the immune system?

Options :

1. ✖ Produce antibodies during primary response

2. ✔ Recognize and respond to specific antigens upon re-exposure

3. ✖ Activate complement proteins

4. ✖ Induce inflammation

Question Number : 102 Question Id : 97103639442 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 interferons?

Options :

1. ✖ Enhance phagocytosis

2. ✔ Inhibit viral replication

3. ✖ Activate complement pathways

4. ✖ Stimulate antibody production

Question Number : 103 Question Id : 97103639443 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which hypersensitivity reaction is mediated by cytotoxic T cells and macrophages?

Options :

1. ✖ Type I

2. ✖ Type II

3. ✖ Type III

4. ✔ Type IV

Question Number : 104 Question Id : 97103639444 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

A chromosomal abnormality where a part of one chromosome is exchanged with a part of another chromosome is called

Options :

1. ✖ Deletion

2. ✖ Duplication

3. ✖ Inversion

4. ✔ Translocation

Question Number : 105 Question Id : 97103639445 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The enzyme responsible for synthesizing complementary DNA from a RNA template is

Options :

1. ✖ DNA polymerase

2. ✖ RNA polymerase

3. ✔ Reverse transcriptase

4. ✖ Taq DNA polymerase

Question Number : 106 Question Id : 97103639446 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The atomic number is not changed by which type of radioactive decay?

Options :

1. ✖ Beta radiation

2. ✔ Gamma radiation

3. ✖ Alpha radiation

4. ✖ The atomic number is affected by all forms of radioactive decay

Question Number : 107 Question Id : 97103639447 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Sodium-potassium pump is an example of_____

Options :

1. ✔ Active transport

2. ✖ Passive transport

3. ✖ Endocytosis

4. ✖ Exocytosis

Question Number : 108 Question Id : 97103639448 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Mark the signal molecule which does not interact with cell surface receptor.

Options :

1. ✖ Insulin

2. ✖ Glucagon

3. ✔ Testosterone

4. ✖ Gastrin

Question Number : 109 Question Id : 97103639449 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Steroid, a biologically active organic compound, is derived from _____

Options :

1. ✖ Hormones

2. ✔ Cholesterol

3. ✖ Proteins

4. ✖ Carbohydrates

Question Number : 110 Question Id : 97103639450 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 : 111 Question Id : 97103639451 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 : 112 Question Id : 97103639452 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 virus is having icosahedral structure

Options :

1. ✔ Cucumber mosaic virus

2. ✖ Tobacco mosaic virus

3. ✖ Potato virus Y

4. ✖ Potato virus X

Question Number : 113 Question Id : 97103639453 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Culture medium of Leishmania is

Options :

1. ✖ Sabousand's medium

2. ✔ Novy-MacNeal-Nicolle (NNN) medium

3. ✖ Wilson Blair medium

4. ✖ Czapek – dox medium

Question Number : 114 Question Id : 97103639454 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In chromatography, which of the following can be mobile phase made of?

Options :

1. ✖ Solid or liquid

2. ✔ Liquid or gas

3. ✖ Gas only

4. ✖ Liquid only

Question Number : 115 Question Id : 97103639455 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 helpful and used for functional group identification.

Options :

1. ✔ Infrared spectroscopy

2. ✖ Flame photometry

3. ✖ Rotational spectroscopy

4. ✖ UV visible spectroscopy

Question Number : 116 Question Id : 97103639456 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Pyruvate generated by glycolysis, is converted to acetyl-coenzyme A, which is metabolized by citric acid cycle, generating energy rich molecules. From the choices given below, select the right combination of these molecules produced from one molecule of acetyl -co A.

Options :

1. ✖ $2\ NADH + 2\ FADH_2 + 1\ GTP$

2. ✔ $3\ NADH + 1\ FADH_2 + 1\ GTP$

3. ✖ $3\ NADH + 1\ GTP$

4. ✖ $4\ NADH + 1\ FADH_2 + 1\ GTP$

Question Number : 117 Question Id : 97103639457 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The general mechanism is that an enzyme acts by

Options :

1. ✔ Reducing the activation energy

2. ✖ Increasing activation energy

3. ✖ Decreasing the rate of reaction

4. ✖ Increasing the pH value

Question Number : 118 Question Id : 97103639458 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

During DNA replication, the leading strand replicates in

Options :

1. ✖ 5′ – 3′ direction discontinuously

2. ✖ 3′ – 5′ direction continuously

3. ✔ 5′ – 3′ direction continuously

4. ✖ 3′ – 5′ direction discontinuously

Question Number : 119 Question Id : 97103639459 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The non-sense codons help in

Options :

1. ✖ Termination of anticodons

2. ✖ Formation of long polypeptide chain

3. ✖ Inhibition of toxic proteins

4.

✔ Termination of polypeptide chain

Question Number : 120 Question Id : 97103639460 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 process refers to the uptake of naked DNA from the surrounding environment into *E. coli*?

Options :

1. ✖ Conjugation

2. ✖ Generalized transduction

3. ✖ Specialized transduction

4. ✔ Transformation

Question Number : 121 Question Id : 97103639461 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

DEAE-Cellulose is used for

Options :

1. ✖ Gel-filtration chromatography

2. ✔ Ion exchange chromatography

3. ✖ Affinity chromatography

4. ✖ HPLC

Question Number : 122 Question Id : 97103639462 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

The following vectors are useful for expression of genes in insect cells?

Options :

1. ✔ Bacmids

2. ✖ YACs and BACs

3. ✖ Integrated vectors

4. ✖ Plasmids

Question Number : 123 Question Id : 97103639463 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 following is a "Spirochete"?

Options :

1. ✖ *Spirillum volutans*

2. ✖ *Corynebacterium diphtheria*

3. ✖ *Streptomyces* sp.

4. ✔ *Treponema pallidum*

Question Number : 124 Question Id : 97103639464 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Liquid scintillation spectrometry is a method of detecting _____

Options :

1. ✖ X-rays

2. ✖ α-emitters

3. ✔ β-emitters

4. ✖ Gamma rays

Question Number : 125 Question Id : 97103639465 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In SDS-PAGE, protein sample is first treated with detergent sodium dodecyl sulfate (SDS), in order to

Options :

1. ✔ Make the protein become negatively charged

2. ✖ Make the protein become positively charged

3. ✖ Renature the protein

4. ✖ Adjust the pH of protein

Question Number : 126 Question Id : 97103639466 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which organelle contains enzymes for intracellular digestion?

Options :

1. ✔ Lysosome

2. ✖ Peroxisome

3. ✖ Golgi apparatus

4. ✖ Nucleus

Question Number : 127 Question Id : 97103639467 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which macromolecule serves as the main energy source in cells?

Options :

1. ✔ Carbohydrates

2. ✖ Proteins

3. ✖ Lipids

4. ✖ Nucleic acids

Question Number : 128 Question Id : 97103639468 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 common method for enzyme immobilization?

Options :

1. ✖ Covalent bonding

2. ✖ Adsorption

3. ✖ Encapsulation

4. ✔ Covalent bonding, adsorption and encapsulation

Question Number : 129 Question Id : 97103639469 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 gram-positive bacterium?

Options :

1. ✖ *Escherichia coli*

2. ✔ *Staphylococcus aureus*

3. ✖ *Pseudomonas aeruginosa*

4. ✖ *Salmonella enterica*

Question Number : 130 Question Id : 97103639470 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which stain is commonly used for G-banding in chromosomes?

Options :

1. ✔ Giemsa

2. ✖ Crystal violet

3. ✖ Hematoxylin

4. ✖ Safranin

Question Number : 131 Question Id : 97103639471 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 most important factor affecting Basal Metabolic Rate (BMR)?

Options :

1. ✔ Muscular exertion

2. ✖ Recent ingestion of food

3. ✖ High or low environmental temperature

4. ✖ Height, weight and surface area

Question Number : 132 Question Id : 97103639472 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which is a water-soluble vitamin?

Options :

1. ✖ D

2. ✔ B12

3. ✖ A

4. ✖ K

Question Number : 133 Question Id : 97103639473 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

With regard to carbohydrate metabolism, one of the following statement is true

Options :

1. ✖ The normal fasting glucose is from 3.9 to 11.0 mmol/L

2. ✖ Glucose is phosphylated in cells to glucose-6-phosphate by phosphoenol-pyrunate carboxykinase

3. ✖ Glycogen, the storage form of glucose, is only in the liver and skeletal muscle

4. ✔ Glucose can be converted to fats through acetyl CoA which is irreversible

Question Number : 134 Question Id : 97103639474 Display Question Number : Yes Is Quest 
Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Regarding the synthesis of thyroid hormones, which statement is INCORRECT?

Options :

1. ✖ Iodine undergoes rapid oxidation following entry to thyroid cells

2. ✔ The "iodine pump" is the major source of iodine for hormone synthesis

3. ✖ TSH increases iodine uptake by the thyroid gland

4. ✖ Thiocyanate and ouabain decrease iodine uptake by the thyroid gland

Question Number : 135 Question Id : 97103639475 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

In prokaryotes, the promoter region is found

Options :

1. ✔ Upstream from the transcription start site

2. ✖ Downstream of the transcription start site

3. ✖ Within the coding sequence

4. ✖ In the middle of the gene

Question Number : 136 Question Id : 97103639476 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Down syndrome is caused by

Options :

1. ✔ Trisomy 21

2. ✖ Monosomy X

3. ✖ Trisomy 18

4. ✖ Turner syndrome

Question Number : 137 Question Id : 97103639477 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

When was the Human Genome Project officially launched?

Options :

1. ✖ 1985

2. ✔ 1990

3. ✖ 2000

4. ✖ 2010

Question Number : 138 Question Id : 97103639478 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Marasmus is characterized by

Options :

1. ✖ Excessive carbohydrate intake

2. ✔ Severe nutrition deficiency

3. ✖ Excessive fat intake

4. ✖ Vitamin D deficiency

Question Number : 139 Question Id : 97103639479 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 saturated fat source?

Options :

1. ✖ Olive oil

2. ✖ Avocado

3. ✔ Butter

4. ✖ Flaxseed oil

Question Number : 140 Question Id : 97103639480 Display Question Number : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Which lipoprotein contains the greatest proportion of triglycerides?

Options :

1. ✖ VLDL

2. ✖ HDL

3. ✔ Chylomicrons

4. ✖ LDL

Entrance Exams

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- Architecture Entrance Exam
- Arts and Humanities Entrance Exams
- Commerce Entrance Examinations
- Common Entrance Examinations
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