

National Testing Agency

Question Paper Name :	89 Environmental Sciences 05th Sep 2024 Shift 1
Subject Name :	89 Environmental Sciences
Creation Date :	2024-09-05 16:25:50
Duration :	180
Total Marks :	300
Display Marks:	Yes

Environmental Sciences and General Paper

Group Number :	1
Group Id :	533072138
Group Maximum Duration :	0
Group Minimum Duration :	180
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	300

General Paper

Section Id :	533072283
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	42
Number of Questions to be attempted :	42
Section Marks :	100
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	533072845
Question Shuffling Allowed :	No

Question Id : 53307221588 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

Question Label : Comprehension

The following table presents the details about the average monthly income (in ₹ thousands) of three different employees, namely, Amit, Anil and Ajay working in a software company in six different years from 2015 to 2020. Based on the data in the table, answer the questions :

Year-wise details of Income of Employees

Year	Average Monthly Income (in ₹ thousands) of		
	Amit	Anil	Ajay
2015	28	22	18
2016	36	34	22
2017	46	30	36
2018	42	48	54
2019	54	58	52
2020	50	54	70

Sub questions

Question Number : 1 Question Id : 53307221589 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What was the difference between the total of the average monthly income of Amit in all the years together and Anil's average monthly income in the year 2017 ?

- (1) ₹ 2.48 lakhs
- (2) ₹ 2.26 lakhs
- (3) ₹ 24.8 lakhs
- (4) ₹ 22.6 lakhs

Options :

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

Question Number : 2 Question Id : 53307221590 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What is the respective ratio between Amit's average monthly income in the year 2016, Anil's average monthly income in the year 2017 and Ajay's average monthly income in the year 2015 ?

- (1) 6 : 3 : 5
- (2) 5 : 6 : 4
- (3) 5 : 4 : 7
- (4) 6 : 5 : 3

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 3 Question Id : 53307221591 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In which year was the difference between Ajay's average monthly income and Amit's average monthly income second highest ?

- (1) 2015
- (2) 2016
- (3) 2017
- (4) 2019

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 4 Question Id : 53307221592 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Average monthly income of Anil in the year 2019 was approximately what percentage of the average monthly income of Ajay in the year 2020 ?

- (1) 72
- (2) 89
- (3) 83
- (4) 67

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 5 Question Id : 53307221593 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What was the percentage (%) increase in the average monthly income of Ajay in the year 2018 as compared to the previous year ?

- (1) 50
- (2) 150
- (3) 160
- (4) 60

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Id : 53307221588 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (1 to 5)

Question Label : Comprehension

निम्नलिखित तालिका में एक सॉफ्टवेयर कंपनी में कार्यरत तीन कर्मचारियों अमित, अनिल और अजय की 2015 से 2020 के छह अलग-अलग वर्षों की औसत मासिक आय (हजार रुपये में) का विवरण दिया गया है। तालिका में दिए आकड़ों के आधार पर प्रश्नों के उत्तर दीजिए :

वर्ष-वार कर्मचारियों की आय का विवरण

वर्ष	औसत मासिक आय (हजार रुपये में)		
	अमित	अनिल	अजय
2015	28	22	18
2016	36	34	22
2017	46	30	36
2018	42	48	54
2019	54	58	52
2020	50	54	70

Sub questions

Question Number : 1 Question Id : 53307221589 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सभी वर्षों में अमित की औसत मासिक आय के योग और 2017 में अनिल की औसत मासिक आय के बीच का अंतर क्या था?

- (1) ₹ 2.48 लाख
- (2) ₹ 2.26 लाख
- (3) ₹ 24.8 लाख
- (4) ₹ 22.6 लाख

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 2 Question Id : 53307221590 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

2016 में अमित की औसत मासिक आय, 2017 में अनिल की औसत मासिक आय और 2015 में अजय की औसत मासिक आय के बीच का क्रमानुसार अनुपात क्या है?

- (1) 6 : 3 : 5
- (2) 5 : 6 : 4
- (3) 5 : 4 : 7
- (4) 6 : 5 : 3

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 3 Question Id : 53307221591 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

अजय की औसत मासिक आय और अमित की औसत मासिक आय के बीच का अंतर किस वर्ष में दूसरा अधिकतम था?

- (1) 2015
- (2) 2016
- (3) 2017
- (4) 2019

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 4 Question Id : 53307221592 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

वर्ष 2019 में अनिल की औसत मासिक आय वर्ष 2020 में अजय की औसत मासिक आय का लगभग कितना प्रतिशत थी ?

- (1) 72
- (2) 89
- (3) 83
- (4) 67

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 5 Question Id : 53307221593 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

गत वर्ष की तुलना में, वर्ष 2018 में अजय की औसत मासिक आय में वृद्धि कितने प्रतिशत थी ?

- (1) 50
- (2) 150
- (3) 160
- (4) 60

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Sub-Section Number :

2

Sub-Section Id :

533072846

Question Shuffling Allowed :

Yes

Question Number : 6 Question Id : 53307221594 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which among the following is a MOOC platform ?

- (1) Diksha
- (2) NROER
- (3) EdX
- (4) GoogleMeet

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 6 Question Id : 53307221594 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन एक मूक (एम ओ ओ सी) प्लेटफार्म है ?

- (1) दीक्षा (DIKSHA)
- (2) एन आर ओ ई आर (NROER)
- (3) ई डी एक्स (EdX)
- (4) गूगल मीट (GoogleMeet)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 7 Question Id : 53307221595 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The personal intention to improve abilities and learn, no matter how performance suffers, is known as :

- (1) Perception
- (2) Mastery Goal
- (3) Meta cognition
- (4) Moratorium

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 7 Question Id : 53307221595 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

क्षमता में सुधार करने तथा सीखने की व्यक्तिगत मंशा, चाहे प्रदर्शन को जितना भी नुकसान हो, कहलाती है :

- (1) प्रत्यक्ष ज्ञान (पर्सपेक्शन)
- (2) पांडित्य का लक्ष्य (मास्टरी गोल)
- (3) अधि-संज्ञान (मेटा कॉग्निशन)
- (4) अधिस्थगन

Options :

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

Question Number : 8 Question Id : 53307221596 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

According to the National Education Policy (2020), there will be increased flexibility in terms of :

- (1) Fee payment
- (2) Part-time employment
- (3) Transfer of credits from UG courses to diploma courses
- (4) Choice of subjects to study

Options :

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

Question Number : 8 Question Id : 53307221596 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

राष्ट्रीय शिक्षा नीति (2020) के अनुसार, निम्न में से किसके संदर्भ में वर्धित नम्यता होगी ?

- (1) शुल्क भुगतान
- (2) अंशकालिक नियोजन
- (3) स्नातक (यूजी) पाठ्यक्रमों से डिप्लोमा पाठ्यक्रमों में क्रेडिट अंतरण
- (4) अध्ययन हेतु विषयों का चयन

Options :

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

Question Number : 9 Question Id : 53307221597 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
(A) Jean Piaget	(I) Zone of proximal development
(B) Lev Vygotsky	(II) Eight stages of Psychological development
(C) Erik Erikson	(III) Theory of multiple intelligences
(D) Howard Gardner	(IV) Theory of cognitive development

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

- (1) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

Options :

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

Question Number : 9 Question Id : 53307221597 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I

सूची-II

- | | |
|--------------------|--------------------------------------|
| (A) ज्या पियाजे | (I) निकटस्थ विकास का क्षेत्र |
| (B) लेव विगोट्स्की | (II) मनोसामाजिक विकास की आठ अवस्थाएँ |
| (C) एरिक एरिक्सन | (III) बहु बुद्धियों का सिद्धांत |
| (D) हावर्ड गार्डनर | (IV) संज्ञानात्मक विकास का सिद्धांत |

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (4) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)

Options :

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

Question Number : 10 Question Id : 53307221598 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

According to Piaget, our thinking process changes radically, though slowly, from birth to maturity because we constantly strive to make sense of the world. Identify the factors which Piaget indicated that influence changes in thinking.

- (A) Equilibration
- (B) Impulsivity
- (C) Social experiences
- (D) Activity
- (E) Biological maturation

Choose the correct answer from the options given below :

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

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 10 Question Id : 53307221598 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

पियाजे के अनुसार हमारी विचारण प्रक्रिया जन्म से लेकर हमारे परिपक्व होने तक आमूल रूप से, यद्यपि धीरे-धीरे बदलती है क्योंकि हम दुनिया को समझने का सतत प्रयास करते रहते हैं। उन कारकों को पहचानिये जिनका संकेत पियाजे ने विचारण में परिवर्तन को प्रभावित करने के लिए दिया है।

- (A) साम्यन (इक्विलिब्रेशन)
- (B) आवेगशीलता
- (C) सामाजिक अनुभव
- (D) कार्यकलाप (एक्टिविटी)
- (E) जैविक परिपक्वता

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (B), (C) और (D)
- (2) केवल (A), (B), (D) और (E)
- (3) केवल (A), (C), (D) और (E)
- (4) केवल (B), (C), (D) और (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 11 Question Id : 53307221599 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The type of research study in which a researcher portrays accurately the characteristics of a particular individual, situation or a group, is known as :

- (1) Exploratory research study
- (2) Diagnostic research study
- (3) Hypothesis testing study
- (4) Descriptive research study

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 11 Question Id : 53307221599 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

शोध अध्ययन का वह प्रकार जिसमें शोधकर्ता किसी व्यक्ति, स्थिति या समूह विशेष, का सटीक निरूपण करता है उसे कहा जाता है :

- (1) अन्वेषणात्मक शोध अध्ययन
- (2) नैदानिक शोध अध्ययन
- (3) परिकल्पनात्मक परीक्षण अध्ययन
- (4) वर्णनात्मक शोध अध्ययन

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 12 Question Id : 53307221600 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which software among the following is used as a reference management tool ?

- (1) Zotero
- (2) Google Jamboard
- (3) AUTOCAD
- (4) Microsoft teams

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 12 Question Id : 53307221600 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से किस सॉफ्टवेयर का प्रयोग संदर्भ प्रबन्धन (रेफरेंस मैनेजमेंट) साधन (टूल) के रूप में किया जाता है ?

- (1) ज़ोटेरो
- (2) गूगल जम्बोर्ड
- (3) आटोकैड
- (4) माइक्रोसॉफ्ट टीम्स

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 13 Question Id : 53307221601 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of steps used for Sandler's A-test :

- (A) Subtract the hypothesised mean of the population (μ_H) from each individual score (X_i)
- (B) Find $\sum D_i$
- (C) Square each D_i
- (D) Obtain the sum of each squares

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

- (1) (B), (D), (C), (A)
- (2) (C), (D), (B), (A)
- (3) (A), (B), (C), (D)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 13 Question Id : 53307221601 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सैंडलर के A-टेस्ट के लिये प्रयोग किये जानेवाले चरणों के सही क्रम की पहचान कीजिए :

- (A) प्रत्येक अलग-अलग स्कोर (X_i) में से जनसंख्या के परिकल्पनात्मक माध्य (μ_H) को घटाएँ
- (B) $\sum D_i$ प्राप्त करें
- (C) प्रत्येक D_i का वर्ग करें
- (D) प्रत्येक वर्ग का योगफल प्राप्त करें

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (B), (D), (C), (A)
- (2) (C), (D), (B), (A)
- (3) (A), (B), (C), (D)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 14 Question Id : 53307221602 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements related to factor analysis :

- (A) Factor analysis may be R-type factor analysis.
- (B) Factor analysis may be Q-type factor analysis.
- (C) Factor analysis is not useful when we want to condense and simplify the multivariate data.
- (D) Factor analysis is not useful in the context of empirical clustering of products, media or people.
- (E) Factor analysis can reveal the latent factors.

Choose the correct answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 14 Question Id : 53307221602 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

फैक्टर विश्लेषण से जुड़े सही कथनों की पहचान करें :

- (A) फैक्टर विश्लेषण, R-प्रकार का फैक्टर विश्लेषण हो सकता है
- (B) फैक्टर विश्लेषण, Q-प्रकार का फैक्टर विश्लेषण हो सकता है
- (C) फैक्टर विश्लेषण, उस स्थिति में उपयोगी नहीं होता है जब हम बहुचर आँकड़ों को घनीभूत और सरल बनाना चाहते हैं
- (D) फैक्टर विश्लेषण उस स्थिति में उपयोगी नहीं होता जब उत्पादों, मीडिया या लोगों के अनुभवाश्रित समूह का संदर्भ हो
- (E) फैक्टर विश्लेषण में प्रच्छन्न कारकों को उद्घाटित किया जा सकता है

नीचे दिए गए विकल्पों में से **सही** उत्तर का चयन कीजिए :

- (1) केवल (A), (B) और (C)
- (2) केवल (C), (D) और (E)
- (3) केवल (B), (C) और (D)
- (4) केवल (A), (B) और (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 15 Question Id : 53307221603 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I (Research related terms)	List - II (Meaning)
(A) Lack of informed consent	(I) Method of interpretation of human action
(B) Ethnographic research	(II) Prospective research participants are given as much information as might be needed
(C) Deception	(III) Represent research work as something other than what it is
(D) Hermeneutics	(IV) Coming into contact with wide spectrum of people

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

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (4) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 15 Question Id : 53307221603 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I (शोध संबंधी पद)	सूची-II (अर्थ)
(A) संसूचित सहमति का अभाव	(I) मानव कार्यों की व्याख्या की पद्धति
(B) नृजातीय शोध	(II) अग्रदर्शी शोध के सहभागियों को उतनी ही जानकारी दी जाती है जितनी जानकारी की आवश्यकता हो
(C) छल	(III) शोध कार्य का प्रतिनिधित्व ऐसे कार्य के रूप में करता है जो अपने वास्तविक स्वरूप से भिन्न हो
(D) शास्त्रार्थमीमांसा	(IV) विभिन्न प्रकार के लोगों के संपर्क में आना

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (3) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)
- (4) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

Options :

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

Question Number : 16 Question Id : 53307221604 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The most important element for effective listening in the classroom is :

- (1) Advocacy
- (2) Taking sides
- (3) Empathy
- (4) Ignoring the speakers appearance

Options :

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

Question Number : 16 Question Id : 53307221604 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

कक्षा में प्रभावी श्रवण के लिए सबसे प्रमुख तत्व है :

- (1) समर्थन
- (2) पक्ष लेना
- (3) तदनुभूति
- (4) वक्ता के रूप-रंग नजरंदाज करना

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 17 Question Id : 53307221605 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are obstacles to the acceptance of communicated messages ?

- (A) Environmental stimuli
- (B) Attitude
- (C) New ideas
- (D) Values
- (E) Receiver prejudices

Choose the **most appropriate** answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 17 Question Id : 53307221605 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

संप्रेषित संदेशों की स्वीकृति में निम्नलिखित में से कौनसे बाधक हैं ?

- (A) परिवेशी उद्दीपन
- (B) मनोवृत्ति
- (C) नए विचार
- (D) मूल्य
- (E) प्राप्तकर्ता का पूर्वाग्रह

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (D) और (E)
- (2) केवल (B), (D) और (E)
- (3) केवल (C), (D) और (E)
- (4) केवल (A), (B) और (C)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 18 Question Id : 53307221606 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Communication and culture ensure a society's :

- (1) Unity
- (2) Powerlessness
- (3) Global economic ranking
- (4) Strategic Political Powerplay

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 18 Question Id : 53307221606 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

संचार व संस्कृति समाज की _____ को सुनिश्चित करते हैं।

- (1) एकता
- (2) शक्तिहीनता
- (3) वैश्विक आर्थिक रैंक
- (4) रणनीतिक राजनीतिक शक्ति व्यवहार (पावर प्ले)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 19 Question Id : 53307221607 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Find out the correct sequence of different types of following non-verbal communications :

- (A) Sign language
- (B) Paralanguage
- (C) Body language
- (D) Space language
- (E) Time language

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

- (1) (A), (C), (D), (E), (B)
- (2) (B), (C), (E), (D), (A)
- (3) (D), (E), (A), (B), (C)
- (4) (C), (B), (D), (E), (A)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 19 Question Id : 53307221607 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित भिन्न-भिन्न प्रकार के गैर-वाचिक संप्रेषणों के सही क्रम का पता लगाए :

- (A) संकेत भाषा (साइन लैंग्वेज)
- (B) परा भाषा (पैरा लैंग्वेज)
- (C) शरीर द्वारा व्यक्त भाषा (बॉडी लैंग्वेज)
- (D) स्थान भाषा (स्पेस लैंग्वेज)
- (E) समय भाषा (टाईम लैंग्वेज)

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A), (C), (D), (E), (B)
- (2) (B), (C), (E), (D), (A)
- (3) (D), (E), (A), (B), (C)
- (4) (C), (B), (D), (E), (A)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 20 Question Id : 53307221608 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I (Types of communication)	List - II (Functional character)
(A) Vertical	(I) Cross-functional
(B) Horizontal	(II) Used by specialists
(C) Diagonal	(III) Linear
(D) External	(IV) Often informal

Choose the correct answer from the options given below :

- (1) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (2) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 20 Question Id : 53307221608 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I (संप्रेषण के प्रकार)	सूची-II (प्रकार्यात्मक विशेषता)
(A) उर्ध्वाधर	(I) प्रति-प्रकार्यात्मक
(B) क्षैतिज	(II) विशेषज्ञों द्वारा प्रयुक्त
(C) विकर्णी	(III) रेखीय
(D) बाह्य	(IV) प्रायः अनौपचारिक

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (2) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

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

Question Number : 21 Question Id : 53307221609 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

What number comes next in the following sequences ?

3, 3.5, 4.5, 6, ?

- (1) 8.5
- (2) 7
- (3) 8
- (4) 7.5

Options :

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

Question Number : 21 Question Id : 53307221609 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित अनुक्रम में कौनसा अगला अंक आएगा ?

3, 3.5, 4.5, 6, ?

- (1) 8.5
- (2) 7
- (3) 8
- (4) 7.5

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 22 Question Id : 53307221610 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Shiv is 27 times as old as his grand daughter. However, three years later, he will be 14 times as old as his grand daughter. What is the present age of his grand daughter ?

- (1) 7 years
- (2) 4 years
- (3) 21 years
- (4) 3 years

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 22 Question Id : 53307221610 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

शिव अपनी पोती से 27 गुना बड़ा है। हालाँकि, तीन वर्ष बाद वह अपनी पोती से 14 गुना बड़ा हो जाएगा। उसकी पोती की वर्तमान आयु क्या है?

- (1) 7 वर्ष
- (2) 4 वर्ष
- (3) 21 वर्ष
- (4) 3 वर्ष

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 23 Question Id : 53307221611 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The cost price of 35 articles is the same as the selling price of N articles. If the profit earned is 40%, the value of N is :

- (1) 15
- (2) 20
- (3) 25
- (4) 30

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 23 Question Id : 53307221611 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

35 वस्तुओं का लागत मूल्य वही है जो N वस्तुओं का विक्रय मूल्य है। यदि कमाया गया मुनाफा 40% है तो N का मूल्य है :

- (1) 15
- (2) 20
- (3) 25
- (4) 30

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 24 Question Id : 53307221612 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

A train covers $\frac{2}{3}$ rd of the distance between two stations at some constant speed (V_1) in 1 hour.

The remaining $\frac{1}{3}$ rd part of the distance is covered by the train moving with a different but constant speed (V_2) in 45 minutes. What is the ratio of the speeds $V_1 : V_2$?

- (1) 3 : 2
- (2) 2 : 3
- (3) 4 : 3
- (4) 3 : 1

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 24 Question Id : 53307221612 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

एक ट्रेन दो स्टेशनों के बीच की $\frac{2}{3}$ दूरी को एक नियत गति (V_1) से चलकर 1 घंटे में तय करती है। शेष $\frac{1}{3}$ दूरी को ट्रेन एक

भिन्न लेकिन नियत गति (V_2) से चलकर 45 मिनट में पूरा करती है। गतियों V_1 और V_2 का अनुपात $V_1 : V_2$ क्या है?

- (1) 3 : 2
- (2) 2 : 3
- (3) 4 : 3
- (4) 3 : 1

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 25 Question Id : 53307221613 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In a certain coding scheme 'MANGO' is written as 'KYLEM'. In the same scheme, how will 'GUAVA' be written ?

- (1) ESCTC
- (2) FSYUY
- (3) ESCUC
- (4) ESYTY

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 25 Question Id : 53307221613 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

किसी एक निश्चित कूट स्कीम में 'MANGO' को 'KYLEM' लिखा जाता है। उसी स्कीम में 'GUAVA' कैसे लिखा जाएगा ?

- (1) ESCTC
- (2) FSYUY
- (3) ESCUC
- (4) ESYTY

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 26 Question Id : 53307221614 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following codes correctly represents the figure and mood of the argument ?

"Some conservatives are not advocates of high tariff rates, because all advocates of high tariff rates are republicans and some republicans are not conservatives."

- (1) AOO-IV
- (2) OAO-III
- (3) OOA-II
- (4) OOA-I

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 26 Question Id : 53307221614 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौनसा कूट तर्क की आकृति व मनोदशा का सही रूप में प्रतिनिधित्व करता है?

“कुछ कंजरवेटिव उच्च शुल्क दर के पैरोकार नहीं हैं क्योंकि उच्च शुल्क दर के सभी पैरोकार रिपब्लिकन हैं और कुछ रिपब्लिकन कंजरवेटिव नहीं हैं।”

- (1) AOO-IV
- (2) OAO-III
- (3) OOA-II
- (4) OOA-I

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 27 Question Id : 53307221615 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In square of opposition, if the statement - 'No reptiles are warm blooded animals' is given as false, which of the following could be validly inferred from it ?

- (A) 'All reptiles are warm blooded animals' is undetermined.
- (B) 'Some reptiles are warm blooded animals' is true.
- (C) 'Some reptiles are not warm blooded animals' is undetermined.
- (D) 'All reptiles are warm blooded animals' is true.

Choose the **most appropriate** answer from the options given below :

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

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 27 Question Id : 53307221615 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

एक विरोधक चतुर्वर्ग में यह कथन 'कोई भी सरीसृप उष्ण रक्तीय पशु नहीं है' गलत है, तो इस कथन से निम्नलिखित में से कौनसे कथन वैध रूप से अनुमानित किये जा सकते हैं?

- (A) 'सभी सरीसृप उष्ण रक्तीय पशु हैं' अनियत है
- (B) 'कुछ सरीसृप उष्ण रक्तीय पशु हैं' सही है
- (C) 'कुछ सरीसृप उष्ण रक्तीय पशु नहीं हैं' अनियत है
- (D) 'सभी सरीसृप उष्ण रक्तीय पशु हैं' सही है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (B) और (C)
- (2) केवल (B) और (C)
- (3) केवल (C) और (D)
- (4) केवल (A) और (C)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 28 Question Id : 53307221616 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The example - 'Have you given up your evil ways' represents which of the following forms of informal fallacies ?

- (1) Irrelevant conclusion
- (2) Complex question
- (3) False cause
- (4) Petitito Principii

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 28 Question Id : 53307221616 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

‘क्या आपने अपनी गलत आदतें छोड़ दी हैं’ यह उदाहरण निम्नलिखित में से किस अनाकारिक दोषों के रूप को प्रदर्शित करता है?

- (1) अप्रासंगिक निष्कर्ष
- (2) जटिल प्रश्न
- (3) मिथ्या कारण
- (4) पेटिशियो प्रिंसिपी

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 29 Question Id : 53307221617 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
(A) Pratijñā	(I) Statement of the reason
(B) Hetu	(II) Statement of the proposition to be proved
(C) Upanaya	(III) Conclusion proved
(D) Nigamana	(IV) Statement of the presence of the mark in the case in question

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 29 Question Id : 53307221617 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I	सूची-II
(A) प्रतिज्ञा	(I) कारण का कथन
(B) हेतु	(II) सिद्ध किए जानी वाली प्रतिज्ञा का कथन
(C) उपनय	(III) सिद्ध निष्कर्ष
(D) निगमन	(IV) अन्वेषित किए जा रहे मामले में चिह्न की उपस्थिति का कथन

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (3) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Options :

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

Question Number : 30 Question Id : 53307221618 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
(A) Vyapti	(I) Observation of agreement in absence
(B) Anvaya	(II) The minor term found to be characterised by the middle
(C) Vyatireka	(III) Method of agreement in presence
(D) Paksa dharmata-jñāna	(IV) Universal concomitance

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (2) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (3) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (4) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Options :

1. 1
2. 2
3. 3

Question Number : 30 Question Id : 53307221618 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I	सूची-II
(A) व्याप्ति	(I) अनुपस्थिति में समझौते का अवलोकन
(B) अन्वय	(II) मध्य पद द्वारा अभिलक्षणीत गौण पद
(C) व्यतिरेक	(III) उपस्थिति में समझौते की विधि
(D) पक्षधर्मता ज्ञान	(IV) सार्वभौमिक सहवर्तिता

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (2) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (3) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (4) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Options :

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

Question Number : 31 Question Id : 53307221619 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Suman uses her computer to edit a photograph. Which one of these is a peripheral device that could be used to edit a photograph ?

- (1) Memory card
- (2) Mouse
- (3) Printer
- (4) USB port

Options :

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

Question Number : 31 Question Id : 53307221619 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

सुमन एक फोटोग्राफ को संपादित (एडिट) करने के लिए अपने कंप्यूटर का प्रयोग करती है। निम्नलिखित में से कौनसी कंप्यूटर से जुड़ी (पेरीफेरल) युक्ति है जिसका प्रयोग किसी फोटोग्राफ को एडिट करने के लिए किया जा सकता है?

- (1) मेमोरी कार्ड
- (2) माउस
- (3) प्रिंटर
- (4) यू एस बी पोर्ट

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 32 Question Id : 53307221620 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Which of the following statements are true ?

- (A) Internet of Things (IoT) wearables are useful for workers employed in hazards conditions
- (B) SMTP stands for Simple Mail Transfer Policy
- (C) IoT wearables enable people to better understand their own health and allow physicians to remotely monitor them
- (D) RAM is non-volatile memory

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

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 32 Question Id : 53307221620 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

निम्नांकित में से सही का चयन कीजिए :

- (A) खतरनाक परिस्थितियों में कार्यरत कामगारों के लिए इंटरनेट ऑफ थिंग्स (आई ओ टी) परिधेय (वियरेबल्स) उपयोगी होते हैं
- (B) एस एम टी पी का पूर्ण रूप है सिंपल मेल ट्रांसफर पॉलिसी
- (C) आई ओ टी वियरेबल्स से लोग अपने स्वास्थ्य को बेहतर ढंग से समझने योग्य बन जाते हैं और जिससे चिकित्सक दूर से ही उनकी निगरानी कर लेते हैं
- (D) आर ए एम (RAM) गैर-लोपशील स्मृति है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A) और (C)
- (2) केवल (B) और (D)
- (3) केवल (A) और (B)
- (4) केवल (C) और (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 33 Question Id : 53307221621 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct order of the following data transfer rates measured in bits per second (bps) ranked from smallest to largest :

- (A) 1500 Kbps
- (B) 1500 Mbps
- (C) 1 Mbps
- (D) 1 Gbps

Choose the correct answer from the options given below :

- (1) (C), (A), (B), (D)
- (2) (A), (C), (D), (B)
- (3) (C), (D), (A), (B)
- (4) (C), (A), (D), (B)

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 33 Question Id : 53307221621 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

लघुत्तम से महत्तम की दिशा में श्रेणीबद्ध किए गए बिट प्रति सेकेंड में मापे गए निम्नलिखित डेटा ट्रांसफर दरों के सही क्रम की पहचान करें :

- (A) 1500 केबीपीएस
- (B) 1500 एमबीपीएस
- (C) 1 एमबीपीएस
- (D) 1 जीबीपीएस

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (C), (A), (B), (D)
- (2) (A), (C), (D), (B)
- (3) (C), (D), (A), (B)
- (4) (C), (A), (D), (B)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 34 Question Id : 53307221622 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements about email are true ?

- (A) You can add signatures to your emails to give personal contact details
- (B) email stands for electrical mail
- (C) BCC stands for Blind Carbon Copy
- (D) Using the CC (Carbon Copy) feature of email will hide all other recipients from each other

Choose the correct answer from the options given below :

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

Options :

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

Question Number : 34 Question Id : 53307221622 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

ई मेल के बारे में क्या-क्या सत्य है?

- (A) अपना व्यक्तिगत संपर्क ब्योरा देने के लिए अपने ई-मेल में सिग्नेचर शामिल कर सकते हैं
- (B) ई-मेल का पूर्ण रूप है इलैक्ट्रिकल मेल
- (C) बीसीसी का पूर्ण रूप है ब्लाइंड कार्बन कॉपी
- (D) ई-मेल की सीसी (कार्बन कॉपी) फीचर का प्रयोग करने पर सभी अन्य प्राप्तकर्ता (रिसिपिएंट्स) एक दूसरे से गुप्त रहेंगे।

नीचे दिए गए विकल्पों में से **सही** उत्तर का चयन कीजिए :

- (1) केवल (A) और (D)
- (2) केवल (A) और (B)
- (3) केवल (A) और (C)
- (4) केवल (C) और (D)

Options :

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

Question Number : 35 Question Id : 53307221623 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following format contains exclusively the sound file format appropriate for web distribution ?

- (A) AVI
- (B) AIF
- (C) MIDI
- (D) MP4
- (E) MP3

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

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 35 Question Id : 53307221623 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से किस फाइल आरूप (फॉर्मेट) में अनन्य रूप से साउंड फाइल फॉर्मेट शामिल होता है जो वेब डिस्ट्रीब्यूशन के लिए उपयुक्त होता है ?

- (A) ए वी आई (AVI)
- (B) ए आई एफ (AIF)
- (C) एम आई डी आई (MIDI)
- (D) एम पी 4 (MP4)
- (E) एम पी 3 (MP3)

नीचे दिए गए विकल्पों में से **सही** उत्तर का चयन कीजिए :

- (1) केवल (A), (C) और (E)
- (2) केवल (B), (C) और (D)
- (3) केवल (C), (D) और (E)
- (4) केवल (B), (C) और (E)

Options :

- 1. 1

2. 2

3. 3

4. 4

Question Number : 36 Question Id : 53307221624 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What are the characteristics of substances to be categorized as hazardous substances ?

- (A) Ignitability
- (B) Malleability
- (C) Reactivity
- (D) Corrosivity
- (E) Toxicity

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

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

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 36 Question Id : 53307221624 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

खरतनाक पदार्थों में वर्गीकृत होने के लिए पदार्थों की विशेषताएँ क्या हैं ?

- (A) ज्वलनशीलता
- (B) सुघट्यता
- (C) अभिक्रियाशीलता
- (D) क्षरणीयता
- (E) विषाक्तता

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (B), (C) और (D)
- (2) केवल (B), (C), (D) और (E)
- (3) केवल (A), (C), (D) और (E)
- (4) केवल (A), (B), (D) और (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 37 Question Id : 53307221625 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Thermal pollution in river water :

- (A) Increases the solubility of Oxygen
- (B) Promotes the growth of certain fish
- (C) Increases the metabolism of fish
- (D) May cause elimination of most sponges and mollusks
- (E) Does not change the ecological balance of river

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

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

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 37 Question Id : 53307221625 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

नदी के जल में तापीय प्रदूषण :

- (A) आक्सीजन की घुलनशीलता में वृद्धि करता है
- (B) कतिपय मछलियों की वृद्धि को प्रोत्साहित करता है
- (C) मछलियों के उपापचय में वृद्धि करता है
- (D) अधिकतर स्पंजों और कवचधारी जीवों (मोलस्कों) को समाप्त कर सकता है
- (E) नदी के पारिस्थितिकीय संतुलन में कोई परिवर्तन नहीं लाता है

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (B) और (C)
- (2) केवल (B), (C) और (D)
- (3) केवल (C), (D) और (E)
- (4) केवल (A), (B) और (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 38 Question Id : 53307221626 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Solar chimneys can be used for :

- (1) Space heating
- (2) Desalination of water
- (3) Generation of electricity
- (4) Refrigeration

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 38 Question Id : 53307221626 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सौर चिमनी का निम्न में से किसके लिए प्रयोग किया जा सकता है ?

- (1) स्थानिक ऊष्मन
- (2) जल का विलवणीकरण
- (3) विद्युत उत्पादन
- (4) प्रशीतन

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 39 Question Id : 53307221627 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The Air (Prevention and control of pollution) Act was legislated in :

- (1) 1981
- (2) 1986
- (3) 1989
- (4) 1991

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 39 Question Id : 53307221627 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

वायु (प्रदूषण निवारण व नियंत्रण) अधिनियम किस वर्ष अधिनियमित किया गया था ?

- (1) 1981
- (2) 1986
- (3) 1989
- (4) 1991

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 40 Question Id : 53307221628 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Chlorofluoro Carbons (CFCs) :

- (A) destroy ozone molecules
- (B) increase the atmospheric temperature
- (C) produce secondary aerosols
- (D) decrease the atmospheric temperature

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

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

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 40 Question Id : 53307221628 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

क्लोरोफ्लूरो कार्बन :

- (A) ओजोन अणुओं को नष्ट करते हैं
- (B) वायुमंडलीय तापमान को बढ़ाते हैं
- (C) द्वितीयक एयरोसोल बनाते हैं
- (D) वायुमंडलीय ताप को घटाते हैं

नीचे दिए गए विकल्पों में से **सही** उत्तर का चयन कीजिए :

- (1) (A), (B), (C) और (D)
- (2) केवल (B), (C) और (D)
- (3) केवल (A), (C) और (D)
- (4) केवल (A) और (B)

Options :

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

Question Number : 41 Question Id : 53307221629 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The vision of National Education Policy 2020 includes :

- (A) Moving towards a more multidisciplinary undergraduate education
- (B) Expansion of professional education institutions
- (C) Revamping curriculum, pedagogy, assessment and student support for enhanced student experiences
- (D) Strengthening the regulatory mechanism of AICTE
- (E) 'light but tight' regulation by a single regulator for higher education

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

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

Options :

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

Question Number : 41 Question Id : 53307221629 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

राष्ट्रीय शिक्षा नीति 2020 के संदृश्य में निम्नलिखित शामिल हैं :

- (A) एक अधिक बहुविषयी पूर्व स्नातक शिक्षा की ओर अग्रसर होना
- (B) व्यावसायिक शैक्षणिक संस्थाओं का विस्तार
- (C) संवर्धित विद्यार्थी अनुभवों के लिए पाठ्यक्रम, शिक्षाशास्त्र, आकलन व विद्यार्थी सहायता की पुनर्रचना
- (D) ए आई सी टी ई के नियामक तंत्र का सदृढीकरण
- (E) उच्च शिक्षा के लिए एकल नियामक द्वारा हलका परन्तु कड़ा विनियमन

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A), (B), (C) और (D)
- (2) केवल (A), (C) और (E)
- (3) केवल (B), (C) और (E)
- (4) केवल (A), (B) और (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 42 Question Id : 53307221630 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The fifth university to be established during the pre-independence period in India was :

- (1) Punjab University
- (2) Allahabad University
- (3) Patna University
- (4) Andhra University

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 42 Question Id : 53307221630 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

भारत में स्वतंत्रता पूर्व अवधि के दौरान स्थापित पाँचवाँ विश्वविद्यालय कौनसा था ?

- (1) पंजाब विश्वविद्यालय
- (2) इलाहाबाद विश्वविद्यालय
- (3) पटना विश्वविद्यालय
- (4) आन्ध्र विश्वविद्यालय

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 43 Question Id : 53307221631 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I (Institutions)	List - II (Areas of Education)
(A) NCTE	(I) Assessment and accreditation of higher education institutions
(B) AICTE	(II) Maintenance of standards in teacher education
(C) NMC	(III) Maintaining quality and standards in medical education
(D) NAAC	(IV) Promotion of quality in technical education

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (2) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
- (3) (A)-(IV), (B)-(I), (C)-(III), (D)-(II)
- (4) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 43 Question Id : 53307221631 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

सूची-I से सूची-II का मिलान कीजिए :

सूची-I (संस्थायें)	सूची-II (शिक्षा के क्षेत्र)
(A) एनसीटीई	(I) उच्च शिक्षा संस्थानों का मूल्यांकन व प्रत्यायन
(B) एआईसीटीई	(II) अध्यापक शिक्षा में मानकों का अनुरक्षण
(C) एनएमसी	(III) चिकित्सा शिक्षा में गुणवत्ता व मानकों का अनुरक्षण
(D) एनएएसी	(IV) तकनीकी शिक्षा में गुणवत्ता उन्नयन

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (2) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
- (3) (A)-(IV), (B)-(I), (C)-(III), (D)-(II)
- (4) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)

Options :

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

Question Number : 44 Question Id : 53307221632 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

According to National Education Policy, 2020 all Ph.D. entrants are required to take credit based courses in disciplines like :

- (1) Education
- (2) Clinical Psychology
- (3) Tribal Studies
- (4) Cultural Studies

Options :

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

Question Number : 44 Question Id : 53307221632 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

राष्ट्रीय शिक्षा नीति, 2020 के अनुसार पी एच डी में प्रवेश करने वाले सभी विद्यार्थियों को निम्न में से किस प्रकार के विषय में क्रेडिट आधारित पाठ्यक्रम लेने होंगे?

- (1) शिक्षा
- (2) नैदानिक मनोविज्ञान
- (3) जनजाति अध्ययन
- (4) सांस्कृतिक अध्ययन

Options :

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

Question Number : 45 Question Id : 53307221633 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which one of the following was described as the Magna Carta of Indian education by J.A. Richter ?

- (1) Hunter Commission report
- (2) Hartog Committee report
- (3) Kothari Commission report
- (4) The Education Dispatch of 1854

Options :

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

Question Number : 45 Question Id : 53307221633 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

जे.ए. रिक्टर ने निम्नलिखित में से किसे भारतीय शिक्षा का महाधिकार पत्र (मैग्ना कार्टा) कहा था ?

- (1) हंटर आयोग की रिपोर्ट
- (2) हर्टोग आयोग की रिपोर्ट
- (3) कोठारी आयोग की रिपोर्ट
- (4) 1854 का शैक्षिक घोषणापत्र (डिस्पैच)

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Sub-Section Number : 3
Sub-Section Id : 533072847
Question Shuffling Allowed : No

Question Id : 53307221634 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix
Question Numbers : (46 to 50)
Question Label : Comprehension

Read the following passage and answer the questions.

It is distressing that a sizable proportion of India’s elderly people are suffering ill-treatment. Around 14% of them experience ill-treatment frequently, with over half of them suffering this once in two months, the Longitudinal Ageing Study of India (LASI), which was commissioned by the Ministry of Health and Family Welfare, has found.

The survey, the first in the country to systematically map the health as well as socio-economic troubles of senior citizens, provides insights into the many challenges the elderly face. In addition to ill-treatment, they suffer from disabilities, chronic health problems and challenges with daily living. Around 75% of India’s elderly suffer from a chronic disease, 20% struggle with mental health issues, and 40% have some kind of disability. Around one in five of the elderly struggles to cope with daily activities.

The LASI survey underscores a fact that India refuses to accept: that many Indians treat their elderly shabbily. We have been in denial on this matter for decades, preferring to believe that our family system is benevolent and that our kinship ties are strong. While this may be generally true, family members are not always compassionate providers. Cases of children abandoning their parents and grandparents are growing. Many do not have the financial wherewithal, time, energy or inclination to take care of elderly relatives, especially if they are bedridden. When the elderly are perceived as a burden, their ill-treatment and abandonment follow. India needs to put in place support systems for the elderly. Helplines and long-term care facilities that are affordable must be set up. Costs of medical treatment for the elderly are an important source of friction in families. The government needs to step in robustly in this matter by reining in health insurance providers, who are brutal in their approach to the elderly.

As the life span of individuals rises, the proportion of the elderly population in India is growing. According to the 2011 census, senior citizens accounted for 9% of our population, and this figure is expected to rise to 20% by 2050. We need to plan for this. The government should begin to put in place policies and programmes that focus on the wellbeing of the aged. Else, when their numbers surge, we will not be up to the challenge of taking care of them.

Sub questions

Question Number : 46 Question Id : 53307221635 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The elderly citizens in India suffer from :

- (1) government apathy
- (2) civil society's neglect
- (3) societal distress
- (4) social and economic problems

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 47 Question Id : 53307221636 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The major issues faced by senior citizens in India are :

- (A) Chronic health problem
- (B) Ill-treatment by others
- (C) Absence of daily life
- (D) Challenges to meet social demands

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

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

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 48 Question Id : 53307221637 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What is the perceived notion about our society ?

- (1) The elderly people have their own support system
- (2) Our family system is strong
- (3) Cases of children abandoning elders is on the decline
- (4) The insurance system is in place

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 49 Question Id : 53307221638 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What can be a positive step in the treatment of senior citizens ?

- (1) Punishment for erring family members
- (2) accept the perception of the elderly as a burden
- (3) Robust health insurance system
- (4) Monitoring the increase in life span of individuals

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 50 Question Id : 53307221639 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The passage recommends a future strategy with focus on :

- (1) Setting up a communication system for the elderly
- (2) Educating the family members not to abandon their elders
- (3) Financially supporting the families with senior citizens
- (4) Planning a long-term policy for the care of the elderly

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Id : 53307221634 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (46 to 50)

Question Label : Comprehension

दिए गए गद्यांश को पढ़कर प्रश्नों के उत्तर दीजिए :

यह दुःख है कि भारत के वृद्धजनों का एक काफी बड़ा हिस्सा दुर्व्यवहार से पीड़ित है। स्वास्थ्य व परिवार कल्याण मंत्रालय द्वारा अधिकृत लॉगिट्यूडिनल एजिंग स्टडी ऑफ़ इंडिया (एल ए एस आई) के अनुसार उनमें से लगभग 14% को बार-बार दुर्व्यवहार का शिकार होना पड़ता है और आधे से अधिक वृद्धों के साथ दो माह में एक बार ऐसा होता है। वरिष्ठ नागरिकों के स्वास्थ्य व सामाजिक आर्थिक परेशानियों को सुव्यवस्थित तरीके से रिकार्ड करने के लिए देश में पहली बार कराया गया यह सर्वेक्षण वृद्धजनों के सामने आ रही अनेक चुनौतियों की पूरी जानकारी प्रदान करता है। दुर्व्यवहार के अतिरिक्त वे अशक्तताओं, दीर्घकालिक स्वास्थ्य समस्याओं और दैनिक जीवन की चुनौतियों से पीड़ित हैं, 20% मानसिक स्वास्थ्य संबंधी मुद्दों से जूझ रहे हैं और 40% में किसी न किसी प्रकार की अशक्तता है। वृद्धजनों में से पाँच में से लगभग एक व्यक्ति को दैनिक क्रियाकलापों के लिए संघर्ष करना पड़ता है। एल ए एस आई सर्वेक्षण उस तथ्य को रेखांकित करता है जिसे भारत स्वीकार नहीं कर रहा है कि अनेक भारतीय अपने बुजुर्गों के साथ बुरा व्यवहार करते हैं। इस मुद्दे को हम दशकों से नकार रहे हैं और इसकी जगह हम यह विश्वास करना चाहते हैं कि हमारी परिवार प्रणाली सद्भावपूर्ण है और यह कि हमारे नाते-रिश्ते मजबूत हैं। जब कि सामान्य रूप से यह सही हो सकता है, परिवार के सदस्य हमेशा ही संवेदनशील प्रदाता नहीं होते हैं। बच्चों द्वारा अपने माता-पिता और दादा-दादी को निःसहाय छोड़ देने के मामलों में वृद्धि हो रही है। अनेक व्यक्तियों के पास वृद्ध रिश्तेदारों, विशेषकर यदि वे शय्याग्रस्त हैं, का ध्यान रखने के लिए वित्तीय साधन, समय और ऊर्जा का अभाव है या उसकी रुचि नहीं है। जब वृद्धजनों को भार माना जाता है, तो उनके साथ दुर्व्यवहार व उन्हें छोड़ना शुरू हो जाता है। भारत को वृद्धजनों के लिए सहायता व्यवस्थाएँ स्थापित करने की आवश्यकता है। हेल्पलाइनें और वहन योग्य दीर्घ कालिक देख-रेख सुविधाएँ स्थापित की जानी चाहिए। वृद्धजनों के लिए चिकित्सीय उपचार की लागत परिवारों में मनमुटाव का एक महत्वपूर्ण स्रोत है। सरकारों को इस मामले में जोरदार तरीके से हस्तक्षेप कर स्वास्थ्य बीमा प्रदाताओं पर लगाम कसनी चाहिए जो बुजुर्गों के प्रति अपनी पहुँच के मामले में पशुवत हैं।

जैसे-जैसे व्यक्तियों की जीवन अवधि बढ़ रही है, भारत में वृद्धजनों की जनसंख्या का अनुपात बढ़ रहा है। 2011 की जनगणना के अनुसार हमारी जनसंख्या में 9% वरिष्ठ नागरिक हैं और 2050 तक इस आंकड़े के बढ़ कर 20% होने की आशा है। हमें इसके लिए नीतियाँ और कार्यक्रम आरंभ करने चाहिए जो वृद्ध जनों के स्वास्थ्य कल्याण पर केन्द्रित हों। अन्यथा, जब उनकी संख्या में उफान आएगा, तब हम उनका ध्यान रखने की चुनौती के लिए सक्षम नहीं होंगे।

Sub questions

Question Number : 46 Question Id : 53307221635 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

भारत में वृद्ध नागरिक निम्नलिखित से पीड़ित हैं :

- (1) सरकारी उदासीनता
- (2) नागर समाज द्वारा उपेक्षा
- (3) सामाजिक दुःख
- (4) सामाजिक व आर्थिक समस्याएँ

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 47 Question Id : 53307221636 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

भारत में वरिष्ठ नागरिकों के सामने आने वाले प्रमुख मुद्दे हैं :

- (A) दीर्घ कालिक स्वास्थ्य समस्या
- (B) दूसरों द्वारा दुर्व्यवहार
- (C) दैनंदिन जीवन की अनुपस्थिति
- (D) सामाजिक मांगों को पूरा करने में चुनौतियाँ

नीचे दिए गए विकल्पों में से सही उत्तर का चयन कीजिए :

- (1) केवल (A) और (B)
- (2) केवल (B) और (C)
- (3) केवल (C) और (D)
- (4) केवल (A) और (D)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 48 Question Id : 53307221637 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

हमारे समाज के बारे में कथित धारणा क्या है?

- (1) वृद्ध जनों की अपनी स्वयं की सहायता प्रणाली है
- (2) हमारी परिवार प्रणाली मजबूत है
- (3) बच्चों द्वारा वृद्ध जनों को छोड़ देने के मामलों में गिरावट आ रही है
- (4) बीमा प्रणाली सुस्थापित है

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 49 Question Id : 53307221638 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

वरिष्ठ नागरिकों के साथ व्यवहार में सकारात्मक कदम कौनसा हो सकता है ?

- (1) गलती करने वाले परिवार सदस्यों के लिए दण्ड
- (2) वृद्ध जनों के बोझ होने की धारणा को स्वीकार करना
- (3) सुदृढ़ स्वास्थ्य बीमा प्रणाली
- (4) व्यक्तियों की जीवन अवधि में वृद्धि की निगरानी करना

Options :

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

Question Number : 50 Question Id : 53307221639 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

गद्यांश निम्नलिखित में से किस पर केन्द्रित भावी रणनीति की अनुशंसा करता है ?

- (1) वृद्धजनों के लिए एक संचार प्रणाली स्थापित करना
- (2) परिवार के सदस्यों को अपने वृद्धजनों को न छोड़ने की शिक्षा
- (3) वरिष्ठ नागरिकों वाले परिवारों को वित्तीय सहायता
- (4) वृद्धजनों की देखभाल के लिए दीर्घ कालिक नीति की योजना बनाना

Options :

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

Environmental Sciences

Section Id :	533072284
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	92
Number of Questions to be attempted :	92
Section Marks :	200
Maximum Instruction Time :	0

Sub-Section Number :

Sub-Section Id :

Question Shuffling Allowed :

1

533072848

Yes

Question Number : 51

Question Id : 53307221640

Question Type : MCQ

Option Shuffling : No

Correct Marks : 2

Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
National Park	Famous Conserved Fauna
(A) Kuno	(I) Crocodile
(B) Gir	(II) One horned rhino
(C) Kaziranga	(III) Lion
(D) Bhitarkanika	(IV) Cheetah

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

- (1)

(A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2)

(A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (3)

(A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (4)

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

Options :

1.

1
2.

2
3.

3
4.

4

Question Number : 51

Question Id : 53307221640

Question Type : MCQ

Option Shuffling : No

Correct Marks : 2

Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
National Park	Famous Conserved Fauna
(A) Kuno	(I) Crocodile
(B) Gir	(II) One horned rhino
(C) Kaziranga	(III) Lion
(D) Bhitarkanika	(IV) Cheetah

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (3) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Options :

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

Question Number : 52 Question Id : 53307221641 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Protocol	Features
(A) Nagoya	(I) Procedures for Living Modified Organisms intended to be introduced into the environment
(B) Cartagena	(II) Access and Benefit Sharing of genetic resources
(C) Kyoto	(III) Reduction in the production of the CFCs
(D) Montreal	(IV) Control of Green house gases emissions

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

- (1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (2) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 52 Question Id : 53307221641 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Protocol	Features
(A) Nagoya	(I) Procedures for Living Modified Organisms intended to be introduced into the environment
(B) Cartagena	(II) Access and Benefit Sharing of genetic resources
(C) Kyoto	(III) Reduction in the production of the CFCs
(D) Montreal	(IV) Control of Green house gases emissions

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

- (1) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (2) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 53 Question Id : 53307221642 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Category of Species	Distinguishing feature of Species
(A) Endangered	(I) >50% probability of extinction in 10 years
(B) Vulnerable	(II) >10% probability of extinction in 100 years
(C) Critically endangered	(III) >20% probability of extinction in 20 years
(D) Exotic	(IV) Biological invasion

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (3) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (4) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)

Options :

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

Question Number : 53 Question Id : 53307221642 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Category of Species	Distinguishing feature of Species
(A) Endangered	(I) >50% probability of extinction in 10 years
(B) Vulnerable	(II) >10% probability of extinction in 100 years
(C) Critically endangered	(III) >20% probability of extinction in 20 years
(D) Exotic	(IV) Biological invasion

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
- (3) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (4) (A)-(III), (B)-(II), (C)-(I), (D)-(IV)

Options :

1. 1
2. 2
3. 3

Question Number : 54 Question Id : 53307221643 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Extended Producer Responsibility (EPR) is mandatory for :

- (A) E-waste
- (B) Used oil
- (C) Waste tyre
- (D) Biomedical waste

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

- (1) (A) Only
- (2) (A), (B), (C) Only
- (3) (A), (B) Only
- (4) (A), (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 54 Question Id : 53307221643 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Extended Producer Responsibility (EPR) is mandatory for :

- (A) E-waste
- (B) Used oil
- (C) Waste tyre
- (D) Biomedical waste

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

- (1) (A) Only
- (2) (A), (B), (C) Only
- (3) (A), (B) Only
- (4) (A), (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 55 Question Id : 53307221644 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following in decreasing order of their present contribution to total electricity production in India :

- (A) Thermal
- (B) Hydro
- (C) Solar
- (D) Nuclear

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

- (1) (A), (B), (C), (D)
- (2) (B), (A), (C), (D)
- (3) (A), (C), (B), (D)
- (4) (C), (A), (D), (B)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 55 Question Id : 53307221644 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following in decreasing order of their present contribution to total electricity production in India :

- (A) Thermal
- (B) Hydro
- (C) Solar
- (D) Nuclear

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

- (1) (A), (B), (C), (D)
- (2) (B), (A), (C), (D)
- (3) (A), (C), (B), (D)
- (4) (C), (A), (D), (B)

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 56 Question Id : 53307221645 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following atmospheric species in increasing order of their residence times :

- (A) Formaldehyde
- (B) Hydroxyl radical
- (C) Carbon monoxide
- (D) Nitrous oxide

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

- (1) (B), (A), (C), (D)
- (2) (A), (B), (C), (D)
- (3) (B), (D), (A), (C)
- (4) (D), (B), (A), (C)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 56 Question Id : 53307221645 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following atmospheric species in increasing order of their residence times :

- (A) Formaldehyde
- (B) Hydroxyl radical
- (C) Carbon monoxide
- (D) Nitrous oxide

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

- (1) (B), (A), (C), (D)
- (2) (A), (B), (C), (D)
- (3) (B), (D), (A), (C)
- (4) (D), (B), (A), (C)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 57 Question Id : 53307221646 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following types of radiation would be most effective in detecting vegetation through satellite based sensors ?

- (1) UV
- (2) Yellow
- (3) Infra-Red
- (4) Violet

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 57 Question Id : 53307221646 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following types of radiation would be most effective in detecting vegetation through satellite based sensors ?

- (1) UV
- (2) Yellow
- (3) Infra-Red
- (4) Violet

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 58 Question Id : 53307221647 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which one of the following vegetation types is found in India ?

- (1) Tundra
- (2) Taiga
- (3) Savanna
- (4) Mediterranean

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 58 Question Id : 53307221647 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which one of the following vegetation types is found in India ?

- (1) Tundra
- (2) Taiga
- (3) Savanna
- (4) Mediterranean

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 59 Question Id : 53307221648 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The mass of water vapour in a unit mass of air is called as :

- (1) Water vapour mixing ratio
- (2) Specific humidity
- (3) Absolute humidity
- (4) Saturation water vapour mixing ratio

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 59 Question Id : 53307221648 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

The mass of water vapour in a unit mass of air is called as :

- (1) Water vapour mixing ratio
- (2) Specific humidity
- (3) Absolute humidity
- (4) Saturation water vapour mixing ratio

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 60 Question Id : 53307221649 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

The presence of excess lead (Pb) content in ground water causes :

- (1) Nervous system disorder
- (2) Lung Cancer
- (3) Knock Knee syndrome
- (4) Black foot disease

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 60 Question Id : 53307221649 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

The presence of excess lead (Pb) content in ground water causes :

- (1) Nervous system disorder
- (2) Lung Cancer
- (3) Knock Knee syndrome
- (4) Black foot disease

Options :

- 1. 1
- 2. 2
- 3. 3

4. 4

Question Number : 61 Question Id : 53307221650 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Bowen's reaction series describes :

- (1) The sequence in which minerals melt in rapidly heating magma.
- (2) The sequence in which plutons are formed in migrating magma.
- (3) The sequence in which rocks are formed in average continental crust.
- (4) The sequence in which minerals crystallize in cooling magma.

Options :

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

Question Number : 61 Question Id : 53307221650 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Bowen's reaction series describes :

- (1) The sequence in which minerals melt in rapidly heating magma.
- (2) The sequence in which plutons are formed in migrating magma.
- (3) The sequence in which rocks are formed in average continental crust.
- (4) The sequence in which minerals crystallize in cooling magma.

Options :

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

Question Number : 62 Question Id : 53307221651 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Western Ghats of India have been identified as a Biodiversity Hotspot based on :

- (1) richness of mammal species
- (2) richness of amphibian species
- (3) richness of flowering plant species
- (4) richness of all plant and animal species

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 62 Question Id : 53307221651 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Western Ghats of India have been identified as a Biodiversity Hotspot based on :

- (1) richness of mammal species
- (2) richness of amphibian species
- (3) richness of flowering plant species
- (4) richness of all plant and animal species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 63 Question Id : 53307221652 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The texture of the soil consisting of 30% sand, 40% silt and 30% clay, is :

- (1) Sandy loam
- (2) Clay loam
- (3) Silty loam
- (4) Loam

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 63 Question Id : 53307221652 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The texture of the soil consisting of 30% sand, 40% silt and 30% clay, is :

- (1) Sandy loam
- (2) Clay loam
- (3) Silty loam
- (4) Loam

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 64 Question Id : 53307221653 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Under the Wild Life Protection Act 1972, Vermin are wild animals specified in :

- (1) Schedule I
- (2) Schedule II
- (3) Schedule IV
- (4) Schedule V

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 64 Question Id : 53307221653 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Under the Wild Life Protection Act 1972, Vermin are wild animals specified in :

- (1) Schedule I
- (2) Schedule II
- (3) Schedule IV
- (4) Schedule V

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 65 Question Id : 53307221654 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Dobson unit is the thickness of Ozone which is expressed in :

- (1) Tenths of centimetre
- (2) Tenths of millimetre
- (3) Hundredths of millimetre
- (4) Hundredths of centimetre

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 65 Question Id : 53307221654 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Dobson unit is the thickness of Ozone which is expressed in :

- (1) Tenths of centimetre
- (2) Tenths of millimetre
- (3) Hundredths of millimetre
- (4) Hundredths of centimetre

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 66 Question Id : 53307221655 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Clays	General Formulas
(A) Kaolinite	(I) $\text{Al}_2(\text{OH})_4 \text{Si}_2\text{O}_5$
(B) Montmorillonite	(II) $\text{Fe}_2(\text{OH})_2 \text{Si}_4\text{O}_{10}$
(C) Nontronite	(III) $\text{KAl}_2(\text{OH})_2(\text{AlSi}_3)\text{O}_{10}$
(D) Hydrous Mica	(IV) $\text{Al}_2(\text{OH})_2\text{Si}_4\text{O}_{10}$

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

- (1) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)
- (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (3) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

Options :

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

Question Number : 66 Question Id : 53307221655 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Clays	General Formulas
(A) Kaolinite	(I) $\text{Al}_2(\text{OH})_4 \text{Si}_2\text{O}_5$
(B) Montmorillonite	(II) $\text{Fe}_2(\text{OH})_2 \text{Si}_4\text{O}_{10}$
(C) Nontronite	(III) $\text{KAl}_2(\text{OH})_2(\text{AlSi}_3)\text{O}_{10}$
(D) Hydrous Mica	(IV) $\text{Al}_2(\text{OH})_2\text{Si}_4\text{O}_{10}$

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

- (1) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)
- (2) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (3) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

Options :

1. 1
2. 2
3. 3

Question Number : 67 Question Id : 53307221656 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following devices are used for controlling the particulate contaminants present in stack emissions ?

- (A) Wet Collectors
- (B) Centrifugal Collectors
- (C) Electrostatic Precipitators
- (D) Baghouse filters
- (E) Fixed bed adsorbers

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B), (C) and (D) Only
- (4) (A), (B), (C), (D) and (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 67 Question Id : 53307221656 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following devices are used for controlling the particulate contaminants present in stack emissions ?

- (A) Wet Collectors
- (B) Centrifugal Collectors
- (C) Electrostatic Precipitators
- (D) Baghouse filters
- (E) Fixed bed adsorbers

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B), (C) and (D) Only
- (4) (A), (B), (C), (D) and (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 68 Question Id : 53307221657 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following conventions in correct chronological order :

- (A) Ramsar
- (B) CITES
- (C) BONN
- (D) BASEL

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

- (1) (A), (B), (C), (D)
- (2) (B), (C), (D), (A)
- (3) (C), (D), (B), (A)
- (4) (D), (C), (B), (A)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 68 Question Id : 53307221657 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following conventions in correct chronological order :

- (A) Ramsar
- (B) CITES
- (C) BONN
- (D) BASEL

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

- (1) (A), (B), (C), (D)
- (2) (B), (C), (D), (A)
- (3) (C), (D), (B), (A)
- (4) (D), (C), (B), (A)

Options :

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

Question Number : 69 Question Id : 53307221658 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is the most common microbe used for conversion of sugar into bioethanol ?

- (1) *Aspergillus niger*
- (2) *Saccharomyces cerevisiae*
- (3) *Aspergillus awamori*
- (4) *Trichoderma reesi*

Options :

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

Question Number : 69 Question Id : 53307221658 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is the most common microbe used for conversion of sugar into bioethanol ?

- (1) *Aspergillus niger*
- (2) *Saccharomyces cerevisiae*
- (3) *Aspergillus awamori*
- (4) *Trichoderma reesi*

Options :

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

Question Number : 70 Question Id : 53307221659 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The current recommended limit for perfluorooctanoic acid (PFOA), a commonly found PFAS (per-and polyfluoroalkyl substance), in drinking water as set by the US Environmental Protection Agency (EPA) is :

- (1) 4 parts per trillion (ppt)
- (2) 20 parts per trillion (ppt)
- (3) 70 parts per trillion (ppt)
- (4) 100 parts per trillion (ppt)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 70 Question Id : 53307221659 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The current recommended limit for perfluorooctanoic acid (PFOA), a commonly found PFAS (per-and polyfluoroalkyl substance), in drinking water as set by the US Environmental Protection Agency (EPA) is :

- (1) 4 parts per trillion (ppt)
- (2) 20 parts per trillion (ppt)
- (3) 70 parts per trillion (ppt)
- (4) 100 parts per trillion (ppt)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 71 Question Id : 53307221660 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Of the following species, the most likely to be found in reducing smog is :

- (1) Ozone
- (2) SO_2
- (3) Peroxyacetyl nitrate
- (4) Peroxybenzoyl nitrate

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 71 Question Id : 53307221660 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Of the following species, the most likely to be found in reducing smog is :

- (1) Ozone
- (2) SO₂
- (3) Peroxyacetyl nitrate
- (4) Peroxybenzoyl nitrate

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 72 Question Id : 53307221661 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a design parameter in flocculent settling ?

- (1) Surface over flow rate
- (2) Depth of tank
- (3) Hydraulic retention time
- (4) Chemical coagulant dose

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 72 Question Id : 53307221661 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT a design parameter in flocculent settling ?

- (1) Surface over flow rate
- (2) Depth of tank
- (3) Hydraulic retention time
- (4) Chemical coagulant dose

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 73 Question Id : 53307221662 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

From an environmental standpoint, which of the following may NOT always be desirable for pesticides ?

- (1) Biodegradation
- (2) Mineralization
- (3) Cometabolism
- (4) Bioremediation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 73 Question Id : 53307221662 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

From an environmental standpoint, which of the following may NOT always be desirable for pesticides ?

- (1) Biodegradation
- (2) Mineralization
- (3) Cometabolism
- (4) Bioremediation

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 74 Question Id : 53307221663 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Ethanol blended in proportion of 10% with gasoline is called :

- (1) Biodiesel
- (2) Synthetic Natural Gas
- (3) Hydrogen fuel
- (4) Gasohol

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 74 Question Id : 53307221663 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Ethanol blended in proportion of 10% with gasoline is called :

- (1) Biodiesel
- (2) Synthetic Natural Gas
- (3) Hydrogen fuel
- (4) Gasohol

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 75 Question Id : 53307221664 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

When there exists very high correlation among independent variables in a multiple linear regression model, it is said to suffer from the problem of :

- (1) autocorrelation
- (2) multicollinearity
- (3) homoscedasticity
- (4) hetroscedasticity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 75 Question Id : 53307221664 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

When there exists very high correlation among independent variables in a multiple linear regression model, it is said to suffer from the problem of :

- (1) autocorrelation
- (2) multicollinearity
- (3) homoscedasticity
- (4) hetroscedasticity

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 76 Question Id : 53307221665 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is most prone to slope failure ?

- (1) Conglomerate
- (2) Dipping fractured limestone on a clay bed
- (3) Horizontally bedded quartz sandstone
- (4) Basalt dike

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 76 Question Id : 53307221665 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is most prone to slope failure ?

- (1) Conglomerate
- (2) Dipping fractured limestone on a clay bed
- (3) Horizontally bedded quartz sandstone
- (4) Basalt dike

Options :

- 1. 1

2. 2

3. 3

4. 4

Question Number : 77 Question Id : 53307221666 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following indices of noise pollution would be most appropriate for assessing the background noise level at a place ?

(1) L_{90}

(2) L_{50}

(3) L_{eq}

(4) L_{10}

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 77 Question Id : 53307221666 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following indices of noise pollution would be most appropriate for assessing the background noise level at a place ?

(1) L_{90}

(2) L_{50}

(3) L_{eq}

(4) L_{10}

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 78 Question Id : 53307221667 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Karst topography is the result of :

- (1) Soil erosion
- (2) Biological weathering of silicate rocks
- (3) Chemical weathering of carbonate rocks
- (4) Spheroidal weathering

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 78 Question Id : 53307221667 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Karst topography is the result of :

- (1) Soil erosion
- (2) Biological weathering of silicate rocks
- (3) Chemical weathering of carbonate rocks
- (4) Spheroidal weathering

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 79 Question Id : 53307221668 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT an example of potential energy ?

- (1) Chemical energy
- (2) Sound energy
- (3) Nuclear energy
- (4) Gravitational energy

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 79 Question Id : 53307221668 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Which of the following is NOT an example of potential energy ?

- (1) Chemical energy
- (2) Sound energy
- (3) Nuclear energy
- (4) Gravitational energy

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 80 Question Id : 53307221669 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

For a first order reaction, the plot of a reactant with respect to time is :

- (1) Linear
- (2) Exponential
- (3) Parabolic
- (4) Hyperbolic

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 80 Question Id : 53307221669 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

For a first order reaction, the plot of a reactant with respect to time is :

- (1) Linear
- (2) Exponential
- (3) Parabolic
- (4) Hyperbolic

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 81 Question Id : 53307221670 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct decreasing order of magnitude for Theoretical Oxygen Demand (ThOD), ultimate and 5-day Biochemical Oxygen Demand (BOD_u and BOD_5) and Chemical Oxygen Demand (COD) :

- (A) BOD_5
- (B) BOD_u
- (C) COD
- (D) ThOD

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

- (1) (A), (B), (C), (D)
- (2) (D), (B), (C), (A)
- (3) (D), (B), (A), (C)
- (4) (D), (C), (B), (A)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 81 Question Id : 53307221670 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct decreasing order of magnitude for Theoretical Oxygen Demand (ThOD), ultimate and 5-day Biochemical Oxygen Demand (BOD_u and BOD_5) and Chemical Oxygen Demand (COD) :

- (A) BOD_5
- (B) BOD_u
- (C) COD
- (D) ThOD

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

- (1) (A), (B), (C), (D)
- (2) (D), (B), (C), (A)
- (3) (D), (B), (A), (C)
- (4) (D), (C), (B), (A)

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 82 Question Id : 53307221671 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following electromagnetic radiations in the decreasing order of their frequencies :

- (A) Microwaves
- (B) Gamma Radiations
- (C) Radiowaves
- (D) X-rays
- (E) Infrared radiations

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

- (1) (C), (A), (E), (D), (B)
- (2) (B), (D), (A), (E), (C)
- (3) (B), (D), (E), (A), (C)
- (4) (D), (B), (A), (E), (C)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 82 Question Id : 53307221671 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following electromagnetic radiations in the decreasing order of their frequencies :

- (A) Microwaves
- (B) Gamma Radiations
- (C) Radiowaves
- (D) X-rays
- (E) Infrared radiations

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

- (1) (C), (A), (E), (D), (B)
- (2) (B), (D), (A), (E), (C)
- (3) (B), (D), (E), (A), (C)
- (4) (D), (B), (A), (E), (C)

Options :

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

Question Number : 83 Question Id : 53307221672 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements about Strategic Environmental Assessment (SEA) :

- (A) This is a part of Environmental Impact Assessment (EIA).
- (B) It is a systematic process for evaluating the environmental consequences of the proposed policy, plan and programme.
- (C) It is useful in formulation of environmentally sound programme and for decision making.
- (D) SEA should be undertaken by proponents of policy, plan and programme.

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

- (1) (A), (B), (E) Only
- (2) (B), (C), (D) Only
- (3) (A), (C), (D) Only
- (4) (A), (B) Only

Options :

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

Question Number : 83 Question Id : 53307221672 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements about Strategic Environmental Assessment (SEA) :

- (A) This is a part of Environmental Impact Assessment (EIA).
- (B) It is a systematic process for evaluating the environmental consequences of the proposed policy, plan and programme.
- (C) It is useful in formulation of environmentally sound programme and for decision making.
- (D) SEA should be undertaken by proponents of policy, plan and programme.

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

- (1) (A), (B), (E) Only
- (2) (B), (C), (D) Only
- (3) (A), (C), (D) Only
- (4) (A), (B) Only

Options :

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

Question Number : 84 Question Id : 53307221673 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Under the Solid Waste Management Rules, 2016 "Combustible Waste" is defined as the waste with which of the following properties ?

- (A) Waste having minimum calorific value exceeding 1500 k Cal
- (B) Non-biodegradable and Non-recyclable
- (C) Non-reusable and Nonhazardous
- (D) Waste including chlorinated material

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

- (1) (A), (B) Only
- (2) (B), (C) Only
- (3) (C), (D) Only
- (4) (A), (B), (C) Only

Options :

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

Question Number : 84 Question Id : 53307221673 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Under the Solid Waste Management Rules, 2016 "Combustible Waste" is defined as the waste with which of the following properties ?

- (A) Waste having minimum calorific value exceeding 1500 k Cal
- (B) Non-biodegradable and Non-recyclable
- (C) Non-reusable and Nonhazardous
- (D) Waste including chlorinated material

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

- (1) (A), (B) Only
- (2) (B), (C) Only
- (3) (C), (D) Only
- (4) (A), (B), (C) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 85 Question Id : 53307221674 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify Trihalomethanes (THMs) among the following :

- (A) chloroform
- (B) bromodichloromethane
- (C) dibromochloromethane
- (D) bromoform

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

- (1) (A) Only
- (2) (D) Only
- (3) (B) and (C) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 85 Question Id : 53307221674 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify Trihalomethanes (THMs) among the following :

- (A) chloroform
- (B) bromodichloromethane
- (C) dibromochloromethane
- (D) bromoform

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

- (1) (A) Only
- (2) (D) Only
- (3) (B) and (C) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 86 Question Id : 53307221675 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In a laminar flow, the terminal settling velocity of a spherical particle of diameter 'd' is proportional to :

- (1) d
- (2) d^2
- (3) d^3
- (4) d^4

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 86 Question Id : 53307221675 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In a laminar flow, the terminal settling velocity of a spherical particle of diameter 'd' is proportional to :

- (1) d
- (2) d^2
- (3) d^3
- (4) d^4

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 87 Question Id : 53307221676 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In a region where radiation inversions extend beyond the stack height, the emitted plume will be best characterized as :

- (1) Coning
- (2) Fanning
- (3) Trapping
- (4) Looping

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 87 Question Id : 53307221676 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In a region where radiation inversions extend beyond the stack height, the emitted plume will be best characterized as :

- (1) Coning
- (2) Fanning
- (3) Trapping
- (4) Looping

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 88 Question Id : 53307221677 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The volume of sludge in the digester divided by the volume of digested sludge withdrawn each day in an anaerobic process is known as :

- (1) hydraulic retention time
- (2) solid retention time
- (3) total volatiles
- (4) slurry density

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 88 Question Id : 53307221677 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The volume of sludge in the digester divided by the volume of digested sludge withdrawn each day in an anaerobic process is known as :

- (1) hydraulic retention time
- (2) solid retention time
- (3) total volatiles
- (4) slurry density

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 89 Question Id : 53307221678 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

If a trial has k equally likely outcomes, of which one and only one will happen, the probability of any individual outcome will be :

(1) $\frac{1}{k}$

(2) $\frac{1}{k^2}$

(3) $\frac{1}{k^3}$

(4) $\frac{1}{k^4}$

Options :

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

Question Number : 89 Question Id : 53307221678 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

If a trial has k equally likely outcomes, of which one and only one will happen, the probability of any individual outcome will be :

(1) $\frac{1}{k}$

(2) $\frac{1}{k^2}$

(3) $\frac{1}{k^3}$

(4) $\frac{1}{k^4}$

Options :

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

Question Number : 90 Question Id : 53307221679 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

Which of the following models exhibits oscillatory population behaviour ?

- (1) Logistic model
- (2) Gaussian model
- (3) Lotka-Volterra model
- (4) Model of competition between two species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 90 Question Id : 53307221679 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

Which of the following models exhibits oscillatory population behaviour ?

- (1) Logistic model
- (2) Gaussian model
- (3) Lotka-Volterra model
- (4) Model of competition between two species

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 91 Question Id : 53307221680 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

Genetic variation is determined by :

- (1) natural selection only
- (2) genetic drift only
- (3) both natural selection and genetic drift
- (4) processes other than natural selection and genetic drift

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 91 Question Id : 53307221680 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Genetic variation is determined by :

- (1) natural selection only
- (2) genetic drift only
- (3) both natural selection and genetic drift
- (4) processes other than natural selection and genetic drift

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 92 Question Id : 53307221681 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is INCORRECT statement ?

- (1) Katabatic winds flow down the mountain slopes.
- (2) Katabatic winds are formed during clear nights.
- (3) Anabatic winds are formed due to differential cooling of mountain slopes and free air.
- (4) Anabatic winds are formed during clear days.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 92 Question Id : 53307221681 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is INCORRECT statement ?

- (1) Katabatic winds flow down the mountain slopes.
- (2) Katabatic winds are formed during clear nights.
- (3) Anabatic winds are formed due to differential cooling of mountain slopes and free air.
- (4) Anabatic winds are formed during clear days.

Options :

- 1. 1
- 2. 2

3.3

4.4

Question Number : 93 Question Id : 53307221682 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The order of mineral crystallization is :

- (A) Felsic
- (B) Intermediate
- (C) Mafic
- (D) Ultramafic

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

- (1) (A), (B), (C), (D)
- (2) (D), (C), (B), (A)
- (3) (A), (C), (D), (B)
- (4) (B), (C), (D), (A)

Options :

1.1

2.2

3.3

4.4

Question Number : 93 Question Id : 53307221682 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The order of mineral crystallization is :

- (A) Felsic
- (B) Intermediate
- (C) Mafic
- (D) Ultramafic

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

- (1) (A), (B), (C), (D)
- (2) (D), (C), (B), (A)
- (3) (A), (C), (D), (B)
- (4) (B), (C), (D), (A)

Options :

1.1

2.2

3. 3

4. 4

Question Number : 94 Question Id : 53307221683 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

For hazardous waste management, arrange the following from most desirable to least desirable :

- (A) Recycle it
- (B) Treat it to make it nonhazardous
- (C) Not produce it
- (D) Monitor it for leaching
- (E) Produce only minimum quantities

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

- (1) (C), (E), (A), (B), (D)
- (2) (A), (B), (E), (D), (C)
- (3) (E), (D), (C), (B), (A)
- (4) (E), (B), (D), (A), (C)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 94 Question Id : 53307221683 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

For hazardous waste management, arrange the following from most desirable to least desirable :

- (A) Recycle it
- (B) Treat it to make it nonhazardous
- (C) Not produce it
- (D) Monitor it for leaching
- (E) Produce only minimum quantities

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

- (1) (C), (E), (A), (B), (D)
- (2) (A), (B), (E), (D), (C)
- (3) (E), (D), (C), (B), (A)
- (4) (E), (B), (D), (A), (C)

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 95 Question Id : 53307221684 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding volcanism :

- (A) Volcanoes occur throughout Earth's seas and continents.
- (B) Two types of magma are commonly associated with volcanoes.
- (C) The gases expelled in an explosive eruption include CO₂, water vapour and sulphur dioxide.
- (D) Shield volcanoes are fed by low-silica, low-gas magmas that originate in the core.

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

- (1) (A) and (C) Only
- (2) (B) Only
- (3) (B) and (D) Only
- (4) (A) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 95 Question Id : 53307221684 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding volcanism :

- (A) Volcanoes occur throughout Earth's seas and continents.
- (B) Two types of magma are commonly associated with volcanoes.
- (C) The gases expelled in an explosive eruption include CO₂, water vapour and sulphur dioxide.
- (D) Shield volcanoes are fed by low-silica, low-gas magmas that originate in the core.

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

- (1) (A) and (C) Only
- (2) (B) Only
- (3) (B) and (D) Only
- (4) (A) Only

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 96 Question Id : 53307221685 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following membrane processes in order of decreasing pore size :

- (A) Nanofiltration
- (B) Microfiltration
- (C) Ultrafiltration
- (D) Hyperfiltration

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

- (1) (B), (C), (A), (D)
- (2) (A), (B), (C), (D)
- (3) (D), (A), (B), (C)
- (4) (C), (A), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 96 Question Id : 53307221685 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following membrane processes in order of decreasing pore size :

- (A) Nanofiltration
- (B) Microfiltration
- (C) Ultrafiltration
- (D) Hyperfiltration

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

- (1) (B), (C), (A), (D)
- (2) (A), (B), (C), (D)
- (3) (D), (A), (B), (C)
- (4) (C), (A), (B), (D)

Options :

- 1. 1

2. 2

3. 3

4. 4

Question Number : 97 Question Id : 53307221686 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of the following units in the sewage treatment scheme of a liquid stream :

- (A) Trickling filter
- (B) Primary settling tank
- (C) Grit chamber
- (D) Screen chamber
- (E) Secondary settling tank

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

- (1) (D), (A), (B), (C), (E)
- (2) (D), (C), (B), (A), (E)
- (3) (C), (A), (D), (B), (E)
- (4) (A), (E), (D), (C), (B)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 97 Question Id : 53307221686 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of the following units in the sewage treatment scheme of a liquid stream :

- (A) Trickling filter
- (B) Primary settling tank
- (C) Grit chamber
- (D) Screen chamber
- (E) Secondary settling tank

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

- (1) (D), (A), (B), (C), (E)
- (2) (D), (C), (B), (A), (E)
- (3) (C), (A), (D), (B), (E)
- (4) (A), (E), (D), (C), (B)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 98 Question Id : 53307221687 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the conditions which are favourable for the formation of urban heat islands :

- (A) Clear sky
- (B) High albedo over urban areas
- (C) Low evapo-transpiration over urban areas
- (D) High wind speed

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

- (1) (A), (B) and (D) Only
- (2) (A) and (C) Only
- (3) (B) and (C) Only
- (4) (B) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 98 Question Id : 53307221687 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

Identify the conditions which are favourable for the formation of urban heat islands :

- (A) Clear sky
- (B) High albedo over urban areas
- (C) Low evapo-transpiration over urban areas
- (D) High wind speed

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

- (1) (A), (B) and (D) Only
- (2) (A) and (C) Only
- (3) (B) and (C) Only
- (4) (B) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 99 Question Id : 53307221688 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding chromatography :

- (A) Chromatography involves the separation of compounds distributing them between a mobile phase and a stationary phase.
- (B) The distribution of a compound between two phases is measured by the partition coefficient.
- (C) Analytes interact with the stationary phase to different extents and so move at different speeds.
- (D) The degree of separation of two compounds is measured by the relative retention.

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

- (1) (A) Only
- (2) (A), (B), (D) Only
- (3) (A), (C), (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 99 Question Id : 53307221688 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding chromatography :

- (A) Chromatography involves the separation of compounds distributing them between a mobile phase and a stationary phase.
- (B) The distribution of a compound between two phases is measured by the partition coefficient.
- (C) Analytes interact with the stationary phase to different extents and so move at different speeds.
- (D) The degree of separation of two compounds is measured by the relative retention.

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

- (1) (A) Only
- (2) (A), (B), (D) Only
- (3) (A), (C), (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 100 Question Id : 53307221689 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Which of the following are used to control SO₂ emissions from a thermal power plant ?

- (A) Aqueous solutions of sodium and ammonia
- (B) Liquid nitrogen
- (C) Aqueous solutions of calcium and magnesium
- (D) Chlorine

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

- (1) (A) and (B) Only
- (2) (A) Only
- (3) (C) and (D) Only
- (4) (A) and (C) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 100 Question Id : 53307221689 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are used to control SO_2 emissions from a thermal power plant ?

- (A) Aqueous solutions of sodium and ammonia
- (B) Liquid nitrogen
- (C) Aqueous solutions of calcium and magnesium
- (D) Chlorine

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

- (1) (A) and (B) Only
- (2) (A) Only
- (3) (C) and (D) Only
- (4) (A) and (C) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 101 Question Id : 53307221690 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements is correct ?

- (1) Individuals of a population are identical.
- (2) All variations between individuals of a population are heritable.
- (3) Some of the variation between individuals of a population is heritable.
- (4) All ancestors leave equal number of descendants.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 101 Question Id : 53307221690 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements is correct ?

- (1) Individuals of a population are identical.
- (2) All variations between individuals of a population are heritable.
- (3) Some of the variation between individuals of a population is heritable.
- (4) All ancestors leave equal number of descendants.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 102 Question Id : 53307221691 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I

- (A) Hydrophilic colloids
- (B) Association colloids
- (C) Hydrophobic colloids
- (D) Noncolliods

List - II

- (I) $\text{CH}_3\text{CO}_2^-\text{Na}^+$
- (II) often removed by addition of salt
- (III) $\text{CH}_3(\text{CH}_2)_{16}\text{CO}_2^-\text{Na}^+$
- (IV) Macromolecular proteins

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 102 Question Id : 53307221691 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I

- (A) Hydrophilic colloids
- (B) Association colloids
- (C) Hydrophobic colloids
- (D) Noncolloids

List - II

- (I) $\text{CH}_3\text{CO}_2^-\text{Na}^+$
- (II) often removed by addition of salt
- (III) $\text{CH}_3(\text{CH}_2)_{16}\text{CO}_2^-\text{Na}^+$
- (IV) Macromolecular proteins

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 103 Question Id : 53307221692 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What is the abscissa axis for a Van Krevelen plot ?

- (1) Atomic O/C ratio
- (2) Atomic H/C ratio
- (3) Atomic N/C ratio
- (4) Atomic S/C ratio

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 103 Question Id : 53307221692 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

What is the abscissa axis for a Van Krevelen plot ?

- (1) Atomic O/C ratio
- (2) Atomic H/C ratio
- (3) Atomic N/C ratio
- (4) Atomic S/C ratio

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 104 Question Id : 53307221693 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In estimating the correlation coefficient between two variables 'X' and 'Y', the nature of the correlation (i.e. positive or negative) is determined by :

- (1) Standard deviation of X only
- (2) Standard deviation of Y only
- (3) Both standard deviations of X and Y
- (4) Covariance between 'X' and 'Y'

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 104 Question Id : 53307221693 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In estimating the correlation coefficient between two variables 'X' and 'Y', the nature of the correlation (i.e. positive or negative) is determined by :

- (1) Standard deviation of X only
- (2) Standard deviation of Y only
- (3) Both standard deviations of X and Y
- (4) Covariance between 'X' and 'Y'

Options :

- 1. 1
- 2. 2
- 3. 3

Question Number : 105 Question Id : 53307221694 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements is correct regarding chromium in water ?

- (1) Chromium (III) is less likely to be found in a soluble form than Chromium (VI).
- (2) Chromium (III) toxicity in electroplating waste waters is decreased by oxidation to Chromium (VI).
- (3) Chromium is not an essential trace element.
- (4) Chromium is known to form methylated species analogous to methyl mercury compounds.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 105 Question Id : 53307221694 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements is correct regarding chromium in water ?

- (1) Chromium (III) is less likely to be found in a soluble form than Chromium (VI).
- (2) Chromium (III) toxicity in electroplating waste waters is decreased by oxidation to Chromium (VI).
- (3) Chromium is not an essential trace element.
- (4) Chromium is known to form methylated species analogous to methyl mercury compounds.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 106 Question Id : 53307221695 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In industrial ecology, biomimicry means :

- (1) use of anthropogenic systems to understand natural systems
- (2) use of natural systems to design anthropogenic systems
- (3) use of antropogenic systems to manage natural systems
- (4) copying of anthropogenic systems by biological systems

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 106 Question Id : 53307221695 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

In industrial ecology, biomimicry means :

- (1) use of anthropogenic systems to understand natural systems
- (2) use of natural systems to design anthropogenic systems
- (3) use of antropogenic systems to manage natural systems
- (4) copying of anthropogenic systems by biological systems

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 107 Question Id : 53307221696 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

If Z represents the standard normal variate, then the probability $P(-2 \leq Z \leq +1)$ would be approximately equal to :

- (1) 0.82
- (2) 0.91
- (3) 0.73
- (4) 0.76

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 107 Question Id : 53307221696 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

If Z represents the standard normal variate, then the probability $P(-2 \leq Z \leq +1)$ would be approximately equal to :

- (1) 0.82
- (2) 0.91
- (3) 0.73
- (4) 0.76

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 108 Question Id : 53307221697 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which one of the following statements is correct ?

- (1) Birds are unitary organisms, while trees are modular organisms.
- (2) Birds are modular organisms, while trees are unitary organisms.
- (3) Birds and trees both are unitary organisms.
- (4) Birds and trees both are modular organisms.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 108 Question Id : 53307221697 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which one of the following statements is correct ?

- (1) Birds are unitary organisms, while trees are modular organisms.
- (2) Birds are modular organisms, while trees are unitary organisms.
- (3) Birds and trees both are unitary organisms.
- (4) Birds and trees both are modular organisms.

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 109 Question Id : 53307221698 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Diversity of different communities can be compared based on :

- (1) Only Shannon - Weaver Diversity Index
- (2) Only Rank - Abundance Diagrams
- (3) Both Shannon - Weaver Diversity Index and Rank - Abundance Diagrams
- (4) Only Importance Value Index

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 109 Question Id : 53307221698 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Diversity of different communities can be compared based on :

- (1) Only Shannon - Weaver Diversity Index
- (2) Only Rank - Abundance Diagrams
- (3) Both Shannon - Weaver Diversity Index and Rank - Abundance Diagrams
- (4) Only Importance Value Index

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 110 Question Id : 53307221699 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Choose the correct statements for hazardous and other waste under the Hazardous and Other Waste management Rules 2016 :

- (A) No import of the hazardous and other waste from any country to India is permissible.
- (B) Import of the hazardous and other waste from any country shall be permitted only for recycling, recovery, reuse and utilization.
- (C) Import of the hazardous and other waste from any country to India for disposal is not permissible.
- (D) Import of the hazardous and other wastes specified in schedule VI of rule shall not be permitted.

Choose the **most appropriate** answer from the options given below :

- (1) (A), (D) Only
- (2) (A), (B) Only
- (3) (B), (C), (D) Only
- (4) (A), (C), (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 110 Question Id : 53307221699 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Choose the correct statements for hazardous and other waste under the Hazardous and Other Waste management Rules 2016 :

- (A) No import of the hazardous and other waste from any country to India is permissible.
- (B) Import of the hazardous and other waste from any country shall be permitted only for recycling, recovery, reuse and utilization.
- (C) Import of the hazardous and other waste from any country to India for disposal is not permissible.
- (D) Import of the hazardous and other wastes specified in schedule VI of rule shall not be permitted.

Choose the **most appropriate** answer from the options given below :

- (1) (A), (D) Only
- (2) (A), (B) Only
- (3) (B), (C), (D) Only
- (4) (A), (C), (D) Only

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 111 Question Id : 53307221700 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Choose the correct statements for Extended Producer Responsibility (EPR) with respect to various waste management rules :

- (A) EPR model is based on the polluter pays principle.
- (B) The integration of EPR scheme in rules promotes circular economy.
- (C) It encourages the consumer waste prevention behaviour.
- (D) It is helpful in optimization of waste collection.

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

- (1) (A), (B) Only
- (2) (A), (B), (C) Only
- (3) (B), (C), (D) Only
- (4) (A), (B), (C), (D)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 111 Question Id : 53307221700 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Choose the correct statements for Extended Producer Responsibility (EPR) with respect to various waste management rules :

- (A) EPR model is based on the polluter pays principle.
- (B) The integration of EPR scheme in rules promotes circular economy.
- (C) It encourages the consumer waste prevention behaviour.
- (D) It is helpful in optimization of waste collection.

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

- (1) (A), (B) Only
- (2) (A), (B), (C) Only
- (3) (B), (C), (D) Only
- (4) (A), (B), (C), (D)

Options :

1. 1

2. 2
3. 3
4. 4

Question Number : 112 Question Id : 53307221701 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Category of Exposure	Description
(A) Acute local	(I) Organs within the body after a brief exposure
(B) Acute systemic	(II) Prolonged exposure over a long time on organisms within the body
(C) Chronic local	(III) Specific location from few seconds to few hours
(D) Chronic systemic	(IV) Specific location over long periods as several years

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

- (1) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)
- (2) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (4) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

Options :

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

Question Number : 112 Question Id : 53307221701 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Category of Exposure	Description
(A) Acute local	(I) Organs within the body after a brief exposure
(B) Acute systemic	(II) Prolonged exposure over a long time on organisms within the body
(C) Chronic local	(III) Specific location from few seconds to few hours
(D) Chronic systemic	(IV) Specific location over long periods as several years

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

- (1) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)
- (2) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (4) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

Options :

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

Question Number : 113 Question Id : 53307221702 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Term in Industrial Ecology	Description
(A) Dematerialization	(I) recovering resources from waste
(B) Substitution	(II) using more abundant and safe material
(C) Recycling	(III) use less material for a specific application
(D) Waste Mining	(IV) reduce the need for virgin material

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

- (1) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (2) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (3) (A)-(III), (B)-(II), (C)-(IV), (D)-(I)
- (4) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 113 Question Id : 53307221702 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Term in Industrial Ecology	Description
(A) Dematerialization	(I) recovering resources from waste
(B) Substitution	(II) using more abundant and safe material
(C) Recycling	(III) use less material for a specific application
(D) Waste Mining	(IV) reduce the need for virgin material

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

- (1) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (2) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (3) (A)-(III), (B)-(II), (C)-(IV), (D)-(I)
- (4) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 114 Question Id : 53307221703 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Redox reaction of Nitrogen	Process
(A) Nitrogen Fixation	(I) Nitrates are converted to Nitrites
(B) Nitrification	(II) Binding of molecular Nitrogen in chemically combined form
(C) Nitrate Reduction	(III) Nitrates are converted to molecular Nitrogen
(D) Denitrificaton	(IV) Oxidising Ammonia to Nitrate

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

- (1) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
- (2) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (4) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

Options :

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

Question Number : 114 Question Id : 53307221703 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Redox reaction of Nitrogen	Process
(A) Nitrogen Fixation	(I) Nitrates are converted to Nitrites
(B) Nitrification	(II) Binding of molecular Nitrogen in chemically combined form
(C) Nitrate Reduction	(III) Nitrates are converted to molecular Nitrogen
(D) Denitrificaton	(IV) Oxidising Ammonia to Nitrate

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

- (1) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
- (2) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (3) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)
- (4) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)

Options :

1. 1

2. 2
3. 3
4. 4

Question Number : 115 Question Id : 53307221704 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Type	Description
(A) Ground-water	(I) Water from precipitation in the form of rain or snow
(B) Vadose water	(II) Water present in a zone of saturation
(C) Meteoric water	(III) Water held in the unsaturated zone
(D) Capillary water	(IV) Water drawn somewhat above the water table by surface fringe tension

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)
- (4) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)

Options :

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

Question Number : 115 Question Id : 53307221704 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Type	Description
(A) Ground-water	(I) Water from precipitation in the form of rain or snow
(B) Vadose water	(II) Water present in a zone of saturation
(C) Meteoric water	(III) Water held in the unsaturated zone
(D) Capillary water	(IV) Water drawn somewhat above the water table by surface fringe tension

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

- (1) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)
- (4) (A)-(IV), (B)-(II), (C)-(I), (D)-(III)

Options :

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

Question Number : 116 Question Id : 53307221705 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Property	Description
(A) Cleavage	(I) Resistance to scratching
(B) Lustre	(II) Breakage along planes of weakness
(C) Hardness	(III) Character of reflected light
(D) Crystal form	(IV) Geometric shape

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

- (1) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 116 Question Id : 53307221705 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Property	Description
(A) Cleavage	(I) Resistance to scratching
(B) Lustre	(II) Breakage along planes of weakness
(C) Hardness	(III) Character of reflected light
(D) Crystal form	(IV) Geometric shape

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

- (1) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
- (2) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
- (3) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 117 Question Id : 53307221706 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I		List - II	
Term		Description	
(A)	Biodegradation	(I)	Biologically - mediated alteration of a waste compound in some cases to even a more toxic form
(B)	Biotransformation	(II)	Biologically - mediated breakdown of organic wastes
(C)	Detoxification	(III)	Biologically - mediated breakdown of organic wastes to simple inorganic species, such as CO_2 , NH_3 , SO_4^{2-} and $\text{H}_2\text{PO}_4^- / \text{HPO}_4^{2-}$
(D)	Mineralization	(IV)	Conversion of a toxic substance to one that is not toxic

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 117 Question Id : 53307221706 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Term	Description
(A) Biodegradation	(I) Biologically - mediated alteration of a waste compound in some cases to even a more toxic form
(B) Biotransformation	(II) Biologically - mediated breakdown of organic wastes
(C) Detoxification	(III) Biologically - mediated breakdown of organic wastes to simple inorganic species, such as CO_2 , NH_3 , SO_4^{2-} and $\text{H}_2\text{PO}_4^- / \text{HPO}_4^{2-}$
(D) Mineralization	(IV) Conversion of a toxic substance to one that is not toxic

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (3) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

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

Question Number : 118 Question Id : 53307221707 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Type of transition	Region of electromagnetic spectrum
(A) Electronic	(I) Ultraviolet and visible
(B) Vibrational	(II) Radio frequency
(C) Rotational	(III) Infrared
(D) Nuclear spin	(IV) Far infrared and microwave

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

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Options :

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

Question Number : 118 Question Id : 53307221707 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Type of transition	Region of electromagnetic spectrum
(A) Electronic	(I) Ultraviolet and visible
(B) Vibrational	(II) Radio frequency
(C) Rotational	(III) Infrared
(D) Nuclear spin	(IV) Far infrared and microwave

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

- (1) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (2) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (3) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
- (4) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)

Options :

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

Question Number : 119 Question Id : 53307221708 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements :

- (A) Mean of a standard normal variate is zero.
- (B) Sum of the squares of the deviations about mean is always maximum.
- (C) For a negatively skewed distribution, mean is less than median.
- (D) Mean and Variance of a Poison distribution are equal.

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B) and (D) Only
- (4) (A), (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 119 Question Id : 53307221708 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements :

- (A) Mean of a standard normal variate is zero.
- (B) Sum of the squares of the deviations about mean is always maximum.
- (C) For a negatively skewed distribution, mean is less than median.
- (D) Mean and Variance of a Poison distribution are equal.

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B) and (D) Only
- (4) (A), (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 120 Question Id : 53307221709 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is true for reductive dechlorination ?

- (A) It is also called dehalorespiration.
- (B) It is an aerobic process.
- (C) Hydrogen can be used as an alternate electron acceptor.
- (D) Halogenated organic compounds function as electron acceptor.
- (E) It is an environmentally insignificant process.

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

- (1) (B) and (C) Only
- (2) (A) and (D) Only
- (3) (A) and (B) Only
- (4) (C) and (E) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 120 Question Id : 53307221709 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following is true for reductive dechlorination ?

- (A) It is also called dehalorespiration.
- (B) It is an aerobic process.
- (C) Hydrogen can be used as an alternate electron acceptor.
- (D) Halogenated organic compounds function as electron acceptor.
- (E) It is an environmentally insignificant process.

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

- (1) (B) and (C) Only
- (2) (A) and (D) Only
- (3) (A) and (B) Only
- (4) (C) and (E) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 121 Question Id : 53307221710 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are correct statements ?

- (A) Potential temperature is a conserved quantity for an air parcel under adiabatic condition.
- (B) The air parcel temperature becomes equal to dew point temperature at lifting condensation level.
- (C) The saturation vapour pressure over pure water increases linearly with temperature of water.
- (D) The magnitude of saturated adiabatic lapse rate is always greater than that of dry adiabatic lapse rate.

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

- (1) (A), (B) and (C) Only
- (2) (A) and (B) Only
- (3) (B), (C) and (D) Only
- (4) (A), (B) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 121 Question Id : 53307221710 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are correct statements ?

- (A) Potential temperature is a conserved quantity for an air parcel under adiabatic condition.
- (B) The air parcel temperature becomes equal to dew point temperature at lifting condensation level.
- (C) The saturation vapour pressure over pure water increases linearly with temperature of water.
- (D) The magnitude of saturated adiabatic lapse rate is always greater than that of dry adiabatic lapse rate.

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

- (1) (A), (B) and (C) Only
- (2) (A) and (B) Only
- (3) (B), (C) and (D) Only
- (4) (A), (B) and (D) Only

Options :

- 1. 1
- 2. 2

3. 3

4. 4

Question Number : 122 Question Id : 53307221711 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following DO NOT contribute to hardness of water ?

- (A) K^+
- (B) Na^+
- (C) Ca^{2+}
- (D) Mg^{2+}
- (E) Fe^{3+}

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

- (1) (A) and (B) Only
- (2) (C) and (D) Only
- (3) (B), (C) and (D) Only
- (4) (A), (B) and (E) Only

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 122 Question Id : 53307221711 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following DO NOT contribute to hardness of water ?

- (A) K^+
- (B) Na^+
- (C) Ca^{2+}
- (D) Mg^{2+}
- (E) Fe^{3+}

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

- (1) (A) and (B) Only
- (2) (C) and (D) Only
- (3) (B), (C) and (D) Only
- (4) (A), (B) and (E) Only

Options :

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

Question Number : 123 Question Id : 53307221712 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

A freshly harvested rice straw was weighed and dried. The initial weight of the sample was 100 kg and after drying the final weight of the bone dry material was 75 kg. The moisture content of the sample on dry basis will be :

- (1) 33.3%
- (2) 75%
- (3) 90%
- (4) 25%

Options :

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

Question Number : 123 Question Id : 53307221712 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

A freshly harvested rice straw was weighed and dried. The initial weight of the sample was 100 kg and after drying the final weight of the bone dry material was 75 kg. The moisture content of the sample on dry basis will be :

- (1) 33.3%
- (2) 75%
- (3) 90%
- (4) 25%

Options :

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

Question Number : 124 Question Id : 53307221713 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The half-life of a radioactive isotope of X is 50 years. In a nuclear power plant accident, 1 kg of the X isotope is dispersed into the surroundings of the plant. How much of the X isotope will remain in the surroundings after 150 years ?

- (1) 500 gm
- (2) 250 gm
- (3) 125 gm
- (4) 12.5 gm

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 124 Question Id : 53307221713 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The half-life of a radioactive isotope of X is 50 years. In a nuclear power plant accident, 1 kg of the X isotope is dispersed into the surroundings of the plant. How much of the X isotope will remain in the surroundings after 150 years ?

- (1) 500 gm
- (2) 250 gm
- (3) 125 gm
- (4) 12.5 gm

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 125 Question Id : 53307221714 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The number of trials 'n' and the probability of success 'p' is given for different binomial distributions.
Arrange them in increasing order of their variance :

- (A) $n=15, p=0.4$
- (B) $n=12, p=0.5$
- (C) $n=16, p=0.7$
- (D) $n=18, p=0.6$

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

- (1) (A), (B), (C), (D)
- (2) (B), (D), (A), (C)
- (3) (B), (C), (A), (D)
- (4) (A), (D), (B), (C)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 125 Question Id : 53307221714 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The number of trials 'n' and the probability of success 'p' is given for different binomial distributions.
Arrange them in increasing order of their variance :

- (A) $n=15, p=0.4$
- (B) $n=12, p=0.5$
- (C) $n=16, p=0.7$
- (D) $n=18, p=0.6$

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

- (1) (A), (B), (C), (D)
- (2) (B), (D), (A), (C)
- (3) (B), (C), (A), (D)
- (4) (A), (D), (B), (C)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 126 Question Id : 53307221715 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

For each 10°C rise in temperature, the rate of biological processes roughly increases by :

- (1) 2 times
- (2) 3 times
- (3) 4 times
- (4) 5 times

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 126 Question Id : 53307221715 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

For each 10°C rise in temperature, the rate of biological processes roughly increases by :

- (1) 2 times
- (2) 3 times
- (3) 4 times
- (4) 5 times

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 127 Question Id : 53307221716 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the regression models with different values of ESS and TSS in increasing order of their explanatory power, given that ESS stands for Error Sum of Squares and TSS stands for Total Sum for Squares :

- (A) ESS = 30, TSS = 70
- (B) ESS = 25, TSS = 75
- (C) ESS = 40, TSS = 80
- (D) ESS = 45, TSS = 120

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

- (1) (A), (B), (C), (D)
- (2) (C), (A), (D), (B)
- (3) (C), (B), (D), (A)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 127 Question Id : 53307221716 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the regression models with different values of ESS and TSS in increasing order of their explanatory power, given that ESS stands for Error Sum of Squares and TSS stands for Total Sum for Squares :

- (A) ESS = 30, TSS = 70
- (B) ESS = 25, TSS = 75
- (C) ESS = 40, TSS = 80
- (D) ESS = 45, TSS = 120

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

- (1) (A), (B), (C), (D)
- (2) (C), (A), (D), (B)
- (3) (C), (B), (D), (A)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 128 Question Id : 53307221717 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Types of Chromatography	Description of Stationary Phase
(A) Paper Chromatography	(I) Water absorbed in cellulose fibres
(B) Thin Layer Chromatography	(II) SiO_2 or Al_2O_3 spread on glass, plastic, or aluminium foil plate
(C) High Performance Liquid Chromatography	(III) Adsorbents, e.g. porous silica, with very high surface area, packed in a column
(D) Gas Liquid Chromatography	(IV) Liquid coated on a solid support packed in a column housed in an oven

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 128 Question Id : 53307221717 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Types of Chromatography	Description of Stationary Phase
(A) Paper Chromatography	(I) Water absorbed in cellulose fibres
(B) Thin Layer Chromatography	(II) SiO_2 or Al_2O_3 spread on glass, plastic, or aluminium foil plate
(C) High Performance Liquid Chromatography	(III) Adsorbents, e.g. porous silica, with very high surface area, packed in a column
(D) Gas Liquid Chromatography	(IV) Liquid coated on a solid support packed in a column housed in an oven

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(I), (B)-(III), (C)-(II), (D)-(IV)
- (3) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
- (4) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)

Options :

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

Question Number : 129 Question Id : 53307221718 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following vertical zones of the standard tropical atmosphere in the increasing order of their mean virtual temperature :

- (A) Troposphere
- (B) Stratosphere
- (C) Mesosphere
- (D) Thermosphere

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

- (1) (A), (B), (C), (D)
- (2) (C), (A), (B), (D)
- (3) (C), (B), (A), (D)
- (4) (B), (C), (A), (D)

Options :

1. 1
2. 2

3. 3

4. 4

Question Number : 129 Question Id : 53307221718 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following vertical zones of the standard tropical atmosphere in the increasing order of their mean virtual temperature :

- (A) Troposphere
- (B) Stratosphere
- (C) Mesosphere
- (D) Thermosphere

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

- (1) (A), (B), (C), (D)
- (2) (C), (A), (B), (D)
- (3) (C), (B), (A), (D)
- (4) (B), (C), (A), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 130 Question Id : 53307221719 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following processes of material flow in an industrial ecosystem, beginning from first to last :

- (A) Production of parts to go into final product
- (B) Forming of finished materials
- (C) Processing and preparation for finished materials
- (D) Recycling components or materials
- (E) Fabrication of final product

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

- (1) (B), (D), (E), (A), (C)
- (2) (C), (B), (A), (E), (D)
- (3) (D), (A), (E), (B), (C)
- (4) (A), (C), (D), (B), (E)

Options :

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

Question Number : 130 Question Id : 53307221719 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Arrange the following processes of material flow in an industrial ecosystem, beginning from first to last :

- (A) Production of parts to go into final product
- (B) Forming of finished materials
- (C) Processing and preparation for finished materials
- (D) Recycling components or materials
- (E) Fabrication of final product

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

- (1) (B), (D), (E), (A), (C)
- (2) (C), (B), (A), (E), (D)
- (3) (D), (A), (E), (B), (C)
- (4) (A), (C), (D), (B), (E)

Options :

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

Question Number : 131 Question Id : 53307221720 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The initial velocity of an object is $2\hat{i} + 4\hat{j}$ m/s. Arrange the magnitude of coriolis force acting on the object in decreasing order for the following latitudes, given that the initial velocity does not change.

- (A) 20°N
- (B) 40°N
- (C) 30°N
- (D) 60°N
- (E) 80°N

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

- (1) (A), (C), (B), (D), (E)
- (2) (A), (B), (C), (D), (E)
- (3) (D), (B), (E), (C), (A)
- (4) (E), (D), (B), (C), (A)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 131 Question Id : 53307221720 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

The initial velocity of an object is $2\hat{i} + 4\hat{j}$ m/s. Arrange the magnitude of coriolis force acting on the object in decreasing order for the following latitudes, given that the initial velocity does not change.

- (A) 20°N
- (B) 40°N
- (C) 30°N
- (D) 60°N
- (E) 80°N

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

- (1) (A), (C), (B), (D), (E)
- (2) (A), (B), (C), (D), (E)
- (3) (D), (B), (E), (C), (A)
- (4) (E), (D), (B), (C), (A)

Options :

- 1. 1

- 2. 2
- 3. 3
- 4. 4

Question Number : 132 Question Id : 53307221721 Question Type : MCQ Option Shuffling : No
 Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Water Contaminants	Preferred Removal Method
(A) Mn^{2+}	(I) Activated Carbon
(B) Ca^{2+} and HCO_3^-	(II) Raise pH by adding Na_2CO_3
(C) Trihalomethanes	(III) Addition of lime
(D) Mg^{2+}	(IV) Oxidation

Choose the correct answer from the options given below :

- (1) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (2) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 132 Question Id : 53307221721 Question Type : MCQ Option Shuffling : No
 Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Water Contaminants	Preferred Removal Method
(A) Mn^{2+}	(I) Activated Carbon
(B) Ca^{2+} and HCO_3^-	(II) Raise pH by adding Na_2CO_3
(C) Trihalomethanes	(III) Addition of lime
(D) Mg^{2+}	(IV) Oxidation

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

- (1) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)
- (2) (A)-(I), (B)-(II), (C)-(IV), (D)-(III)
- (3) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
- (4) (A)-(IV), (B)-(I), (C)-(II), (D)-(III)

Options :

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

Question Number : 133 Question Id : 53307221722 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Ecological niche of a species is defined by its :

- (A) needs
- (B) reproductive rate
- (C) tolerances
- (D) chemical composition
- (E) body volume mass ratio

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

- (1) (A) and (D) Only
- (2) (B) and (C) Only
- (3) (A) and (C) Only
- (4) (A) and (E) Only

Options :

1. 1
2. 2
3. 3

Question Number : 133 Question Id : 53307221722 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Ecological niche of a species is defined by its :

- (A) needs
- (B) reproductive rate
- (C) tolerances
- (D) chemical composition
- (E) body volume mass ratio

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

- (1) (A) and (D) Only
- (2) (B) and (C) Only
- (3) (A) and (C) Only
- (4) (A) and (E) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 134 Question Id : 53307221723 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the coagulant aids :

- (A) Clay
- (B) Activated Silica
- (C) Polymers
- (D) Aluminium Sulfate
- (E) Ferric Sulfate

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

- (1) (A) and (B) Only
- (2) (C), (D) and (E) Only
- (3) (A), (B) and (C) Only
- (4) (D) and (E) Only

Options :

- 1. 1

2. 2

3. 3

4. 4

Question Number : 134 Question Id : 53307221723 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the coagulant aids :

- (A) Clay
- (B) Activated Silica
- (C) Polymers
- (D) Aluminium Sulfate
- (E) Ferric Sulfate

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

- (1) (A) and (B) Only
- (2) (C), (D) and (E) Only
- (3) (A), (B) and (C) Only
- (4) (D) and (E) Only

Options :

1. 1

2. 2

3. 3

4. 4

Question Number : 135 Question Id : 53307221724 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding ultraviolet visible spectrophotometry :

- (A) Substances appear coloured due to the absorption of some wavelengths of light and transmission of other wavelengths.
- (B) The absorption of radiation is described by the Beer-Lambert law : $A = \epsilon c l$
- (C) Compounds with high values of ϵ , the molar absorption coefficient, absorb high intensities of light at a given concentration c .
- (D) The absorbance of a solution is proportional to its concentration c .
- (E) The absorbances of several species in solution are additive so that the mixtures of compounds can be analysed.

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

- (1) (A), (E) Only
- (2) (A), (B), (C) Only
- (3) (B), (C), (D) Only
- (4) (A), (B), (C), (D) and (E)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 135 Question Id : 53307221724 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statement(s) regarding ultraviolet visible spectrophotometry :

- (A) Substances appear coloured due to the absorption of some wavelengths of light and transmission of other wavelengths.
- (B) The absorption of radiation is described by the Beer-Lambert law : $A = \epsilon c l$
- (C) Compounds with high values of ϵ , the molar absorption coefficient, absorb high intensities of light at a given concentration c .
- (D) The absorbance of a solution is proportional to its concentration c .
- (E) The absorbances of several species in solution are additive so that the mixtures of compounds can be analysed.

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

- (1) (A), (E) Only
- (2) (A), (B), (C) Only
- (3) (B), (C), (D) Only
- (4) (A), (B), (C), (D) and (E)

Options :

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

Question Number : 136 Question Id : 53307221725 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Given that the Earth is in radiative equilibrium and the equivalent black body temperature of the Earth without having any atmosphere is T_1 . If the sun's emission changes abruptly such that the solar constant increases to four times of its previous value, the new equivalent black body temperature of the Earth will be :

- (1) $2T_1$
- (2) $4T_1$
- (3) $4^{2/3}T_1$
- (4) $\sqrt{2} T_1$

Options :

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

Question Number : 136 Question Id : 53307221725 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Given that the Earth is in radiative equilibrium and the equivalent black body temperature of the Earth without having any atmosphere is T_1 . If the sun's emission changes abruptly such that the solar constant increases to four times of its previous value, the new equivalent black body temperature of the Earth will be :

- (1) $2T_1$
- (2) $4T_1$
- (3) $4^{2/3}T_1$
- (4) $\sqrt{2} T_1$

Options :

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

Question Number : 137 Question Id : 53307221726 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

The major barrier to dermal absorption of toxicants is the horny layer. Arrange the following in the increasing order of skin permeability to toxicants :

- (A) Genital area
- (B) Abdomen
- (C) Arms
- (D) Palms

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

- (1) (B), (C), (D), (A)
- (2) (A), (C), (D), (B)
- (3) (D), (B), (C), (A)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 137 Question Id : 53307221726 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

The major barrier to dermal absorption of toxicants is the horny layer. Arrange the following in the increasing order of skin permeability to toxicants :

- (A) Genital area
- (B) Abdomen
- (C) Arms
- (D) Palms

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

- (1) (B), (C), (D), (A)
- (2) (A), (C), (D), (B)
- (3) (D), (B), (C), (A)
- (4) (A), (C), (B), (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 138 Question Id : 53307221727 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements are correct ?

- (A) Geostrophic wind is a result of balance of pressure gradient force and coriolis force.
- (B) Thermal wind is the vector difference of geostrophic wind at two different altitudes.
- (C) Gradient wind is a result of balance of pressure gradient force, coriolis force and centrifugal force.
- (D) Coriolis force deflects the wind towards right in the southern hemisphere.

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

- (1) (A) and (B) Only
- (2) (B) and (C) Only
- (3) (A), (B) and (C) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 138 Question Id : 53307221727 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following statements are correct ?

- (A) Geostrophic wind is a result of balance of pressure gradient force and coriolis force.
- (B) Thermal wind is the vector difference of geostrophic wind at two different altitudes.
- (C) Gradient wind is a result of balance of pressure gradient force, coriolis force and centrifugal force.
- (D) Coriolis force deflects the wind towards right in the southern hemisphere.

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

- (1) (A) and (B) Only
- (2) (B) and (C) Only
- (3) (A), (B) and (C) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 139 Question Id : 53307221728 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are correct statements ?

- (A) In barotropic atmosphere, isobaric surfaces are coincident with isotherms.
- (B) In barotropic atmosphere, geostrophic wind is constant with altitude.
- (C) In baroclinic atmosphere, isobaric surfaces are also surfaces of constant density.
- (D) In baroclinic atmosphere, geostrophic wind is variable with altitude.

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

- (1) (A) and (C) Only
- (2) (A), (B) and (C) Only
- (3) (A), (B) and (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 139 Question Id : 53307221728 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which of the following are correct statements ?

- (A) In barotropic atmosphere, isobaric surfaces are coincident with isotherms.
- (B) In barotropic atmosphere, geostrophic wind is constant with altitude.
- (C) In baroclinic atmosphere, isobaric surfaces are also surfaces of constant density.
- (D) In baroclinic atmosphere, geostrophic wind is variable with altitude.

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

- (1) (A) and (C) Only
- (2) (A), (B) and (C) Only
- (3) (A), (B) and (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 140 Question Id : 53307221729 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Petroleum Fraction	Numbers of Carbon Atoms
(A) Gasoline	(I) $>C_{25}$
(B) Diesel	(II) $C_5 - C_{10}$
(C) Asphalt	(III) $C_{15} - C_{25}$
(D) Kerosene	(IV) $C_{10} - C_{18}$

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (3) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

Options :

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

Question Number : 140 Question Id : 53307221729 Question Type : MCQ Option Shuffling : No
Correct Marks : 2 Wrong Marks : 0

Match List - I with List - II.

List - I	List - II
Petroleum Fraction	Numbers of Carbon Atoms
(A) Gasoline	(I) $>C_{25}$
(B) Diesel	(II) $C_5 - C_{10}$
(C) Asphalt	(III) $C_{15} - C_{25}$
(D) Kerosene	(IV) $C_{10} - C_{18}$

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

- (1) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
- (2) (A)-(I), (B)-(III), (C)-(IV), (D)-(II)
- (3) (A)-(II), (B)-(III), (C)-(I), (D)-(IV)
- (4) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

Options :

1. 1

- 2. 2
- 3. 3
- 4. 4

Sub-Section Number : 2
Sub-Section Id : 533072849
Question Shuffling Allowed : No

Question Id : 53307221730 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

Question Label : Comprehension

Read the following passage and answer the following questions :

Molecular and Chemical evidences indicate that oxygenic photosynthesis first appeared on Earth several hundred million years before significant levels of O₂ appeared in the atmosphere. However, the O₂ that cyanobacteria produced could not accumulate in the atmosphere because it reacted spontaneously with the reduced iron minerals in the oceans to make iron oxides. By 2.4 billion years ago, O₂ levels had risen to one part per million. Iron oxides are poorly soluble in water and would have precipitated in the oceans, settling down onto seafloor, and forming the sedimentary structures with deposits of iron and silica rich materials. During this span of Earth history, lasting more than 1.5 billion years, the presence of precipitating iron minerals could have caused the oceans to appear brown, or black, or even red rather than the blue colour we know today. Only after the abundant Fe²⁺ on Earth was oxidized, could O₂ begin to accumulate in the atmosphere, and not until 600-900 million years ago did atmospheric O₂ reach present day levels. As O₂ accumulated on Earth, the atmosphere gradually changed from anoxic to oxic.

Sub questions

Question Number : 141 Question Id : 53307221731 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

According to the passage, which of the following represents the most likely time when oxygenic photosynthesis first appeared on the Earth ?

- (1) 2.7 billion years ago
- (2) 1.5 billion years ago
- (3) 700 million years ago
- (4) 300 million years ago

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 142 Question Id : 53307221732 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Precipitating iron minerals could have imparted which of the following colours to the oceans ?

- (A) Brown
- (B) Blue
- (C) Black
- (D) Red

Choose the correct answer from the options given below :

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B) and (D) Only
- (4) (A), (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 143 Question Id : 53307221733 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Based on the information given in the passage, what could be the most likely level of atmospheric O_2 2.6 billion years ago ?

- (1) 0.5 ppm
- (2) 1 ppm
- (3) 10 ppm
- (4) ~ 21%

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 144 Question Id : 53307221734 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct inferences that can be drawn from the information given in the passage.

- (A) About 3 billion years ago, most of the iron present on earth was in ferrous form.
- (B) Initially after the formation of earth, conditions were favourable for oxidation.
- (C) Cynobacteria were capable of photosynthesis.
- (D) Presence of iron minerals in water could impart brown colour to it.

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (C) and (D) Only
- (4) (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 145 Question Id : 53307221735 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Maximum atmospheric O₂ levels could have occurred :

- (1) ~ 3 billion years ago
- (2) ~ 2.4 billion years ago
- (3) ~ 1.5 billion years ago
- (4) ~ 0.75 billion years ago

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Id : 53307221730 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (141 to 145)

Question Label : Comprehension

Read the following passage and answer the following questions :

Molecular and Chemical evidences indicate that oxygenic photosynthesis first appeared on Earth several hundred million years before significant levels of O_2 appeared in the atmosphere. However, the O_2 that cyanobacteria produced could not accumulate in the atmosphere because it reacted spontaneously with the reduced iron minerals in the oceans to make iron oxides. By 2.4 billion years ago, O_2 levels had risen to one part per million. Iron oxides are poorly soluble in water and would have precipitated in the oceans, settling down onto seafloor, and forming the sedimentary structures with deposits of iron and silica rich materials. During this span of Earth history, lasting more than 1.5 billion years, the presence of precipitating iron minerals could have caused the oceans to appear brown, or black, or even red rather than the blue colour we know today. Only after the abundant Fe^{2+} on Earth was oxidized, could O_2 begin to accumulate in the atmosphere, and not until 600-900 million years ago did atmospheric O_2 reach present day levels. As O_2 accumulated on Earth, the atmosphere gradually changed from anoxic to oxic.

Sub questions

Question Number : 141 Question Id : 53307221731 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

According to the passage, which of the following represents the most likely time when oxygenic photosynthesis first appeared on the Earth ?

- (1) 2.7 billion years ago
- (2) 1.5 billion years ago
- (3) 700 million years ago
- (4) 300 million years ago

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 142 Question Id : 53307221732 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Precipitating iron minerals could have imparted which of the following colours to the oceans ?

- (A) Brown
- (B) Blue
- (C) Black
- (D) Red

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (B) and (D) Only
- (4) (A), (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 143 Question Id : 53307221733 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Based on the information given in the passage, what could be the most likely level of atmospheric O₂ 2.6 billion years ago ?

- (1) 0.5 ppm
- (2) 1 ppm
- (3) 10 ppm
- (4) ~ 21%

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 144 Question Id : 53307221734 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct inferences that can be drawn from the information given in the passage.

- (A) About 3 billion years ago, most of the iron present on earth was in ferrous form.
- (B) Initially after the formation of earth, conditions were favourable for oxidation.
- (C) Cynobacteria were capable of photosynthesis.
- (D) Presence of iron minerals in water could impart brown colour to it.

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (C) and (D) Only
- (4) (C) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 145 Question Id : 53307221735 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Maximum atmospheric O₂ levels could have occurred :

- (1) ~ 3 billion years ago
- (2) ~ 2.4 billion years ago
- (3) ~ 1.5 billion years ago
- (4) ~ 0.75 billion years ago

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Sub-Section Number :

3

Sub-Section Id :

533072850

Question Shuffling Allowed :

No

Question Id : 53307221736 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (146 to 150)

Question Label : Comprehension

Read the following passage and answer the following questions :

Polychlorinated Biphenyls (PCBs) are a special type of waste which are found throughout the world in water, sediments, bird tissue and fish tissue. They are made by substituting 1 to 10 Chlorine atoms onto the biphenyl aryl structure. They have very high chemical, thermal and biological stability, low vapour pressure, and high dielectric constants. These properties have led to the use of PCBs as coolant insulation fluids in transformers and capacitors; for the impregnation of cotton and asbestos; as plasticizers; and as additives to some epoxy paints. However, the very same properties have contributed to their widespread dispersion and accumulation in the environment. But, some degree of biodegradation of PCBs in the environment does occur. Substitutes of PCBs for electrical applications have been developed. Disposal of PCBs from discarded electrical equipment and other sources have caused problems, particularly since PCBs can survive ordinary incineration by escaping as vapours through the smokestack. However, they can be destroyed by special incineration processes.

Sub questions

Question Number : 146 Question Id : 53307221737 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

The number of benzene rings in PCBs is :

- (1) 1
- (2) 2
- (3) 3
- (4) 4

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 147 Question Id : 53307221738 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

PCBs tend to accumulate in the environment as they have high :

- (A) Chemical stability
- (B) Thermal stability
- (C) Biological stability
- (D) Vapour pressure
- (E) Dielectric constants

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

- (1) (A), (B), (C) and (D) Only
- (2) (B), (C), (D) and (E) Only
- (3) (A), (B), (C) and (E) Only
- (4) (A), (B), (D) and (E) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 148 Question Id : 53307221739 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

PCBs find their use :

- (A) as insulation fluids in capacitors
- (B) as plasticizers
- (C) as food additives
- (D) for impregnation of asbestos

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (C) and (D) Only
- (4) (A), (B) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 149 Question Id : 53307221740 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which among the following CAN NOT be the number of Chlorine atoms in a PCB molecule ?

- (1) 2
- (2) 7
- (3) 8
- (4) 12

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 150 Question Id : 53307221741 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements regarding PCBs :

- (A) They are used in electrical equipments.
- (B) They can be found in biological samples.
- (C) They are non-biodegradable.
- (D) They cannot be destroyed through incineration.

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

- (1) (A) and (B) Only
- (2) (A), (B) and (C) Only
- (3) (A) and (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Id : 53307221736 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No Question Pattern Type : NonMatrix

Question Numbers : (146 to 150)

Question Label : Comprehension

Read the following passage and answer the following questions :

Polychlorinated Biphenyls (PCBs) are a special type of waste which are found throughout the world in water, sediments, bird tissue and fish tissue. They are made by substituting 1 to 10 Chlorine atoms onto the biphenyl aryl structure. They have very high chemical, thermal and biological stability, low vapour pressure, and high dielectric constants. These properties have led to the use of PCBs as coolant insulation fluids in transformers and capacitors; for the impregnation of cotton and asbestos; as plasticizers; and as additives to some epoxy paints. However, the very same properties have contributed to their widespread dispersion and accumulation in the environment. But, some degree of biodegradation of PCBs in the environment does occur. Substitutes of PCBs for electrical applications have been developed. Disposal of PCBs from discarded electrical equipment and other sources have caused problems, particularly since PCBs can survive ordinary incineration by escaping as vapours through the smokestack. However, they can be destroyed by special incineration processes.

Sub questions

Question Number : 146 Question Id : 53307221737 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

The number of benzene rings in PCBs is :

- (1) 1
- (2) 2
- (3) 3
- (4) 4

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 147 Question Id : 53307221738 Question Type : MCQ Option Shuffling : No

Correct Marks : 2 Wrong Marks : 0

PCBs tend to accumulate in the environment as they have high :

- (A) Chemical stability
- (B) Thermal stability
- (C) Biological stability
- (D) Vapour pressure
- (E) Dielectric constants

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

- (1) (A), (B), (C) and (D) Only
- (2) (B), (C), (D) and (E) Only
- (3) (A), (B), (C) and (E) Only
- (4) (A), (B), (D) and (E) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 148 Question Id : 53307221739 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

PCBs find their use :

- (A) as insulation fluids in capacitors
- (B) as plasticizers
- (C) as food additives
- (D) for impregnation of asbestos

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

- (1) (A), (B) and (C) Only
- (2) (B), (C) and (D) Only
- (3) (A), (C) and (D) Only
- (4) (A), (B) and (D) Only

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 149 Question Id : 53307221740 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Which among the following CAN NOT be the number of Chlorine atoms in a PCB molecule ?

- (1) 2
- (2) 7
- (3) 8
- (4) 12

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4

Question Number : 150 Question Id : 53307221741 Question Type : MCQ Option Shuffling : No Correct Marks : 2 Wrong Marks : 0

Identify the correct statements regarding PCBs :

- (A) They are used in electrical equipments.
- (B) They can be found in biological samples.
- (C) They are non-biodegradable.
- (D) They cannot be destroyed through incineration.

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

- (1) (A) and (B) Only
- (2) (A), (B) and (C) Only
- (3) (A) and (D) Only
- (4) (A), (B), (C) and (D)

Options :

- 1. 1
- 2. 2
- 3. 3
- 4. 4