

National Testing Agency

Question Paper Name: 89 Environmental Sciences 5th Dec 2019 Shift 1
Subject Name: 89 Environmental Sciences
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89 Environmental Sciences

Group Number : 1
Group Id : 61547575
Group Maximum Duration : 0
Group Minimum Duration : 180
Revisit allowed for view? : No
Revisit allowed for edit? : No
Break time: 0
Group Marks: 300

PART I General Paper

Section Id : 615475155
Section Number : 1
Section type : Online
Mandatory or Optional: Mandatory
Number of Questions: 42
Number of Questions to be attempted: 42
Section Marks: 100
Display Number Panel: Yes
Group All Questions: No

Sub-Section Number: 1
Sub-Section Id: 615475503
Question Shuffling Allowed : Yes

Question Id : 61547511671 **Question Type :** COMPREHENSION **Sub Question Shuffling Allowed :** Yes **Group Comprehension Questions :** No

Question Numbers : (1 to 5)

Question Label : Comprehension

The table below embodies data on the number of students admitted in three different colleges (A, B and C) during six different years from 2014 to 2019. Based on the data contained in the table, answer the questions 1-5 :

Year - Wise Number of Admitted students in different colleges :

<div>College →</div> <div>Year ↓</div>	A	B	C
2014	8000	14000	11000
2015	15000	17000	13000
2016	17000	23000	19000
2017	13000	27000	23000
2018	22000	26000	24000
2019	27000	18000	16000

Sub questions

Question Number : 1 Question Id : 61547511672 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In which college was the number of students admitted in the year 2016 second lowest and the number of students admitted in the year 2018 minimum respectively?

- | | |
|-----------------------------|-----------------------------|
| (1) College C and College B | (2) College B and College A |
| (3) College C and College A | (4) College A and College B |

Options :

61547545501. 1
61547545502. 2
61547545503. 3
61547545504. 4

Question Number : 2 Question Id : 61547511673 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the approximate percent (%) increase in the number of students admitted in college A in the year 2016 as compared to previous year?

- | | |
|-----------|-----------|
| (1) 23 % | (2) 123 % |
| (3) 113 % | (4) 13 % |

Options :

61547545505. 1
61547545506. 2
61547545507. 3
61547545508. 4

Question Number : 3 Question Id : 61547511674 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the difference between the total number of students admitted in college A overall the years together and the total number of students admitted in college C in the year 2018 and 2019 together?

- | | |
|-----------|-----------|
| (1) 6400 | (2) 62000 |
| (3) 64000 | (4) 61000 |

Options :

61547545509. 1
61547545510. 2
61547545511. 3
61547545512. 4

Question Number : 4 Question Id : 61547511675 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Total number of students admitted in college C over all the years was approximately what percent (%) of total number of students admitted in all the three colleges together in the year 2017?

- | | |
|----------|----------|
| (1) 168% | (2) 162% |
| (3) 158% | (4) 175% |

Options :

61547545513. 1
61547545514. 2
61547545515. 3
61547545516. 4

Question Number : 5 Question Id : 61547511676 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the average number of students admitted in college A in the year 2015, in college B in the year 2016, and in college C in the year 2019 together?

- | | |
|-----------|-----------|
| (1) 18000 | (2) 24000 |
| (3) 17000 | (4) 28000 |

Options :

61547545517. 1
61547545518. 2
61547545519. 3
61547545520. 4

Question Id : 61547511671 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension
Questions : No

Question Numbers : (1 to 5)

Question Label : Comprehension

नीचे दी गई तालिका में तीन अलग-अलग कॉलेजों (A, B और C) में 2014 से 2019 तक अलग-अलग वर्षों में प्रवेश लेने वाले छात्रों की संख्या संबंधी आकड़े हैं। तालिका में दिए गए आकड़ों के आधार पर प्रश्न सं. 1 से 5 के उत्तर दीजिए :

विभिन्न कालेजों में प्रवेश लेने वाले छात्रों की वर्षवार संख्या :

कालेज वर्ष	A	B	C
2014	8000	14000	11000
2015	15000	17000	13000
2016	17000	23000	19000
2017	13000	27000	23000
2018	22000	26000	24000
2019	27000	18000	16000

Sub questions

Question Number : 1 Question Id : 61547511672 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

किस कालेज में वर्ष 2016 में प्रवेश लेने वाले छात्रों की संख्या नीचे से दूसरे स्थान एवं वर्ष 2018 में प्रवेश लेने वाले छात्रों की संख्या न्यूनतम है?

- (1) कॉलेज C और कॉलेज B (2) कॉलेज B और कॉलेज A
(3) कॉलेज C और कॉलेज A (4) कॉलेज A और कॉलेज B

Options :

61547545501. 1
61547545502. 2
61547545503. 3
61547545504. 4

Question Number : 2 Question Id : 61547511673 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

कॉलेज A में 2016 में प्रवेश लेने वाले छात्रों की संख्या में पिछले वर्ष की तुलना में लगभग कितने प्रतिशत की वृद्धि हुई?

- (1) 23 % (2) 123 %
(3) 113 % (4) 13 %

Options :

61547545505. 1
61547545506. 2
61547545507. 3
61547545508. 4

Question Number : 3 Question Id : 61547511674 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

सभी वर्षों में कॉलेज A में प्रवेश लेने वाले कुल छात्रों और 2018 से 2019 में कॉलेज C में प्रवेश लेने वाले कुल छात्रों के बीच अंतर कितना है?

- | | |
|-----------|-----------|
| (1) 6400 | (2) 62000 |
| (3) 64000 | (4) 61000 |

Options :

61547545509. 1
61547545510. 2
61547545511. 3
61547545512. 4

Question Number : 4 Question Id : 61547511675 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

इन सभी वर्षों में कॉलेज C में प्रवेश लेने वाले कुल छात्रों की संख्या वर्ष 2017 में तीनों कॉलेजों में प्रवेश लेने वाले कुल छात्रों की संख्या का लगभग कितने प्रतिशत था?

- | | |
|----------|----------|
| (1) 168% | (2) 162% |
| (3) 158% | (4) 175% |

Options :

61547545513. 1
61547545514. 2
61547545515. 3
61547545516. 4

Question Number : 5 Question Id : 61547511676 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

वर्ष 2015 में कॉलेज A में प्रवेश लेने वाले, 2016 में कॉलेज B में प्रवेश लेने वाले और 2019 में कॉलेज C में प्रवेश लेने वाले कुल छात्रों का औसत कितना है?

- | | |
|-----------|-----------|
| (1) 18000 | (2) 24000 |
| (3) 17000 | (4) 28000 |

Options :

61547545517. 1
61547545518. 2
61547545519. 3
61547545520. 4

Sub-Section Number:	2
Sub-Section Id:	615475504
Question Shuffling Allowed :	Yes

Question Number : 6 Question Id : 61547511677 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following numbers would occur next in the series

2, 6, 30, 60, 130, 210 _____ ?

(1) 330

(2) 350

(3) 370

(4) 378

Options :

61547545521. 1

61547545522. 2

61547545523. 3

61547545524. 4

Question Number : 6 Question Id : 61547511677 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन सी संख्या/इस क्रम में अगली संख्या होगी ?

2, 6, 30, 60, 130, 210 _____ ?

(1) 330

(2) 350

(3) 370

(4) 378

Options :

61547545521. 1

61547545522. 2

61547545523. 3

61547545524. 4

Question Number : 7 Question Id : 61547511678 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The compound interest on a certain sum of money for 3 years at the rate of 10% per annum is Rs.993.00. The simple interest on the same sum at the rate of 8% per annum for 4 years would be equal to which of the following?

(1) Rs. 900.00

(2) Rs. 930.00

(3) Rs. 960.00

(4) Rs. 990.00

Options :

61547545525. 1

61547545526. 2

61547545527. 3

61547545528. 4

Question Number : 7 Question Id : 61547511678 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

किसी धनराशि पर 10 प्रतिशत वार्षिक चक्रवृद्धि ब्याज की दर से एक वर्ष का ब्याज 993.00 रु. है। उसी धनराशि के लिए 8 प्रतिशत वार्षिक साधारण ब्याज की दर से 4 वर्ष का ब्याज क्या होगा ?

(1) 900 रु.

(2) 930 रु.

(3) 960 रु.

(4) 990 रु.

Options :

61547545525. 1

61547545526. 2

61547545527. 3

61547545528. 4

Question Number : 8 Question Id : 61547511679 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Pointing towards a man, a woman said, "His wife's father is the husband of my mother's only daughter". How is the woman related to the man?

(1) Daughter

(2) Sister - in - law

(3) Sister

(4) Mother - in - law

Options :

61547545529. 1

61547545530. 2

61547545531. 3

61547545532. 4

Question Number : 8 Question Id : 61547511679 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

एक व्यक्ति की तरफ इशारा करते हुए एक महिला ने कहा-

“इनके पत्नी के पिता मेरी माँ के बहन की इकलौती पुत्री के पति हैं” महिला का व्यक्ति से क्या संबंध है?

(1) पुत्री

(2) ननद/भाभी/साली

(3) बहन

(4) सास

Options :

61547545529. 1

61547545530. 2

61547545531. 3

61547545532. 4

Question Number : 9 Question Id : 61547511680 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

If the word TEACHER is coded as TCJACCV and the word SURGEON is coded as PMGETSU in a certain code language, then which of the following will represent the word CONCORD in that language?

- | | |
|-------------|-------------|
| (1) FTQEPQE | (2) EQPEQTF |
| (3) FPQAPME | (4) EMPAQPF |

Options :

61547545533. 1
61547545534. 2
61547545535. 3
61547545536. 4

Question Number : 9 Question Id : 61547511680 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

यदि TEACHER शब्द को TCJACCV में कूटबद्ध किया जाता है और SURGEON को किसी भाषा के कूट में PMGETSU कहा जाता है तो निम्नलिखित में से कौन उस भाषा के CONCORD का प्रतिनिधित्व करेगा?

- | | |
|-------------|-------------|
| (1) FTQEPQE | (2) EQPEQTF |
| (3) FPQAPME | (4) EMPAQPF |

Options :

61547545533. 1
61547545534. 2
61547545535. 3
61547545536. 4

Question Number : 10 Question Id : 61547511681 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

A solid is in the form of a cylinder with hemispherical ends. The diameter of the cylinder is $\frac{1}{3}$ of its height (excluding the hemispherical ends). The total length of the solid including the hemispherical ends is 56 cm. What is the surface area of the solid?

- | | |
|--------------------------|--------------------------|
| (1) 3080 cm ² | (2) 2464 cm ² |
| (3) 2772 cm ² | (4) 2156 cm ² |

Options :

61547545537. 1
61547545538. 2
61547545539. 3
61547545540. 4

Question Number : 10 Question Id : 61547511681 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

एक ठोस पदार्थ अर्धगोलाकार छोर वाले बेलन के आकार में है। बेलन का व्यास अपनी ऊँचाई (अर्धगोलाकार छोरों को छोड़कर) का $\frac{1}{3}$ है। अर्धगोलाकार छोरों सहित ठोस की कुल लंबाई 56 सेमी है। ठोस पदार्थ का पृष्ठीय क्षेत्र कितना है?

- | | |
|--------------------|--------------------|
| (1) 3080 वर्ग सेमी | (2) 2464 वर्ग सेमी |
| (3) 2772 वर्ग सेमी | (4) 2156 वर्ग सेमी |

Options :

61547545537. 1
61547545538. 2
61547545539. 3
61547545540. 4

Question Number : 11 Question Id : 61547511682 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the communication which is valid as documentary evidence from the following :

- | | |
|----------------------------|--------------------------------|
| (1) Written Communication | (2) Verbal Communication |
| (3) Gestural Communication | (4) Non - verbal Communication |

Options :

61547545541. 1
61547545542. 2
61547545543. 3
61547545544. 4

Question Number : 11 Question Id : 61547511682 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

इनमें से उस संवाद की पहचान किजिए जो दस्तवेजी साक्ष्य के रूप में वैध है?

- | | |
|------------------------|------------------|
| (1) लिखित संवाद | (2) वाचिक संवाद |
| (3) हाव-भाव वाला संवाद | (4) अवाचिक संवाद |

Options :

61547545541. 1
61547545542. 2
61547545543. 3
61547545544. 4

Question Number : 12 Question Id : 61547511683 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following groups of electronic scientists has been given in an order chronologically?

- (1) Guglielmo (G.) Marconi, Lumiere Brothers, Lee forest, John Fleming and John Logie Baird
- (2) John Logie Baird, Lumiere Brothers, Guglielmo (G.) Marconi, Lee forest and John Fleming
- (3) Lee forest, John Fleming, Lumiere Brothers, Guglielmo (G.) Marconi and John Logie Baird
- (4) Lumiere Brothers, Guglielmo (G.) Marconi, Lee forest, John Fleming and John Logie Baird

Options :

- 61547545545. 1
- 61547545546. 2
- 61547545547. 3
- 61547545548. 4

Question Number : 12 Question Id : 61547511683 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

इनमें से इलेक्ट्रॉनिक वैज्ञानिकों के किस समूह को सही कालक्रम में रखा गया है?

- (1) जी. मारकोनी, लुमियर ब्रदर्स, ली फॉरेस्ट, जान फ्लेमिंग, जॉन लोगी बेयर्ड
- (2) जॉन लोगी बेयर्ड, लुमियर ब्रदर्स, जी. मारकोनी, ली फॉरेस्ट और जान फ्लेमिंग
- (3) ली फॉरेस्ट, जान फ्लेमिंग, लुमियर ब्रदर्स, जी. मारकोनी, जॉन लोगी बेयर्ड
- (4) लुमियर ब्रदर्स, जी. मारकोनी, ली फॉरेस्ट, जान फ्लेमिंग और जॉन लोगी बेयर्ड,

Options :

- 61547545545. 1
- 61547545546. 2
- 61547545547. 3
- 61547545548. 4

Question Number : 13 Question Id : 61547511684 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Who among the following, first took the initiative for appointing a University Education Commission during pre-independence period?

- | | |
|--------------------|------------------|
| (1) Lord Curzon | (2) Lord Ripon |
| (3) Lord Wellesley | (4) Lord Bentick |

Options :

61547545549. 1
61547545550. 2
61547545551. 3
61547545552. 4

Question Number : 13 Question Id : 61547511684 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

स्वतंत्रता पूर्व काल में निम्नलिखित में से किसने विश्वविद्यालय शिक्षा आयोग गठित करने हेतु सबसे पहले पहल की थी ?

- | | |
|-------------------|--------------------------|
| (1) लार्ड कर्जन | (2) लार्ड रिपन |
| (3) लार्ड वेल्सले | (4) लार्ड विलियम बेन्टिक |

Options :

61547545549. 1
61547545550. 2
61547545551. 3
61547545552. 4

Question Number : 14 Question Id : 61547511685 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following groups of commission on education has been given chronologically in an order of year in which they were constituted?

- | |
|---|
| (1) Kothari Commission, Mudaliar Commission, Radhakrishnan Commission |
| (2) Radhakrishnan Commission, Mudaliar Commission, Kothari Commission |
| (3) Mudaliar Commission, Kothari Commission, Radhakrishnan Commission |
| (4) Radhakrishnan Commission, Kothari Commission, Mudaliar Commission |

Options :

61547545553. 1
61547545554. 2
61547545555. 3
61547545556. 4

Question Number : 14 Question Id : 61547511685 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित शिक्षा आयोगों के समूहों में से कौन सा समूह इनके गठन के कालक्रम के अनुसार है?

- (1) कोठारी आयोग, मुदालियर आयोग, राधाकृष्णन आयोग
- (2) राधाकृष्णन आयोग, मुदालियर आयोग, कोठारी आयोग
- (3) मुदालियर आयोग, कोठारी आयोग, राधाकृष्णन आयोग
- (4) राधाकृष्णन आयोग, कोठारी आयोग, मुदालियर आयोग

Options :

61547545553. 1
61547545554. 2
61547545555. 3
61547545556. 4

Question Number : 15 Question Id : 61547511686 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following is signified by the term 'hetu' in the process of anumāna (inference) in classical Indian School of Logic?

- | | |
|------------------------------|-------------------------|
| (1) Example Provided | (2) Statement of reason |
| (3) Proposition to be proved | (4) Conclusion Proved |

Options :

61547545557. 1
61547545558. 2
61547545559. 3
61547545560. 4

Question Number : 15 Question Id : 61547511686 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से क्या भारतीय तर्कशास्त्र की शास्त्रीय विचारधारा के अनुसार अनुमान (निष्कर्ष) की प्रक्रिया में 'हेतु' पद को व्यक्त करता है?

- | | |
|--------------------------------|--------------------|
| (1) प्रस्तुत उदाहरण | (2) कारण का कथन |
| (3) सिद्ध करने हेतु प्रस्थापना | (4) सिद्ध निष्कर्ष |

Options :

61547545557. 1
61547545558. 2
61547545559. 3

61547545560. 4

Question Number : 16 Question Id : 61547511687 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Assumption of an unperceived fact in order to reconcile two apparently inconsistent perceived facts is known in Indian Logic as :

- | | |
|------------------------------|------------------------------------|
| (1) Anumāna (Inference) | (2) Upamāna (Comparison) |
| (3) Arthāpatti (Implication) | (4) Anupalabdhi (Non-apprehension) |

Options :

61547545561. 1
61547545562. 2
61547545563. 3
61547545564. 4

Question Number : 16 Question Id : 61547511687 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

प्रत्यक्ष रूप से असंगत दो प्रत्यक्षीकृत तथ्यों के समायोजन हेतु अप्रत्यक्षीकृत तथ्यों की अन्तर्निहित मान्यता को भारतीय तर्कशास्त्र में क्या संज्ञा दी जाती है?

- | | |
|----------------|---------------|
| (1) अनुमान | (2) उपमान |
| (3) अर्थापत्ति | (4) अनुपलब्धि |

Options :

61547545561. 1
61547545562. 2
61547545563. 3
61547545564. 4

Question Number : 17 Question Id : 61547511688 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following combination of propositions is considered to be contraries in the classical square of opposition?

- | |
|--|
| (1) Universal affirmative and universal negative |
| (2) Universal affirmative and particular affirmative |
| (3) Particular affirmative and universal negative |
| (4) Particular affirmative and particular negative |

Options :

61547545565. 1
61547545566. 2
61547545567. 3
61547545568. 4

Question Number : 17 Question Id : 61547511688 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

विरोध-चतुरस्र के शास्त्रीय चिंतन में निम्नलिखित में से किन प्रस्थापनाओं के संयोजन को विरोधाभासी माना जाता है?

- (1) सार्वभौमिक अस्तिवाचक और सार्वभौमिक निषेधक
- (2) सार्वभौमिक अस्तिवाचक और विशेष अस्तिवाचक
- (3) विशेष अस्तिवाचक और सार्वभौमिक निषेधक
- (4) विशेष अस्तिवाचक और विशेष निषेधक

Options :

- 61547545565. 1
- 61547545566. 2
- 61547545567. 3
- 61547545568. 4

Question Number : 18 Question Id : 61547511689 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following is not a part of immediate deductive inference?

- (1) Conversion
- (2) Obversion
- (3) Syllogism
- (4) Contraposition

Options :

- 61547545569. 1
- 61547545570. 2
- 61547545571. 3
- 61547545572. 4

Question Number : 18 Question Id : 61547511689 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से क्या निगमनात्मक अनुमान का भाग नहीं है?

- (1) परिवर्तन
- (2) प्रतिवर्तन
- (3) न्यायवाक्य
- (4) प्रतिपरिवर्तन

Options :

- 61547545569. 1
- 61547545570. 2
- 61547545571. 3
- 61547545572. 4

Question Number : 19 Question Id : 61547511690 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following factors does not contribute to learning mathematical concepts

- (1) Real life events
- (2) Assessing the existing mathematical knowledge of the learner before deciding the syllabi
- (3) Teaching mathematics and history together
- (4) Narrating the life experiences of the mathematician who has given the concept

Options :

61547545573. 1

61547545574. 2

61547545575. 3

61547545576. 4

Question Number : 19 Question Id : 61547511690 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

गणितीय अवधारणाओं के अधिगम में निम्नलिखित में से किस कारक का योगदान नहीं होता है?

- (1) जीवन की वास्तविक घटनायें
- (2) पाठ्यक्रम के निर्धारण के पूर्व अधिगम कर्ताओं में विद्यमान गणितीय ज्ञान का मूल्यांकन
- (3) गणित और इतिहास एक साथ पढ़ाना
- (4) अवधारणा के प्रतिपादक गणितज्ञ के जीवन अनुभवों का वर्णन

Options :

61547545573. 1

61547545574. 2

61547545575. 3

61547545576. 4

Question Number : 20 Question Id : 61547511691 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which among the following is NOT an alternative to traditional assessments?

- (1) Multiple Choice Questions
- (2) Performance Test
- (3) Portfolios
- (4) Exhibitions

Options :

61547545577. 1

61547545578. 2

61547545579. 3

61547545580. 4

Question Number : 20 Question Id : 61547511691 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन पारंपरिक मूल्यांकन का एक विकल्प नहीं है?

- | | |
|-------------------------|---------------------------|
| (1) बहु विकल्पीय प्रश्न | (2) कार्यनिष्पादन परीक्षण |
| (3) पोर्टफोलियो | (4) प्रदर्शनियां |

Options :

61547545577. 1
61547545578. 2
61547545579. 3
61547545580. 4

Question Number : 21 Question Id : 61547511692 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

A college teacher conducts a quiz session with a view to accelerate the tempo of motivational participation. This will form part of which type of evaluation?

- | | |
|--------------------------|--------------------------------|
| (1) Summative evaluation | (2) Criterion based evaluation |
| (3) Formative evaluation | (4) Diagnostic evaluation |

Options :

61547545581. 1
61547545582. 2
61547545583. 3
61547545584. 4

Question Number : 21 Question Id : 61547511692 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

एक महाविद्यालय का शिक्षक अभिप्रेरक प्रतिभाग की गति को बढ़ावा देने के लिए प्रश्न-पहेली सत्र को अपनाता है। यह मूल्यांकन के किस प्रकार के रूप में लिया जाएगा?

- | | |
|----------------------------|-------------------------------|
| (1) संकलनात्मक मूल्यांकन | (2) निष्कर्ष-आधारित मूल्यांकन |
| (3) निर्माणात्मक मूल्यांकन | (4) निदानात्मक मूल्यांकन |

Options :

61547545581. 1
61547545582. 2
61547545583. 3
61547545584. 4

Question Number : 22 Question Id : 61547511693 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which among the following is NOT the principle associated with Positivism?

- | | |
|-------------------|--------------------|
| (1) Phenomenalism | (2) Deductivism |
| (3) Inductivism | (4) Interpretivism |

Options :

- 61547545585. 1
- 61547545586. 2
- 61547545587. 3
- 61547545588. 4

Question Number : 22 Question Id : 61547511693 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन सा सिद्धांत प्रत्यक्षवाद से संबंधित नहीं है?

- | | |
|-------------------|--------------------|
| (1) परिघटनात्मकता | (2) निगमनात्मकता |
| (3) आगमनात्मकता | (4) व्याख्यात्मकता |

Options :

- 61547545585. 1
- 61547545586. 2
- 61547545587. 3
- 61547545588. 4

Question Number : 23 Question Id : 61547511694 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In grounded theory, researchers collect data using theoretical sampling until theoretical saturation is achieved. This process can be summarized in the following sequence.

- (1) Sample theoretically decided → Collect data → Analyse data → Theoretical Saturation
- (2) General research question → Collect data → Sample theoretically decided → Analyse data → Theoretical Saturation
- (3) Sample theoretically decided → General research question → Collect data → Theoretical Saturation
- (4) General research question → Sample theoretically decided → Collect data → Analyse data → Theoretical Saturation

Options :

- 61547545589. 1
- 61547545590. 2
- 61547545591. 3
- 61547545592. 4

Question Number : 23 Question Id : 61547511694 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

आधारिक सिद्धांत में शोधकर्ता सैद्धांतिक संतृप्ति होने तक सैद्धांतिक प्रतिचयन के प्रयोग द्वारा डाटा संग्रहण करते हैं. इस प्रक्रिया को निम्नलिखित क्रम में दर्शाया जा सकता है:

- (1) सैद्धांतिक प्रतिदर्श → डाटा संग्रह → डाटा विश्लेषण → सैद्धांतिक संतृप्ति
- (2) सामान्य शोध प्रश्न → डाटा संग्रह → सैद्धांतिक प्रतिदर्श → डाटा विश्लेषण → सैद्धांतिक संतृप्ति
- (3) सैद्धांतिक प्रतिदर्श → सामान्य शोध प्रश्न → डाटा संग्रह → सैद्धांतिक संतृप्ति
- (4) सामान्य शोध प्रश्न → सैद्धांतिक प्रतिदर्श → डाटा संग्रह → डाटा विश्लेषण → सैद्धांतिक संतृप्ति

Options :

- 61547545589. 1
- 61547545590. 2
- 61547545591. 3
- 61547545592. 4

Question Number : 24 Question Id : 61547511695 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the ways that would be followed by a public sector organization to communicate with public by organizing an open house :

- (a) Publicity
- (b) Lobbying
- (c) Public relations
- (d) Image building

Choose the correct option :

- (1) (a), (c) and (d)
- (2) (b), (c) and (d)
- (3) (a), (b) and (d)
- (4) (a), (b) and (c)

Options :

- 61547545593. 1
- 61547545594. 2
- 61547545595. 3
- 61547545596. 4

Question Number : 24 Question Id : 61547511695 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

‘ओपेन हाउस’ के आयोजन के माध्यम से जनता से संवाद के लिए किसी सार्वजनिक क्षेत्र के संगठन द्वारा निम्नलिखित में से किन तरीकों का प्रयोग किया जाता है?

- (a) प्रचार
- (b) लाबिंग
- (c) जन संपर्क
- (d) छवि निर्माण

सही विकल्प का चयन करें :

- (1) (a), (c) और (d)
- (2) (b), (c) और (d)
- (3) (a), (b) और (d)
- (4) (a), (b) और (c)

Options :

61547545593. 1

61547545594. 2

61547545595. 3

61547545596. 4

Question Number : 25 Question Id : 61547511696 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Choose the institutions which are not authorized to confer degree according to UGC Act 1956:

- (a) Institutions established under linguistic minority
- (b) Deemed to be Universities
- (c) Constituent Colleges
- (d) Affiliated Colleges

Choose the correct option :

- (1) (a), (b) and (d) only
- (2) (a), (b) and (c) only
- (3) (b), (c) and (d) only
- (4) (a), (c) and (d) only

Options :

61547545597. 1

61547545598. 2

61547545599. 3

61547545600. 4

**Question Number : 25 Question Id : 61547511696 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

ऐसे संस्थानों का चयन कीजिए जिन्हें यूजीसी अधिनियम 1956 के अनुसार डिग्री प्रदान करने के लिए प्राधिकृत नहीं किया गया है?

- (a) भाषायी अल्पसंख्यक के अधीन स्थापित संस्थान
- (b) मानित विश्व विद्यालय
- (c) संघटक कॉलेज
- (d) संबद्ध कॉलेज

सही विकल्प का चयन करें :

- (1) (a), (b) और (d) केवल
- (2) (a), (b) और (c) केवल
- (3) (b), (c) और (d) केवल
- (4) (a), (c) और (d) केवल

Options :

- 61547545597. 1
- 61547545598. 2
- 61547545599. 3
- 61547545600. 4

Question Number : 26 Question Id : 61547511697 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following statements is/are correct in the context of 'Digital India' Initiative of Government of India?

- (a) National Digital Library of India (NDL India) is a 24 × 7 online store house of all academic awards duly digitized and lodged by academic institutions.
- (b) National Academic Depository (NAD) is an all – digital library that stores information (metadata) about different types of digital contents relevant to the citizens.

Choose the correct option :

- (1) (a) only
- (2) (b) only
- (3) Both (a) and (b)
- (4) Neither (a) nor (b)

Options :

- 61547545601. 1
- 61547545602. 2
- 61547545603. 3
- 61547545604. 4

Question Number : 26 Question Id : 61547511697 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

भारत सरकार के 'डिजिटल इंडिया' पहल के परिप्रेक्ष्य में निम्नलिखित में से कौन कथन सही है/हैं?

- (a) भारतीय राष्ट्रीय डिजिटल पुस्तकालय (एन डी एल इंडिया) अकादमिक संस्थानों में संग्रहित विधिवत डिजिटिकृत समस्त अकादमिक पुस्तकारों का एक 24×7 ऑनलाइन भंडार कोष है।
- (b) राष्ट्रीय अकादमिक निक्षेपागार (एन ए डी) एक पूर्ण रूप से डिजिटल पुस्तकालय है जिसमें नागरिकों के लिए प्रासंगिक विभिन्न प्रकार की डिजिटल विषय-वस्तु से संबंधित सूचना (मेटा डाटा) का भंडारण होता है।

सही विकल्प चुनिए :

- (1) केवल (a)
- (2) केवल (b)
- (3) (a) और (b) दोनों
- (4) न तो (a) और न ही (b)

Options :

61547545601. 1

61547545602. 2

61547545603. 3

61547545604. 4

Question Number : 27 Question Id : 61547511698 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is / are correct?

- (a) WWW is a network of networks that first started with four computer nodes.
- (b) WWW is a service that runs on the Internet.

Choose the correct option:

- (1) (a) only
- (2) (b) only
- (3) Both (a) and (b)
- (4) Neither (a) nor (b)

Options :

61547545605. 1

61547545606. 2

61547545607. 3

61547545608. 4

Question Number : 27 Question Id : 61547511698 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से कौन कथन सही है/हैं ?

- (a) www नेटवर्कों का एक नेटवर्क है जो प्रथमतः चार कंप्यूटर नोडों के साथ शुरू हुआ था।
- (b) www इंटरनेट पर चलने वाली एक सेवा है।

सही विकल्प चुनिए :

- (1) केवल (a)
- (2) केवल (b)
- (3) (a) और (b) दोनों
- (4) न तो (a) और न ही (b)

Options :

61547545605. 1

61547545606. 2

61547545607. 3

61547545608. 4

Question Number : 28 Question Id : 61547511699 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Academic performance of students is determined by :

- (a) Intelligence
 - (b) Motivation
 - (c) Physique
 - (d) Gender
- (1) (a) and (b) only
 - (2) (a) and (d) only
 - (3) (b) and (c) only
 - (4) (c) and (d) only

Options :

61547545609. 1

61547545610. 2

61547545611. 3

61547545612. 4

Question Number : 28 Question Id : 61547511699 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

विद्यार्थियों का अकादमिक निष्पादन किससे निर्धारित होता है?

- (a) प्रज्ञा
- (b) अभिप्रेरण
- (c) शारीरिक गठन
- (d) लिंग

(1) केवल (a) और (b)

(2) केवल (a) और (d)

(3) केवल (b) और (c)

(4) केवल (c) और (d)

Options :

61547545609. 1

61547545610. 2

61547545611. 3

61547545612. 4

Question Number : 29 Question Id : 61547511700 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Spread of forest fires is influenced by

- (a) Slope
- (b) Soil Moisture
- (c) Wind

Choose the correct answer from the options given below:

(1) (a) and (b) only

(2) (b) and (c) only

(3) (a) and (c) only

(4) (a), (b) and (c)

Options :

61547545613. 1

61547545614. 2

61547545615. 3

61547545616. 4

Question Number : 29 Question Id : 61547511700 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

जंगलों की आग किससे प्रभावित होती है?

- (a) ढलान
- (b) भूमि की नमी
- (c) वायु

निम्नलिखित में से सही विकल्प चुनें :

- | | |
|---------------------|---------------------|
| (1) केवल (a) और (b) | (2) केवल (b) और (c) |
| (3) केवल (a) और (c) | (4) (a), (b) और (c) |

Options :

- 61547545613. 1
- 61547545614. 2
- 61547545615. 3
- 61547545616. 4

Question Number : 30 Question Id : 61547511701 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below is question (Q) followed by three statements. Identify the statements (a, b, c) that are necessary to answer the question.

Question : What is the average age of 30 students studying in a class?

- (a) Boys and girls in the class are in the ratio 7:8
- (b) The average age of boys and girls is 12.2 years and 11.4 years, respectively.
- (c) The number of boys in the class is two less than the number of the girls in the class.

Choose the correct option from those given below :

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (b) and either (a) or (c)

Options :

- 61547545617. 1
- 61547545618. 2
- 61547545619. 3
- 61547545620. 4

Correct Marks : 2 Wrong Marks : 0

नीचे एक प्रश्न दिया गया है और उसके बाद तीन कथन दिए गए हैं। उन कथनों (a, b, c) की पहचान करें जो प्रश्न का उत्तर देने के लिए आवश्यक हैं :

प्रश्न : एक कक्षा में अध्ययन करने वाले 30 छात्रों की औसत उम्र क्या है?

- (a) कक्षा में लड़के और लड़कियाँ 7 : 8 अनुपात में है
- (b) लड़के और लड़कियों की औसत आयु क्रमशः 12.2 वर्ष और 11.4 वर्ष है
- (c) कक्षा में लड़कों की संख्या कक्षा में लड़कियों की संख्या की तुलना में दो कम है।

सही विकल्प का चयन करें :

- (1) केवल (a) और (b)
- (2) केवल (b) और (c)
- (3) केवल (a) और (c)
- (4) (b) और (a) या (c)

Options :

61547545617. 1

61547545618. 2

61547545619. 3

61547545620. 4

Correct Marks : 2 Wrong Marks : 0

Consider the following statements with reference to categorical propositions :

- (a) “Some birds are mammals” is a particular affirmative proposition and it distributes subject term alone.
- (b) “Some birds are mammals” is a particular affirmative proposition and it distributes predicate term alone.
- (c) “Some birds are mammals” is a particular affirmative proposition and it distributes both subject and predicate terms.
- (d) “Some birds are mammals” is a particular affirmative proposition and it distributes neither subject term nor predicate term.

Choose the correct option from below :

- (1) Only (a) and (d) are correct
- (2) Only (c) and (d) are correct
- (3) Only (b) is correct
- (4) Only (d) is correct

Options :

61547545621. 1

61547545622. 2

61547545623. 3

61547545624. 4

**Question Number : 31 Question Id : 61547511702 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

निरुपाधिक प्रतिज्ञा के संदर्भ में निम्नलिखित कथनों पर विचार कीजिए :

- (a) “कुछ पक्षी स्तनपायी हैं” एक विशिष्ट अस्तिवाचक प्रस्थापना है और यह केवल उद्देश्य पद को ही वितरित करता है।
- (b) “कुछ पक्षी स्तनपायी हैं” एक विशिष्ट अस्तिवाचक प्रस्थापना है और यह केवल विधेय को ही वितरित करता है।
- (c) “कुछ पक्षी स्तनपायी हैं” एक विशिष्ट अस्तिवाचक प्रस्थापना है और यह उद्देश्य तथा विधेय दोनों पदों को वितरित करता है।
- (d) “कुछ पक्षी स्तनपायी हैं” एक विशिष्ट अस्तिवाचक प्रस्थापना है और यह न तो उद्देश्य और न ही विधेय दोनों पद को वितरित करता है।

निम्नलिखित में से सही कूट का चयन कीजिए :

- (1) केवल (a) और (d) सही हैं
- (2) केवल (c) और (d) सही हैं
- (3) केवल (b) सही है
- (4) केवल (d) सही है

Options :

- 61547545621. 1
- 61547545622. 2
- 61547545623. 3
- 61547545624. 4

Question Number : 32 Question Id : 61547511703 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In a group setting which of the following factors hinder creativity of its members?

- (a) Norm to maintain consensus at any cost
- (b) To think without any fear of being ridiculed
- (c) To respect one another's ideas
- (d) To criticize if somebody's idea is not correct

Choose the correct option :

- (1) (a) and (c) only
- (2) (b) and (d) only
- (3) (c) and (b) only
- (4) (d) and (a) only

Options :

- 61547545625. 1
- 61547545626. 2
- 61547545627. 3
- 61547545628. 4

Question Number : 32 Question Id : 61547511703 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

किसी समूह में निम्नलिखित में से किसके कारण समूह के सदस्यों की सृजन-क्षमता अवरूद्ध होती है?

- (a) किसी भी कीमत पर आम सहमति बनाए रखने का प्रतिमान
- (b) हास्य का पात्र बनने के भय से मुक्त चिंतन
- (c) एक दूसरे के विचार के प्रति आदर
- (d) किसी व्यक्ति का विचार असत्य होने की दशा में आलोचना

सही विकल्प चुनिए :

- | | |
|---------------------|---------------------|
| (1) केवल (a) और (c) | (2) केवल (b) और (d) |
| (3) केवल (c) और (b) | (4) केवल (d) और (a) |

Options :

61547545625. 1
61547545626. 2
61547545627. 3
61547545628. 4

Question Number : 33 Question Id : 61547511704 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which two among the following factors are responsible for transgression of ethical principle in research?

- (a) Harm to the participants
- (b) Lack of informed consent
- (c) Not greeting the participants after the experiment is over
- (d) Asking difficult questions

Choose the correct option :

- | | |
|----------------------|----------------------|
| (1) (a) and (c) only | (2) (b) and (c) only |
| (3) (a) and (d) only | (4) (a) and (b) only |

Options :

61547545629. 1
61547545630. 2
61547545631. 3
61547545632. 4

Question Number : 33 Question Id : 61547511704 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

शोध में नैतिक सिद्धांत के उल्लंघन के लिए उत्तरदायी दो तत्व कौन से हैं?

- (a) प्रतिभागियों को क्षति
- (b) संसूचित सहमति का अभाव
- (c) प्रयोग पूरा होने के उपरांत प्रतिभागियों का स्वागत नहीं करना
- (d) दूरूह प्रश्न पूछना

सही विकल्प चुनिए :

- | | |
|---------------------|---------------------|
| (1) केवल (a) और (c) | (2) केवल (b) और (c) |
| (3) केवल (a) और (d) | (4) केवल (a) और (b) |

Options :

61547545629. 1

61547545630. 2

61547545631. 3

61547545632. 4

Question Number : 34 Question Id : 61547511705 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following activities are performed by the researcher in an ethnographic research?

- (a) Conducts structured interview with the members of the community
- (b) Gets immersed in a social setting for an extended period of time
- (c) Listens to and engages in conversation
- (d) Tries to educate people about the harms of some evil practices

Choose the correct answer :

- (1) (a) and (b) only
- (2) (a) and (c) only
- (3) (b) and (d) only
- (4) (b) and (c) only

Options :

61547545633. 1

61547545634. 2

61547545635. 3

61547545636. 4

Question Number : 34 Question Id : 61547511705 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

नृजातीय शोध में शोधकर्ता द्वारा निम्नलिखित में से कौन से कार्यकलाप किये जाते हैं?

- (a) शोधकर्ता समुदाय के सदस्यों के साथ संरचनाबद्ध साक्षात्कार करता है।
- (b) शोधकर्ता काफी लंबी समयावधि तक सामाजिक व्यवस्था को अंगीकार कर लेता है।
- (c) शोधकर्ता वार्तालाप का श्रवण करता है और वार्तालाप करता है।
- (d) शोधकर्ता लोगों को कुछ कुप्रथाओं के बारे में जानकारी देता है।

सही विकल्प चुनिए :

- (1) केवल (a) और (b)
- (2) केवल (a) और (c)
- (3) केवल (b) और (d)
- (4) केवल (b) और (c)

Options :

61547545633. 1

61547545634. 2

61547545635. 3

61547545636. 4

Question Number : 35 Question Id : 61547511706 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match correctly the items of column I with the items of column II

Column I

Column II

(a) Dyslexia

(i) Difficulty in doing mathematics

(b) Dysgraphia

(ii) Difficulty in reading

(c) Dyscalculia

(iii) Difficulty in writing

(d) ADHD

(iv) Difficulty in concentrating

(1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)

(2) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)

(3) (a)-(iv), (b)-(i), (c)-(iii), (d)-(ii)

(4) (a)-(i), (b)-(iv), (c)-(ii), (d)-(iii)

Options :

61547545637. 1

61547545638. 2

61547545639. 3

61547545640. 4

**Question Number : 35 Question Id : 61547511706 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

कालम - I को कालम - II के साथ सुमेलित कीजिए :

कालम - I

कालम - II

(a) वाचन वैकल्य

(b) लेखन वैकल्य

(c) परिकलन वैकल्य

(d) ए डी एच डी

(i) गणित के कार्य में कठिनाई

(ii) पठन में कठिनाई

(iii) लेखन में कठिनाई

(iv) ध्यान केन्द्रित करने में कठिनाई

सही विकल्प का चयन करें :

(1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)

(2) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)

(3) (a)-(iv), (b)-(i), (c)-(iii), (d)-(ii)

(4) (a)-(i), (b)-(iv), (c)-(ii), (d)-(iii)

Options :

61547545637. 1

61547545638. 2

61547545639. 3

61547545640. 4

Question Number : 36 Question Id : 61547511707 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following communication channels with their distinguishing type :

(Communication Channel)

(Distinguishing Type)

- | | |
|----------------------|----------------------|
| (a) Blogging | (i) Electronic Media |
| (b) Television | (ii) Print Media |
| (c) Periodicals | (iii) Social Media |
| (d) Collection sites | (iv) World wide web |

Choose the correct option from those given below :

- (1) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)
- (2) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (3) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

61547545641. 1

61547545642. 2

61547545643. 3

61547545644. 4

Question Number : 36 Question Id : 61547511707 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित संचार चैनलों को इनकी विशेषता के आधार पर सुमेलित कीजिए :

- | | |
|--------------------|-------------------------|
| (a) ब्लॉगिंग | (i) इलेक्ट्रानिक मीडिया |
| (b) टेलीविजन | (ii) प्रिंट मीडिया |
| (c) पत्रिकाएं | (iii) सोशल मीडिया |
| (d) कलेक्शन साइट्स | (iv) वर्ल्ड वाइड वेब |

नीचे दिए गए विकल्पों में से किसी एक का चयन करें :

- (1) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)
- (2) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (3) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

61547545641. 1

61547545642. 2

61547545643. 3

61547545644. 4

Question Number : 37 Question Id : 61547511708 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following classes of chemicals with their descriptions :

(Chemical Class)	(Description)
(a) Allergens	(i) Chemicals that alter or damage the genetic material (DNA) cells
(b) Mutagens	(ii) Substances that activate the immune system
(c) Carcinogens	(iii) Chemicals that specifically cause abnormalities during embryonic growth and development.
(d) Teratogens	(iv) Substances that cause invasive out of control cell growth resulting in malignant tumors.

Choose the most appropriate option from those given below :

- (1) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (2) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)
- (3) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

61547545645. 1

61547545646. 2

61547545647. 3

61547545648. 4

Question Number : 37 Question Id : 61547511708 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

रसायनों की निम्नलिखित श्रेणियों को उनके वर्णन के अनुसार सुमेलित कीजिए :

(रसायन श्रेणी)	(विवरण)
(a) एलर्जेन	(i) कोशिकाओं में आनुवंशिक तत्वों (डीएनए) में बदलाव या क्षति पहुँचाने वाले रसायन
(b) म्यूटाजेन	(ii) प्रतिरोध प्रणाली को सक्रिय करने वाले पदार्थ
(c) कार्सिनोजेन्स	(iii) भ्रूण की वृद्धि और विकास के दौरान विशेष रूप से असामान्यता पैदा करने वाले रसायन
(d) टेराटोजेन	(iv) ऐसे पदार्थ जिनसे कोशिका में आक्रामक अनियंत्रित वृद्धि होती है जिस कारण विषालु ट्यूमर हो जाता है।

नीचे दिये गए विकल्पों में से सर्वाधिक उपयुक्त विकल्प का चयन करें :

- (1) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (2) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)
- (3) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

- 61547545645. 1
- 61547545646. 2
- 61547545647. 3
- 61547545648. 4

Question Number : 38 Question Id : 61547511709 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match List – I with List – II

List I

- (a) 50 in decimal
- (b) 102 in decimal
- (c) Real – Time video conferencing
- (d) SMS texting

List II

- (i) 0110010 in binary
- (ii) 1100110 in binary
- (iii) Synchronous communication
- (iv) Asynchronous communication

Choose the correct option :

- (1) (a)-(ii), (b)-(i), (c)-(iii), (d)-(iv)
- (2) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)
- (3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
- (4) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)

Options :

- 61547545649. 1
- 61547545650. 2
- 61547545651. 3
- 61547545652. 4

Question Number : 38 Question Id : 61547511709 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

सूची - I को सूची - II दो से सुमेलित कीजिए :

सूची - I

सूची II

- | | |
|-------------------------------|---------------------------|
| (a) दशमलव में 50 | (i) द्विभाजी में 0110010 |
| (b) दशमलव में 102 | (ii) द्विभाजी में 1100110 |
| (c) लाइव वीडियो कॉन्फ्रेंसिंग | (iii) समकालिक संचार |
| (d) एस एम एस संदेश | (iv) विषमकालिक संचार |

सही विकल्प चुनें :

- (1) (a)-(ii), (b)-(i), (c)-(iii), (d)-(iv)
- (2) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)
- (3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
- (4) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)

Options :

61547545649. 1

61547545650. 2

61547545651. 3

61547545652. 4

Question Number : 39 Question Id : 61547511710 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match correctly the contribution / concept of Column II with the names of the thinkers given in Column I

Column I

- (a) Karl Popper
- (b) T.S. Kuhn
- (c) Paul Feyerabend
- (d) Francis Bacon

Column II

- (i) Inductive method
- (ii) Against the method
- (iii) Paradigm
- (iv) Falsification

Select appropriate option:

- (1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
- (2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
- (3) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)
- (4) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)

Options :

- 61547545653. 1
- 61547545654. 2
- 61547545655. 3
- 61547545656. 4

Question Number : 39 Question Id : 61547511710 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

स्तंभ II में दिए गए योगदान/संकल्पना को स्तंभ I में उल्लिखित चिंतकों के साथ सुमेलित कीजिए :

स्तंभ - I

स्तंभ - II

(a) कार्ल पॉपर

(b) टी. एस. कुन

(c) पॉल फेयरबैंड

(d) फ्रांसिस बॅकन

(i) आगमनात्मक प्रविधि

(ii) विधि के प्रविरुद्ध

(iii) रूपावली

(iv) मिथ्याकरण

उचित विकल्प चुनें :

(1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)

(2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)

(3) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)

(4) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)

Options :

61547545653. 1

61547545654. 2

61547545655. 3

61547545656. 4

Question Number : 40 Question Id : 61547511711 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following types of communication with their distinguishing examples

(Types of Communication)		Distinguishing Example)	
(a)	Formal Communication	(i)	Government agencies
(b)	Informal Communication	(ii)	Circular
(c)	Outward Communication	(iii)	Memos
(d)	Inward Communication	(iv)	Group chain

Choose the correct option from those given below :

- (1) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (2) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
- (3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
- (4) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)

Options :

- 61547545657. 1
- 61547545658. 2
- 61547545659. 3
- 61547545660. 4

Question Number : 40 Question Id : 61547511711 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

निम्नलिखित प्रकार के संचार को उनके विशेष उदाहरण के अनुसार सुमेलित कीजिए :

(संप्रेषण के प्रकार)

(विशिष्ट उदाहरण)

- | | |
|---------------------|----------------------|
| (a) औपचारिक संचार | (i) सरकारी एजेंसियाँ |
| (b) अनौपचारिक संचार | (ii) परिपत्र |
| (c) बाह्य संचार | (iii) ज्ञापन |
| (d) आंतरिक संचार | (iv) समूहशृंखला |

निम्नलिखित में से सही विकल्प का चयन करें :

- (1) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (2) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
- (3) (a)-(i), (b)-(ii), (c)-(iii), (d)-(iv)
- (4) (a)-(iv), (b)-(i), (c)-(ii), (d)-(iii)

Options :

61547545657. 1

61547545658. 2

61547545659. 3

61547545660. 4

Question Number : 41 Question Id : 61547511712 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Select the option that contains only optical storage media

- (1) USB memory stick, Blu – Ray disk, CD – ROM, DVD
- (2) DVD, CD – ROM, USB memory stick, CD – RW
- (3) Hard disk, USB memory stick, CD – ROM, DVD
- (4) DVD, CD – R, Blu – Ray Disk, CD – RW

Options :

61547545661. 1

61547545662. 2

61547545663. 3

61547545664. 4

Question Number : 41 Question Id : 61547511712 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

निम्नलिखित में से उस विकल्प को चुनें जिसमें सिर्फ ऑप्टिकल स्टोरेज मीडिया शामिल है?

- (1) यू एस बी मेमरी स्टिक, ब्लू-रे डिस्क, सी डी-रॉम, डी वी डी
- (2) डी वी डी, सी डी-रॉम, यू एस बी मेमरी स्टिक, सी डी - आर डब्ल्यू
- (3) हार्ड डिस्क, यू एस बी मेमरी स्टिक, सी डी-रॉम, डी वी डी
- (4) डी वी डी, सी डी आर, ब्लू-रे डिस्क, सी डी - आर डब्ल्यू

Options :

61547545661. 1

61547545662. 2

61547545663. 3

61547545664. 4

Question Number : 42 Question Id : 61547511713 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Noise levels at a traffic site are recorded for one hour at a sampling interval of 1 second and percentile indices of noise L_1 , L_{10} , L_{50} , L_{90} are computed from the data. The indices are then arranged in increasing order in terms of their values starting from minimum to maximum. Which of the following options represents their correct order?

- (1) L_1 , L_{10} , L_{50} , L_{90}
- (2) L_{10} , L_{50} , L_{90} , L_1
- (3) L_{50} , L_{90} , L_{10} , L_1
- (4) L_{90} , L_{50} , L_{10} , L_1

Options :

61547545665. 1

61547545666. 2

61547545667. 3

61547545668. 4

Question Number : 42 Question Id : 61547511713 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

यातायात के एक स्थल पर प्रति सेकेन्ड के अंतराल पर एक घंटे का ध्वनि स्तर का नमूना एकत्र किया जाता है और ध्वनि के सूचकांक L₁, L₁₀, L₅₀, L₉₀ की गणना आकड़ों से की जाती है। सूचकांकों के मान को न्यूनतम से अधिकतम के बढ़ते क्रम में रखा गया है। इनमें से कौन सा विकल्प सही क्रम को दर्शाता है ?

- (1) L₁, L₁₀, L₅₀, L₉₀
- (2) L₁₀, L₅₀, L₉₀, L₁
- (3) L₅₀, L₉₀, L₁₀, L₁
- (4) L₉₀, L₅₀, L₁₀, L₁

Options :

- 61547545665. 1
- 61547545666. 2
- 61547545667. 3
- 61547545668. 4

Question Number : 43 Question Id : 61547511714 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements – one labelled as Assertion (A) and the other labelled as Reason (R).

Assertion (A) : In the afternoon of a hot sunny day during the summer season, the tropospheric ozone levels in a city like Delhi are expected to be lower as compared to morning and evening.

Reasons (R) : In the afternoon period, atmosphere is unstable and its dilution potential is higher as compared to mornings and evenings.

In the light of the above two statements, choose the correct option :

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

Options :

- 61547545669. 1
- 61547545670. 2
- 61547545671. 3
- 61547545672. 4

Question Number : 43 Question Id : 61547511714 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

नीचे दो कथन दिए गए हैं, पहला कथन अभिकथन (A) और दूसरा तर्क (R) है :

अभिकथन (A) : गर्मी के मौसम में चिलचिलाती धूप वाली दोपहर के बाद के समय में दिल्ली जैसे शहर में क्षोभ मंडलीय ओज़ोन स्तर सुबह और शाम की तुलना में कम होने की संभावना होती है।

तर्क (R) : दोपहर बाद की अवधि में वायु मण्डल अस्थिर रहता है तथा सुबह और शाम की तुलना में इसकी विलयन क्षमता अधिक होती है।

उपर्युक्त दो कथनों को ध्यान में सही विकल्प का चयन करें :

- (1) (A) और (R) दोनों सही हैं और (R) (A) की सही व्याख्या है।
- (2) (A) और (R) दोनों सही हैं किंतु (R) (A) की सही व्याख्या नहीं है।
- (3) (A) सही है किंतु (R) गलत है।
- (4) (A) गलत है किंतु (R) सही है।

Options :

61547545669. 1

61547545670. 2

61547545671. 3

61547545672. 4

Question Number : 44 Question Id : 61547511715 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements – one labelled as Assertion (A) and the other labelled as Reason (R).

Assertion (A) : Information Technology is fast becoming a very important field of activity in India.

Reasons (R) : Software is one of the major exports of India and further India has a very strong base in hardware.

In the light of the above two statements, choose the correct option :

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

Options :

61547545673. 1

61547545674. 2

61547545675. 3

61547545676. 4

**Question Number : 44 Question Id : 61547511715 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

नीचे दो कथन दिए गए हैं एक को अभिकथन (A) और दूसरे को तर्क (R) कहा जाता है :

अभिकथन (A) : सूचना प्रौद्योगिकी भारत में तेजी से एक अत्यंत महत्वपूर्ण क्षेत्र बनती जा रही है।

तर्क (R) : सॉफ्टवेयर भारत के प्रमुख निर्यातों में से एक है और इसके अलावा भारत का हार्डवेयर में काफी मजबूत आधार है।

उपर्युक्त दोनों कथनों के आलोक में सही विकल्प चुनें :

- (1) (A) और (R) दोनों सही हैं और (R) (A) की सही व्याख्या है।
- (2) (A) और (R) दोनों सही हैं और (R) (A) की सही व्याख्या नहीं है।
- (3) (A) सही है किंतु (R) सही नहीं है।
- (4) (A) सही नहीं है किंतु (R) सही है।

Options :

61547545673. 1

61547545674. 2

61547545675. 3

61547545676. 4

Question Number : 45 Question Id : 61547511716 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements – one is labelled as Assertion (A) and the other labelled as Reason (R).

Assertion (A) : The Governor has the power to ask for any information from the Chief Minister regarding the administration of the State.

Reasons (R) : The Governor is the real Head of the State administration.

In the context of the above two statements, choose the correct option :

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

Options :

61547545677. 1

61547545678. 2

61547545679. 3

61547545680. 4

Question Number : 45 Question Id : 61547511716 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

नीचे दो कथन दिए गए हैं पहला अभिकथन (A) और दूसरा तर्क (R) है :

अभिकथन (A) : राज्यपाल को राज्य के प्रशासन के बारे में मुख्यमंत्री से किसी भी प्रकार की सूचना माँगने की शक्ति है।

तर्क (R) : राज्यपाल राज्य प्रशासन का वास्तविक प्रमुख है।

उपर्युक्त दो कथनों के संबंध में, सही विकल्प का चयन कीजिए :

- (1) (A) और (R) दोनों सही हैं और (A) की सही व्याख्या (R) है।
- (2) (A) और (R) दोनों सही हैं किंतु, (R) (A) की सही व्याख्या नहीं है।
- (3) (A) सही है, किंतु (R) गलत है।
- (4) (A) गलत है, किंतु (R) सही है।

Options :

61547545677. 1
61547545678. 2
61547545679. 3
61547545680. 4

Sub-Section Number:	3
Sub-Section Id:	615475505
Question Shuffling Allowed :	Yes

Question Id : 61547511717 **Question Type :** COMPREHENSION **Sub Question Shuffling Allowed :** Yes **Group Comprehension Questions :** No

Question Numbers : (46 to 50)

Question Label : Comprehension

Read the following passage and answer questions which follow.

I do not wish to suggest that the humanistic elements in education are less important than the utilitarian elements. To know something of great literature, something of world history something of music and painting and architecture, is essential if the life of imagination is to be fully developed. And it is only through imagination that men become aware of what the world might be; without it, 'progress' would become mechanical and trivial. But science, also can stimulate the imagination.

Psychology was until fairly lately, a merely academic study, with very little application to practical affairs. This is all changed now. We have, for instance, industrial psychology, clinical psychology, educational psychology; all of which are of the great practical importance. We may hope and expect that the influence of psychology upon our institutions will rapidly increase in the near future. In education, at any rate, its effect has already been great and beneficent.

Sub questions

Question Number : 46 Question Id : 61547511718 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

As per the passage, people become aware of “What the world might be?” only through

- | | |
|---------------------|-----------------|
| (1) Literature | (2) History |
| (3) Imagination | (4) Music |

Options :

61547545681. 1
61547545682. 2
61547545683. 3
61547545684. 4

Question Number : 47 Question Id : 61547511719 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

As per the passage, without imagination the ‘progress’ would become

- | | |
|--------------------|--------------------|
| (1) Humanistic | (2) Mechanical |
| (3) Creative | (4) Realistic |

Options :

61547545685. 1
61547545686. 2
61547545687. 3
61547545688. 4

Question Number : 48 Question Id : 61547511720 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

According to the passage psychology until recently was of very little

- | | |
|--|------------------------------------|
| (1) Academic orientation. | (2) Application in academics |
| (3) Application to practical affairs | (4) Application to imagination |

Options :

61547545689. 1
61547545690. 2
61547545691. 3
61547545692. 4

Question Number : 49 Question Id : 61547511721 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In the passage, the author is optimistic about

- (1) The utilitarian elements in education
- (2) Decrease in the role of imagination in education
- (3) The role of psychology in laboratories
- (4) Increase in the influence of psychology upon institutions.

Options :

61547545693. 1

61547545694. 2

61547545695. 3

61547545696. 4

Question Number : 50 Question Id : 61547511722 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

As per the passage, if the life of imagination is to be fully developed, some exposure to the following is required :

- | | |
|----------------|-------------------|
| (a) Literature | (b) World history |
| (c) Music | (d) Politics. |

Choose the correct options from these given below :

- | | |
|---------------------------|---------------------------|
| (1) Only (a) and (b) | (2) Only (a) and (c) |
| (3) Only (a), (b) and (d) | (4) Only (a), (b) and (c) |

Options :

61547545697. 1

61547545698. 2

61547545699. 3

61547545700. 4

Question Id : 61547511717 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension
Questions : No

Question Numbers : (46 to 50)

Question Label : Comprehension

निम्नलिखित परिच्छेद को पढ़ें और संबंधित प्रश्नों के उत्तर दें :

मैं यह नहीं कहना चाहता कि शिक्षण में मानवतावादी तत्व उपयोगितावादी तत्वों से कम महत्वपूर्ण हैं। कल्पनाशक्ति के संपूर्ण विकास के लिए थोड़ा-बहुत महान् साहित्य, थोड़ा-बहुत वैश्विक इतिहास और थोड़ा-बहुत संगीत, चित्रकला और वास्तुकला का ज्ञान अनिवार्य है। और सिर्फ कल्पना-शक्ति के माध्यम से ही मनुष्यों को संसार की विविध संभावनाओं के बारे में पता चला; इसके बगैर 'प्रगति' यांत्रिक और खोखली बन जाणी। लेकिन विज्ञान भी कल्पना को प्रेरित कर सकता है।

मनोविज्ञान, बहुत हाल के वर्षों तक, महज अकादमिक अध्ययन का एक विषय हुआ करता था और व्यावहारिक कार्यों में इसकी उपयोगिता पर्याप्त कम थी। अब यह सब बदल चुका है। उदाहरणस्वरूप अब हमारे पास औद्योगिक मनोविज्ञान है, नैदानिक मनोविज्ञान है, शैक्षणिक मनोविज्ञान है; और इन सब का पर्याप्त व्यावहारिक महत्व है। हम यह आशा और अपेक्षा कर सकते हैं कि निकट भविष्य में हमारे संस्थानों में मनोविज्ञान का प्रभाव तेजी से बढ़ेगा। शिक्षा के क्षेत्र में तो इसका पहले ही से हितकारी और अच्छा प्रभाव रहा है।

Sub questions

Question Number : 46 Question Id : 61547511718 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

परिच्छेद के अनुसार लोगों को 'संसार की संभावनाओं' के बारे में सिर्फ किसके माध्यम से जानकारी मिल सकती है?

- | | |
|------------------|------------|
| (1) साहित्य | (2) इतिहास |
| (3) कल्पना-शक्ति | (4) संगीत |

Options :

61547545681. 1
61547545682. 2
61547545683. 3
61547545684. 4

Question Number : 47 Question Id : 61547511719 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

परिच्छेद के अनुसार कल्पना-शक्ति के अभाव में 'प्रगति' क्या हो जाएगी?

- | | |
|----------------|---------------|
| (1) मानवतावादी | (2) यांत्रिक |
| (3) सर्जनात्मक | (4) यथार्थपरक |

Options :

61547545685. 1
61547545686. 2
61547545687. 3
61547545688. 4

Question Number : 48 Question Id : 61547511720 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

परिच्छेद के अनुसार बहुत हाल के वर्षों तक मनोविज्ञान का/की बहुत ही कम _____

- | | |
|-----------------------------|--------------------------------------|
| (1) अकादमिक उन्मुखीकरण था। | (2) अकादमिक अनुप्रयोग था। |
| (3) व्यावहारिक उपयोगिता थी। | (4) कल्पना शक्ति के लिए उपयोगिता थी। |

Options :

61547545689. 1
61547545690. 2
61547545691. 3
61547545692. 4

Question Number : 49 Question Id : 61547511721 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

परिच्छेद में लेखक किस बात को लेकर आशान्वित हैं?

- (1) शिक्षण में उपयोगितावादी तत्व
- (2) शिक्षण में कल्पनाशक्ति की भूमिका में हास
- (3) प्रयोगशालाओं में मनोविज्ञान की भूमिका
- (4) संस्थानों में मनोविज्ञान के प्रभाव में अभिवृद्धि

Options :

61547545693. 1
61547545694. 2
61547545695. 3
61547545696. 4

Question Number : 50 Question Id : 61547511722 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

परिच्छेद के अनुसार यदि कल्पना शक्ति का संपूर्ण विकास करना है तो निम्नलिखित में से किसका थोड़ा-बहुत ज्ञान होना चाहिए?

- | | |
|-------------|------------------|
| (a) साहित्य | (b) विश्व इतिहास |
| (c) संगीत | (d) राजनीति |

निम्नलिखित में से सही विकल्प चुनें :

- | | |
|----------------------------------|----------------------------------|
| (1) केवल (a) और (b) सही हैं | (2) केवल (a) और (c) सही हैं |
| (3) केवल (a), (b) और (d) सही हैं | (4) केवल (a), (b) और (c) सही हैं |

Options :

61547545697. 1
61547545698. 2
61547545699. 3
61547545700. 4

PART II Environmental Sciences

Section Id :	615475156
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	92
Number of Questions to be attempted:	92
Section Marks:	200
Display Number Panel:	Yes
Group All Questions:	No

Question Number : 51 Question Id : 61547511723 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Beaufort Scale is used to classify which of the following meteorological parameters?

- | | |
|--------------------|-------------------|
| (1) Pressure | (2) Precipitation |
| (3) Wind Direction | (4) Wind Velocity |

Options :

61547545701. 1

61547545702. 2

61547545703. 3

61547545704. 4

Question Number : 51 Question Id : 61547511723 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Beaufort Scale is used to classify which of the following meteorological parameters?

- | | |
|--------------------|-------------------|
| (1) Pressure | (2) Precipitation |
| (3) Wind Direction | (4) Wind Velocity |

Options :

61547545701. 1

61547545702. 2

61547545703. 3

61547545704. 4

Question Number : 52 Question Id : 61547511724 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Two streams A and B are flowing with flow rates of $20 \text{ m}^3/\text{s}$ and $5 \text{ m}^3/\text{s}$ respectively. The concentration of a pollutant X in the two streams are 15 mg/l (stream A) and 50 mg/l (stream B). The two streams join each other. Assume that complete mixing of the streams occurs after joining and the pollutant is a conservative substance. The downstream concentration of the pollutant after the joining of two streams would be :

- | | |
|-----------------------|-----------------------|
| (1) 30 mg/l | (2) 27 mg/l |
| (3) 25 mg/l | (4) 22 mg/l |

Options :

61547545705. 1

61547545706. 2

61547545707. 3

61547545708. 4

Question Number : 52 Question Id : 61547511724 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Two streams A and B are flowing with flow rates of $20 \text{ m}^3/\text{s}$ and $5 \text{ m}^3/\text{s}$ respectively. The concentration of a pollutant X in the two streams are 15 mg/l (stream A) and 50 mg/l (stream B). The two streams join each other. Assume that complete mixing of the streams occurs after joining and the pollutant is a conservative substance. The downstream concentration of the pollutant after the joining of two streams would be :

- | | |
|-----------------------|-----------------------|
| (1) 30 mg/l | (2) 27 mg/l |
| (3) 25 mg/l | (4) 22 mg/l |

Options :

61547545705. 1
61547545706. 2
61547545707. 3
61547545708. 4

Question Number : 53 Question Id : 61547511725 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is incorrect?

- (1) Thermosphere and stratosphere are characterized by an increase in temperature with altitude.
- (2) Troposphere and mesosphere are characterized by a decrease in temperature with altitude in general.
- (3) Lowest temperature is found at tropopause.
- (4) Lapse rates determine the vertical stability of the atmosphere.

Options :

61547545709. 1
61547545710. 2
61547545711. 3
61547545712. 4

Question Number : 53 Question Id : 61547511725 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following statements is incorrect?

- (1) Thermosphere and stratosphere are characterized by an increase in temperature with altitude.
- (2) Troposphere and mesosphere are characterized by a decrease in temperature with altitude in general.
- (3) Lowest temperature is found at tropopause.
- (4) Lapse rates determine the vertical stability of the atmosphere.

Options :

- 61547545709. 1
- 61547545710. 2
- 61547545711. 3
- 61547545712. 4

Question Number : 54 Question Id : 61547511726 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is true in the context of enthalpy (H), internal energy (U), pressure (P) and volume (V) of a thermodynamic system?

- | | |
|------------------|------------------|
| (1) $H = U - PV$ | (2) $H = U + PV$ |
| (3) $H = P + UV$ | (4) $H = P - UV$ |

Options :

- 61547545713. 1
- 61547545714. 2
- 61547545715. 3
- 61547545716. 4

Question Number : 54 Question Id : 61547511726 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is true in the context of enthalpy (H), internal energy (U), pressure (P) and volume (V) of a thermodynamic system?

- | | |
|------------------|------------------|
| (1) $H = U - PV$ | (2) $H = U + PV$ |
| (3) $H = P + UV$ | (4) $H = P - UV$ |

Options :

- 61547545713. 1
- 61547545714. 2

61547545715. 3

61547545716. 4

Question Number : 55 Question Id : 61547511727 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Above the earth's surface, 90% of the total atmospheric mass is confined within first:

(1) 5 km

(2) 10 km

(3) 20 km

(4) 30 km

Options :

61547545717. 1

61547545718. 2

61547545719. 3

61547545720. 4

Question Number : 55 Question Id : 61547511727 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Above the earth's surface, 90% of the total atmospheric mass is confined within first:

(1) 5 km

(2) 10 km

(3) 20 km

(4) 30 km

Options :

61547545717. 1

61547545718. 2

61547545719. 3

61547545720. 4

Question Number : 56 Question Id : 61547511728 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The ethical view, which argues that any resource of nature is meant for human use/consumption is termed as:

(1) Stewardship

(2) Utilitarian

(3) Ecocentric

(4) Biocentric

Options :

61547545721. 1

61547545722. 2

61547545723. 3

61547545724. 4

Question Number : 56 Question Id : 61547511728 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The ethical view, which argues that any resource of nature is meant for human use/consumption is termed as:

- | | |
|-----------------|-----------------|
| (1) Stewardship | (2) Utilitarian |
| (3) Ecocentric | (4) Biocentric |

Options :

61547545721. 1

61547545722. 2

61547545723. 3

61547545724. 4

Question Number : 57 Question Id : 61547511729 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following chemical organic species is/are insoluble in acid or alkali?

- | | |
|-----------------|-------------------------------|
| (1) Fulvic acid | (2) Humic acid |
| (3) Humin | (4) Both humic acid and humin |

Options :

61547545725. 1

61547545726. 2

61547545727. 3

61547545728. 4

Question Number : 57 Question Id : 61547511729 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following chemical organic species is/are insoluble in acid or alkali?

- | | |
|-----------------|-------------------------------|
| (1) Fulvic acid | (2) Humic acid |
| (3) Humin | (4) Both humic acid and humin |

Options :

61547545725. 1

61547545726. 2

61547545727. 3

61547545728. 4

Question Number : 58 Question Id : 61547511730 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following statements is NOT correct with regard to chemical analysis by flame photometer?

- (1) The intensity of the colour tells us the amount of the element present.
- (2) The wavelength of the colour identifies the element present.
- (3) The ions absorb the energy from the flame and get excited.
- (4) When ion returns from excited state to ground state, it absorbs the radiation of a characteristic frequency.

Options :

- 61547545729. 1
- 61547545730. 2
- 61547545731. 3
- 61547545732. 4

Question Number : 58 Question Id : 61547511730 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following statements is NOT correct with regard to chemical analysis by flame photometer?

- (1) The intensity of the colour tells us the amount of the element present.
- (2) The wavelength of the colour identifies the element present.
- (3) The ions absorb the energy from the flame and get excited.
- (4) When ion returns from excited state to ground state, it absorbs the radiation of a characteristic frequency.

Options :

- 61547545729. 1
- 61547545730. 2
- 61547545731. 3
- 61547545732. 4

Question Number : 59 Question Id : 61547511731 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following R_f values is not possible?

- | | |
|---------|---------|
| (1) 0.0 | (2) 0.5 |
| (3) 1.0 | (4) 2.0 |

Options :

61547545733. 1
61547545734. 2
61547545735. 3
61547545736. 4

Question Number : 59 Question Id : 61547511731 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following R_f values is not possible?

- | | |
|---------|---------|
| (1) 0.0 | (2) 0.5 |
| (3) 1.0 | (4) 2.0 |

Options :

61547545733. 1
61547545734. 2
61547545735. 3
61547545736. 4

Question Number : 60 Question Id : 61547511732 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Polar Stratospheric Clouds facilitate which of the following reactions in the development of ozone hole?

- | | |
|--|---|
| (1) $\text{Cl}_2 + h\nu \rightarrow 2\text{Cl}$ | (2) $\text{ClNO}_3 + \text{HCl} \rightarrow \text{Cl}_2 + \text{HNO}_3$ |
| (3) $\text{ClO} + \text{NO}_2 + \text{M} \rightarrow \text{ClNO}_3 + \text{M}$ | (4) $\text{Cl} + \text{O}_3 \rightarrow \text{ClO} + \text{O}_2$ |

Options :

61547545737. 1
61547545738. 2
61547545739. 3
61547545740. 4

Question Number : 60 Question Id : 61547511732 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Polar Stratospheric Clouds facilitate which of the following reactions in the development of ozone hole?

- | | |
|--|---|
| (1) $\text{Cl}_2 + h\nu \rightarrow 2\text{Cl}$ | (2) $\text{ClNO}_3 + \text{HCl} \rightarrow \text{Cl}_2 + \text{HNO}_3$ |
| (3) $\text{ClO} + \text{NO}_2 + \text{M} \rightarrow \text{ClNO}_3 + \text{M}$ | (4) $\text{Cl} + \text{O}_3 \rightarrow \text{ClO} + \text{O}_2$ |

Options :

- 61547545737. 1
- 61547545738. 2
- 61547545739. 3
- 61547545740. 4

Question Number : 61 Question Id : 61547511733 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

The night-time tropospheric chemistry is dominated by which of the following chemical species?

- | | |
|-----------------------|----------------------|
| (1) Hydroxyl radicals | (2) Nitrate radicals |
| (3) Nitrate ions | (4) Ozone molecules |

Options :

- 61547545741. 1
- 61547545742. 2
- 61547545743. 3
- 61547545744. 4

Question Number : 61 Question Id : 61547511733 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

The night-time tropospheric chemistry is dominated by which of the following chemical species?

- | | |
|-----------------------|----------------------|
| (1) Hydroxyl radicals | (2) Nitrate radicals |
| (3) Nitrate ions | (4) Ozone molecules |

Options :

- 61547545741. 1
- 61547545742. 2
- 61547545743. 3
- 61547545744. 4

Question Number : 62 Question Id : 61547511734 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of the components of Producer Gas from biogasification of coal in decreasing order of their concentrations:

- | | |
|---|---|
| (1) $\text{CH}_4 > \text{H}_2 > \text{CO} > \text{N}_2$ | (2) $\text{H}_2 > \text{CO} > \text{CH}_4 > \text{N}_2$ |
| (3) $\text{N}_2 > \text{CO} > \text{H}_2 > \text{CH}_4$ | (4) $\text{N}_2 > \text{CH}_4 > \text{CO} > \text{H}_2$ |

Options :

61547545745. 1

61547545746. 2

61547545747. 3

61547545748. 4

Question Number : 62 Question Id : 61547511734 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of the components of Producer Gas from biogasification of coal in decreasing order of their concentrations:

- | | |
|---|---|
| (1) $\text{CH}_4 > \text{H}_2 > \text{CO} > \text{N}_2$ | (2) $\text{H}_2 > \text{CO} > \text{CH}_4 > \text{N}_2$ |
| (3) $\text{N}_2 > \text{CO} > \text{H}_2 > \text{CH}_4$ | (4) $\text{N}_2 > \text{CH}_4 > \text{CO} > \text{H}_2$ |

Options :

61547545745. 1

61547545746. 2

61547545747. 3

61547545748. 4

Question Number : 63 Question Id : 61547511735 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The landscape used by wild animals for their movement between forest patches, is called:

- | | |
|-----------------------|-----------------------|
| (1) Wildlife Corridor | (2) Forest Edge |
| (3) Public Corridor | (4) Resource Corridor |

Options :

61547545749. 1

61547545750. 2

61547545751. 3

61547545752. 4

Question Number : 63 Question Id : 61547511735 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The landscape used by wild animals for their movement between forest patches, is called:

- | | |
|-----------------------|-----------------------|
| (1) Wildlife Corridor | (2) Forest Edge |
| (3) Public Corridor | (4) Resource Corridor |

Options :

61547545749. 1
61547545750. 2
61547545751. 3
61547545752. 4

Question Number : 64 Question Id : 61547511736 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

How many years will it take for the population of a country to double, if it grows at the rate of 4 percent per year?

- | | |
|------------------|-----------------|
| (1) ~ 17.3 years | (2) ~13.8 years |
| (3) ~ 15 years | (4) ~ 25 years |

Options :

61547545753. 1
61547545754. 2
61547545755. 3
61547545756. 4

Question Number : 64 Question Id : 61547511736 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

How many years will it take for the population of a country to double, if it grows at the rate of 4 percent per year?

- | | |
|------------------|-----------------|
| (1) ~ 17.3 years | (2) ~13.8 years |
| (3) ~ 15 years | (4) ~ 25 years |

Options :

61547545753. 1
61547545754. 2
61547545755. 3
61547545756. 4

Question Number : 65 Question Id : 61547511737 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The bioremediation technology which involves the addition of microbial culture is known as

- | | |
|-----------------------------|------------------------------|
| (1) Enhanced Bioremediation | (2) Bioaugmentation |
| (3) Bioventing | (4) Intrinsic Bioremediation |

Options :

- 61547545757. 1
- 61547545758. 2
- 61547545759. 3
- 61547545760. 4

Question Number : 65 Question Id : 61547511737 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The bioremediation technology which involves the addition of microbial culture is known as

- | | |
|-----------------------------|------------------------------|
| (1) Enhanced Bioremediation | (2) Bioaugmentation |
| (3) Bioventing | (4) Intrinsic Bioremediation |

Options :

- 61547545757. 1
- 61547545758. 2
- 61547545759. 3
- 61547545760. 4

Question Number : 66 Question Id : 61547511738 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The ability of an ecosystem to recover when the system has been disturbed by any perturbation is known as

- | | |
|----------------|-----------------|
| (1) Resistance | (2) Homeostasis |
| (3) Climax | (4) Resilience |

Options :

- 61547545761. 1
- 61547545762. 2
- 61547545763. 3
- 61547545764. 4

Question Number : 66 Question Id : 61547511738 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The ability of an ecosystem to recover when the system has been disturbed by any perturbation is known as

- | | |
|----------------|-----------------|
| (1) Resistance | (2) Homeostasis |
| (3) Climax | (4) Resilience |

Options :

- 61547545761. 1
- 61547545762. 2
- 61547545763. 3
- 61547545764. 4

Question Number : 67 Question Id : 61547511739 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Phytoremediation is an important tool for

- (1) improving the health of diseased plants
- (2) removing dissolved oxygen from the aquatic ecosystem
- (3) eradicating the invasive species
- (4) removing toxic chemicals from the polluted ecosystem

Options :

- 61547545765. 1
- 61547545766. 2
- 61547545767. 3
- 61547545768. 4

Question Number : 67 Question Id : 61547511739 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Phytoremediation is an important tool for

- (1) improving the health of diseased plants
- (2) removing dissolved oxygen from the aquatic ecosystem
- (3) eradicating the invasive species
- (4) removing toxic chemicals from the polluted ecosystem

Options :

- 61547545765. 1
- 61547545766. 2
- 61547545767. 3
- 61547545768. 4

Question Number : 68 Question Id : 61547511740 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In comparison to its adjoining ecosystems, the biodiversity in the ecotone is

- | | |
|-----------|-------------------|
| (1) lower | (2) higher |
| (3) same | (4) extremely low |

Options :

- 61547545769. 1
- 61547545770. 2
- 61547545771. 3
- 61547545772. 4

Question Number : 68 Question Id : 61547511740 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In comparison to its adjoining ecosystems, the biodiversity in the ecotone is

- | | |
|-----------|-------------------|
| (1) lower | (2) higher |
| (3) same | (4) extremely low |

Options :

- 61547545769. 1
- 61547545770. 2
- 61547545771. 3
- 61547545772. 4

Question Number : 69 Question Id : 61547511741 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Influx of high nutrient load of nitrates and phosphates into an aquatic ecosystem contributes towards

- | | |
|-------------------------------|-----------------------------|
| (1) oligotrophication | (2) poor primary production |
| (3) extreme oligotrophication | (4) eutrophication |

Options :

61547545773. 1
61547545774. 2
61547545775. 3
61547545776. 4

Question Number : 69 Question Id : 61547511741 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Influx of high nutrient load of nitrates and phosphates into an aquatic ecosystem contributes towards

- | | |
|-------------------------------|-----------------------------|
| (1) oligotrophication | (2) poor primary production |
| (3) extreme oligotrophication | (4) eutrophication |

Options :

61547545773. 1
61547545774. 2
61547545775. 3
61547545776. 4

Question Number : 70 Question Id : 61547511742 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is NOT a form of precipitation?

- | | |
|----------|-----------|
| (1) Snow | (2) Sleet |
| (3) Hail | (4) Fog |

Options :

61547545777. 1
61547545778. 2
61547545779. 3

61547545780. 4

Question Number : 70 Question Id : 61547511742 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which one among the following is NOT a form of precipitation?

- | | |
|----------|-----------|
| (1) Snow | (2) Sleet |
| (3) Hail | (4) Fog |

Options :

61547545777. 1
61547545778. 2
61547545779. 3
61547545780. 4

Question Number : 71 Question Id : 61547511743 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Strike –slip faults are examples of plate movement which is

- (1) perpendicular to the strike of the fault plane
- (2) parallel to the strike of the fault plane
- (3) at 45° to the strike of the fault plane
- (4) not in the faultzone

Options :

61547545781. 1
61547545782. 2
61547545783. 3
61547545784. 4

Question Number : 71 Question Id : 61547511743 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Strike –slip faults are examples of plate movement which is

- (1) perpendicular to the strike of the fault plane
- (2) parallel to the strike of the fault plane
- (3) at 45° to the strike of the fault plane
- (4) not in the faultzone

Options :

- 61547545781. 1
- 61547545782. 2
- 61547545783. 3
- 61547545784. 4

Question Number : 72 Question Id : 61547511744 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Artesian Well is

- (1) Artificial well
- (2) Natural well in fault planes
- (3) Water underneath the surface having sufficient hydraulic pressure
- (4) Water underneath the surface having very low hydraulic pressure

Options :

- 61547545785. 1
- 61547545786. 2
- 61547545787. 3
- 61547545788. 4

Question Number : 72 Question Id : 61547511744 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Artesian Well is

- (1) Artificial well
- (2) Natural well in fault planes
- (3) Water underneath the surface having sufficient hydraulic pressure
- (4) Water underneath the surface having very low hydraulic pressure

Options :

- 61547545785. 1
- 61547545786. 2
- 61547545787. 3
- 61547545788. 4

Question Number : 73 Question Id : 61547511745 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

La Nina is a Spanish word meaning

- | | |
|------------------------------|-----------------------------------|
| (1) The little boy | (2) The little girl |
| (3) The son of the ocean | (4) The daughter of the ocean |

Options :

61547545789. 1

61547545790. 2

61547545791. 3

61547545792. 4

Question Number : 73 Question Id : 61547511745 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

La Nina is a Spanish word meaning

- | | |
|------------------------------|-----------------------------------|
| (1) The little boy | (2) The little girl |
| (3) The son of the ocean | (4) The daughter of the ocean |

Options :

61547545789. 1

61547545790. 2

61547545791. 3

61547545792. 4

Question Number : 74 Question Id : 61547511746 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

50 mm of rainfall was recorded during 30 min of rain in an area of 2.5 ha. The total volume of water that fell on that area during the rain would be

- | | |
|-------------------------------|-------------------------------|
| (1) 625 m ³ | (2) 1250 m ³ |
| (3) 18,750 m ³ | (4) 37,500 m ³ |

Options :

61547545793. 1

61547545794. 2

61547545795. 3

61547545796. 4

Question Number : 74 Question Id : 61547511746 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

50 mm of rainfall was recorded during 30 min of rain in an area of 2.5 ha. The total volume of water that fell on that area during the rain would be

- | | |
|---------------------------|---------------------------|
| (1) 625 m ³ | (2) 1250 m ³ |
| (3) 18,750 m ³ | (4) 37,500 m ³ |

Options :

61547545793. 1
61547545794. 2
61547545795. 3
61547545796. 4

Question Number : 75 Question Id : 61547511747 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

In fast breeder nuclear reactor power plants, the ratio of fissile material produced to fissile material consumed is

- | | |
|-----------------|--------------------|
| (1) Zero | (2) 1 |
| (3) less than 1 | (4) greater than 1 |

Options :

61547545797. 1
61547545798. 2
61547545799. 3
61547545800. 4

Question Number : 75 Question Id : 61547511747 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

In fast breeder nuclear reactor power plants, the ratio of fissile material produced to fissile material consumed is

- | | |
|-----------------|--------------------|
| (1) Zero | (2) 1 |
| (3) less than 1 | (4) greater than 1 |

Options :

61547545797. 1
61547545798. 2
61547545799. 3
61547545800. 4

**Question Number : 76 Question Id : 61547511748 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

In case of which of the following fossil fuels, the difference between the Gross Calorific Value and Net Calorific Value is maximum?

- | | |
|-----------------|------------|
| (1) Natural Gas | (2) Petrol |
| (3) Diesel | (4) Coal |

Options :

61547545801. 1
61547545802. 2
61547545803. 3
61547545804. 4

**Question Number : 76 Question Id : 61547511748 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

In case of which of the following fossil fuels, the difference between the Gross Calorific Value and Net Calorific Value is maximum?

- | | |
|-----------------|------------|
| (1) Natural Gas | (2) Petrol |
| (3) Diesel | (4) Coal |

Options :

61547545801. 1
61547545802. 2
61547545803. 3
61547545804. 4

**Question Number : 77 Question Id : 61547511749 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical**

Correct Marks : 2 Wrong Marks : 0

Which one among the following is NOT a type of tidal power plant?

- (1) Single basin double-effect plant
- (2) Single basin with linked operation
- (3) Double basin with linked-basin operation
- (4) Double basin with paired-basin operation

Options :

61547545805. 1

61547545806. 2

61547545807. 3

61547545808. 4

Question Number : 77 Question Id : 61547511749 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is NOT a type of tidal power plant?

- (1) Single basin double-effect plant
- (2) Single basin with linked operation
- (3) Double basin with linked-basin operation
- (4) Double basin with paired-basin operation

Options :

61547545805. 1

61547545806. 2

61547545807. 3

61547545808. 4

Question Number : 78 Question Id : 61547511750 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the total power per unit area available in a wind stream blowing at a speed of 5 m/s ? (Given density of air = 1.226 J/kg.K/m^3)

- | | |
|--------------------------|-------------------------|
| (1) 76.6 W/m^2 | (2) 15.3 W/m^2 |
| (3) 153.3 W/m^2 | (4) 30.6 W/m^2 |

Options :

61547545809. 1

61547545810. 2

61547545811. 3

61547545812. 4

Question Number : 78 Question Id : 61547511750 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the total power per unit area available in a wind stream blowing at a speed of 5 m/s ? (Given density of air = 1.226 J/kg.K/m^3)

(1) 76.6 W/m^2

(2) 15.3 W/m^2

(3) 153.3 W/m^2

(4) 30.6 W/m^2

Options :

61547545809. 1

61547545810. 2

61547545811. 3

61547545812. 4

Question Number : 79 Question Id : 61547511751 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the theoretical maximum fraction of power in the wind that can be extracted by a horizontal axis wind turbine?

(1) ~ 27 %

(2) ~59 %

(3) ~16 %

(4) ~75 %

Options :

61547545813. 1

61547545814. 2

61547545815. 3

61547545816. 4

Question Number : 79 Question Id : 61547511751 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

What is the theoretical maximum fraction of power in the wind that can be extracted by a horizontal axis wind turbine?

(1) ~ 27 %

(2) ~59 %

(3) ~16 %

(4) ~75 %

Options :

61547545813. 1

61547545814. 2
61547545815. 3
61547545816. 4

Question Number : 80 Question Id : 61547511752 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which one of the following is NOT a constituent of photochemical smog?

- | | |
|--------------------------------------|---------------------------|
| (1) Peroxy Benzoyl Nitrate | (2) Ozone |
| (3) Polycyclic Aromatic Hydrocarbons | (4) Peroxy Acetyl Nitrate |

Options :

61547545817. 1
61547545818. 2
61547545819. 3
61547545820. 4

Question Number : 80 Question Id : 61547511752 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which one of the following is NOT a constituent of photochemical smog?

- | | |
|--------------------------------------|---------------------------|
| (1) Peroxy Benzoyl Nitrate | (2) Ozone |
| (3) Polycyclic Aromatic Hydrocarbons | (4) Peroxy Acetyl Nitrate |

Options :

61547545817. 1
61547545818. 2
61547545819. 3
61547545820. 4

Question Number : 81 Question Id : 61547511753 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Identify the INCORRECT statement about organophosphate pesticides from the following statements:

- (1) They are generally non-persistent.
- (2) They do not accumulate in the food chain.
- (3) They are toxic to humans.
- (4) They decompose and metabolize slowly.

Options :

61547545821. 1
61547545822. 2
61547545823. 3
61547545824. 4

Question Number : 81 Question Id : 61547511753 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the INCORRECT statement about organophosphate pesticides from the following statements:

- (1) They are generally non-persistent.
- (2) They do not accumulate in the food chain.
- (3) They are toxic to humans.
- (4) They decompose and metabolize slowly.

Options :

61547545821. 1
61547545822. 2
61547545823. 3
61547545824. 4

Question Number : 82 Question Id : 61547511754 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

When a stable layer exists below the stack height and an unstable layer above, which of the following types of plume behaviour is expected to be observed?

- (1) Looping
- (2) Coning
- (3) Fumigating
- (4) Lofting

Options :

61547545825. 1
61547545826. 2
61547545827. 3
61547545828. 4

Question Number : 82 Question Id : 61547511754 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

When a stable layer exists below the stack height and an unstable layer above, which of the following types of plume behaviour is expected to be observed?

- | | |
|----------------|-------------|
| (1) Looping | (2) Coning |
| (3) Fumigating | (4) Lofting |

Options :

- 61547545825. 1
- 61547545826. 2
- 61547545827. 3
- 61547545828. 4

Question Number : 83 Question Id : 61547511755 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Sound emitted from a line source attenuates at which of the following rates as a result of geometrical spreading?

- (1) ~ 3 dB per doubling of distance from source
- (2) ~ 4 dB per doubling of distance from source
- (3) ~ 5 dB per doubling of distance from source
- (4) ~ 6 dB per doubling of distance from source

Options :

- 61547545829. 1
- 61547545830. 2
- 61547545831. 3
- 61547545832. 4

Question Number : 83 Question Id : 61547511755 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Sound emitted from a line source attenuates at which of the following rates as a result of geometrical spreading?

- (1) ~ 3 dB per doubling of distance from source
- (2) ~ 4 dB per doubling of distance from source
- (3) ~ 5 dB per doubling of distance from source
- (4) ~ 6 dB per doubling of distance from source

Options :

- 61547545829. 1
- 61547545830. 2
- 61547545831. 3
- 61547545832. 4

Question Number : 84 Question Id : 61547511756 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following particulate control devices has the poorest removal efficiency for particles in the sub-micron size range?

- | | |
|--------------------------------|----------------------|
| (1) Electrostatic Precipitator | (2) Fabric Filter |
| (3) Cyclone | (4) Venturi Scrubber |

Options :

- 61547545833. 1
- 61547545834. 2
- 61547545835. 3
- 61547545836. 4

Question Number : 84 Question Id : 61547511756 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following particulate control devices has the poorest removal efficiency for particles in the sub-micron size range?

- | | |
|--------------------------------|----------------------|
| (1) Electrostatic Precipitator | (2) Fabric Filter |
| (3) Cyclone | (4) Venturi Scrubber |

Options :

- 61547545833. 1
- 61547545834. 2
- 61547545835. 3
- 61547545836. 4

Question Number : 85 Question Id : 61547511757 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

According to Biomedical Waste Management Rules 2016 of the Government of India, which colored non-chlorinated plastic bags should be used for the collection of human anatomical waste?

- | | |
|------------|----------|
| (1) Yellow | (2) Red |
| (3) White | (4) Blue |

Options :

- 61547545837. 1
- 61547545838. 2
- 61547545839. 3
- 61547545840. 4

Question Number : 85 Question Id : 61547511757 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

According to Biomedical Waste Management Rules 2016 of the Government of India, which colored non-chlorinated plastic bags should be used for the collection of human anatomical waste?

- | | |
|------------|----------|
| (1) Yellow | (2) Red |
| (3) White | (4) Blue |

Options :

- 61547545837. 1
- 61547545838. 2
- 61547545839. 3
- 61547545840. 4

Question Number : 86 Question Id : 61547511758 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which group of microorganisms dominate in glacial ecosystems?

- | | |
|-------------------|------------------|
| (1) Psychrophiles | (2) Thermophiles |
| (3) Mesophiles | (4) Acidophiles |

Options :

- 61547545841. 1
- 61547545842. 2
- 61547545843. 3
- 61547545844. 4

Question Number : 86 Question Id : 61547511758 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which group of microorganisms dominate in glacial ecosystems?

- | | |
|-------------------|------------------|
| (1) Psychrophiles | (2) Thermophiles |
| (3) Mesophiles | (4) Acidophiles |

Options :

- 61547545841. 1
- 61547545842. 2
- 61547545843. 3
- 61547545844. 4

Question Number : 87 Question Id : 61547511759 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The Article 48A of the Indian Constitution (Directive Principles of State Policy for Environmental Protection) was inducted in 1976 after the

- | | |
|--------------------------------|--------------------------------|
| (1) 42 nd amendment | (2) 40 th amendment |
| (3) 28 th amendment | (4) 14 th amendment |

Options :

- 61547545845. 1
- 61547545846. 2
- 61547545847. 3
- 61547545848. 4

Question Number : 87 Question Id : 61547511759 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The Article 48A of the Indian Constitution (Directive Principles of State Policy for Environmental Protection) was inducted in 1976 after the

- | | |
|--------------------------------|--------------------------------|
| (1) 42 nd amendment | (2) 40 th amendment |
| (3) 28 th amendment | (4) 14 th amendment |

Options :

- 61547545845. 1
- 61547545846. 2
- 61547545847. 3
- 61547545848. 4

Question Number : 88 Question Id : 61547511760 Question Type : MCQ Option Shuffling : No Display Question Number : Yes

Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which is the first company in India whose project was approved under the Clean Development Mechanism (CDM) of Kyoto Protocol?

- | | |
|---------------------------------|---------------------------------------|
| (1) Gujrat Fluorochemicals Ltd. | (2) Jindal Steel and Power Ltd. |
| (3) RSPL Ltd. | (4) Inter-Ocean Shipping Private Ltd. |

Options :

- 61547545849. 1
- 61547545850. 2
- 61547545851. 3
- 61547545852. 4

Question Number : 88 Question Id : 61547511760 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which is the first company in India whose project was approved under the Clean Development Mechanism (CDM) of Kyoto Protocol?

- | | |
|---------------------------------|---------------------------------------|
| (1) Gujrat Fluorochemicals Ltd. | (2) Jindal Steel and Power Ltd. |
| (3) RSPL Ltd. | (4) Inter-Ocean Shipping Private Ltd. |

Options :

- 61547545849. 1
- 61547545850. 2
- 61547545851. 3
- 61547545852. 4

Question Number : 89 Question Id : 61547511761 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Section 3B of the Forest (Conservation) Act, 1980 deals with the

- (1) penalty for contravention of the provisions
- (2) cases in which offences are made by authorities
- (3) restriction on the state government for conversion of forests for non-forestry purposes
- (4) provision for using the natural resources from the forest by the community

Options :

61547545853. 1
61547545854. 2
61547545855. 3
61547545856. 4

Question Number : 89 Question Id : 61547511761 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Section 3B of the Forest (Conservation) Act, 1980 deals with the

- (1) penalty for contravention of the provisions
- (2) cases in which offences are made by authorities
- (3) restriction on the state government for conversion of forests for non-forestry purposes
- (4) provision for using the natural resources from the forest by the community

Options :

61547545853. 1
61547545854. 2
61547545855. 3
61547545856. 4

Question Number : 90 Question Id : 61547511762 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Gender is an example of which of the following types of variables?

- | | |
|--------------|-------------|
| (1) Nominal | (2) Ordinal |
| (3) Interval | (4) Ratio |

Options :

61547545857. 1
61547545858. 2
61547545859. 3
61547545860. 4

Question Number : 90 Question Id : 61547511762 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Gender is an example of which of the following types of variables?

- | | |
|--------------|-------------|
| (1) Nominal | (2) Ordinal |
| (3) Interval | (4) Ratio |

Options :

- 61547545857. 1
- 61547545858. 2
- 61547545859. 3
- 61547545860. 4

Question Number : 91 Question Id : 61547511763 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Mean marks of 200 students in statistics are 47. The mean marks of top 25% students are 72 and that of bottom 25% students are 25. Which of the following are the mean marks of the remaining students?

- | | |
|----------|----------|
| (1) 48.5 | (2) 47.5 |
| (3) 45.5 | (4) 44.5 |

Options :

- 61547545861. 1
- 61547545862. 2
- 61547545863. 3
- 61547545864. 4

Question Number : 91 Question Id : 61547511763 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Mean marks of 200 students in statistics are 47. The mean marks of top 25% students are 72 and that of bottom 25% students are 25. Which of the following are the mean marks of the remaining students?

- | | |
|----------|----------|
| (1) 48.5 | (2) 47.5 |
| (3) 45.5 | (4) 44.5 |

Options :

- 61547545861. 1
- 61547545862. 2
- 61547545863. 3
- 61547545864. 4

Question Number : 92 Question Id : 61547511764 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following measures of skewness is based on the distance of upper and lower quartiles from the median value in a dataset?

- (1) Karl Pearson's Coefficient of Skewness
- (2) Kelly's Measure of Skewness
- (3) Bowley's Coefficient of Skewness
- (4) Coefficient of Skewness based on moments

Options :

- 61547545865. 1
- 61547545866. 2
- 61547545867. 3
- 61547545868. 4

Question Number : 92 Question Id : 61547511764 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following measures of skewness is based on the distance of upper and lower quartiles from the median value in a dataset?

- (1) Karl Pearson's Coefficient of Skewness
- (2) Kelly's Measure of Skewness
- (3) Bowley's Coefficient of Skewness
- (4) Coefficient of Skewness based on moments

Options :

- 61547545865. 1
- 61547545866. 2
- 61547545867. 3
- 61547545868. 4

Question Number : 93 Question Id : 61547511765 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In an objective type examination, there are 100 questions. One mark is awarded for each correct answer and 0.125 marks are deducted for each incorrect answer. The number of marks scored by the students in this examination is an example of which of the following types of variables?

- | | |
|--------------|----------------|
| (1) Discrete | (2) Continuous |
| (3) Nominal | (4) Ordinal |

Options :

61547545869. 1
61547545870. 2
61547545871. 3
61547545872. 4

Question Number : 93 Question Id : 61547511765 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

In an objective type examination, there are 100 questions. One mark is awarded for each correct answer and 0.125 marks are deducted for each incorrect answer. The number of marks scored by the students in this examination is an example of which of the following types of variables?

- | | |
|--------------|----------------|
| (1) Discrete | (2) Continuous |
| (3) Nominal | (4) Ordinal |

Options :

61547545869. 1
61547545870. 2
61547545871. 3
61547545872. 4

Question Number : 94 Question Id : 61547511766 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

The probability density function of a continuous random variable x is given by

$$f(x) = \begin{cases} 3e^{-x} & \text{for } x > 0 \\ 0 & \text{for } x \leq 0 \end{cases}$$

Which of the following would be the probability that x lies between 1 and 2?

- | | |
|--------------------------|--------------------------|
| (1) $e^{-3} - e^{-6}$ | (2) $e^{-6} - e^{-3}$ |
| (3) $9(e^{-6} - e^{-3})$ | (4) $9(e^{-3} - e^{-6})$ |

Options :

- 61547545873. 1
- 61547545874. 2
- 61547545875. 3
- 61547545876. 4

Question Number : 94 Question Id : 61547511766 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The probability density function of a continuous random variable x is given by

$$f(x) = \begin{cases} 3e^{-x} & \text{for } x > 0 \\ 0 & \text{for } x \leq 0 \end{cases}$$

Which of the following would be the probability that x lies between 1 and 2?

- | | |
|--------------------------|--------------------------|
| (1) $e^{-3} - e^{-6}$ | (2) $e^{-6} - e^{-3}$ |
| (3) $9(e^{-6} - e^{-3})$ | (4) $9(e^{-3} - e^{-6})$ |

Options :

- 61547545873. 1
- 61547545874. 2
- 61547545875. 3
- 61547545876. 4

Question Number : 95 Question Id : 61547511767 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

If x and y are two variables that are not independent, then which of the following represents the variance $\text{Var}(ax+by)$ of their linear combination, where 'a' and 'b' are constants?

- (1) $a^2 \text{Var}(x) + b^2 \text{Var}(y)$
- (2) $a^2 \text{Var}(x) - b^2 \text{Var}(y)$
- (3) $a^2 \text{Var}(x) + b^2 \text{Var}(y) + 2ab \text{Cov}(x,y)$
- (4) $a^2 \text{Var}(x) + b^2 \text{Var}(y) - 2ab \text{Cov}(x,y)$

Options :

- 61547545877. 1
- 61547545878. 2
- 61547545879. 3
- 61547545880. 4

Question Number : 95 Question Id : 61547511767 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

If x and y are two variables that are not independent, then which of the following represents the variance $\text{Var}(ax+by)$ of their linear combination, where 'a' and 'b' are constants?

- (1) $a^2 \text{Var}(x) + b^2 \text{Var}(y)$
- (2) $a^2 \text{Var}(x) - b^2 \text{Var}(y)$
- (3) $a^2 \text{Var}(x) + b^2 \text{Var}(y) + 2ab \text{Cov}(x,y)$
- (4) $a^2 \text{Var}(x) + b^2 \text{Var}(y) - 2ab \text{Cov}(x,y)$

Options :

- 61547545877. 1
- 61547545878. 2
- 61547545879. 3
- 61547545880. 4

Question Number : 96 Question Id : 61547511768 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which is the most significant fingerprint of climate change with respect to biotic invasion?

- | | |
|----------------|-----------------|
| (1) Protozoa | (2) Mosquitoes |
| (3) Bryophytes | (4) Gymnosperms |

Options :

- 61547545881. 1
- 61547545882. 2

61547545883. 3

61547545884. 4

Question Number : 96 Question Id : 61547511768 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which is the most significant fingerprint of climate change with respect to biotic invasion?

- | | |
|----------------|-----------------|
| (1) Protozoa | (2) Mosquitoes |
| (3) Bryophytes | (4) Gymnosperms |

Options :

61547545881. 1

61547545882. 2

61547545883. 3

61547545884. 4

Question Number : 97 Question Id : 61547511769 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following greenhouse gases has contributed the most to the global warming?

- | | |
|-------------------|-------------------|
| (1) Methane | (2) Carbondioxide |
| (3) Nitrous Oxide | (4) Ozone |

Options :

61547545885. 1

61547545886. 2

61547545887. 3

61547545888. 4

Question Number : 97 Question Id : 61547511769 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following greenhouse gases has contributed the most to the global warming?

- | | |
|-------------------|-------------------|
| (1) Methane | (2) Carbondioxide |
| (3) Nitrous Oxide | (4) Ozone |

Options :

61547545885. 1

61547545886. 2

61547545887. 3

61547545888. 4

Question Number : 98 Question Id : 61547511770 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Who was the woman activist, who initiated the Chipko movement in Reni village of Chamoli district in 1973?

- | | |
|--------------------------|----------------------|
| (1) Smt. Vimala Bahuguna | (2) Smt. Gaura Devi |
| (3) Smt. Ila Bhatt | (4) Smt. Amrita Devi |

Options :

61547545889. 1
61547545890. 2
61547545891. 3
61547545892. 4

Question Number : 98 Question Id : 61547511770 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Who was the woman activist, who initiated the Chipko movement in Reni village of Chamoli district in 1973?

- | | |
|--------------------------|----------------------|
| (1) Smt. Vimala Bahuguna | (2) Smt. Gaura Devi |
| (3) Smt. Ila Bhatt | (4) Smt. Amrita Devi |

Options :

61547545889. 1
61547545890. 2
61547545891. 3
61547545892. 4

Question Number : 99 Question Id : 61547511771 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Suppose a remote sensor records brightness levels in terms of digital numbers (DN) ranging from 0 to 255. The histogram of a scene recorded by the remote sensor shows the brightness values ranging from 60 to 158. A researcher wants to apply Linear Contrast Stretch to all the pixels in the scene. If DN' represents the transformed brightness level of a pixel and DN represents its recorded brightness level, which of the following expressions would be the most appropriate?

- | | |
|--|---|
| (1) $DN' = \left(\frac{DN-60}{DN-158} \right) * 255$ | (2) $DN' = \left(\frac{DN-158}{DN-60} \right) * 255$ |
| (3) $DN' = \left(\frac{DN-158}{158-60} \right) * 255$ | (4) $DN' = \left(\frac{DN-60}{158-60} \right) * 255$ |

Options :

61547545893. 1
61547545894. 2
61547545895. 3
61547545896. 4

Question Number : 99 Question Id : 61547511771 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Suppose a remote sensor records brightness levels in terms of digital numbers (DN) ranging from 0 to 255. The histogram of a scene recorded by the remote sensor shows the brightness values ranging from 60 to 158. A researcher wants to apply Linear Contrast Stretch to all the pixels in the scene. If DN' represents the transformed brightness level of a pixel and DN represents its recorded brightness level, which of the following expressions would be the most appropriate?

- (1) $DN' = \left(\frac{DN-60}{DN-158} \right) * 255$ (2) $DN' = \left(\frac{DN-158}{DN-60} \right) * 255$
(3) $DN' = \left(\frac{DN-158}{158-60} \right) * 255$ (4) $DN' = \left(\frac{DN-60}{158-60} \right) * 255$

Options :

61547545893. 1
61547545894. 2
61547545895. 3
61547545896. 4

Question Number : 100 Question Id : 61547511772 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following wavelengths :

- (a) 0.94 μm (b) 1.14 μm
(c) 1.40 μm (d) 1.88 μm

Water vapors absorb strongly at which of the above wavelengths?

- (1) (a), (b) and (c) only (2) (b), (c) and (d) only
(3) (a), (c) and (d) only (4) (a), (b), (c) and (d)

Options :

61547545897. 1
61547545898. 2
61547545899. 3
61547545900. 4

Question Number : 100 Question Id : 61547511772 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following wavelengths :

- | | |
|------------------------|------------------------|
| (a) 0.94 μm | (b) 1.14 μm |
| (c) 1.40 μm | (d) 1.88 μm |

Water vapors absorb strongly at which of the above wavelengths?

- | | |
|---------------------------|---------------------------|
| (1) (a), (b) and (c) only | (2) (b), (c) and (d) only |
| (3) (a), (c) and (d) only | (4) (a), (b), (c) and (d) |

Options :

61547545897. 1
61547545898. 2
61547545899. 3
61547545900. 4

Question Number : 101 Question Id : 61547511773 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

Statement I – Objects at higher temperatures emit higher amount of electromagnetic radiations.

Statement II – Objects with higher temperatures reach their maximum emissive intensity at longer wavelengths.

Which of the above statements is/are correct?

- | | |
|-------------------|----------------------|
| (1) I and II both | (2) I only |
| (3) II only | (4) Neither I nor II |

Options :

61547545901. 1
61547545902. 2
61547545903. 3
61547545904. 4

Question Number : 101 Question Id : 61547511773 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

Statement I – Objects at higher temperatures emit higher amount of electromagnetic radiations.

Statement II – Objects with higher temperatures reach their maximum emissive intensity at longer wavelengths.

Which of the above statements is/are correct?

- | | |
|-------------------|----------------------|
| (1) I and II both | (2) I only |
| (3) II only | (4) Neither I nor II |

Options :

- 61547545901. 1
- 61547545902. 2
- 61547545903. 3
- 61547545904. 4

Question Number : 102 Question Id : 61547511774 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

- (a) Chromium (III) chemical species is more toxic than Chromium (VI)
- (b) Dimethylmercury chemical species is more toxic than methylmercury ion
- (c) Arsenic (III) is more toxic than Arsenic (V)

Which of the above statements is/are correct?

- | | |
|--------------|----------------------|
| (1) (b) only | (2) (a), (b) and (c) |
| (3) (c) only | (4) (a) and (c) only |

Options :

- 61547545905. 1
- 61547545906. 2
- 61547545907. 3
- 61547545908. 4

Question Number : 102 Question Id : 61547511774 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

- (a) Chromium (III) chemical species is more toxic than Chromium (VI)
- (b) Dimethylmercury chemical species is more toxic than methylmercury ion
- (c) Arsenic (III) is more toxic than Arsenic (V)

Which of the above statements is/are correct?

- | | |
|--------------|----------------------|
| (1) (b) only | (2) (a), (b) and (c) |
| (3) (c) only | (4) (a) and (c) only |

Options :

- 61547545905. 1
- 61547545906. 2
- 61547545907. 3
- 61547545908. 4

Question Number : 103 Question Id : 61547511775 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following changes with regard to dissolution of ammonia in water:

- (a) increase in temperature
- (b) decrease in pH of the solution
- (c) increase in partial pressure of ammonia

The solubility of ammonia would increase by which of the above changes?

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (a), (b) and (c) |
| (3) (b) and (c) only | (4) (a) only |

Options :

- 61547545909. 1
- 61547545910. 2
- 61547545911. 3
- 61547545912. 4

Question Number : 103 Question Id : 61547511775 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following changes with regard to dissolution of ammonia in water:

- (a) increase in temperature
- (b) decrease in pH of the solution
- (c) increase in partial pressure of ammonia

The solubility of ammonia would increase by which of the above changes?

- (1) (a) and (b) only
- (2) (a), (b) and (c)
- (3) (b) and (c) only
- (4) (a) only

Options :

- 61547545909. 1
- 61547545910. 2
- 61547545911. 3
- 61547545912. 4

Question Number : 104 Question Id : 61547511776 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following gases :

- (a) CO
- (b) CH₄
- (c) HCFCs
- (d) CO₂
- (e) SO₃

Those gases removed from the atmosphere by the process of oxidation are:

- (1) (a), (b), (c) and (d) only
- (2) (a), (b) and (c) only
- (3) (a), (d) and (e) only
- (4) (a), (b), (c), (d) and (e)

Options :

- 61547545913. 1
- 61547545914. 2
- 61547545915. 3
- 61547545916. 4

Question Number : 104 Question Id : 61547511776 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following gases :

- (a) CO
- (b) CH₄
- (c) HCFCs
- (d) CO₂
- (e) SO₃

Those gases removed from the atmosphere by the process of oxidation are:

- (1) (a), (b), (c) and (d) only
- (2) (a), (b) and (c) only
- (3) (a), (d) and (e) only
- (4) (a), (b), (c), (d) and (e)

Options :

- 61547545913. 1
- 61547545914. 2
- 61547545915. 3
- 61547545916. 4

Question Number : 105 Question Id : 61547511777 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In ecological sampling, Importance Value Index refers to sum of which of the following?

- (a) Relative density
- (b) Relative frequency
- (c) Relative abundance
- (d) Relative dominance

Choose the correct answer from the options given below:

- (1) (a), (b) and (c)
- (2) (a), (c) and (d)
- (3) (b), (c) and (d)
- (4) (a), (b) and (d)

Options :

- 61547545917. 1
- 61547545918. 2
- 61547545919. 3
- 61547545920. 4

Question Number : 105 Question Id : 61547511777 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

In ecological sampling, Importance Value Index refers to sum of which of the following?

- (a) Relative density
- (b) Relative frequency
- (c) Relative abundance
- (d) Relative dominance

Choose the correct answer from the options given below:

- | | |
|----------------------|----------------------|
| (1) (a), (b) and (c) | (2) (a), (c) and (d) |
| (3) (b), (c) and (d) | (4) (a), (b) and (d) |

Options :

61547545917. 1
61547545918. 2
61547545919. 3
61547545920. 4

Question Number : 106 Question Id : 61547511778 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following characteristics of plant species:

- (a) small size
- (b) long life span
- (c) low rate of growth
- (d) production of large number of easily dispersed seeds

Which of the above characterize the early successional (pioneer) plant communities?

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (a) and (c) only |
| (3) (b) and (c) only | (4) (a) and (d) only |

Options :

61547545921. 1
61547545922. 2
61547545923. 3
61547545924. 4

Question Number : 106 Question Id : 61547511778 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following characteristics of plant species:

- (a) small size
- (b) long life span
- (c) low rate of growth
- (d) production of large number of easily dispersed seeds

Which of the above characterize the early successional (pioneer) plant communities?

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (a) and (c) only |
| (3) (b) and (c) only | (4) (a) and (d) only |

Options :

- 61547545921. 1
- 61547545922. 2
- 61547545923. 3
- 61547545924. 4

Question Number : 107 Question Id : 61547511779 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which among the following are considered as ecosystem services provided by forest ecosystems?

- (a) Resins and gums
- (b) Pollination by insects
- (c) Climate regulation
- (d) Timber

Choose the correct option :

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (b) and (d) only | (4) (c) and (d) only |

Options :

- 61547545925. 1
- 61547545926. 2
- 61547545927. 3
- 61547545928. 4

Question Number : 107 Question Id : 61547511779 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which among the following are considered as ecosystem services provided by forest ecosystems?

- (a) Resins and gums
- (b) Pollination by insects
- (c) Climate regulation
- (d) Timber

Choose the correct option :

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (b) and (d) only | (4) (c) and (d) only |

Options :

- 61547545925. 1
- 61547545926. 2
- 61547545927. 3
- 61547545928. 4

Question Number : 108 Question Id : 61547511780 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Assuming the incoming solar radiation to be 100 units, consider the following statements about the radiation budget of earth:

- (a) About 51 units of solar radiation are absorbed by earth's surface.
- (b) About 20 units of long-wave radiation emitted from earth's surface are lost to space directly without being absorbed by the atmosphere.
- (c) About 19 units of solar radiation are absorbed by the atmosphere.

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

- 61547545929. 1
- 61547545930. 2
- 61547545931. 3
- 61547545932. 4

Question Number : 108 Question Id : 61547511780 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Assuming the incoming solar radiation to be 100 units, consider the following statements about the radiation budget of earth:

- (a) About 51 units of solar radiation are absorbed by earth's surface.
- (b) About 20 units of long-wave radiation emitted from earth's surface are lost to space directly without being absorbed by the atmosphere.
- (c) About 19 units of solar radiation are absorbed by the atmosphere.

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

- 61547545929. 1
- 61547545930. 2
- 61547545931. 3
- 61547545932. 4

Question Number : 109 Question Id : 61547511781 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following is/are the characteristic(s) of direct band gap semi-conductor Ga-As?

- (a) less sharp absorption band
- (b) large values of extinction coefficient

Choose the correct answer from options given below:

- | | |
|-----------------|-------------------------|
| (1) (a) only | (2) (b) only |
| (3) (a) and (b) | (4) Neither (a) nor (b) |

Options :

- 61547545933. 1
- 61547545934. 2
- 61547545935. 3
- 61547545936. 4

Question Number : 109 Question Id : 61547511781 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which of the following is/are the characteristic(s) of direct band gap semi-conductor Ga-As?

- (a) less sharp absorption band
- (b) large values of extinction coefficient

Choose the correct answer from options given below:

- | | |
|-----------------|-------------------------|
| (1) (a) only | (2) (b) only |
| (3) (a) and (b) | (4) Neither (a) nor (b) |

Options :

61547545933. 1
61547545934. 2
61547545935. 3
61547545936. 4

Question Number : 110 Question Id : 61547511782 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Solar insolation on a rectangular module (1.5 m x 2.0 m) of photovoltaic cells is 550 W/m². If the efficiency of the cells is 12%, what is the power output of the module?

- | | |
|-----------|-----------|
| (1) 396 W | (2) 240 W |
| (3) 99 W | (4) 198 W |

Options :

61547545937. 1
61547545938. 2
61547545939. 3
61547545940. 4

Question Number : 110 Question Id : 61547511782 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Solar insolation on a rectangular module (1.5 m x 2.0 m) of photovoltaic cells is 550 W/m². If the efficiency of the cells is 12%, what is the power output of the module?

- | | |
|-----------|-----------|
| (1) 396 W | (2) 240 W |
| (3) 99 W | (4) 198 W |

Options :

61547545937. 1

61547545938. 2
61547545939. 3
61547545940. 4

Question Number : 111 Question Id : 61547511783 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

In the context of gaseous pollutants control using packed towers, consider the following statements:

- (a) The flow of the effluent gas through a packed tower is countercurrent
- (b) The packing material should have a small surface to volume ratio
- (c) The packing material is used to increase the contact time between the gaseous pollutant and liquid

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (a), (b) and (c) only

Options :

61547545941. 1
61547545942. 2
61547545943. 3
61547545944. 4

Question Number : 111 Question Id : 61547511783 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

In the context of gaseous pollutants control using packed towers, consider the following statements:

- (a) The flow of the effluent gas through a packed tower is countercurrent
- (b) The packing material should have a small surface to volume ratio
- (c) The packing material is used to increase the contact time between the gaseous pollutant and liquid

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

- 61547545941. 1
- 61547545942. 2
- 61547545943. 3
- 61547545944. 4

Question Number : 112 Question Id : 61547511784 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding water treatment

- (a) Alum is added to water as a coagulating agent.
- (b) Residual chlorine is considered as a major disadvantage of using chlorination for disinfection of water.
- (c) Addition of ammonia to water treated with chlorine leads to the formation of chloramines.

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

- 61547545945. 1
- 61547545946. 2
- 61547545947. 3
- 61547545948. 4

Consider the following statements regarding water treatment

- (a) Alum is added to water as a coagulating agent.
- (b) Residual chlorine is considered as a major disadvantage of using chlorination for disinfection of water.
- (c) Addition of ammonia to water treated with chlorine leads to the formation of chloramines.

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (a), (b) and (c) only

Options :

- 61547545945. 1
- 61547545946. 2
- 61547545947. 3
- 61547545948. 4

Which among the following radioactive species have a half life of more than 10 years?

- (a) ${}_{36}\text{Kr}^{91}$
- (b) ${}_{38}\text{Sr}^{90}$
- (c) ${}_{55}\text{Cs}^{137}$
- (d) ${}_{40}\text{Zr}^{91}$

Choose the correct option from those given below :

- (1) (a) and (c) only
- (2) (b) and (c) only
- (3) (a) and (d) only
- (4) (c) and (d) only

Options :

- 61547545949. 1

61547545950. 2
61547545951. 3
61547545952. 4

Question Number : 113 Question Id : 61547511785 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Which among the following radioactive species have a half life of more than 10 years?

- (a) ${}_{36}\text{Kr}^{91}$
- (b) ${}_{38}\text{Sr}^{90}$
- (c) ${}_{55}\text{Cs}^{137}$
- (d) ${}_{40}\text{Zr}^{91}$

Choose the correct option from those given below :

- (1) (a) and (c) only
- (2) (b) and (c) only
- (3) (a) and (d) only
- (4) (c) and (d) only

Options :

61547545949. 1
61547545950. 2
61547545951. 3
61547545952. 4

Question Number : 114 Question Id : 61547511786 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

As per the Coastal Regulation Zone (CRZ) Notification (1991), CRZ-I includes which of the following?

- (a) Ecosensitive Zones
- (b) Fishing Zones
- (c) Intertidal Zones
- (d) Development Zones

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 (c) only

Options :

61547545953. 1
61547545954. 2
61547545955. 3
61547545956. 4

Question Number : 114 Question Id : 61547511786 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

As per the Coastal Regulation Zone (CRZ) Notification (1991), CRZ-I includes which of the following?

- (a) Ecosensitive Zones
- (b) Fishing Zones
- (c) Intertidal Zones
- (d) Development Zones

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 (c) only |

Options :

61547545953. 1
61547545954. 2
61547545955. 3
61547545956. 4

Question Number : 115 Question Id : 61547511787 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Poisson Distribution:

- (a) It is a continuous probability distribution.
- (b) It is applicable when 'n' the number of trials is indefinitely large and 'p' the probability of success is indefinitely small.
- (c) Its mean is equal to its variance

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

61547545957. 1
61547545958. 2

61547545959. 3

61547545960. 4

Question Number : 115 Question Id : 61547511787 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Poisson Distribution:

- (a) It is a continuous probability distribution.
- (b) It is applicable when 'n' the number of trials is indefinitely large and 'p' the probability of success is indefinitely small.
- (c) Its mean is equal to its variance

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) only |

Options :

61547545957. 1

61547545958. 2

61547545959. 3

61547545960. 4

Question Number : 116 Question Id : 61547511788 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding sampling:

- (a) The sample mean is an unbiased estimate of the population mean.
- (b) For small samples, the sample variance is an unbiased estimate of the population variance.
- (c) If we reject the null hypothesis when it is actually true, we commit the type-I error in testing the hypothesis.

Which of the above statements are correct?

- | | |
|----------------------|---------------------------|
| (1) (a) and (b) only | (2) (a) and (c) only |
| (3) (b) and (c) only | (4) (a), (b) and (c) only |

Options :

61547545961. 1
61547545962. 2
61547545963. 3
61547545964. 4

Question Number : 116 Question Id : 61547511788 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding sampling:

- (a) The sample mean is an unbiased estimate of the population mean.
- (b) For small samples, the sample variance is an unbiased estimate of the population variance.
- (c) If we reject the null hypothesis when it is actually true, we commit the type-I error in testing the hypothesis.

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (a) and (c) only
- (3) (b) and (c) only
- (4) (a), (b) and (c) only

Options :

61547545961. 1
61547545962. 2
61547545963. 3
61547545964. 4

Question Number : 117 Question Id : 61547511789 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Chi-Square test:

- (a) If X is a random variable following normal distribution with mean μ and standard deviation σ , then $\left(\frac{X - \mu}{\sigma}\right)^2$ is a Chi-Square variate with 1 degree of freedom
- (b) It is an appropriate test for testing the goodness of fit of a model/theory to experimental data
- (c) It involves computing the squares of the deviations of observed frequencies from the expected frequencies.

Which of the above statements are correct?

- | | |
|----------------------|----------------------|
| (1) (a) and (b) only | (2) (b) and (c) only |
| (3) (a) and (c) only | (4) (a), (b) and (c) |

Options :

- 61547545965. 1
- 61547545966. 2
- 61547545967. 3
- 61547545968. 4

Question Number : 117 Question Id : 61547511789 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding Chi-Square test:

- (a) If X is a random variable following normal distribution with mean μ and standard deviation σ , then $\left(\frac{X - \mu}{\sigma}\right)^2$ is a Chi-Square variate with 1 degree of freedom
- (b) It is an appropriate test for testing the goodness of fit of a model/theory to experimental data
- (c) It involves computing the squares of the deviations of observed frequencies from the expected frequencies.

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (a), (b) and (c)

Options :

- 61547545965. 1
- 61547545966. 2
- 61547545967. 3
- 61547545968. 4

Question Number : 118 Question Id : 61547511790 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements about the Lotka-Volterra Model:

- (a) Both the populations of prey and predator oscillate sinusoidically.
- (b) There is a phase difference of $\pi/2$ between the prey and predator populations.
- (c) Populations of prey and predator are directly proportional, to each other
- (d) Population of prey and predator are inversely proportional, to each other

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (a) and (c) only
- (3) (a) and (d) only
- (4) (b) and (d) only

Options :

- 61547545969. 1
- 61547545970. 2
- 61547545971. 3
- 61547545972. 4

Question Number : 118 Question Id : 61547511790 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements about the Lotka-Volterra Model:

- (a) Both the populations of prey and predator oscillate sinusoidically.
- (b) There is a phase difference of $\pi/2$ between the prey and predator populations.
- (c) Populations of prey and predator are directly proportional, to each other
- (d) Population of prey and predator are inversely proportional, to each other

Which of the above statements are correct?

- (1) (a) and (b) only
- (2) (a) and (c) only
- (3) (a) and (d) only
- (4) (b) and (d) only

Options :

- 61547545969. 1
- 61547545970. 2
- 61547545971. 3
- 61547545972. 4

Question Number : 119 Question Id : 61547511791 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following is the important hotspot of biodiversity in India?

- | | |
|-------------------|-------------------|
| (1) Ganga Basin | (2) Vindhya |
| (3) Western Ghats | (4) Aravali Hills |

Options :

- 61547545973. 1
- 61547545974. 2
- 61547545975. 3
- 61547545976. 4

Question Number : 119 Question Id : 61547511791 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following is the important hotspot of biodiversity in India?

- | | |
|-------------------|-------------------|
| (1) Ganga Basin | (2) Vindhyachal |
| (3) Western Ghats | (4) Aravali Hills |

Options :

61547545973. 1

61547545974. 2

61547545975. 3

61547545976. 4

Question Number : 120 Question Id : 61547511792 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following surfaces exhibits maximum variation in albedo with respect to the angle of incidence of solar radiations?

- | | |
|-----------|----------------|
| (1) Water | (2) Bare Soil |
| (3) Sand | (4) Vegetation |

Options :

61547545977. 1

61547545978. 2

61547545979. 3

61547545980. 4

Question Number : 120 Question Id : 61547511792 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following surfaces exhibits maximum variation in albedo with respect to the angle of incidence of solar radiations?

- | | |
|-----------|----------------|
| (1) Water | (2) Bare Soil |
| (3) Sand | (4) Vegetation |

Options :

61547545977. 1

61547545978. 2

61547545979. 3

61547545980. 4

Question Number : 121 Question Id : 61547511793 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which among the following is the correct order of stratification in lentic ecosystems from top to bottom?

- (1) Littoral zone, Limnetic zone, Profundal zone, Benthic zone
- (2) Limnetic zone, Littoral zone, Benthic zone, Profundal zone
- (3) Limnetic zone, Benthic zone, Profundal zone, Littoral zone
- (4) Littoral zone, Limnetic zone, Benthic zone, Profundal zone

Options :

- 61547545981. 1
- 61547545982. 2
- 61547545983. 3
- 61547545984. 4

Question Number : 121 Question Id : 61547511793 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which among the following is the correct order of stratification in lentic ecosystems from top to bottom?

- (1) Littoral zone, Limnetic zone, Profundal zone, Benthic zone
- (2) Limnetic zone, Littoral zone, Benthic zone, Profundal zone
- (3) Limnetic zone, Benthic zone, Profundal zone, Littoral zone
- (4) Littoral zone, Limnetic zone, Benthic zone, Profundal zone

Options :

- 61547545981. 1
- 61547545982. 2
- 61547545983. 3
- 61547545984. 4

Question Number : 122 Question Id : 61547511794 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which among the following is the correct sequence of the elements in earth's crust in decreasing order?

- (1) Oxygen > Aluminium > Silicon > Iron
- (2) Oxygen > Silicon > Iron > Aluminium
- (3) Oxygen > Aluminium > Iron > Silicon
- (4) Oxygen > Silicon > Aluminium > Iron

Options :

61547545985. 1

61547545986. 2

61547545987. 3

61547545988. 4

Question Number : 122 Question Id : 61547511794 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which among the following is the correct sequence of the elements in earth's crust in decreasing order?

- (1) Oxygen > Aluminium > Silicon > Iron
- (2) Oxygen > Silicon > Iron > Aluminium
- (3) Oxygen > Aluminium > Iron > Silicon
- (4) Oxygen > Silicon > Aluminium > Iron

Options :

61547545985. 1

61547545986. 2

61547545987. 3

61547545988. 4

Question Number : 123 Question Id : 61547511795 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of processes involved in chemical weathering of rocks:

- (1) Hydrolysis, Solution, Hydration, Oxidation, Carbonation
- (2) Solution, Hydrolysis, Hydration, Carbonation, Oxidation
- (3) Hydrolysis, Oxidation, Carbonation, Hydration, Solution
- (4) Hydrolysis, Hydration, Carbonation, Oxidation, Solution,

Options :

61547545989. 1

61547545990. 2
61547545991. 3
61547545992. 4

Question Number : 123 Question Id : 61547511795 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Identify the correct sequence of processes involved in chemical weathering of rocks:

- (1) Hydrolysis, Solution, Hydration, Oxidation, Carbonation
- (2) Solution, Hydrolysis, Hydration, Carbonation, Oxidation
- (3) Hydrolysis, Oxidation, Carbonation, Hydration, Solution
- (4) Hydrolysis, Hydration, Carbonation, Oxidation, Solution,

Options :

61547545989. 1
61547545990. 2
61547545991. 3
61547545992. 4

Question Number : 124 Question Id : 61547511796 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Restoration of Doon Valley is an example of best practices of restoration of degraded ecosystem caused by

- (1) over exploitation by the high influx of tourists
- (2) construction and widening of roads
- (3) limestone quarrying
- (4) massive civil works of building constructions

Options :

61547545993. 1
61547545994. 2
61547545995. 3
61547545996. 4

Question Number : 124 Question Id : 61547511796 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Restoration of Doon Valley is an example of best practices of restoration of degraded ecosystem caused by

- (1) over exploitation by the high influx of tourists
- (2) construction and widening of roads
- (3) limestone quarrying
- (4) massive civil works of building constructions

Options :

- 61547545993. 1
- 61547545994. 2
- 61547545995. 3
- 61547545996. 4

Question Number : 125 Question Id : 61547511797 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is the correct order of steps taken during the process of Environmental Impact Assessment (EIA)?

- (1) Scoping, Screening, Public Hearing, EIA, Issue of Environmental Clearance
- (2) Screening, Public Hearing, Scoping, EIA, Issue of Environmental Clearance
- (3) Screening, Scoping, EIA, Public Hearing, Issue of Environmental Clearance
- (4) Screening, EIA, Scoping, Public Hearing, Issue of Environmental Clearance

Options :

- 61547545997. 1
- 61547545998. 2
- 61547545999. 3
- 61547546000. 4

Question Number : 125 Question Id : 61547511797 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one among the following is the correct order of steps taken during the process of Environmental Impact Assessment (EIA)?

- (1) Scoping, Screening, Public Hearing, EIA, Issue of Environmental Clearance
- (2) Screening, Public Hearing, Scoping, EIA, Issue of Environmental Clearance
- (3) Screening, Scoping, EIA, Public Hearing, Issue of Environmental Clearance
- (4) Screening, EIA, Scoping, Public Hearing, Issue of Environmental Clearance

Options :

61547545997. 1

61547545998. 2

61547545999. 3

61547546000. 4

Question Number : 126 Question Id : 61547511798 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match List-I and List-II containing microorganisms and processes associated with them:

List I (Microorganisms)	List II (Processes)
(a) Bacillus	(i) Denitrification
(b) Agrobacterium	(ii) Ammonification
(c) Rhizobium	(iii) Sulphur into Sulphate
(d) Thiobacillus	(iv) N-fixation

Choose the correct answer from the options given below :

- (1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (2) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
- (3) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)
- (4) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)

Options :

61547546001. 1

61547546002. 2

61547546003. 3

61547546004. 4

Question Number : 126 Question Id : 61547511798 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match List-I and List-II containing microorganisms and processes associated with them:

List I		List II	
(Microorganisms)		(Processes)	
(a)	Bacillus	(i)	Denitrification
(b)	Agrobacterium	(ii)	Ammonification
(c)	Rhizobium	(iii)	Sulphur into Sulphate
(d)	Thiobacillus	(iv)	N-fixation

Choose the correct answer from the options given below :

- (1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (2) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
- (3) (a)-(iii), (b)-(iv), (c)-(ii), (d)-(i)
- (4) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii)

Options :

61547546001. 1

61547546002. 2

61547546003. 3

61547546004. 4

Question Number : 127 Question Id : 61547511799 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following parameters characterizing humidity of the atmosphere with their definitions:

Humidity Parameters	Definitions
(a) Relative Humidity	(i) Weight of water vapour per unit volume of air at a given temperature
(b) Absolute Humidity	(ii) Weight of water vapour per unit weight of total air at a given temperature
(c) Specific Humidity	(iii) Ratio of vapour pressure to the saturation vapour pressure in percentage at a given temperature
(d) Mixing Ratio	(iv) Weight of water vapour per unit weight of dry air at a given temperature

Choose the correct option from those given below :

- (1) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
- (2) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (3) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

- 61547546005. 1
- 61547546006. 2
- 61547546007. 3
- 61547546008. 4

Question Number : 127 Question Id : 61547511799 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following parameters characterizing humidity of the atmosphere with their definitions:

Humidity Parameters	Definitions
(a) Relative Humidity	(i) Weight of water vapour per unit volume of air at a given temperature
(b) Absolute Humidity	(ii) Weight of water vapour per unit weight of total air at a given temperature
(c) Specific Humidity	(iii) Ratio of vapour pressure to the saturation vapour pressure in percentage at a given temperature
(d) Mixing Ratio	(iv) Weight of water vapour per unit weight of dry air at a given temperature

Choose the correct option from those given below :

- (1) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
- (2) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (3) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
- (4) (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)

Options :

- 61547546005. 1
- 61547546006. 2
- 61547546007. 3
- 61547546008. 4

Question Number : 128 Question Id : 61547511800 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following iron oxides with their chemical formulae:

Iron Oxides		Chemical Formulae	
(a)	Haematite	(i)	$\text{FeO} \cdot \text{TiO}_2$
(b)	Magnetite	(ii)	Fe_3O_4
(c)	Ilmenite	(iii)	$\text{FeO} \cdot \text{H}_2\text{O}$
(d)	Limonite	(iv)	Fe_2O_3

Choose the correct option from those given below :

- (1) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)
- (2) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)

Options :

61547546009. 1

61547546010. 2

61547546011. 3

61547546012. 4

Question Number : 128 Question Id : 61547511800 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following iron oxides with their chemical formulae:

Iron Oxides		Chemical Formulae	
(a)	Haematite	(i)	$\text{FeO} \cdot \text{TiO}_2$
(b)	Magnetite	(ii)	Fe_3O_4
(c)	Ilmenite	(iii)	$\text{FeO} \cdot \text{H}_2\text{O}$
(d)	Limonite	(iv)	Fe_2O_3

Choose the correct option from those given below :

- (1) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)
- (2) (a)-(ii), (b)-(iv), (c)-(i), (d)-(iii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)

Options :

61547546009. 1

61547546010. 2

61547546011. 3

61547546012. 4

Question Number : 129 Question Id : 61547511801 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following discontinuities with the boundaries they are found at.

Discontinuities	Boundaries Between
(a) Mohorovicic discontinuity	(i) Lower mantle and outer core
(b) Conrad discontinuity	(ii) Hydrosphere and crust
(c) Lehman discontinuity	(iii) Lower crust and upper mantle
(d) Gutenberg discontinuity	(iv) Outer core and inner core

Choose the correct option from those given below:

- (1) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
- (2) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
- (3) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (4) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)

Options :

61547546013. 1

61547546014. 2

61547546015. 3

61547546016. 4

Question Number : 129 Question Id : 61547511801 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following discontinuities with the boundaries they are found at.

Discontinuities	Boundaries Between
(a) Mohorovicic discontinuity	(i) Lower mantle and outer core
(b) Conrad discontinuity	(ii) Hydrosphere and crust
(c) Lehman discontinuity	(iii) Lower crust and upper mantle
(d) Gutenberg discontinuity	(iv) Outer core and inner core

Choose the correct option from those given below:

- (1) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
- (2) (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
- (3) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (4) (a)-(iv), (b)-(iii), (c)-(ii), (d)-(i)

Options :

61547546013. 1

61547546014. 2

61547546015. 3

61547546016. 4

Question Number : 130 Question Id : 61547511802 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the following commonly used separation equipments with their separates :

Equipment	Separate
(a) Electromagnetic Separator	(i) Heavy and light fraction
(b) Trommel Screen	(ii) Non-ferrous metals
(c) Air Classifier	(iii) Ferrous Metals
(d) Eddy Current Separator	(iv) Particulates

Choose the correct option from those given below :

- (1) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)
- (2) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)

Options :

- 61547546017. 1
- 61547546018. 2
- 61547546019. 3
- 61547546020. 4

Question Number : 130 Question Id : 61547511802 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Match the following commonly used separation equipments with their separates :

Equipment	Separate
(a) Electromagnetic Separator	(i) Heavy and light fraction
(b) Trommel Screen	(ii) Non-ferrous metals
(c) Air Classifier	(iii) Ferrous Metals
(d) Eddy Current Separator	(iv) Particulates

Choose the correct option from those given below :

- (1) (a)-(i), (b)-(ii), (c)-(iv), (d)-(iii)
- (2) (a)-(iii), (b)-(iv), (c)-(i), (d)-(ii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)

Options :

- 61547546017. 1
- 61547546018. 2
- 61547546019. 3
- 61547546020. 4

Question Number : 131 Question Id : 61547511803 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Match List-I and List-II containing Acts and their year of enactment:

List I		List II	
Act		Year of Enactment	
(a)	The Environment Protection Act	(i)	1980
(b)	The Forest Conservation Act	(ii)	1981
(c)	Water (Prevention & Control) Act	(iii)	1986
(d)	Air (Prevention & Control) Act	(iv)	1974

Choose the correct option from those given below:

- (1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)

Options :

61547546021. 1

61547546022. 2

61547546023. 3

61547546024. 4

Question Number : 131 Question Id : 61547511803 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match List-I and List-II containing Acts and their year of enactment:

List I		List II	
Act		Year of Enactment	
(a)	The Environment Protection Act	(i)	1980
(b)	The Forest Conservation Act	(ii)	1981
(c)	Water (Prevention & Control) Act	(iii)	1986
(d)	Air (Prevention & Control) Act	(iv)	1974

Choose the correct option from those given below:

- (1) (a)-(i), (b)-(iii), (c)-(iv), (d)-(ii)
- (2) (a)-(iii), (b)-(i), (c)-(iv), (d)-(ii)
- (3) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
- (4) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)

Options :

61547546021. 1

61547546022. 2

61547546023. 3

61547546024. 4

Question Number : 132 Question Id : 61547511804 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the celebration of days related to environment with their corresponding dates:

List I

List II

Days

Dates

- | | |
|------------------------------------|---------------------------------|
| (a) Earth Day | (i) 2 nd February |
| (b) International Ozone Day | (ii) 16 th September |
| (c) International Biodiversity Day | (iii) 22 nd April |
| (d) Wetland Day | (iv) 22 nd May |

Choose the correct option from those given below:

- (1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
- (2) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)
- (3) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (4) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)

Options :

61547546025. 1

61547546026. 2

61547546027. 3

61547546028. 4

Question Number : 132 Question Id : 61547511804 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Match the celebration of days related to environment with their corresponding dates:

List I

List II

Days

Dates

- | | |
|------------------------------------|---------------------------------|
| (a) Earth Day | (i) 2 nd February |
| (b) International Ozone Day | (ii) 16 th September |
| (c) International Biodiversity Day | (iii) 22 nd April |
| (d) Wetland Day | (iv) 22 nd May |

Choose the correct option from those given below:

- (1) (a)-(ii), (b)-(iii), (c)-(i), (d)-(iv)
- (2) (a)-(iv), (b)-(ii), (c)-(iii), (d)-(i)
- (3) (a)-(iii), (b)-(ii), (c)-(i), (d)-(iv)
- (4) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)

Options :

61547546025. 1

61547546026. 2

61547546027. 3

61547546028. 4

Question Number : 133 Question Id : 61547511805 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : The increase in sea water acidity makes building and maintaining shells and other calcium carbonate structures difficult for calcifying organisms such as oyster and water corals.

Reasons (R) : Increase in sea water acidity causes a decrease in bicarbonate ion concentration.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546029. 1
- 61547546030. 2
- 61547546031. 3
- 61547546032. 4

Question Number : 133 Question Id : 61547511805 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : The increase in sea water acidity makes building and maintaining shells and other calcium carbonate structures difficult for calcifying organisms such as oyster and water corals.

Reasons (R) : Increase in sea water acidity causes a decrease in bicarbonate ion concentration.

In the light of above two statements, choose the correct option:

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

Options :

61547546029. 1

61547546030. 2

61547546031. 3

61547546032. 4

Question Number : 134 Question Id : 61547511806 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : There is a general pattern of increase in biodiversity from equator to poles.

Reasons (R) : Due to high level of energy received in tropics, higher is the net primary production, which in turn supports large number of individuals, leading to high biodiversity.

In the light of above two statements, choose the correct option:

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

Options :

61547546033. 1

61547546034. 2

61547546035. 3

61547546036. 4

Question Number : 134 Question Id : 61547511806 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : There is a general pattern of increase in biodiversity from equator to poles.

Reasons (R) : Due to high level of energy received in tropics, higher is the net primary production, which in turn supports large number of individuals, leading to high biodiversity.

In the light of above two statements, choose the correct option:

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

Options :

61547546033. 1

61547546034. 2

61547546035. 3

61547546036. 4

Question Number : 135 Question Id : 61547511807 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements- one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Isostasy is the corresponding state of balance between extensive blocks of earth's crust which rise to different levels and appear at the surface as mountains, plateaus, plains or ocean floor.

Reasons (R) : There is a certain minimum depth below sea level where the pressure due to the weight of overlying material in each unit column is everywhere the same.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546037. 1
- 61547546038. 2
- 61547546039. 3
- 61547546040. 4

Question Number : 135 Question Id : 61547511807 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Given below are two statements- one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Isostasy is the corresponding state of balance between extensive blocks of earth's crust which rise to different levels and appear at the surface as mountains, plateaus, plains or ocean floor.

Reasons (R) : There is a certain minimum depth below sea level where the pressure due to the weight of overlying material in each unit column is everywhere the same.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546037. 1
- 61547546038. 2
- 61547546039. 3
- 61547546040. 4

Question Number : 136 Question Id : 61547511808 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Most of the world's geothermal sites are located in the circum-pacific belt known as 'Rim of Fire'.

Reasons (R) : Geothermal fields require combination of three geological conditions-a natural underground source of water; an impermeable rock that traps water and allows formation of steam; and a large mass of hot rock in the vicinity of water system.

In the light of above two statements, choose the correct option:

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

Options :

61547546041. 1

61547546042. 2

61547546043. 3

61547546044. 4

Question Number : 136 Question Id : 61547511808 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Most of the world's geothermal sites are located in the circum-pacific belt known as 'Rim of Fire'.

Reasons (R) : Geothermal fields require combination of three geological conditions-a natural underground source of water; an impermeable rock that traps water and allows formation of steam; and a large mass of hot rock in the vicinity of water system.

In the light of above two statements, choose the correct option:

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

Options :

61547546041. 1

61547546042. 2

61547546043. 3

61547546044. 4

Question Number : 137 Question Id : 61547511809 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Himalyan states of India have greater hydropower potential.

Reasons (R) : Hills provide an altitudinal gradient for the construction of dams.

In the light of above two statements, choose the correct option:

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

Options :

61547546045. 1

61547546046. 2

61547546047. 3

61547546048. 4

Question Number : 137 Question Id : 61547511809 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Himalyan states of India have greater hydropower potential.

Reasons (R) : Hills provide an altitudinal gradient for the construction of dams.

In the light of above two statements, choose the correct option:

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

Options :

61547546045. 1
61547546046. 2
61547546047. 3
61547546048. 4

Question Number : 138 Question Id : 61547511810 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : In soil, Chromium (III) predominates Chromium (VI).

Reasons (R) : Chromium (VI) is easily reduced to Chromium (III) by organic matter in soil.

In the light of above two statements, choose the correct option:

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

Options :

61547546049. 1
61547546050. 2
61547546051. 3
61547546052. 4

Question Number : 138 Question Id : 61547511810 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : In soil, Chromium (III) predominates Chromium (VI).

Reasons (R) : Chromium (VI) is easily reduced to Chromium (III) by organic matter in soil.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546049. 1
- 61547546050. 2
- 61547546051. 3
- 61547546052. 4

Question Number : 139 Question Id : 61547511811 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Aluminium Chloride is a good coagulant for treatment of raw water.

Reasons (R) : Both the colloidal particles and Aluminium ions are positively charged.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546053. 1
- 61547546054. 2
- 61547546055. 3
- 61547546056. 4

Question Number : 139 Question Id : 61547511811 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Aluminium Chloride is a good coagulant for treatment of raw water.

Reasons (R) : Both the colloidal particles and Aluminium ions are positively charged.

In the light of above two statements, choose the correct option:

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

Options :

- 61547546053. 1

61547546054. 2

61547546055. 3

61547546056. 4

Question Number : 140 Question Id : 61547511812 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Between organophosphorus pesticides malathion and parathion, the former is more toxic than latter.

Reasons (R) : Malathion is hydrolyzed by enzymes possessed by mammals to produce relatively non-toxic products.

In the light of above two statements, choose the correct option:

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

Options :

61547546057. 1

61547546058. 2

61547546059. 3

61547546060. 4

Question Number : 140 Question Id : 61547511812 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Between organophosphorus pesticides malathion and parathion, the former is more toxic than latter.

Reasons (R) : Malathion is hydrolyzed by enzymes possessed by mammals to produce relatively non-toxic products.

In the light of above two statements, choose the correct option:

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

Options :

61547546057. 1

61547546058. 2
61547546059. 3
61547546060. 4

Sub-Section Number: 2
Sub-Section Id: 615475507
Question Shuffling Allowed : Yes

Question Id : 61547511813 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No
Question Numbers : (141 to 145)
Question Label : Comprehension

Based on the passage given below, answer the questions 91 to 95:

Among the most interesting techniques for analyzing the earth's climatic history on a scale of hundred's to thousands of years are the study of ocean floor sediments and oxygen isotope analysis. Both methods are used to reconstruct past temperatures and each in part is related to the other. The seafloor sediments contain the remains of organisms that once lived near the surface. When such near surface organisms die, their shell slowly settle to the floor of the ocean, where they become part of the sedimentary record. One reason why seafloor sediments are useful recorders of worldwide climatic change is that the numbers and types of organisms living near the sea surface change as the climate changes.

We would expect that in any area of the ocean/atmosphere interface the average annual temperature of the surface water of the ocean would approximate that of the contiguous atmosphere. The temperature equilibrium established between surface sea water and the air above it should mean that changes in climate should be reflected in changes in organisms living near the surface of the deep sea.

The second technique, oxygen isotope analysis, is based on precise measurement of the ratio between two isotopes of oxygen: ^{16}O , which is the most common, and the heavier ^{18}O . Because the lighter isotope, ^{16}O , evaporates more readily from the oceans, precipitation (and hence the glacial ice that it may form) is enriched in ^{16}O . Of course, this leaves a greater concentration of the heavier isotope, ^{18}O , in the ocean water.

Thus during periods when glaciers are extensive the concentration of ^{18}O in seawater increases; conversely, during warmer interglacial periods when the amount of glacial ice drops dramatically, the amount of ^{18}O relative to ^{16}O in ocean water also drops. Ascertain microorganisms secrete their shells of calcium carbonate (CaCO_3), the prevailing $^{18}\text{O}/^{16}\text{O}$ ratio is reflected in the composition of these hard parts. Consequently, periods of glacial activity can be determined from variations in the oxygen isotope ratio found in shells of certain microorganisms buried in deep-sea sediments.

A second use of the $^{18}\text{O}/^{16}\text{O}$ ratio technique is its application to the study of cores taken from ice sheets, such as the one that covers Greenland.

Here another cause for variation in the oxygen isotope ratio is used-namely, the ratio influenced by temperature. More ^{18}O is evaporated from the oceans when temperatures are high and less is evaporated when temperatures are low. Thus the heavy, isotope is more abundant in the precipitation of warm eras and less abundant during colder periods.

Sub questions

Question Number : 141 Question Id : 61547511814 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Seafloor sediments are useful recorders of worldwide climate change.

Reasons (R) : Organisms living near the surface of deep sea are sensitive to variations in water temperature.

In the light of above two statements, choose the correct option:

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

Options :

61547546061. 1

61547546062. 2

61547546063. 3

61547546064. 4

Question Number : 142 Question Id : 61547511815 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements:

- (a) Water molecules with ^{16}O evaporate more readily from the oceans.
- (b) Water molecules with ^{18}O are found in greater concentration in glacial ice than in oceans.

Which of the above statements are correct?

- (1) (a) only
- (2) (b) only
- (3) Both (a) and (b)
- (4) Neither (a) nor (b)

Options :

- 61547546065. 1
- 61547546066. 2
- 61547546067. 3
- 61547546068. 4

Question Number : 143 Question Id : 61547511816 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding the ratio $\frac{^{18}\text{O}}{^{16}\text{O}}$:

- (a) It is greater than one in ocean waters.
- (b) It is less than one in glacial ice.

Which of the above statements are correct?

- | | |
|----------------------|-------------------------|
| (1) (a) only | (2) (b) only |
| (3) Both (a) and (b) | (4) Neither (a) nor (b) |

Options :

- 61547546069. 1
- 61547546070. 2
- 61547546071. 3
- 61547546072. 4

Correct Marks : 2 Wrong Marks : 0

Which of the following is expected during the warmer periods?

- (1) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in ocean waters as compared to that in cold periods
- (2) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the calcium carbonate shells of organisms as compared to that in cold periods
- (3) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the glacial ice as compared to that in cold periods
- (4) Lower $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the glacial ice as compared to that in cold periods

Options :

- 61547546073. 1
- 61547546074. 2
- 61547546075. 3
- 61547546076. 4

Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

- (a) The average annual temperature of the ocean surface water is close to the temperatures of contiguous atmosphere
- (b) Changes in climate can be estimated from $\frac{^{18}\text{O}}{^{16}\text{O}}$ ratio in the calcium carbonate shells of organisms
- (c) $\frac{^{18}\text{O}}{^{16}\text{O}}$ ratio in warmer periods is less in oceans as compared to that in cold periods.

Choose the correct option from those given below :

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (a), (b) and (c)

Options :

- 61547546077. 1
- 61547546078. 2
- 61547546079. 3

61547546080. 4

Question Id : 61547511813 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (141 to 145)

Question Label : Comprehension

Based on the passage given below, answer the questions 91 to 95:

Among the most interesting techniques for analyzing the earth's climatic history on a scale of hundred's to thousands of years are the study of ocean floor sediments and oxygen isotope analysis. Both methods are used to reconstruct past temperatures and each in part is related to the other. The seafloor sediments contain the remains of organisms that once lived near the surface. When such near surface organisms die, their shell slowly settle to the floor of the ocean, where they become part of the sedimentary record. One reason why seafloor sediments are useful recorders of worldwide climatic change is that the numbers and types of organisms living near the sea surface change as the climate changes.

We would expect that in any area of the ocean/atmosphere interface the average annual temperature of the surface water of the ocean would approximate that of the contiguous atmosphere. The temperature equilibrium established between surface sea water and the air above it should mean that changes in climate should be reflected in changes in organisms living near the surface of the deep sea.

The second technique, oxygen isotope analysis, is based on precise measurement of the ratio between two isotopes of oxygen: ^{16}O , which is the most common, and the heavier ^{18}O . Because the lighter isotope, ^{16}O , evaporates more readily from the oceans, precipitation (and hence the glacial ice that it may form) is enriched in ^{16}O . Of course, this leaves a greater concentration of the heavier isotope, ^{18}O , in the ocean water.

Thus during periods when glaciers are extensive the concentration of ^{18}O in seawater increases; conversely, during warmer interglacial periods when the amount of glacial ice drops dramatically, the amount of ^{18}O relative to ^{16}O in ocean water also drops. Ascertain microorganisms secrete their shells of calcium carbonate (CaCO_3), the prevailing $^{18}\text{O}/^{16}\text{O}$ ratio is reflected in the composition of these hard parts. Consequently, periods of glacial activity can be determined from variations in the oxygen isotope ratio found in shells of certain microorganisms buried in deep-sea sediments.

A second use of the $^{18}\text{O}/^{16}\text{O}$ ratio technique is its application to the study of cores taken from ice sheets, such as the one that covers Greenland.

Here another cause for variation in the oxygen isotope ratio is used-namely, the ratio influenced by temperature. More ^{18}O is evaporated from the oceans when temperatures are high and less is evaporated when temperatures are low. Thus the heavy, isotope is more abundant in the precipitation of warm eras and less abundant during colder periods.

Sub questions

Question Number : 141 Question Id : 61547511814 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Given below are two statements - one is labelled as Assertion (A) and the other is labelled as Reason (R).

Assertion (A) : Seafloor sediments are useful recorders of worldwide climate change.

Reasons (R) : Organisms living near the surface of deep sea are sensitive to variations in water temperature.

In the light of above two statements, choose the correct option:

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

Options :

61547546061. 1

61547546062. 2

61547546063. 3

61547546064. 4

Question Number : 142 Question Id : 61547511815 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Consider the following statements:

- (a) Water molecules with ^{16}O evaporate more readily from the oceans.
- (b) Water molecules with ^{18}O are found in greater concentration in glacial ice than in oceans.

Which of the above statements are correct?

- (1) (a) only
- (2) (b) only
- (3) Both (a) and (b)
- (4) Neither (a) nor (b)

Options :

- 61547546065. 1
- 61547546066. 2
- 61547546067. 3
- 61547546068. 4

Question Number : 143 Question Id : 61547511816 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Consider the following statements regarding the ratio $\frac{^{18}\text{O}}{^{16}\text{O}}$:

- (a) It is greater than one in ocean waters.
- (b) It is less than one in glacial ice.

Which of the above statements are correct?

- | | |
|----------------------|-------------------------|
| (1) (a) only | (2) (b) only |
| (3) Both (a) and (b) | (4) Neither (a) nor (b) |

Options :

- 61547546069. 1
- 61547546070. 2
- 61547546071. 3
- 61547546072. 4

Correct Marks : 2 Wrong Marks : 0

Which of the following is expected during the warmer periods?

- (1) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in ocean waters as compared to that in cold periods
- (2) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the calcium carbonate shells of organisms as compared to that in cold periods
- (3) Higher $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the glacial ice as compared to that in cold periods
- (4) Lower $\frac{^{18}\text{O}}{^{16}\text{O}}$ in the glacial ice as compared to that in cold periods

Options :

- 61547546073. 1
- 61547546074. 2
- 61547546075. 3
- 61547546076. 4

Correct Marks : 2 Wrong Marks : 0

Consider the following statements :

- (a) The average annual temperature of the ocean surface water is close to the temperatures of contiguous atmosphere
- (b) Changes in climate can be estimated from $\frac{^{18}\text{O}}{^{16}\text{O}}$ ratio in the calcium carbonate shells of organisms
- (c) $\frac{^{18}\text{O}}{^{16}\text{O}}$ ratio in warmer periods is less in oceans as compared to that in cold periods.

Choose the correct option from those given below :

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (a) and (c) only
- (4) (a), (b) and (c)

Options :

- 61547546077. 1
- 61547546078. 2
- 61547546079. 3

Sub-Section Number: 3
 Sub-Section Id: 615475508
 Question Shuffling Allowed : Yes

Question Id : 61547511819 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (146 to 150)

Question Label : Comprehension

Based on the passage given below, answer the questions 96 to 100

Ozone and ultraviolet radiation are inseparable. It takes UV photons to form ozone from oxygen and UV photons to release the chlorine from CFCs to destroy ozone. Ozone depletion causes ground level UV radiation-an environmental hazard. The wavelength of the electromagnetic radiation that is visible to the human eye and photosynthetically active for plants lies between 400-700 nm. Wavelengths below 400 nm in the ultraviolet are invisible to the unaided human eye. The UV region is conventionally subdivided into UV-A (320-400 nm), UV-B (280-320 nm) and UV-C (200-280 nm). Natural UV is supplied exclusively by the sun, which radiates energy as a black body with an effective surface temperature of 6000 K. Outside the earth's atmosphere, the total solar radiation flux density of 1367 Wm^{-2} is the sum total of visible and IR (1254 Wm^{-2}), UV-A (85.7 Wm^{-2}), (UV-B (21.1 Wm^{-2}) and UV-C (6.4 Wm^{-2}). Close to the top of the earth's atmosphere, the spectrum is essentially extra-terrestrial. By an altitude of 40 Km, O_3 absorption has already made a significant difference, reducing the flux most around 250 nm because that corresponds to the centre of the absorption band. At 20 km, above the surface, photon flux is almost same as the surface value, except for the residual peak at 200 nm. At this level, UV-C is effectively eliminated. Although UV-B is attenuated, the UV-C source flux increases towards the blue and Ozone absorption band weakens towards 300nm. Both these influences combine to give a significant UVB flux which is very sensitive to small shift in ozone absorption.

Based on the above mentioned passage answer the following questions

Sub questions

Question Number : 146 Question Id : 61547511820 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
 Single Line Question Option : No Option Orientation : Vertical
 Correct Marks : 2 Wrong Marks : 0

Which one of the following statement is NOT correct?

- (1) UV radiation forms as well as destroys ozone
- (2) UV radiation only destroys ozone
- (3) Ozone depletion causes ground level UV radiation
- (4) UV dissociates oxygen molecule to form oxygen radical

Options :

61547546081. 1
61547546082. 2
61547546083. 3
61547546084. 4

Question Number : 147 Question Id : 61547511821 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The solar radiation flux, irrespective of wavelength bands, is same from earth's surface upto

- (1) 40 Km
- (2) 30 Km
- (3) 20 Km
- (4) 10 Km

Options :

61547546085. 1
61547546086. 2
61547546087. 3
61547546088. 4

Question Number : 148 Question Id : 61547511822 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following UV radiation combinations occurs most on earth's surface in comparison to others?

- (1) UVA and UVB
- (2) UVB and UVC
- (3) UVC and UVA
- (4) UVA, UVB and UVC

Options :

- 61547546089. 1
- 61547546090. 2
- 61547546091. 3
- 61547546092. 4

Question Number : 149 Question Id : 61547511823 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

The lowest contribution to solar constant at top of the atmosphere from electromagnetic radiation is in

- | | |
|----------------|----------------|
| (1) IR region | (2) UVA region |
| (3) UVB region | (4) UVC region |

Options :

- 61547546093. 1
- 61547546094. 2
- 61547546095. 3
- 61547546096. 4

Question Number : 150 Question Id : 61547511824 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Ozone's absorption of UV radiation in stratosphere is maximum at

- | | |
|------------|------------|
| (1) 200 nm | (2) 250 nm |
| (3) 300 nm | (4) 280 nm |

Options :

61547546097. 1
61547546098. 2
61547546099. 3
61547546100. 4

Question Id : 61547511819 Question Type : COMPREHENSION Sub Question Shuffling Allowed : Yes Group Comprehension Questions : No

Question Numbers : (146 to 150)

Question Label : Comprehension

Based on the passage given below, answer the questions 96 to 100

Ozone and ultraviolet radiation are inseparable. It takes UV photons to form ozone from oxygen and UV photons to release the chlorine from CFCs to destroy ozone. Ozone depletion causes ground level UV radiation-an environmental hazard. The wavelength of the electromagnetic radiation that is visible to the human eye and photosynthetically active for plants lies between 400-700 nm. Wavelengths below 400 nm in the ultraviolet are invisible to the unaided human eye. The UV region is conventionally subdivided into UV-A (320-400 nm), UV-B (280-320 nm) and UV-C (200-280 nm). Natural UV is supplied exclusively by the sun, which radiates energy as a black body with an effective surface temperature of 6000 K. Outside the earth's atmosphere, the total solar radiation flux density of 1367 Wm^{-2} is the sum total of visible and IR (1254 Wm^{-2}), UV-A (85.7 Wm^{-2}), (UV-B (21.1 Wm^{-2}) and UV-C (6.4 Wm^{-2}). Close to the top of the earth's atmosphere, the spectrum is essentially extra-terrestrial. By an altitude of 40 Km, O_3 absorption has already made a significant difference, reducing the flux most around 250 nm because that corresponds to the centre of the absorption band. At 20 km, above the surface, photon flux is almost same as the surface value, except for the residual peak at 200 nm. At this level, UV-C is effectively eliminated. Although UV-B is attenuated, the UV-C source flux increases towards the blue and Ozone absorption band weakens towards 300nm. Both these influences combine to give a significant UVB flux which is very sensitive to small shift in ozone absorption.

Based on the above mentioned passage answer the following questions

Sub questions

Question Number : 146 Question Id : 61547511820 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which one of the following statement is NOT correct?

- (1) UV radiation forms as well as destroys ozone
- (2) UV radiation only destroys ozone
- (3) Ozone depletion causes ground level UV radiation
- (4) UV dissociates oxygen molecule to form oxygen radical

Options :

61547546081. 1
61547546082. 2
61547546083. 3
61547546084. 4

Question Number : 147 Question Id : 61547511821 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

The solar radiation flux, irrespective of wavelength bands, is same from earth's surface upto

- (1) 40 Km
- (2) 30 Km
- (3) 20 Km
- (4) 10 Km

Options :

61547546085. 1
61547546086. 2
61547546087. 3
61547546088. 4

Question Number : 148 Question Id : 61547511822 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 2 Wrong Marks : 0

Which of the following UV radiation combinations occurs most on earth's surface in comparison to others?

- (1) UVA and UVB
- (2) UVB and UVC
- (3) UVC and UVA
- (4) UVA, UVB and UVC

Options :

61547546089. 1
61547546090. 2
61547546091. 3
61547546092. 4

Question Number : 149 Question Id : 61547511823 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

The lowest contribution to solar constant at top of the atmosphere from electromagnetic radiation is in

- (1) IR region
- (2) UVA region
- (3) UVB region
- (4) UVC region

Options :

61547546093. 1
61547546094. 2
61547546095. 3
61547546096. 4

Question Number : 150 Question Id : 61547511824 Question Type : MCQ Option Shuffling : No Display Question Number : Yes
Single Line Question Option : No Option Orientation : Vertical
Correct Marks : 2 Wrong Marks : 0

Ozone's absorption of UV radiation in stratosphere is maximum at

- (1) 200 nm
- (2) 250 nm
- (3) 300 nm
- (4) 280 nm

Options :

61547546097. 1

61547546098. 2

61547546099. 3

61547546100. 4