

1. Please give me stick.

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (c)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

2. Please hand me pen.

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (c)

Solution:

The - Definite article can be used with singular, plural, or uncountable nouns.

An - when it precedes a word that begins with a vowel.

A—used before singular count nouns beginning with consonants (other than a, e, i, o, u).

3. Kamal hand me autobiography

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (b)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

4. Manohar is honest man.

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (b)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

5. Shah is United States senator.

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (a)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

6. Imran will bring small gift to Hamid's party.

- | | |
|---------|----------|
| (a) a | (b) an |
| (c) the | (d) some |

Correct Choice: (a)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u); Sometimes an article modifies a noun that is also modified by an adjective. The usual word order is article + adjective + noun. If the article is indefinite, choose a or an based on the word that immediately follows it

7. Billu heard interesting story yesterday.

- (a) a (b) an
(c) the (d) some

Correct Choice: (b)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u); Sometimes an article modifies a noun that is also modified by an adjective. The usual word order is article + adjective + noun. If the article is indefinite, choose a or an based on the word that immediately follows it

8. Please give me sauce.

- (a) a (b) an
(c) the (d) some

Correct Choice: (d)

Solution:

The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u); Indefinite Articles with Uncountable Nouns. Uncountable nouns are nouns that are either difficult or impossible to count. Uncountable nouns include intangible things (e.g., information, air), liquids (e.g., milk, wine), and things that are too large or numerous to count (e.g., equipment, sand, wood). Because these things can't be counted, you should never use a or an with them—remember, the indefinite article is only for singular nouns. Uncountable nouns can be modified by words like some, however.

9. Puja give me bottle of water.

- (a) an (b) the
(c) a (d) none of the above

Correct Choice: (c)

Solution:

However, if you describe the water in terms of countable units (like bottles), you can use the indefinite article. The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

10. Let's go out for breakfast morning

- (a) a (b) an
(c) the (d) none of the above

Correct Choice: (a)

Solution:

However, if you describe the water in terms of countable units (like bottles), you can use the indefinite article. The definite article is the word the. The definite article can be used with singular, plural, or uncountable nouns. It's the word an when it precedes a word that begins with a vowel. a—used before singular count nouns beginning with consonants (other than a, e, i, o, u):

11. Irfan prefer to read the library.

- (a) in (b) on
(c) at (d) none of the above

Correct Choice: (a)

Solution:

Basic examples of time prepositions include: at, on, in, before and after. They are used to help indicate when something happened, happens or will happen. It can get a little confusing though, as many different prepositions can be used.

12. In Kodaikanal it's always cold January

- (a) in (b) on
(c) at (d) none of the above

Correct Choice: (b)

Solution:

For years, months, seasons, centuries and times of day, use the preposition in: For days, dates and specific holiday days, use the preposition on. For times, indicators of exception and festivals, use the preposition at:

13. Buy me a present my inauguration.

- (a) at
- (b) on
- (c) in
- (d) none of the above

Correct Choice: (b)

Solution:

For years, months, seasons, centuries and times of day, use the preposition in: For days, dates and specific holiday days, use the preposition on. For times, indicators of exception and festivals, use the preposition at:

14. Families often argue Holi time.

- (a) in
- (b) on
- (c) at
- (d) none of the above

Correct Choice: (c)

Solution:

For times, indicators of exception and festivals, use the preposition at: For days, dates and specific holiday days, use the preposition on. For years, months, seasons, centuries and times of day, use the preposition in:

15. The program will be staged the month of April, 2019.

- (a) in
- (b) on
- (c) at
- (d) throughout

Correct Choice: (d)

Solution:

Other prepositions of time could include: During, about, around, until and throughout. For times, indicators of exception and festivals, use the preposition at: For days, dates and specific holiday days, use the preposition on. For years, months, seasons, centuries and times of day, use the preposition in:

16. It was 11 in the morning when we made it to bed.

- (a) around
- (b) about
- (c) at
- (d) none of the above

Correct Choice: (b)

Solution:

For time - indicators of exception and festivals, use the preposition at.

Other prepositions of time could include: During, about, around, until and throughout.

17. We will travel rough terrain on our way to Cousin's house.

- (a) around
- (b) through
- (c) over
- (d) none of the above

Correct Choice: (c)

Solution:

Up, over, down, past and around indicate directions of movement: Through refers to moving directly inside something and out the other end.

18. Jaggu families are going on vacation _ April.

- (a) in
- (b) on
- (c) at
- (d) none of the above

Correct Choice: (b)

Solution:

For times, indicators of exception and festivals, use the preposition at: For days, dates and specific holiday days, use the preposition on. For years, months, seasons, centuries and times of day, use the preposition in:

19. Malar put the basket _ the table.

- (a) in
- (b) on
- (c) at
- (d) none of the above

Correct Choice: **(b)**

Solution:

For times, indicators of exception and festivals, use the preposition at:

For days, dates and specific holiday days, use the preposition on.

For years, months, seasons, centuries and times of day, use the preposition in:

Up, over, down, past and around indicate directions of movement.

20. The passenger train passes the tunnel.

- (a) to
- (b) into
- (c) through
- (d) none of the above

Correct Choice: **(c)**

Solution:

For times, indicators of exception and festivals, use the preposition at: For days, dates and specific holiday days, use the preposition on. For years, months, seasons, centuries and times of day, use the preposition in: Through refers to moving directly inside something and out the other end.

21. Find suitable word for the suffix -ment

- (a) Action
- (b) Move
- (c) Kind
- (d) Perform

Correct Choice: **(b)**

Solution:

Movement is the correct word.

22. Attach suitable suffix for the word -ey

- (a) abbe
- (b) abaf
- (c) abor
- (d) abot

Correct Choice: **(a)**

Solution:

abbey is the correct word. Meaning the building or buildings occupied by a community of monks or nuns.

23. Attach suitable suffix for the word -te

- (a) abor
- (b) aba
- (c) abaf
- (d) aborn

Correct Choice: **(b)**

Solution:

abate is the correct word. Meaning (of something unpleasant or severe) become less intense or widespread.

24. Attach suitable suffix for the word -de

- (a) abor
- (b) aborti
- (c) abo
- (d) aban

Correct Choice: **(c)**

Solution:

abode is a correct word. Meaning a place of residence; a house or home.

25. Attach suitable suffix for the word -ct

- (a) abori
- (b) abdu
- (c) abbe
- (d) abore

Correct Choice: **(b)**

Solution:

abduct is a correct word. Meaning take (someone) away illegally by force or deception; kidnap.

26. Attach suitable suffix for the word mus-

- (a) pled
- (b) fixe
- (c) cozy
- (d) quash

Correct Choice: (d)

Solution:

musquash is the correct word. Meaning another term for muskrat.

27. Attach the word suitable for the prefix char-

- (a) woman
- (b) telly
- (c) ode
- (d) vae

Correct Choice: (a)

Solution:

Charwoman is the correct word. Meaning a woman employed as a cleaner in a house or office.

28. Attach suitable prefix for the word dam-

- (a) set
- (b) sed
- (c) sel
- (d) lous

Correct Choice: (c)

Solution:

damsel is the correct word. Meaning a young unmarried woman.

29. Attach suitable word for the prefix 'ir'

- (a) radiate.
- (b) place
- (c) existent
- (d) flammable

Correct Choice: (a)

Solution:

Irregular is a correct word.

30. Attach suitable suffix for the word gaze-

- (a) bous
- (b) bos
- (c) boz
- (d) boze

Correct Choice: (b)

Solution:

Gazebos is a correct word. Meaning a small building, especially one in the garden of a house, that gives a wide view of the surrounding area.

31. Write the British English word into American English: Dummy

- (a) Pacifier
- (b) Diaper
- (c) Nappy
- (d) loo

Correct Choice: (a)

Solution:

The American English word equivalent to Dummy is pacifier.

32. Write the British English word into American English:loo

- (a) nappy
- (b) diaper
- (c) pacifier
- (d) restroom

Correct Choice: (d)

Solution:

loo : restroom

33. Write the British English word into American English:Telly

- (a) Telegram
- (b) Telephone
- (c) Television
- (d) Table

Correct Choice: (c)

Solution:

Telly : Television

34. Write the British English word into American English: Sweets

(a) sugar

(b) candy

(c) lolly

(d) jelly

Correct Choice: (b)

Solution:

Sweets : Candy

35. Write the British English word into American English: Candy floss.

(a) sweets

(b) jelly

(c) cotton candy

(d) candy sugar

Correct Choice: (c)

Solution:

candy floss : cotton candy

36. Write the British English word into American English: Ice lolly

(a) candy

(b) cotton candy

(c) candy floss

(d) Popsicle

Correct Choice: (d)

Solution:

Ice lolly : Popsicle

37. Write the British English word into American English: Treacle

(a) candy

(b) Popsicle

(c) floss

(d) molasses

Correct Choice: (a)

Solution:

Treacle : molasses

38. Write the British English word into American English: Anticlockwise

(a) Counterclockwise

(b) Reverse clockwise

(c) Swing clockwise

(d) none of the above

Correct Choice: (a)

Solution:

Anticlockwise : counter clockwise

39. Write the British English word into American English: Clothes peg

(a) Cloth towel

(b) Clothes pin

(c) Cotton cloth

(d) none o the above

Correct Choice: (b)

Solution:

Clothes peg : Clothes pin

40. Write the British English word into American English: Tea cloth

(a) Tea towel

(b) Dish towel

(c) Cotton towel

(d) none of the above

Correct Choice: (b)

Solution:

Tea cloth : Dish towel

41. Malathi (stay) in a hotel.

- (a) stays (b) staying
(c) stayed (d) none of the above

Correct Choice: (c)

Solution:

This tense is used to refer to something that happened in the past. Sometimes, past tense is also called as 'simple past tense'. Example: Malathi stayed in a hotel.

42. We were.....(play) shuttle cork at the club.

- (a) plays (b) played
(c) playing (d) none of the above

Correct Choice: (c)

Solution:

Past continuous tense: This type of past tense is used to describe an event or occurrence that is ongoing or continuing in the past. Example: We were playing shuttle cork at the club.

43. We had(complete) our game before neela had come.

- (a) completing (b) completes
(c) completed (d) none of the above

Correct Choice: (c)

Solution:

Past Perfect Tense: This type of tense is used to describe an event in the past that has been completed. Example: We had completed our match before neela had come.

44. Reena had been.....(play) the drums since school time.

- (a) plays (b) playing
(c) played (d) none of the above

Correct Choice: (b)

Solution:

Past Perfect Continuous: This type of past tense verb is used to indicate an event, action or occurrence that started before another event, action or occurrence in the past. We can say that one action or event interrupted another. Example: Reena had been playing the drums since school time.

45. The.....(Bear)roar.

- (a) bears (b) bears'
(c) bear (d) none of the above

Correct Choice: (b)

Solution:

Present Tense: This tense is used to refer or indicate to something that occurs in the present. The simple present or indefinite present tense is used to describe an action, event, or condition that is occurring in the present while being spoken about or written. Example: The bears' roar.

46. Mithula is(prepare) chicken sandwiches for breakfast.

- (a) prepares (b) preparing
(c) prepared (d) prepped

Correct Choice: (b)

Solution:

Present Continuous Tense: This tense indicates the continuous nature of an act or event in the present and has not been completed. The activity has begun in the past and will be completed in the future. Example: Mithula is preparing chicken sandwiches for breakfast.

47. Madhan have just(complete) his dinner.

- (a) completes (b) completing
(c) completed (d) completen

Correct Choice: (c)

Solution:

Present Perfect Tense: This tense is used to describe an action that had begun in the past, continues into the present and has just been completed. The time of occurrence of the action is generally not mentioned. This tense is also used to describe an action happened in the past before another action took place. Example: Madhan have just completed his dinner.

48. They have been(try) to beat hema.

- (a) trys (b) tried
(c) trying (d) none of the above

Correct Choice: (c)

Solution:

Present Perfect Continuous Tense: This tense is used to describe an action, event or occurrence that has begun in the past and continues into the present. It is also used for an action that began and just finished in the past or in cases where there is no mention of time. Example: They have been trying to beat hema.

49. They (shall) there by next morning.

- (a) shall (b) shall be
(c) should be (d) none of the above

Correct Choice: (b)

Solution:

Future Tense: This tense is used to refer to or indicate something that hasn't happened at the time of speaking or writing. 'Simple Future Tense' commonly formed with the use of words 'will' and 'shall'. Example: They shall be there by next morning.

50. Heena parents will be..... (attend) the inauguration.

- (a) attends (b) attending
(c) attended (d) none of the above

Correct Choice: (b)

Solution:

Future Continuous Tense: This tense is used to describe actions that are ongoing or continuing in the future. It is commonly used in sentences by using the simple future tense of the verb with the present participle i.e '-ing'. Example: Heena parents will be attending the inauguration.

51. Sentence pattern : Kannan finished his work

- (a) SVOC (b) SVO
(c) SVC (d) SVIDO

Correct Choice: (b)

Solution:

Kannan / finished / his work=SVO(Subject + Verb + Object)

52. Sentence pattern: Miralini is teaching French

- (a) SVC (b) SVO
(c) SVOA (d) SVOAC

Correct Choice: (b)

Solution:

Miralini / is teaching / French=SVO(Subject + Verb + Object)

53. SENTENCE PATTERN :I love Switzerland

- (a) SVC (b) SVO
(c) SVA (d) SVCA

Correct Choice: (b)

Solution:

I love Switzerland= SVO(Subject + Verb + Object)

54. Thiruna / came / suddenly

- (a) SVC (b) SVA

(c) SVO

(d) SVCA

Correct Choice: **(b)**

Solution:

Thiruna / came / suddenly=SVA(Subject + Verb+Adverbial)

55. Sentence pattern: The car arrived late

(a) SVC

(b) SV

(c) SVA

(d) SVO

Correct Choice: **(c)**

Solution:

The car / arrived / late=SVA(Subject + Verb+Adverbial)

56. Sentence pattern: Sherin worked in a second-hand bookshop.

(a) SVO

(b) SVA

(c) SVC

(d) SVOA

Correct Choice: **(b)**

Solution:

Sherin / worked / in a second-hand bookshop=SVA(Subject + Verb+Adverbial)

57. Sentence pattern: We are bowlers

(a) SVOC

(b) SVC

(c) SVOA

(d) SVO

Correct Choice: **(b)**

Solution:

We / are / bowlers=SVC(Subject + Verb + Complement)

58. Sentence pattern: Hema eyes are beautiful

(a) SVA

(b) SVAC

(c) SVC

(d) SVAO

Correct Choice: **(c)**

Solution:

Hema eyes / are / beautiful= Subject Verb Complement (SVC)

59. Sentence pattern: Boldly sherin replied

(a) SVA

(b) SVAC

(c) SVC

(d) ASV

Correct Choice: **(d)**

Solution:

Boldly/ sherin / replied=Adverbial Subject Verb (ASV)

60. Sentence pattern: They named him Raguram

(a) SVOA

(b) ASVO

(c) SVOC

(d) ASVC

Correct Choice: **(c)**

Solution:

They / named / him / Raguram =Subject Verb Object Complement - (SVOC)

61. Write the plural noun for half

(a) halfs

(b) halves

(c) halfes

(d) none of the above

Correct Choice: **(b)**

Solution:

Half - Halves.

62. Write the plural noun for focus

(a) focus

(b) focuses

(c) foci

(d) none of the above

Correct Choice: (c)

Solution:

The Words which ends in 'us' changes into 'i'. For example; Fungus - Fungi

63. Write the plural noun for fungus

(a) fungus

(b) funguses

(c) fungi

(d) none of the above

Correct Choice: (c)

Solution:

fungus - fungi

64. Write the plural noun for nucleus

(a) nuclues

(b) nucleolus

(c) nuclei

(d) none of the above

Correct Choice: (c)

Solution:

nucleus - nuclei

65. Write the plural noun for oasis

(a) oasis

(b) oases

(c) oasise

(d) none of the above

Correct Choice: (b)

Solution:

Oasis - a fertile spot in a desert, where water is found.

If the singular noun ends in -is, the plural ending is -es.

66. Write the plural noun for thesis

(a) thesis

(b) theses

(c) thesises

(d) none of the above

Correct Choice: (b)

Solution:

thesis - theses

67. Write the plural noun for species .

(a) Species

(b) Genera

(c) Specis

(d) None of the above

Correct Choice: (a)

Solution:

Species -Species

68. Write the plural noun for datum

(a) datas

(b) data

(c) database

(d) none of the above

Correct Choice: (b)

Solution:

datum - data

69. Write the plural noun for criterion

(a) criterions

(b) criteria

(c) criterias

(d) none of the above

Correct Choice: (b)

Solution:

criterion - criteria

70. Write the plural noun for aircraft

(a) aircrafts

(b) aircraft

(c) aircraftes

(d) none of the above

Correct Choice: (b)

Solution:

aircraft - aircraft

71. How cheerfully he seems to grin,
How neatly spreads his claws,
These lines are taken from which poem?

(a) Dirge

(b) The Passionate Pilgrim

(c) Crocodile

(d) Trees

Correct Choice: (c)

Solution:

"How Doth the Little Crocodile" is a poem by Lewis Carroll which appears in his novel, Alice's Adventures in Wonderland. It is recited by Alice in Chapter 2. It describes a crafty crocodile that lures fish into its mouth with a welcoming smile. This poem is performed by Richard Haydn in Alice in Wonderland (1951) and by Fiona Fullerton in the film Alice's Adventures in Wonderland (1972). "How Doth the Little Crocodile" is a parody of the moralistic poem "Against Idleness and Mischief" by Isaac Watts,[1] which is what Alice was originally trying to recite. Watts' poem begins "How doth the little busy bee ..." and uses the bee as a model of hard work. In Carroll's parody, the crocodile's corresponding "virtues" are deception and predation, themes that recur throughout Alice's adventures in both books, and especially in the poems.

72. Who is the author for Dirge?

(a) Alan Dean Foster

(b) William Wordsworth

(c) Lewis carroll

(d) Oscar wilde

Correct Choice: (a)

Solution:

Dirge is a science fiction novel by American writer Alan Dean Foster. The full title is sometimes shown as Dirge : Book Two of The Founding of the Commonwealth.

73. Maiden pinks, of odour faint,
Daisies smell-less, yet most quaint,
And sweet thyme true;
These lines are taken from which poem?

(a) A Fairy Song

(b) A Bridal Song

(c) Aubade

(d) Dirge

Correct Choice: (b)

Solution:

A Bridal Song by William Shakespeare. William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon".[5][b] His extant works, including collaborations, consist of approximately 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7]

74. A hundred hills their dusky backs upheaved
All over this still ocean; and beyond,
Far, far beyond, the solid vapours stretched,
These lines are taken from which poem?

(a) Love

(b) The Prelude

(c) Athanasia

(d) Birches

Correct Choice: (b)

Solution:

The Prelude by William Wordsworth. On April 7, 1770, William Wordsworth was born in Cockermouth, Cumbria, England. Wordsworth's mother died when he was eight—this experience shapes much of his later work. Wordsworth attended Hawkshead Grammar School, where his love of poetry was firmly established and, it is believed, he made his first attempts at verse. While he was at Hawkshead, Wordsworth's father died leaving him and his four siblings orphans. After Hawkshead, Wordsworth studied at St. John's College in Cambridge and before his final semester, he set out on a walking tour of Europe, an experience that influenced both his poetry and his political sensibilities. While touring Europe, Wordsworth came into contact with the French Revolution. This experience as well as a subsequent period living in France, brought about Wordsworth's interest and sympathy for the life, troubles, and speech of the "common man." These issues proved to be of the utmost importance to Wordsworth's work. Wordsworth's earliest poetry was published in 1793 in the collections *An Evening Walk* and *Descriptive Sketches*. While living in France, Wordsworth conceived a daughter, Caroline, out of wedlock; he left France, however, before she was born. In 1802, he returned to France with his sister on a four-week visit to meet Caroline. Later that year, he married Mary Hutchinson, a childhood friend, and they had five children together. In 1812, while living in Grasmere, two of their children—Catherine and John—died.

75. To raise herself and look again. He spoke
Advancing toward her: 'What is it you see
From up there always—for I want to know.'
These lines are taken from which poem?

- (a) We are seven (b) Love
(c) Home Burial (d) BY THE ARNO

Correct Choice: (c)
Solution:

Home Burial by Robert Frost. Robert Frost was born on March 26, 1874, in San Francisco, where his father, William Prescott Frost Jr., and his mother, Isabelle Moodie, had moved from Pennsylvania shortly after marrying. After the death of his father from tuberculosis when Frost was eleven years old, he moved with his mother and sister, Jeanie, who was two years younger, to Lawrence, Massachusetts. He became interested in reading and writing poetry during his high school years in Lawrence, enrolled at Dartmouth College in Hanover, New Hampshire, in 1892, and later at Harvard University in Boston, though he never earned a formal college degree.

76. Gaunt cypress—trees stand round the sun—bleached stone;
Here doth the little night—owl make her throne,
And the slight lizard show his jewelled head.
These lines are taken from which poem?

- (a) Mutability (b) The Grave Of Shelley
(c) The runaway (d) Fire and ice

Correct Choice: (b)
Solution:

The Grave Of Shelley by: Oscar Wilde. Oscar Fingal O'Flahertie Wills Wilde (16 October 1854 – 30 November 1900) was an Irish poet and playwright. After writing in different forms throughout the 1880s, he became one of London's most popular playwrights in the early 1890s. He is best remembered for his epigrams and plays, his novel *The Picture of Dorian Gray*, and the circumstances of his criminal conviction for homosexuality, imprisonment, and early death at age 46.

77. To thee the reed is as the oak:
The scepter, learning, physic, must
All follow this, and come to dust.
These are taken from which poem?

- (a) Fear no more (b) Perfect Woman
(c) Not to keep (d) My Heart Leaps Up

Correct Choice: (a)
Solution:

Fear no more by William Shakespeare. William Shakespeare was the son of John Shakespeare, an alderman and a successful glover (glove-maker) originally from Snitterfield, and Mary Arden, the daughter of an affluent landowning farmer.[14] He was born in Stratford-upon-Avon and baptised there on 26 April 1564. His actual date of birth remains unknown, but is traditionally observed on 23 April, Saint George's Day.[15] This date, which can be traced to a mistake made by an 18th-century scholar, has proved appealing to biographers because Shakespeare died on the same date in 1616.[16][17] He was the third of eight children, and the eldest surviving son. [18]

78. Perfect Woman was written by whom?

- (a) Oscar Wilde (b) William Shakespeare

(c) William Wordsworth

(d) Robert Frost

Correct Choice: (c)

Solution:

Perfect Woman by William Wordsworth. On April 7, 1770, William Wordsworth was born in Cockermouth, Cumbria, England. Wordsworth's mother died when he was eight—this experience shapes much of his later work. Wordsworth attended Hawkshead Grammar School, where his love of poetry was firmly established and, it is believed, he made his first attempts at verse. While he was at Hawkshead, Wordsworth's father died leaving him and his four siblings orphans.

79. Find out William Wordsworth poem?

(a) Love

(b) Birges

(c) Her Voice

(d) Micheal

Correct Choice: (d)

Solution:

Micheal by William Wordsworth . In 1800, She dwelt among the untrodden ways poem was written by William Wordsworth. On April 7, 1770, William Wordsworth was born in Cockermouth, Cumbria, England. Wordsworth's mother died when he was eight—this experience shapes much of his later work. Wordsworth attended Hawkshead Grammar School, where his love of poetry was firmly established and, it is believed, he made his first attempts at verse. While he was at Hawkshead, Wordsworth's father died leaving him and his four siblings orphans. After Hawkshead, Wordsworth studied at St. John's College in Cambridge and before his final semester, he set out on a walking tour of Europe, an experience that influenced both his poetry and his political sensibilities. While touring Europe, Wordsworth came into contact with the French Revolution. This experience as well as a subsequent period living in France, brought about Wordsworth's interest and sympathy for the life, troubles, and speech of the "common man." These issues proved to be of the utmost importance to Wordsworth's work. Wordsworth's earliest poetry was published in 1793 in the collections An Evening Walk and Descriptive Sketches. While living in France, Wordsworth conceived a daughter, Caroline, out of wedlock; he left France, however, before she was born. In 1802, he returned to France with his sister on a four-week visit to meet Caroline. Later that year, he married Mary Hutchinson, a childhood friend, and they had five children together. In 1812, while living in Grasmere, two of their children—Catherine and John—died.

80. Find out which was Oscar Wilde poem?

(a) Vision

(b) Silvia

(c) Lucky Gray

(d) Micheal

Correct Choice: (a)

Solution:

Vision was written by Oscar Wilde. Oscar Fingal O'Flahertie Wills Wilde (16 October 1854 – 30 November 1900) was an Irish poet and playwright. After writing in different forms throughout the 1880s, he became one of London's most popular playwrights in the early 1890s. He is best remembered for his epigrams and plays, his novel The Picture of Dorian Gray, and the circumstances of his criminal conviction for homosexuality, imprisonment, and early death at age 46.

81. Trip no further, pretty sweeting;
Journeys end in lovers meeting,
Every wise man's son doth know.
These lines are taken from which poem?

(a) Sonnet

(b) Love

(c) O Mistress Mine

(d) Winter

Correct Choice: (c)

Solution:

O Mistress Mine by William Shakespeare. William Shakespeare was the son of John Shakespeare, an alderman and a successful glover (glove-maker) originally from Snitterfield, and Mary Arden, the daughter of an affluent landowning farmer.[14] He was born in Stratford-upon-Avon and baptised there on 26 April 1564. His actual date of birth remains unknown, but is traditionally observed on 23 April, Saint George's Day.[15] This date, which can be traced to a mistake made by an 18th-century scholar, has proved appealing to biographers because Shakespeare died on the same date in 1616.[16][17] He was the third of eight children, and the eldest surviving son.

82. Rudderless, we drift athwart a tempest, and when once the storm of youth is
past,
Without lyre, without lute or chorus, Death the silent pilot comes at last.
These lines are taken from which poem?

(a) Flower Of Love

(b) Vision

(c) Apologia

(d) Love

Correct Choice: (a)

Solution:

Flower Of Love by oscar wilde. Oscar Wilde was born at 21 Westland Row, Dublin (now home of the Oscar Wilde Centre, Trinity College), the second of three children born to Sir William Wilde and Jane Wilde, two years behind William ("Willie"). Wilde's mother had distant Italian ancestry, and under the pseudonym "Speranza" (the Italian word for 'hope'), wrote poetry for the revolutionary Young Irelanders in 1848; she was a lifelong Irish nationalist. She read the Young Irelanders' poetry to Oscar and Willie, inculcating a love of these poets in her sons. Lady Wilde's interest in the neo-classical revival showed in the paintings and busts of ancient Greece and Rome in her home.

83. Who is the author for Laodamia poem?

(a) Robert Frost

(b) William Wordsworth

(c) William Shakespeare

(d) Oscar Wilde

Correct Choice: (b)

Solution:

Laodamia is a narrative poem by William Wordsworth based on a story from the Trojan War.

84. Who is the author for Out, Out – poem?

(a) William Shakespeare

(b) Robert Frost

(c) William Wordsworth

(d) Oscar Wilde

Correct Choice: (b)

Solution:

Robert Frost was born on March 26, 1874, in San Francisco. "Out, Out—" is a single stanza poem authored by American poet Robert Frost, relating the accidental death of young boy with references to Shakespeare's Macbeth.

The poem was written in memory of 16-year-old Raymond Tracy Fitzgerald, whom Frost had befriended while living in Franconia, New Hampshire.

85. The Oven Bird was written by whom?

(a) William Shakespeare

(b) William Wordsworth

(c) Robert Frost

(d) Oscar Wilde

Correct Choice: (c)

Solution:

"The Oven Bird" is a 1916 poem by Robert Frost, first published in Mountain Interval. The poem is written in sonnet form and describes an ovenbird singing.

86. Pick out the William Shakespeare poem?

(a) Travelling

(b) She dwelt among the untrodden ways

(c) We Are Seven

(d) A Madrigal

Correct Choice: (a)

Solution:

William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon".[5] [b] His extant works, including collaborations, consist of approximately 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[

87. Who is the author for this poem " The Death of Hired man" ?

(a) William Shakespeare

(b) Robert Frost

(c) William Wordsworth

(d) Oscar Wilde

Correct Choice: (b)

Solution:

Robert Frost was born on March 26, 1874, in San Francisco, where his father, William Prescott Frost Jr., and his mother, Isabelle Moodie, had moved from Pennsylvania shortly after marrying. After the death of his father from tuberculosis when Frost was eleven years old, he moved with his mother and sister, Jeanie, who was two years younger, to Lawrence, Massachusetts. He became interested in reading and writing poetry during his high school years in Lawrence, enrolled at Dartmouth College in Hanover, New Hampshire, in 1892, and later at Harvard University in Boston, though he never earned a formal college degree.

88. "Ava Maria Plena Gratia"Who is the author for this poem?

- (a) William Wordsworth (b) William Shakespeare
(c) Robert Frost (d) Oscar Wilde

Correct Choice: (d)

Solution:

Oscar Wilde was born at 21 Westland Row, Dublin (now home of the Oscar Wilde Centre, Trinity College), the second of three children born to Sir William Wilde and Jane Wilde, two years behind William ("Willie"). Wilde's mother had distant Italian ancestry,[1] and under the pseudonym "Speranza" (the Italian word for 'hope'), wrote poetry for the revolutionary Young Irelanders in 1848; she was a lifelong Irish nationalist.[2] She read the Young Irelanders' poetry to Oscar and Willie, inculcating a love of these poets in her sons.[3] Lady Wilde's interest in the neo-classical revival showed in the paintings and busts of ancient Greece and Rome in her home

89. "Poor Susan"Who is the author for this poem?

- (a) William Wordsworth (b) William Shakespeare
(c) Robert Frost (d) Oscar Wilde

Correct Choice: (a)

Solution:

"Poor Susan" is a lyric poem by William Wordsworth composed at Alfoxden in 1797. It was first published in the collection Lyrical Ballads in 1798. It is written in anapestic tetrameter. The poem records the memories awakened in a country girl in London on hearing a thrush sing in the early morning.

90. That sends the frozen-ground-swell under it,
And spills the upper boulders in the sun;
And makes gaps even two can pass abreast
These are taken from which poem?

- (a) Mending Wall (b) Perfect Woman
(c) Not to keep (d) Birges

Correct Choice: (a)

Solution:

These are taken from the poem "Mending Wall" by Robert Frost. He was born on March 26, 1874, in San Francisco, where his father, William Prescott Frost Jr., and his mother, Isabelle Moodie, had moved from Pennsylvania shortly after marrying.

91. What is the meaning of abbey?

- (a) nunnery (b) levy
(c) lift (d) exceed

Correct Choice: (a)

Solution:

abbey-the building or buildings occupied by a community of monks or nuns.nunnery-a building or group of buildings in which nuns live as a religious community; a convent..levy-impose (a tax, fee, or fine).exceed-be greater in number or size than (a quantity, number, or other measurable thing)..lift-raise to a higher position or level.

92. What is the meaning of Demote?

- (a) veto (b) duty
(c) displace (d) relegate

Correct Choice: (d)

Solution:

demote-move (someone) to a lower position or rank, usually as a punishment.relegate-assign an inferior rank or position to. veto-a constitutional right to reject a decision or proposal made by a lawmaking body. duty-a moral or legal obligation; a responsibility .displace-take over the place, position, or role of.

93. What is the meaning of depose?

- (a) oust (b) reject
(c) approve (d) permit

Correct Choice: (a)

Solution:

depose -remove from office suddenly and forcefully. reject-dismiss as inadequate, unacceptable, or faulty.allow-let (someone) have or do something.approve-officially agree to or accept as satisfactory.permit-officially allow (someone) to do something.oust-drive out or expel (someone) from a position or place.

94. What is the meaning of depone?

- (a) ban (b) attest
(c) privilege (d) refusal

Correct Choice: (b)

Solution:

depone-give evidence as a witness in a law court.privilege -a special right, advantage, or immunity granted or available only to a particular person or group.refusal-an act of refusing to do something.ban-officially or legally prohibit (something).

95. What is the meaning of affirm?

- (a) avow (b) taboo
(c) leave (d) sanction

Correct Choice: (a)

Solution:

affirm-state emphatically or publicly.avow-assert or confess openly.taboo-prohibited or restricted by social custom.sanction-a threatened penalty for disobeying a law or rule.

96. What is the opposite meaning of aver?

- (a) refute (b) outlaw
(c) proscribe (d) prevent

Correct Choice: (a)

Solution:

aver-state or assert to be the case.refute-prove (a statement or theory) to be wrong or false; disprove.outlaw-a person who has broken the law, especially one who remains at large or is a fugitive.proscribe-forbid, especially by law.prevent-keep (something) from happening.

97. What is the opposite meaning of avouch

- (a) abide (b) brook
(c) deny (d) bear

Correct Choice: (c)

Solution:

avouch-affirm or assert.deny-state that one refuses to admit the truth or existence of.abide-accept or act in accordance with (a rule, decision, or recommendation). brook-a small stream.bear-(of a person) carry

98. What is the opposite meaning of vouch

- (a) rill (b) abstain
(c) endure (d) contradict

Correct Choice: (d)

Solution:

vouch-confirm that someone is who they say they are or that they are of good character.contradict-deny the truth of (a statement) by asserting the opposite.endure-suffer (something painful or difficult) patiently.rill-a small stream.abstain-restrain oneself from doing or enjoying something.

99. What is the opposite meaning of corroborate

- (a) bolt (b) flee
(c) belie (d) remain

Correct Choice: (c)

Solution:

corroborate-confirm or give support to (a statement, theory, or finding).believe-fail to fulfil or justify (a claim or expectation).flee- run away from a place or situation of danger.bolt-a bar that slides into a socket to fasten a door or window.remain-continue to exist, especially after other similar people or things have ceased to do so.

100. What is the opposite meaning of abrogate

- (a) dash (b) vamoose
(c) scam (d) ratify

Correct Choice: (d)

Solution:

Abrogate-repeal or do away with (a law, right, or formal agreement).

Ratify-sign or give formal consent to (a treaty, contract, or agreement), making it officially valid.

Scram-leave or go away from a place quickly.

vamoose-depart hurriedly,dash-run or travel somewhere in a great hurry.

101. Who says that the banks of the river appear to move back to a person in a boat floating gently in a river, the night sky studded with stars appear to move from east to west while Earth rotates from west to east?

- (a) Aryabhatta (b) Charles Messier
(c) Ptolemy (d) Tycho Brahe

Correct Choice: (a)

Solution:

Aryabhata, आर्यभट्ट (IAST: Āryabhaṭa) or Aryabhata I[2][3] (476–550 CE)[4][5] was the first of the major mathematician-astronomers from the classical age of Indian mathematics and Indian astronomy. His works include the Āryabhaṭīya (which mentions that in 3600 Kaliyuga, 499 CE, he was 23 years old)[6] and the Ārya-siddhanta. For his explicit mention of the relativity of motion, he also qualifies as a major early physicist. While there is a tendency to misspell his name as "Aryabhata" by analogy with other names having the "bhata" suffix, his name is properly spelled Aryabhata: every astronomical text spells his name thus,[8] including Brahmagupta's references to him "in more than a hundred places by name".[1] Furthermore, in most instances "Aryabhata" would not fit the meter either.

102. Which are push or pull by an animate or inanimate agency?

- (a) Pressure (b) Energy
(c) Force (d) Motion

Correct Choice: (c)

Solution:

Forces are push or pull by an animate or inanimate agency. In physics, a force is any interaction that, when unopposed, will change the motion of an object.[1] A force can cause an object with mass to change its velocity (which includes to begin moving from a state of rest), i.e., to accelerate. Force can also be described intuitively as a push or a pull. A force has both magnitude and direction, making it a vector quantity. It is measured in the SI unit of newtons and represented by the symbol F. The original form of Newton's second law states that the net force acting upon an object is equal to the rate at which its momentum changes with time. If the mass of the object is constant, this law implies that the acceleration of an object is directly proportional to the net force acting on the object, is in the direction of the net force, and is inversely proportional to the mass of the object. Concepts related to force include: thrust, which increases the velocity of an object; drag, which decreases the velocity of an object; and torque, which produces changes in rotational speed of an object. In an extended body, each part usually applies forces on the adjacent parts; the distribution of such forces through the body is the internal mechanical stress. Such internal mechanical stresses cause no acceleration of that body as the forces balance one another. Pressure, the distribution of many small forces applied over an area of a body, is a simple type of stress that if unbalanced can cause the body to accelerate. Stress usually causes deformation of solid materials, or flow in fluids.

103. The force which is executed by touching the body is called ?

- (a) Contact force (b) Non-Contact force
(c) Frictional Force (d) Muscular Force

Correct Choice: (a)

Solution:

A contact force is any force that requires contact to occur.[1] Contact forces are ubiquitous and are responsible for most visible interactions between macroscopic collections of matter. Moving a couch across a floor, pushing a car up a hill, kicking a ball or pushing a desk across a room are some of the everyday examples where contact forces are at work. In the first case the force is continuously applied by the person on the car, while in the second case the force is delivered in a short impulse. Contact forces are often decomposed into orthogonal components, one perpendicular to the surface(s) in contact called the normal force, and one parallel to the surface(s) in contact, called the friction force. In the Standard Model of modern physics, the four fundamental forces of nature are known to be non-contact forces. The strong and weak interaction primarily deal with forces within atoms, while gravitational effects are only obvious on an ultra-macroscopic scale. Molecular and quantum physics show that the electromagnetic force is the fundamental interaction responsible for contact forces. The interaction between macroscopic objects can be roughly described as resulting from the electromagnetic interactions between protons and electrons of the atomic constituents of these objects. Everyday objects do not actually touch; rather, contact forces are the result of the interactions of the electrons at or near the surfaces of the objects

104. Example for contact forces.....

- (a) Magnetism
- (b) Gravity
- (c) Wind
- (d) None of the above

Correct Choice: (c)

Solution:

A contact force is any force that requires contact to occur.[1] Contact forces are ubiquitous and are responsible for most visible interactions between macroscopic collections of matter. Moving a couch across a floor, pushing a car up a hill, kicking a ball or pushing a desk across a room are some of the everyday examples where contact forces are at work. In the first case the force is continuously applied by the person on the car, while in the second case the force is delivered in a short impulse. Contact forces are often decomposed into orthogonal components, one perpendicular to the surface(s) in contact called the normal force, and one parallel to the surface(s) in contact, called the friction force. In the Standard Model of modern physics, the four fundamental forces of nature are known to be non-contact forces. The strong and weak interaction primarily deal with forces within atoms, while gravitational effects are only obvious on an ultra-macroscopic scale. Molecular and quantum physics show that the electromagnetic force is the fundamental interaction responsible for contact forces. The interaction between macroscopic objects can be roughly described as resulting from the electromagnetic interactions between protons and electrons of the atomic constituents of these objects. Everyday objects do not actually touch; rather, contact forces are the result of the interactions of the electrons at or near the surfaces of the objects.

105. Which Change the states of body from rest to motion or motion to rest?

- (a) Friction
- (b) Force
- (c) Momentum
- (d) Gravity

Correct Choice: (b)

Solution:

In physics, a force is any interaction that, when unopposed, will change the motion of an object. [1] A force can cause an object with mass to change its velocity (which includes to begin moving from a state of rest), i.e., to accelerate. Force can also be described intuitively as a push or a pull. A force has both magnitude and direction, making it a vector quantity. It is measured in the SI unit of newtons and represented by the symbol F. The original form of Newton's second law states that the net force acting upon an object is equal to the rate at which its momentum changes with time. If the mass of the object is constant, this law implies that the acceleration of an object is directly proportional to the net force acting on the object, is in the direction of the net force, and is inversely proportional to the mass of the object. Concepts related to force include: thrust, which increases the velocity of an object; drag, which decreases the velocity of an object; and torque, which produces changes in rotational speed of an object. In an extended body, each part usually applies forces on the adjacent parts; the distribution of such forces through the body is the internal mechanical stress. Such internal mechanical stresses cause no acceleration of that body as the forces balance one another. Pressure, the distribution of many small forces applied over an area of a body, is a simple type of stress that if unbalanced can cause the body to accelerate. Stress usually causes deformation of solid materials, or flow in fluids.

106. The technology which is used to identify structure of atoms?

- (a) TEM
- (b) SEM
- (c) STM
- (d) None of the above

Correct Choice: (b)

Solution:

A scanning electron microscope (SEM) is a type of electron microscope that produces images of a sample by scanning the surface with a focused beam of electrons. The electrons interact with atoms in the sample, producing various signals that contain information about the surface topography and composition of the sample. The electron beam is scanned in a raster scan pattern, and the position of the beam is combined with the intensity of the detected signal to produce an image. In the most common SEM mode, secondary electrons emitted by atoms excited by the electron beam are detected using an Everhart-Thornley detector. The number of secondary electrons that can be detected, and thus the signal intensity, depends, among other things, on specimen topography. SEM can achieve resolution better than 1 nanometer. Specimens are observed in high vacuum in conventional SEM, or in low vacuum or wet conditions in variable pressure or environmental SEM, and at a wide range of cryogenic or elevated temperatures with specialized instruments

107. The technology which uses electricity to map atoms?

- (a) TEM
- (b) SEM
- (c) TSM
- (d) None of the above

Correct Choice: (a)

Solution:

Transmission electron microscopy (TEM, an abbreviation which can also stand for the instrument, a transmission electron microscope) is a microscopy technique in which a beam of electrons is transmitted through a specimen to form an image. The specimen is most often an ultrathin section less than 100 nm thick or a suspension on a grid. An image is formed from the interaction of the electrons with the sample as the beam is transmitted through the specimen. The image is then magnified and focused onto an imaging device, such as a fluorescent screen, a layer of photographic film, or a sensor such as a scintillator attached to a charge-coupled device. Transmission electron microscopes are capable of imaging at a significantly higher resolution than light microscopes, owing to the smaller de Broglie wavelength of electrons. This enables the instrument to capture fine detail—even as small as a single column of atoms, which is thousands of times smaller than a resolvable object seen in a light microscope. Transmission electron microscopy is a major analytical method in the physical, chemical and biological sciences. TEMs find application in cancer research, virology, and materials science as well as pollution, nanotechnology and semiconductor research.

108. Silicon atoms on a surface are observed through.....

- (a) TEM
- (b) SEM
- (c) STEM
- (d) STM

Correct Choice: (d)

Solution:

A scanning tunneling microscope (STM) is an instrument for imaging surfaces at the atomic level. Its development in 1981 earned its inventors, Gerd Binnig and Heinrich Rohrer (at IBM Zürich), the Nobel Prize in Physics in 1986.[1][2] For an STM, good resolution is considered to be 0.1 nm lateral resolution and 0.01 nm (10 pm) depth resolution.[3] With this resolution, individual atoms within materials are routinely imaged and manipulated. The STM can be used not only in ultra-high vacuum but also in air, water, and various other liquid or gas ambients, and at temperatures ranging from near zero kelvin to over 1000 °C. STM is based on the concept of quantum tunneling. When a conducting tip is brought very near to the surface to be examined, a bias (voltage difference) applied between the two can allow electrons to tunnel through the vacuum between them. The resulting tunneling current is a function of tip position, applied voltage, and the local density of states (LDOS) of the sample.[4] Information is acquired by monitoring the current as the tip's position scans across the surface, and is usually displayed in image form. STM can be a challenging technique, as it requires extremely clean and stable surfaces, sharp tips, excellent vibration control, and sophisticated electronics, but nonetheless many hobbyists have built their own.

109. Which is not a common state of matter on Earth, but may be the most common state of matter in the universe?

- (a) Force
- (b) Plasma
- (c) Pressure
- (d) Friction

Correct Choice: (b)

Solution:

Plasma cosmology is a non-standard cosmology whose central postulate is that the dynamics of ionized gases and plasmas play important, if not dominant, roles in the physics of the universe beyond the Solar System. Plasma is not a common state of matter on Earth, but may be the most common state of matter in the universe.

110. Which has the tendency of particles to spread out in order to occupy the available space?

- (a) Force
- (b) Dispersion
- (c) Diffusion
- (d) None of the above

Correct Choice: (c)

Solution:

Diffusion is the net movement of molecules or atoms from a region of higher concentration (or high chemical potential) to a region of lower concentration (or low chemical potential). Diffusion is driven by a gradient in chemical potential of the diffusing species. A gradient is the change in the value of a quantity e.g. concentration, pressure, or temperature with the change in another variable, usually distance. A change in concentration over a distance is called a concentration gradient, a change in pressure over a distance is called a pressure gradient, and a change in temperature over a distance is called a temperature gradient. The word diffusion derives from the Latin word, *diffundere*, which means "to spread way out." A distinguishing feature of diffusion is that it depends on particle random walk, and results in mixing or mass transport without requiring directed bulk motion. Bulk motion, or bulk flow, is the characteristic of advection.[1] The term convection is used to describe the combination of both transport phenomena.

111. When we need to remove impurities or harmful components from the mixtures?

- (a) Petrol from petroleum
- (b) Stones from rice
- (c) Gold from gold mines
- (d) None of the above

Correct Choice: **(b)**

Solution:

A separation process is a method that converts a mixture or solution of chemical substances into two or more distinct product mixtures.[1] At least one of results of the separation is enriched in one or more of the source mixture's constituents. In some cases, a separation may fully divide the mixture into pure constituents. Separations exploit differences in chemical properties or physical properties (such as size, shape, mass, density, or chemical affinity) between the constituents of a mixture. Processes are often classified according to the particular differences they use to achieve separation. If no single difference can be used to accomplish a desired separation, multiple operations can often be combined to achieve the desired end. With a few exceptions, elements or compounds exist in nature in an impure state. Often these raw materials must go through a separation before they can be put to productive use, making separation techniques essential for the modern industrial economy. The purpose of a separation may be analytical, can be used as a lie components in the original mixture without any attempt to save the fractions, or may be preparative, i.e. to "prepare" fractions or samples of the components that can be saved. The separation can be done on a small scale, effectively a laboratory scale for analytical or preparative purposes, or on a large scale, effectively an industrial scale for preparative purposes, or on some intermediate scale. When we need to remove impurities or harmful components from the mixtures (Stones from rice)

112. When the useful component has to be separated from other components?

- (a) stones from rice
- (b) petrol from petroleum
- (c) gold from gold mines
- (d) none of the above

Correct Choice: **(b)**

Solution:

A separation process is a method that converts a mixture or solution of chemical substances into two or more distinct product mixtures.[1] At least one of results of the separation is enriched in one or more of the source mixture's constituents. In some cases, a separation may fully divide the mixture into pure constituents. Separations exploit differences in chemical properties or physical properties (such as size, shape, mass, density, or chemical affinity) between the constituents of a mixture. Processes are often classified according to the particular differences they use to achieve separation. If no single difference can be used to accomplish a desired separation, multiple operations can often be combined to achieve the desired end. With a few exceptions, elements or compounds exist in nature in an impure state. Often these raw materials must go through a separation before they can be put to productive use, making separation techniques essential for the modern industrial economy. The purpose of a separation may be analytical, can be used as a lie components in the original mixture without any attempt to save the fractions, or may be preparative, i.e. to "prepare" fractions or samples of the components that can be saved. The separation can be done on a small scale, effectively a laboratory scale for analytical or preparative purposes, or on a large scale, effectively an industrial scale for preparative purposes, or on some intermediate scale. When the useful component has to be separated from other components (petrol from petroleum)

113. When a substance has to be obtained in highly pure form?

- (a) stones from rice
- (b) petrol from petroleum
- (c) gold from gold mines
- (d) none of the above

Correct Choice: **(a)**

Solution:

A separation process is a method that converts a mixture or solution of chemical substances into two or more distinct product mixtures.[1] At least one of results of the separation is enriched in one or more of the source mixture's constituents. In some cases, a separation may fully divide the mixture into pure constituents. Separations exploit differences in chemical properties or physical properties (such as size, shape, mass, density, or chemical affinity) between the constituents of a mixture. Processes are often classified according to the particular differences they use to achieve separation. If no single difference can be used to accomplish a desired separation, multiple operations can often be combined to achieve the desired end. With a few exceptions, elements or compounds exist in nature in an impure state. Often these raw materials must go through a separation before they can be put to productive use, making separation techniques essential for the modern industrial economy. The purpose of a separation may be analytical, can be used as a lie components in the original mixture without any attempt to save the fractions, or may be preparative, i.e. to "prepare" fractions or samples of the components that can be saved. The separation can be done on a small scale, effectively a laboratory scale for analytical or preparative purposes, or on a large scale, effectively an industrial scale for preparative purposes, or on some intermediate scale.

114. Larger sized particles of tea leaves will be retained by the strainer while the clear liquid will pass through is called.....

- (a) filtering
- (b) Sieving
- (c) Threshing
- (d) none of the above

Correct Choice: (a)

Solution:

Filtration is any of various mechanical, physical or biological operations that separate solids from fluids (liquids or gases) by adding a medium through which only the fluid can pass. The fluid that passes through is called the filtrate.[1] In physical filters oversized solids in the fluid are retained and in biological filters particulates are trapped and ingested and metabolites are retained and removed. However, the separation is not complete; solids will be contaminated with some fluid and filtrate will contain fine particles (depending on the pore size, filter thickness and biological activity). Filtration occurs both in nature and in engineered systems; there are biological, geological, and industrial forms. For example, in animals (including humans), renal filtration removes waste from the blood, and in water treatment and sewage treatment, undesirable constituents are removed by absorption into a biological film grown on or in the filter medium, as in slow sand filtration.

115. Which is used to separate solid particles of different sizes?

- (a) filtering
- (b) Sieving
- (c) Threshing
- (d) none of the above

Correct Choice: (b)

Solution:

Sieving is a simple technique for separating particles of different sizes. A sieve such as used for sifting flour has very small holes. Coarse particles are separated or broken up by grinding against one-another and screen openings. Depending upon the types of particles to be separated, sieves with different types of holes are used. Sieves are also used to separate stones from sand. Sieving plays an important role in food industries where sieves (often vibrating) are used to prevent the contamination of the product by foreign bodies. The design of the industrial sieve is here of primary importance. Triage sieving refers to grouping people according to their severity of injury.

116. Which is used to study the pre historic humans remained materials used by pre historic humans?

- (a) Numismatics
- (b) Archaeology
- (c) Inscriptions
- (d) none of the above

Correct Choice: (a)

Solution:

Archaeology, or archeology,[1] is the study of human activity through the recovery and analysis of material culture. The archaeological record consists of artifacts, architecture, biofacts or ecofacts and cultural landscapes. Archaeology can be considered both a social science and a branch of the humanities.[2][3] In North America archaeology is a sub-field of anthropology,[4] while in Europe it is often viewed as either a discipline in its own right or a sub-field of other disciplines. Archaeologists study human prehistory and history, from the development of the first stone tools at Lomekwi in East Africa 3.3 million years ago up until recent decades.[5] Archaeology is distinct from palaeontology, the study of fossil remains. It is particularly important for learning about prehistoric societies, for whom there may be no written records to study. Prehistory includes over 99% of the human past, from the Paleolithic until the advent of literacy in societies across the world.[2] Archaeology has various goals, which range from understanding culture history to reconstructing past lifeways to documenting and explaining changes in human societies through time. The discipline involves surveying, excavation and eventually analysis of data collected to learn more about the past. In broad scope, archaeology relies on cross-disciplinary research. It draws upon anthropology, history, art history, classics, ethnology, geography, geology, literary history, linguistics, semiology, textual criticism, physics, information sciences, chemistry, statistics, paleoecology, paleography, paleontology, paleozoology, and paleobotany. Archaeology developed out of antiquarianism in Europe during the 19th century, and has since become a discipline practiced across the world. Archaeology has been used by nation-states to create particular visions of the past.[7] Since its early development, various specific sub-disciplines of archaeology have developed, including maritime archaeology, feminist archaeology and archaeoastronomy, and numerous different scientific techniques have been developed to aid archaeological investigation. Nonetheless, today, archaeologists face many problems, such as dealing with pseudoarchaeology, the looting of artifacts,[8] a lack of public interest, and opposition to the excavation of human remains.

117. Which are the main source for archaeological studies?

- (a) Paintings
- (b) Excavated material
- (c) Tools
- (d) None of the above

Correct Choice: (b)

Solution:

Archaeology, or archeology, is the study of human activity through the recovery and analysis of material culture. The archaeological record consists of artifacts, architecture, biofacts or ecofacts and cultural landscapes. Archaeology is the study of pre historic humans remained materials used by pre historic humans. Excavated material remains are the main source for archaeological studies.

118. Which is used to study of humans ?

- (a) Archaeology
- (b) Anthropology
- (c) Numismatics
- (d) None of the above

Correct Choice: (b)

Solution:

Anthropology is the scientific study of humans and human behavior and societies in the past and present. Social anthropology and cultural anthropology study the norms and values of societies. Linguistic anthropology studies how language affects social life. Biological or physical anthropology studies the biological development of humans.

119. The word anthropology is derived from two Greek words: anthropos meaning.....

- (a) Man
- (b) Animal
- (c) Birds
- (d) Forest

Correct Choice: (a)

Solution:

Anthropology is the scientific study of humans and human behavior and societies in the past and present. Social anthropology and cultural anthropology study the norms and values of societies. The word anthropology is derived from two Greek words: anthropos meaning "man" or "human"; and logos, meaning "thought" or "reason." Anthropologists attempt, by investigating the whole range of human development and behavior, to achieve a total description of cultural and social phenomena.

120. The word anthropology is derived from two Greek words: anthropos meaning "man" or "human"; and logos, meaning.....

- (a) Environment
- (b) Reason
- (c) Human
- (d) None of the above

Correct Choice: (b)

Solution:

Anthropology is the scientific study of humans and human behavior and societies in the past and present.[1][2][3] Social anthropology and cultural anthropology[1][2][3] study the norms and values of societies. Linguistic anthropology studies how language affects social life. Biological or physical anthropology[1][2][3] studies the biological development of humans. Archaeology, which studies past human cultures through investigation of physical evidence, is thought of as a branch of anthropology in the United States and Canada, while in Europe, it is viewed as a discipline in its own right or grouped under other related disciplines, such as history. The word anthropology is derived from two Greek words: anthropos meaning "man" or "human"; and logos, meaning "thought" or "reason." Anthropologists attempt, by investigating the whole range of human development and behavior, to achieve a total description of cultural and social phenomena

121. Exchange of goods without involving money is called.....

- (a) Barter
- (b) Nomadic
- (c) Drugs
- (d) None of the above

Correct Choice: (a)

Solution:

In trade, barter (derived from baretor) is a system of exchange where participants in a transaction directly exchange goods or services for other goods or services without using a medium of exchange, such as money. Economists distinguish barter from gift economies in many ways; barter, for example, features immediate reciprocal exchange, not delayed in time. Barter usually takes place on a bilateral basis, but may be multilateral (i.e., mediated through a trade exchange).

122. In which year engineers laid a railway line connecting Lahore to Karachi?

- (a) 1850
- (b) 1856
- (c) 1858
- (d) 1860

Correct Choice: (b)

Solution:

Rail transport in Pakistan began in 1855 during the British Raj, when several railway companies began laying track and operating in present-day Pakistan. The country's rail system has been nationalised as Pakistan Railways (originally the Pakistan Western Railway). The system was originally a patchwork of local rail lines operated by small private companies, including the Scinde, Punjab and Delhi Railways and the Indus Steam Flotilla. In 1870, the four companies were amalgamated as the Scinde, Punjab & Delhi Railway. Several other rail lines were built shortly thereafter, including the Sind–Sagar and Trans–Baluchistan Railways and the Sind–Pishin, Indus Valley, Punjab Northern and Kandahar State Railways. These six companies and the Scinde, Punjab & Delhi Railway merged to form the North Western State Railway in 1880. Following independence in 1947, the North Western Railway became Pakistan Western Railway and the rail system was reorganised; some of the reorganisation was controversial. Rail use increased in early 1948, and the network became profitable. Declining passenger numbers and financial losses in the late 1980s and early 1990s prompted the closure of many branch lines and small stations. The 1990s saw corporate mismanagement and severe cuts in rail subsidies. Due to falling passenger numbers, government subsidies are necessary to keep the railways financially viable. The Scinde Railway Company was established in 1855, after Karachi's potential as a seaport was first explored in the early 1850s. Henry Bartle Frere, who was appointed Commissioner of Sindh shortly after its fall in the Battle of Miani, sought permission from Lord Dalhousie to begin a survey for a seaport. The Scinde Railway was established by a settlement in March 1855, and was incorporated by Parliament in the Scinde Railway Act of July of that year.[1][2] Frere began the rail survey in 1858, and a rail line from Karachi to Kotri; steam navigation up the Indus and Chenab Rivers to Multan, and another rail line to Lahore were proposed. Work on the railway began in April 1858, and Karachi and Kotri—a distance of 108 miles (174 km)—were connected by rail on 13 May 1861.[3]

123. In which year burnt bricks are discovered?

- (a) 1850
- (b) 1856
- (c) 1870
- (d) 1874

Correct Choice: (b)

Solution:

A brick is building material used to make walls, pavements and other elements in masonry construction. Traditionally, the term brick referred to a unit composed of clay, but it is now used to denote any rectangular units laid in mortar. A brick can be composed of clay-bearing soil, sand, and lime, or concrete materials. Bricks are produced in numerous classes, types, materials, and sizes which vary with region and time period, and are produced in bulk quantities. Two basic categories of bricks are fired and non-fired bricks. Block is a similar term referring to a rectangular building unit composed of similar materials, but is usually larger than a brick. Lightweight bricks (also called lightweight blocks) are made from expanded clay aggregate. Fired bricks are one of the longest-lasting and strongest building materials, sometimes referred to as artificial stone, and have been used since circa 4000 BC. Air-dried bricks, also known as mudbricks, have a history older than fired bricks, and have an additional ingredient of a mechanical binder such as straw. Bricks are laid in courses and numerous patterns known as bonds, collectively known as brickwork, and may be laid in various kinds of mortar to hold the bricks together to make a durable structure. In 1856 when engineers laid a railway line connecting Lahore to Karachi, they discovered more burnt bricks. Without understanding their significance, they used the bricks for laying the rail road.

124. In which year archaeologists began to excavate the cities of Harappa and Mohenjo Daro?

- (a) 1900s (b) 1910s
(c) 1920s (d) 1930s

Correct Choice: (c)

Solution:

In the 1920s archaeologists began to excavate the cities of Harappa and Mohenjo Daro. Historical context. Mohenjo-daro was built in the 26th century BCE. It was one of the largest cities of the ancient Indus Valley Civilization, also known as the Harappan Civilization, which developed around 3,000 BCE from the prehistoric Indus culture. More Harappan seals were discovered in 1912 by John Faithfull Fleet, prompting an archaeological campaign under Sir John Hubert Marshall. Marshall, Rai Bahadur Daya Ram Sahni and Madho Sarup Vats began excavating Harappa in 1921, finding buildings and artefacts indicative of an ancient civilisation. Mohenjo-daro was discovered in 1922 by R. D. Banerji, an officer of the Archaeological Survey of India, two years after major excavations had begun at Harappa, some 590 km to the north.

125. Who found many common features between Harappa and Mohenjo- Daro.?

- (a) SR Rao (b) RD Banerjee
(c) Dayaram Sahani (d) John Marshall

Correct Choice: (d)

Solution:

Archaeologist and Director-General of the Archaeological Survey of India, John Marshall, who was majorly responsible for the excavation of Mohenjo-daro and Harappa. Both these cities were found at different locations. However, their resemblance concluded that both were part of the Indus Civilization.

He oversaw the excavations of Harappa and Mohenjodaro, two of the main cities that comprise the Indus Valley Civilization. His work provided evidence of age of Indian civilisation especially Indus Valley Civilization and Mauryan age (Ashoka's Age). Following the lead of his predecessor Alexander Cunningham, Marshall in 1920 initiated a dig at Harappa, with Daya Ram Sahni as director. In 1922 work began at Mohenjo-Daro. The results of these efforts, which revealed a seeming ancient culture with its own writing system, were published in the Illustrated London News on 20 September 1924.

126. Which is called self-luminous?

- (a) Galaxy (b) Sun
(c) Venus (d) none of the above

Correct Choice: (a)

Solution:

The Sun is at the centre of the solar system. Each member of the solar system revolves around the Sun. The Sun is so huge that it accounts for 99.8 percent of the entire mass of the solar system. The Sun is made up of extremely hot gases like Hydrogen and Helium. The Sun is a star. It is self-luminous so it gives light on its own. The surface temperature of the Sun is about 6,000° C. It is the source of light and heat energy to the entire solar system. Sunlight takes about 8.3 minutes to reach the Earth.

127. How many minutes Sunlight takes about to reach the Earth?

- (a) 8.0 (b) 8.3
(c) 8.5 (d) 8.9

Correct Choice: (b)

Solution:

The Sun is at the centre of the solar system. Each member of the solar system revolves around the Sun. The Sun is so huge that it accounts for 99.8 percent of the entire mass of the solar system. The Sun is made up of extremely hot gases like Hydrogen and Helium. The Sun is a star. It is self-luminous so it gives light on its own. The surface temperature of the Sun is about 6,000° C. It is the source of light and heat energy to the entire solar system. Sunlight takes about 8.3 minutes to reach the Earth.

128. How many million Earths fit inside the Sun?

- (a) 1.3 (b) 1.4
(c) 1.5 (d) 1.6

Correct Choice: (a)

Solution:

The answer is that it would take 1.3 million Earths to fill up the Sun. That's a lot of Earths. The Sun makes up 99.86% of the mass of the Solar System. And it's the giant planets like Jupiter and Saturn which make the most of that remaining .14% of the Solar System. Compared to Earth, the Sun is enormous! It contains 99.86% of all of the mass of the entire Solar System. The Sun is 864,400 miles (1,391,000 kilometers) across. This is about 109 times the diameter of Earth. The Sun weighs about 333,000 times as much as Earth. It is so large that about 1,300,000 planet Earths can fit inside of it. Earth is about the size of an average sunspot. The Sun is 864,400 miles (1,391,000 kilometers) across. This is about 109 times the diameter of Earth. The Sun weighs about 333,000 times as much as Earth. It is so large that about 1,300,000 planet Earths can fit inside of it.

129. The word planet means.....

- (a) hot (b) wanderer
(c) cold (d) none of the above

Correct Choice: (b)

Solution:

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system. The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars). The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters. The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune). They are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

130. All the planets rotate anti-clockwise (from west to east) on their own axes except which planet?

- (a) Venus (b) Mars
(c) Saturn (d) Mercury

Correct Choice: (a)

Solution:

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system. The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars). The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters. The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune). They are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

131. The elliptical path in which the planets move around the Sun is known as

- (a) orbit (b) rotation
(c) cycle (d) none of the above

Correct Choice: (a)

Solution:

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system. The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars). The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters. The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune). They are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

132. The four planets nearer to the Sun are called

- (a) Inner planets
- (b) outer planets
- (c) Jovian Planets
- (d) none of the above

Correct Choice: (a)

Solution:

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system. The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars). The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters. The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune). They are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

133. The last four planets are called as.....

- (a) Red planet
- (b) Rocky planets
- (c) Outer planet
- (d) Coldest planet

Correct Choice: (c)

Solution:

The word planet means wanderer. There are eight planets in the solar system. They are Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. All the planets rotate anti-clockwise (from west to east) on their own axes except Venus and Uranus. The elliptical path in which the planets move around the Sun is known as orbit. The eight planets revolve in their respective orbits because of the gravitational pull of the Sun. They do not move out of their paths or away from the solar system. The four planets nearer to the Sun are called Inner or Terrestrial Planets (Mercury, Venus, Earth and Mars). The inner planets are comparatively smaller in size and are composed of rocks. The surface of inner planets has mountains, volcanoes and craters. The last four planets are called as Outer Planets or Jovian Planets (Jupiter, Saturn, Uranus, and Neptune). They are also called Gaseous Giants. An asteroid belt is found between Mars and Jupiter.

134. Mercury is named after the Roman deity 'Mercury', means

- (a) The messenger to the Gods.
- (b) God of Love
- (c) Twin planet
- (d) None of the above

Correct Choice: (a)

Solution:

Mercury is the smallest and closest planet to the Sun. It is named after the Roman deity 'Mercury', the messenger to the Gods. It is an airless and waterless planet. It does not have an atmosphere and so experiences extremes of temperature. It has no natural satellites. Mercury can be viewed in the morning and evening with naked eye.

135. Which planet is as it is almost the same size as the Earth?

- (a) Mercury
- (b) Venus
- (c) Saturn
- (d) Pluto

Correct Choice: (b)

Solution:

Venus is the second planet from the Sun. It is called Earth's twin, as it is almost the same size as the Earth. It has the longest rotation period (243 days) among the planets in the Solar system. It rotates in the opposite direction to all other planets except Uranus. It has no natural satellites like Mercury. It is named after the Roman goddess of love and beauty. It is often visible in the mornings and the evenings and so it is frequently called as the Morning Star and the Evening Star. After the Moon, it is the brightest natural object in the night sky.

136. The heat from our hand which is enough to change solid metal into liquid?

- (a) Copper (b) Gallium
(c) Iron (d) Silver

Correct Choice: (a)

Solution:

The heat from our hand is enough to change solid metal Gallium into liquid. Gallium is a chemical element with symbol Ga and atomic number 31. It is in group 13 of the periodic table, and thus has similarities to the other metals of the group, aluminium, indium, and thallium. Gallium does not occur as a free element in nature, but as gallium(III) compounds in trace amounts in zinc ores and in bauxite.[6] Elemental gallium is a soft, silvery blue metal at standard temperature and pressure, a brittle solid at low temperatures, and a liquid at temperatures greater than 29.76 °C (85.57 °F) (above room temperature, but below the normal human body temperature of 37 °C (99 °F)), hence, the metal will melt in a person's hands). The melting point of gallium is used as a temperature reference point. Gallium alloys are used in thermometers as a non-toxic and environmentally friendly alternative to mercury, and can withstand higher temperatures than mercury. The alloy galinstan (70% gallium, 21.5% indium, and 10% tin) has an even lower melting point of -19 °C (-2 °F), well below the freezing point of water. Since its discovery in 1875, gallium has been used to make alloys with low melting points. It is also used in semiconductors as a dopant in semiconductor substrates. Gallium is predominantly used in electronics. Gallium arsenide, the primary chemical compound of gallium in electronics, is used in microwave circuits, high-speed switching circuits, and infrared circuits. Semiconducting gallium nitride and indium gallium nitride produce blue and violet light-emitting diodes (LEDs) and diode lasers. Gallium is also used in the production of artificial gadolinium gallium garnet for jewelry. Gallium is considered a technology-critical element. Gallium has no known natural role in biology. Gallium(III) behaves in a similar manner to ferric salts in biological systems and has been used in some medical applications, including pharmaceuticals and radiopharmaceuticals.

137. Boiling points of a oxygen is

- (a) 890 (b) -183
(c) -246 (d) -284

Correct Choice: (a)

Solution:

Liquid oxygen has a pale blue color and is strongly paramagnetic: it can be suspended between the poles of a powerful horseshoe magnet.[2] Liquid oxygen has a density of 1.141 g/cm³ (1.141 kg/L or 1141 kg/m³), slightly denser than liquid water, and is cryogenic with a freezing point of 54.36 K (-218.79 °C; -361.82 °F) and a boiling point of 90.19 K (-182.96 °C; -297.33 °F) at 101.325 kPa (760 mmHg). Liquid oxygen has an expansion ratio of 1:861 under 1 standard atmosphere (100 kPa) and 20 °C (68 °F).[3][4] and because of this, it is used in some commercial and military aircraft as a transportable source of breathing oxygen. Because of its cryogenic nature, liquid oxygen can cause the materials it touches to become extremely brittle. Liquid oxygen is also a very powerful oxidizing agent: organic materials will burn rapidly and energetically in liquid oxygen. Further, if soaked in liquid oxygen, some materials such as coal briquettes, carbon black, etc., can detonate unpredictably from sources of ignition such as flames, sparks or impact from light blows. Petrochemicals, including asphalt, often exhibit this behavior. The tetraoxygen molecule (O₄) was first predicted in 1924 by Gilbert N. Lewis, who proposed it to explain why liquid oxygen defied Curie's law.[6] Modern computer simulations indicate that although there are no stable O₄ molecules in liquid oxygen, O₂ molecules do tend to associate in pairs with antiparallel spins, forming transient O₄ units. Liquid nitrogen has a lower boiling point at -196 °C (77 K) than oxygen's -183 °C (90 K), and vessels containing liquid nitrogen can condense oxygen from air: when most of the nitrogen has evaporated from such a vessel there is a risk that liquid oxygen remaining can react violently with organic material. Conversely, liquid nitrogen or liquid air can be oxygen-enriched by letting it stand in open air; atmospheric oxygen dissolves in it, while nitrogen evaporates preferentially.

138. Dry ice, sometimes referred to as..... is used primarily as a cooling agent.

- (a) Cardoce (b) cardice
(c) cartoce (d) caborce

Correct Choice: (b)

Solution:

Dry ice is the solid form of carbon dioxide. It is used primarily as a cooling agent. Dry ice, sometimes referred to as cardice is used primarily as a cooling agent. Its advantages include lower temperature than that of water ice and not leaving any residue (other than incidental frost from moisture in the atmosphere). It is useful for preserving frozen foods where mechanical cooling is unavailable. Dry ice sublimates at 194.65 K (-78.5 °C; -109.3 °F), at Earth atmospheric pressures. This extreme cold makes the solid dangerous to handle without protection due to burns caused by freezing (frostbite). While generally not very toxic, the outgassing from it can cause hypercapnia (abnormally elevated carbon dioxide levels in the blood) due to buildup in confined locations.

139. Which is widely used for industrial refrigeration and transporting frozen food?

- (a) Cardice (b) Cardose

(c) Caridose

(d) None of the above

Correct Choice: (a)

Solution:

Dry ice is the solid form of carbon dioxide. It is used primarily as a cooling agent. Dry ice, sometimes referred to as cardice is used primarily as a cooling agent. Its advantages include lower temperature than that of water ice and not leaving any residue (other than incidental frost from moisture in the atmosphere). It is useful for preserving frozen foods where mechanical cooling is unavailable. Dry ice sublimates at 194.65 K (-78.5°C ; -109.3°F), at Earth atmospheric pressures. This extreme cold makes the solid dangerous to handle without protection due to burns caused by freezing (frostbite). While generally not very toxic, the outgassing from it can cause hypercapnia (abnormally elevated carbon dioxide levels in the blood) due to buildup in confined locations.

140. The Kelvin scale is named after by.....

(a) Belfast-born

(b) Leonhard Euler

(c) Amedeo Avogadro

(d) None of the above

Correct Choice: (a)

Solution:

The Kelvin scale is an absolute thermodynamic temperature scale using as its null point absolute zero, the temperature at which all thermal motion ceases in the classical description of thermodynamics. The kelvin (symbol: K) is the base unit of temperature in the International System of Units (SI). Until 2018, the kelvin was defined as the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water (exactly 0.01°C or 32.018°F). [1] In other words, it was defined such that the triple point of water is exactly 273.16 K . On 16 November 2018, a new definition was adopted, in terms of a fixed value of the Boltzmann constant. For legal metrology purposes, the new definition will officially come into force on 20 May 2019 (the 130th anniversary of the Metre Convention). The Kelvin scale is named after the Belfast-born, Glasgow University engineer and physicist William Thomson, 1st Baron Kelvin (1824–1907), who wrote of the need for an "absolute thermometric scale". Unlike the degree Fahrenheit and degree Celsius, the kelvin is not referred to or written as a degree. The kelvin is the primary unit of temperature measurement in the physical sciences, but is often used in conjunction with the degree Celsius, which has the same magnitude. The definition implies that absolute zero (0 K) is equivalent to -273.15°C (-459.67°F).

141. Who wrote of the need for an "absolute thermometric scale"?

(a) Isaac Newton

(b) Leonhard Euler

(c) Amedeo Avogadro

(d) William Lord Kelvin

Correct Choice: (d)

Solution:

The Kelvin scale is an absolute thermodynamic temperature scale using as its null point absolute zero, the temperature at which all thermal motion ceases in the classical description of thermodynamics. The kelvin (symbol: K) is the base unit of temperature in the International System of Units (SI). The Kelvin scale is named after the Belfast-born, Glasgow University engineer and physicist William Thomson, 1st Baron Kelvin (1824–1907), who wrote of the need for an "absolute thermometric scale". Unlike the degree Fahrenheit and degree Celsius, the kelvin is not referred to or written as a degree. The kelvin is the primary unit of temperature measurement in the physical sciences, but is often used in conjunction with the degree Celsius, which has the same magnitude. The definition implies that absolute zero (0 K) is equivalent to -273.15°C (-459.67°F).

142. The physicist William Lord Kelvin, wrote of the need for an "absolute thermometric scale in which year?

(a) 1814–1906

(b) 1824–1907

(c) 1825–1907

(d) 1825–1909

Correct Choice: (b)

Solution:

The Kelvin scale is an absolute thermodynamic temperature scale using as its null point absolute zero, the temperature at which all thermal motion ceases in the classical description of thermodynamics. The kelvin (symbol: K) is the base unit of temperature in the International System of Units (SI). Until 2018, the kelvin was defined as the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water (exactly 0.01°C or 32.018°F). [1] In other words, it was defined such that the triple point of water is exactly 273.16 K . On 16 November 2018, a new definition was adopted, in terms of a fixed value of the Boltzmann constant. For legal metrology purposes, the new definition will officially come into force on 20 May 2019 (the 130th anniversary of the Metre Convention). The Kelvin scale is named after the Belfast-born, Glasgow University engineer and physicist William Thomson, 1st Baron Kelvin (1824–1907), who wrote of the need for an "absolute thermometric scale". Unlike the degree Fahrenheit and degree Celsius, the kelvin is not referred to or written as a degree. The kelvin is the primary unit of temperature measurement in the physical sciences, but is often used in conjunction with the degree Celsius, which has the same magnitude. The definition implies that absolute zero (0 K) is equivalent to -273.15°C (-459.67°F).

143. Which cannot be compressed?

(a) Liquid

(b) Solid

(c) Gas

(d) None of the above

Correct Choice: **(b)**

Solution:

Solid is one of the four fundamental states of matter (the others being liquid, gas, and plasma). In solids molecules are closely packed. It is characterized by structural rigidity and resistance to changes of shape or volume. Unlike liquid, a solid object does not flow to take on the shape of its container, nor does it expand to fill the entire volume available to it like a gas does. The atoms in a solid are tightly bound to each other, either in a regular geometric lattice (crystalline solids, which include metals and ordinary ice) or irregularly (an amorphous solid such as common window glass). Solids cannot be compressed with little pressure whereas gases can be compressed with little pressure because in gases molecules are loosely packed.

144. Which have high density?

(a) Solid

(b) Liquid

(c) Gas

(d) None of the above

Correct Choice: **(a)**

Solution:

Solid is one of the four fundamental states of matter (the others being liquid, gas, and plasma). In solids molecules are closely packed. It is characterized by structural rigidity and resistance to changes of shape or volume. Unlike liquid, a solid object does not flow to take on the shape of its container, nor does it expand to fill the entire volume available to it like a gas does. The atoms in a solid are tightly bound to each other, either in a regular geometric lattice (crystalline solids, which include metals and ordinary ice) or irregularly (an amorphous solid such as common window glass). Solids cannot be compressed with little pressure whereas gases can be compressed with little pressure because in gases molecules are loosely packed. Physical properties of elements and compounds that provide conclusive evidence of chemical composition include odor, color, volume, density (mass per unit volume), melting point, boiling point, heat capacity, physical form and shape at room temperature (solid, liquid or gas; cubic, trigonal crystals, etc.), hardness, porosity, index of refraction and many others. This section discusses some physical properties of materials in the solid state.

145. Which have strong attractive force?

(a) Solid

(b) Liquid

(c) Gas

(d) None of the above

Correct Choice: **(a)**

Solution:

Solid is one of the four fundamental states of matter (the others being liquid, gas, and plasma). In solids molecules are closely packed. It is characterized by structural rigidity and resistance to changes of shape or volume. Unlike liquid, a solid object does not flow to take on the shape of its container, nor does it expand to fill the entire volume available to it like a gas does. The atoms in a solid are tightly bound to each other, either in a regular geometric lattice (crystalline solids, which include metals and ordinary ice) or irregularly (an amorphous solid such as common window glass). Solids cannot be compressed with little pressure whereas gases can be compressed with little pressure because in gases molecules are loosely packed. Many traditional solids exhibit different properties when they shrink to nanometer sizes. For example, nanoparticles of usually yellow gold and gray silicon are red in color; gold nanoparticles melt at much lower temperatures (~300 °C for 2.5 nm size) than the gold slabs (1064 °C);^[10] and metallic nanowires are much stronger than the corresponding bulk metals.^{[11][12]} The high surface area of nanoparticles makes them extremely attractive for certain applications in the field of energy. For example, platinum metals may provide improvements as automotive fuel catalysts, as well as proton exchange membrane (PEM) fuel cells. Also, ceramic oxides (or cermets) of lanthanum, cerium, manganese and nickel are now being developed as solid oxide fuel cells (SOFC). Lithium, lithium-titanate and tantalum nanoparticles are being applied in lithium ion batteries. Silicon nanoparticles have been shown to dramatically expand the storage capacity of lithium ion batteries during the expansion/contraction cycle. Silicon nanowires cycle without significant degradation and present the potential for use in batteries with greatly expanded storage times. Silicon nanoparticles are also being used in new forms of solar energy cells. Thin film deposition of silicon quantum dots on the polycrystalline silicon substrate of a photovoltaic (solar) cell increases voltage output as much as 60% by fluorescing the incoming light prior to capture. Here again, surface area of the nanoparticles (and thin films) plays a critical role in maximizing the amount of absorbed radiation.

146. Which is composed of large, thick-walled cells which develop to form ground tissue system, e.g. hypodermis, cortex and pith?

(a) Protoderm

(b) Procambium

(c) Ground

(d) None of the above

Correct Choice: **(b)**

Solution:

Ground meristem The meristem in plant shoots and roots, derived from the apical meristem, that gives rise to the cortex and pith (the ground tissues) in stems and the cortex and endodermis in roots. ground meristem. The primary meristem in vascular plants that gives rise to the nonvascular tissues, such as cortex, pericycle, and pith.

147. Which type of meristem, cell divisions occur in all planes resulting in an increase in volume. It can be observed in meristems of cortex and pith?

- (a) Ground (b) Mass
(c) Rib (d) Plate

Correct Choice: (b)

Solution:

A meristem is the tissue in most plants containing undifferentiated cells (meristematic cells), found in zones of the plant where growth can take place. Meristematic cells give rise to various organs of a plant and are responsible for growth. The growth pattern and plane of division of meristematic tissue is important to govern the mode of growth. These tissues can be divided into three types: (i) Mass meristem: In such meristem, cell divisions occur in all planes resulting in an increase in volume.

148. The cells divide only on one plane in meristem is

- (a) Ground (b) Mass
(c) Rib (d) Plane

Correct Choice: (a)

Solution:

A meristem is the tissue in most plants containing undifferentiated cells (meristematic cells), found in zones of the plant where growth can take place. Meristematic cells give rise to various organs of a plant and are responsible for growth. Definition of rib meristem: : a meristem in which cell divisions occur chiefly in one plane at right angles to the longitudinal axis and give rise to vertical rows or columns of cells. — called also file meristem. — compare mass meristem, plate meristem.

149. Which cells divide in two planes resulting to an increase in the area of an organ?

- (a) Ground (b) Mass
(c) Rib (d) Plate

Correct Choice: (d)

Solution:

A meristem is the tissue in most plants containing undifferentiated cells (meristematic cells), found in zones of the plant where growth can take place. Meristematic cells give rise to various organs of a plant and are responsible for growth. Anticlinal division increases the number of cells in one layer only. This division causes the meristem to grow as a sheet but not in thickness. Plate meristem is the characteristic of plant organs that have flat forms. ... Plate and rib meristem are the two growth forms exhibited by ground meristem.

150. Meristems which are actively dividing tissues of the plant, that are responsible for primary growth of the plant is.....

- (a) Protoderm (b) Elongation
(c) Thickness (d) None of the above

Correct Choice: (b)

Solution:

Meristematic tissues consist of three types, based on their location in the plant. Apical meristems contain meristematic tissue located at the tips of stems and roots, which enable a plant to extend in length. Lateral meristems facilitate growth in thickness or girth in a maturing plant. Intercalary (also called basal) meristems occur only in some monocots, at the bases of leaf blades and at nodes (the areas where leaves attach to a stem). This tissue enables the monocot leaf blade to increase in length from the leaf base; for example, it allows lawn grass leaves to elongate even after repeated grazing or mowing. Meristems contribute to both primary (taller/longer) and secondary (wider) growth. Primary growth is controlled by root apical meristems or shoot apical meristems, while secondary growth is controlled by the two lateral meristems, called the vascular cambium and the cork cambium. Not all plants exhibit secondary growth.

151. Meristems which are actively dividing tissues of the plant, that are responsible for secondary growth of the plant is.....

- (a) Protoderm (b) Elongation
(c) Thickness (d) None of the above

Correct Choice: (c)

Solution:

Meristematic tissues consist of three types, based on their location in the plant. Apical meristems contain meristematic tissue located at the tips of stems and roots, which enable a plant to extend in length. Lateral meristems facilitate growth in thickness or girth in a maturing plant. Intercalary (also called basal) meristems occur only in some monocots, at the bases of leaf blades and at nodes (the areas where leaves attach to a stem). This tissue enables the monocot leaf blade to increase in length from the leaf base; for example, it allows lawn grass leaves to elongate even after repeated grazing or mowing. Meristems contribute to both primary (taller/longer) and secondary (wider) growth. Primary growth is controlled by root apical meristems or shoot apical meristems, while secondary growth is controlled by the two lateral meristems, called the vascular cambium and the cork cambium. Not all plants exhibit secondary growth.

152. Which tissue are homogeneous – composed of structurally and functionally similar cells?

- (a) Permanent Tissues
- (b) Simple Tissues
- (c) Phloem
- (d) None of the above

Correct Choice: (b)

Solution:

The plant tissue in which the process of growth has stopped are called the permanent tissue and it originates from both primary and secondary meristematic tissue. These cells have a definite shape and configuration but they do not have the power of division. The permanent tissues can be classified into three major types on the basis of its constituent cells. Those are : (a) Simple tissue including parenchyma, collenchyma and sclerenchyma. Parenchyma The Parenchyma is walled living cells. It is very soft in nature because of the presence of thin walled cells. Origin : It usually develops from ground meristems. The parenchyma of vascular bundle develops from procambium ; but that of secondary vascular tissues develop from inter-fascicular cambium. The parenchyma of secondary epidermis is formed from phellogen or cork cambium.

153. Which cells are elongated with unevenly thickened non-lignified walls?

- (a) Collenchyma
- (b) Aerenchyma
- (c) Sclerenchyma
- (d) None of the above

Correct Choice: (a)

Solution:

The permanent simple tissue consisting of unevenly thick walled living cells are called collenchymas. The uneven thickening of these cell walls makes it partially hard giving mechanical support. It is derived mostly from the elongated cells of the ground meristem and sometimes from the procambium. The collenchymas usually remain in the hypodermis of stem and also in the base petiole and pedicel. The functions are as follows: (1) It gives rigidity to plant body. (2) It has extensible and plastic cell walls, which gives effective mechanical strength. (3) They may contain chlorophyll and help in photosynthesis.

154. Which consists of thick walled cells which are often lignified?

- (a) Parenchyma
- (b) Collenchyma
- (c) Sclerenchyma
- (d) None of the above

Correct Choice: (c)

Solution:

The permanent simple tissue consisting of evenly thick-walled dead cells are named sclerenchyma. They are very hard and heavily lignified in nature. Cells are heavily thickened with lignified walls, simple pits and small lumen. (2) The cells are dead without protoplasm. (3) The cell walls with very low water content. (4) Their shapes and sizes vary.

155. Whose walls are lignified?

- (a) Xylem
- (b) Phloem
- (c) Fibres
- (d) None of the above

Correct Choice: (c)

Solution:

The permanent simple tissue consisting of evenly thick-walled dead cells are named sclerenchyma. They are very hard and heavily lignified in nature. The fibre like elongated sclerenchyma cells are called sclerenchyma fibres. Origin : They originate from all the three types of meristematic tissues like protoderm, procambium and ground meristem. They may also be formed from the fusiform initials of cambium.

156. UN conference begins in.....

- (a) Geneva
- (b) San Francisco
- (c) Paris
- (d) London

Correct Choice: (b)

Solution:

The United Nations Conference on International Organization (UNCIO), commonly known as the San Francisco Conference, was a convention of delegates from 50 Allied nations that took place from 25 April 1945 to 26 June 1945 in San Francisco, California, United States of America. At this convention, the delegates reviewed and rewrote the Dumbarton Oaks agreements of the previous year. The convention resulted in the creation of the United Nations Charter, which was opened for signature on 26 June, the last day of the conference. The conference was held at various locations, primarily the War Memorial Opera House, with the Charter being signed on 26 June at the Herbst Theatre in Civic Center.

157. UN conference took place in which year?

- (a) 1935 (b) 1945
(c) 1955 (d) 1965

Correct Choice: (b)

Solution:

The United Nations Conference on International Organization (UNCIO), commonly known as the San Francisco Conference, was a convention of delegates from 50 Allied nations that took place from 25 April 1945 to 26 June 1945 in San Francisco, California, United States of America. At this convention, the delegates reviewed and rewrote the Dumbarton Oaks agreements of the previous year. The convention resulted in the creation of the United Nations Charter, which was opened for signature on 26 June, the last day of the conference.

158. UNO was signed on

- (a) 26th June 1945 (b) 28th June 1945
(c) 30th June 1945 (d) None of the above

Correct Choice: (a)

Solution:

The United Nations Conference on International Organization (UNCIO), commonly known as the San Francisco Conference, was a convention of delegates from 50 Allied nations that took place from 25 April 1945 to 26 June 1945 in San Francisco, California, United States of America. At this convention, the delegates reviewed and rewrote the Dumbarton Oaks agreements of the previous year.[1] The convention resulted in the creation of the United Nations Charter, which was opened for signature on 26 June, the last day of the conference. The conference was held at various locations, primarily the War Memorial Opera House, with the Charter being signed on 26 June at the Herbst Theatre in Civic Center. A square adjacent to the city's Civic Center, called "UN Plaza," commemorates the conference.

159. When UNO came into existence?

- (a) 24th October 1945 (b) 28th November 1945
(c) 28th November 1950 (d) None of the above

Correct Choice: (a)

Solution:

In 24 October 1945, at the end of World War II, the organization was established with the aim of preventing future wars. At its founding, the UN had 51 member states; there are now 193. The UN is the successor of the ineffective League of Nations. The United Nations (UN) is an intergovernmental organization that was tasked to maintain international peace and security, develop friendly relations among nations, achieve international co-operation and be a centre for harmonizing the actions of nations.

160. UNO conference on 30th October 1943 in.....

- (a) England (b) Moscow
(c) Teheran (d) None of the above

Correct Choice: (b)

Solution:

30 October 1943 Moscow

The United States Secretary of State, the venerable Cordell Hull, made the first flight of his life to journey to Moscow for the conference. On October 30, the Moscow Declaration was signed by Vyaches Molotov, Anthony Eden, Cordell Hull and Foo Ping Shen, the Chinese Ambassador to the Soviet Union.

161. UNO conference on 1st December, 1943 was in

- (a) Moscow (b) England
(c) Teheran (d) None of the above

Correct Choice: (c)

Solution:

1 December 1943, Teheran

In December, two months after the four-power Declaration, Roosevelt, Stalin and Churchill, meeting for the first time at Teheran, the capital of Iran, declared that they had worked out concerted plans for final victory.

162. UNO conference on 7th Oct 1944 in.....

- (a) England
- (b) Dumbarton Oaks
- (c) Moscow
- (d) None of the above

Correct Choice: (b)

Solution:

The Dumbarton Oaks Conference or, more formally, the Washington Conversations on International Peace and Security Organization was an international conference at which the United Nations was formulated and negotiated among international leaders. The conference was held at Dumbarton Oaks, in Washington, D.C., from August 21, 1944, to October 7, 1944.

163. UNO conference on 11th Feb 1945 in

- (a) England
- (b) Paris
- (c) Yalta
- (d) None of the above

Correct Choice: (c)

Solution:

The Yalta Conference, also known as the Crimea Conference and code-named the Argonaut Conference, held from 4 to 11 February 1945, was the World War II meeting of the heads of government of the United States, the United Kingdom and the Soviet Union for the purpose of discussing Germany and Europe's postwar reorganization. The three states were represented by President Franklin D. Roosevelt, Prime Minister Winston Churchill and Premier Joseph Stalin, respectively. The conference convened near Yalta in Crimea, Soviet Union, within the Livadia, Yusupov, and Vorontsov Palaces. The aim of the conference[1] was to shape a post-war peace that represented not just a collective security order but a plan to give self-determination to the liberated peoples of post-Nazi Europe.

164. Iran – Iraq war was ended in ?

- (a) 1948
- (b) 1958
- (c) 1978
- (d) 1988

Correct Choice: (d)

Solution:

The Iran–Iraq War was an armed conflict between Iran and Iraq, beginning on 22 September 1980, when Iraq invaded Iran, and ended in 20 August 1988, when Iran accepted the UN-brokered ceasefire. Iraq wanted to replace Iran as the dominant Persian Gulf state, and was worried that the 1979 Iranian Revolution would lead Iraq's Shi'ite majority to rebel against the Ba'athist government. The war also followed a long history of border disputes, and Iraq planned to annex the oil-rich Khuzestan Province and the east bank of the Arvand Rud (Shatt al-Arab).

165. Article 45 states

- (a) Uniform civil code for the citizen
- (b) Provision for early childhood care and education to children below the age of six years
- (c) Protection and improvement of environment and safeguarding of forests and wild life
- (d) None of the above

Correct Choice: (b)

Solution:

Provision for early childhood care and education to children below the age of six years — The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.

166. Which deals with the society's problems such as unemployment, poverty, medical care and government policies?

- (a) Economics
- (b) Government Policies
- (c) World funds
- (d) None of the above

Correct Choice: (a)

Solution:

Economics is the social science that studies the production, distribution, and consumption of goods and services. Economics focuses on the behaviour and interactions of economic agents and how economies work.

167. All the free gift of nature termed as.....

(a) Climate

(b) Water

(c) Land

(d) None of the above

Correct Choice: (c)

Solution:

Land, sometimes referred to as dry land, is the solid surface of Earth that is not permanently covered by water.[1] The vast majority of human activity throughout history has occurred in land areas that support agriculture, habitat, and various natural resources. Some life forms (including terrestrial plants and terrestrial animals) have developed from predecessor species that lived in bodies of water. Areas where land meets large bodies of water are called coastal zones. The division between land and water is a fundamental concept to humans. The demarcation between land and water can vary by local jurisdiction and other factors. A maritime boundary is one example of a political demarcation. A variety of natural boundaries exist to help clearly define where water meets land. Solid rock landforms are easier to demarcate than marshy or swampy boundaries, where there is no clear point at which the land ends and a body of water has begun. Demarcation can further vary due to tides and weather.

168. In world which is fixed in supply?

(a) Goods

(b) Land

(c) Chemicals

(d) None of the above

Correct Choice: (b)

Solution:

Land, sometimes referred to as dry land, is the solid surface of Earth that is not permanently covered by water.[1] The vast majority of human activity throughout history has occurred in land areas that support agriculture, habitat, and various natural resources. Some life forms (including terrestrial plants and terrestrial animals) have developed from predecessor species that lived in bodies of water. "Land area" (also known as "land mass") refers to the total surface area of the land of a geographical region or country (which may include discontinuous pieces of land such as islands). Earth's total planimetric (flat) land area is approximately 148,939,063.133 km² (57,505,693.767 sq mi) which is about 29.2% of its total surface. However, when terrain and topsoil relief are factored in, the actual topographic surface area - that exposed to the Sun, air and rain - is approximately quadrupled [19]. Water covers approximately 70.8% of planimetric Earth's surface, mainly in the form of oceans and ice formations; but this proportion is decreased by the land's increased terrain.

169. Which one is considered as a passive factor of production?

(a) Land

(b) Soil

(c) Money

(d) Investment

Correct Choice: (a)

Solution:

Land, sometimes referred to as dry land, is the solid surface of Earth that is not permanently covered by water.[1] The vast majority of human activity throughout history has occurred in land areas that support agriculture, habitat, and various natural resources. Some life forms (including terrestrial plants and terrestrial animals) have developed from predecessor species that lived in bodies of water. The land of the Earth interacts with and influences climate heavily since the surface of the land heats up and cools down faster than air or water.[40] Latitude, elevation, topography, reflectivity, and land use all have varying effects. The latitude of the land will influence how much solar radiation reaches the surface. High latitudes receive less solar radiation than low latitudes.[40] The height of the land is important in creating and transforming airflow and precipitation on Earth. Large landforms, such as mountain ranges, divert wind energy and make the air parcel less dense and able to hold less heat.[40] As air rises, this cooling effect causes condensation and precipitation. Reflectivity of the earth is called planetary albedo and the type of land cover that receives energy from the sun affects the amount of energy that is reflected or transferred to Earth.[41] Vegetation has a relatively low albedo meaning that vegetated surfaces are good absorbers of the sun's energy. Forests have an albedo of 10–15% while grasslands have an albedo of 15–20%. In comparison, sandy deserts have an albedo of 25–40%. Land use by humans also plays a role in the regional and global climate. Densely populated cities are warmer and create urban heat islands that have effects on the precipitation, cloud cover, and temperature of the region.

170. In economics which capital refers to a factor of production (or input into the process of production), such as machinery, buildings, or computers?

(a) Money capital

(b) Physical capital

(c) Human capital

(d) None of the above

Correct Choice: (b)

Solution:

In economics, physical capital refers to a factor of production (or input into the process of production), such as machinery, buildings, or computers. In economic theory, physical capital is one of the three primary factors of production, also known as inputs production function. In economics, capital consists of an asset that can enhance one's power to perform economically useful work. For example, in a fundamental sense a stone or an arrow is capital for a caveman who can use it as a hunting instrument, while roads are capital for inhabitants of a city.

171. In economics, investment were made in the form of money or monetary instruments is called.....

- (a) Physical Capital
- (b) Money Capital
- (c) Human Capital
- (d) None of the above

Correct Choice: (a)

Solution:

In economics, capital consists of an asset that can enhance one's power to perform economically useful work. For example, in a fundamental sense a stone or an arrow is capital for a caveman who can use it as a hunting instrument, while roads are capital for inhabitants of a city. Adam Smith defines capital as "That part of men's stock which he expects to afford him revenue". The term "stock" is derived from the Old English word for stump or tree trunk. It has been used to refer to all the moveable property of a farm since at least 1510. Capital goods, real capital, or capital assets are already-produced, durable goods or any non-financial asset that is used in production of goods or services. Capital is distinct from land (or non-renewable resources) in that capital can be increased by human labor. At any given moment in time, total physical capital may be referred to as the capital stock (which is not to be confused with the capital stock of a business entity). Capital is an input in the production function. Homes and personal autos are not usually defined as capital but as durable goods because they are not used in a production of saleable goods and services. In Marxian political economy, [3] capital is money used to buy something only in order to sell it again to realize a profit. For Marx capital only exists within the process of the economic circuit (represented by M-C-M') —it is wealth that grows out of the process of circulation itself, and for Marx it formed the basis of the economic system of capitalism. In more contemporary schools of economics, this form of capital is generally referred to as "financial capital" and is distinguished from "capital goods".

172. Investment in education, health care, training etc which takes place in economics is called

- (a) Physical Capital
- (b) Money Capital
- (c) Human Capital
- (d) None of the above

Correct Choice: (c)

Solution:

Human capital is the stock of knowledge, habits, social and personality attributes, including creativity, embodied in the ability to perform labor so as to produce economic value. Human capital theory is closely associated with the study of human resources management as found in the practice of business administration and macroeconomics. The original idea of human capital can be traced back at least to Adam Smith in the 18th century. The modern theory was popularized by Gary Becker, an economist and Nobel Laureate from the University of Chicago, Jacob Mincer, and Theodore Schultz. As a result of his conceptualization and modeling work using Human Capital as a key factor, the Nobel Prize for Economics, 2018, was awarded (jointly) to Paul Romer who founded the modern innovation-driven approach to understanding economic growth. In the recent literature, the new concept of task-specific human capital was coined in 2004 by Robert Gibbon, an economist at MIT, and Michael Waldman, an economist at Cornell. The concept emphasizes that in many cases, human capital is accumulated specific to the nature of the task (or, skills required for the task), and the human capital accumulated for the task are valuable to many firms requiring the transferable skills. This concept can be applied to job-assignment, wage dynamics, tournament, promotion dynamics inside firms, etc.

173. Who is called as "the changing agent of the society"?

- (a) Money
- (b) Entrepreneur
- (c) Advertisement
- (d) None of the above

Correct Choice: (b)

Solution:

Entrepreneurship is the process of designing, launching and running a new business, which is often initially a small business. The people who create these businesses are called entrepreneurs. [1] [need quotation to verify. Entrepreneurship has been described as the "capacity and willingness to develop, organize and manage a business venture along with any of its risks in order to make a profit". [3] While definitions of entrepreneurship typically focus on the launching and running of businesses, due to the high risks involved in launching a start-up, a significant proportion of start-up businesses have to close due to "lack of funding, bad business decisions, an economic crisis, lack of market demand—or a combination of all of these. A broader definition of the term is sometimes used, especially in the field of economics. In this usage, an Entrepreneur is an entity which has the ability to find and act upon opportunities to translate inventions or technology into new products: "The entrepreneur is able to recognize the commercial potential of the invention and organize the capital, talent, and other resources that turn an invention into a commercially viable innovation." [5] In this sense, the term "Entrepreneurship" also captures innovative activities on the part of established firms, in addition to similar activities on the part of new businesses.

174. Which is termed as the function of capital, labour and land?

- (a) Money
- (b) Investment
- (c) Advertisement
- (d) Production

Correct Choice: (d)

Solution:

Production is a process of combining various material inputs and immaterial inputs (plans, know-how) in order to make something for consumption (the output). It is the act of creating an output, a good or service which has value and contributes to the utility of individuals. Economic well-being is created in a production process, meaning all economic activities that aim directly or indirectly to satisfy human wants and needs.

175. Which group of individuals working together to achieve one or more objectives and co-ordinates the process of production?

- (a) Advertisement (b) Organization
(c) Money (d) None of the above

Correct Choice: (b)

Solution:

An 'organisation' is a group of individuals working together to achieve one or more objectives. Although organisations have been defined differently by different theorists, virtually all definitions refer to five common features: they are composed of individuals and groups of individuals. There are three main types of business organizations: sole proprietorship, partnership and corporation. A sole proprietorship is a business owned by one person. Nature Of Organization Formal & Informal Organization: Formal organization characterized by intentional structure of Roles & Responsibilities coordinated towards achievement of common goals. Informal organization is characterized by group of people within the organization having common values, interests & desires.

176. 20 men can cut 8 trees in 16 days. In how many days can 16 men cut 10 trees?

- (a) 15 (b) 20
(c) 25 (d) 30

Correct Choice: (c)

Solution:

$$W1 = 8$$

$$W2 = 20$$

$$M1 = 10$$

$$M2 = 16$$

$$D1 = 16$$

$$D2 = ?$$

Using formula,

$$\frac{W1}{W2} = \frac{M1}{M2} \times \frac{D1}{D2}$$

$$\frac{8}{20} = \frac{10}{16} \times \frac{16}{D2}$$

$$8D2 = 200$$

$$\frac{200}{8} = 25$$

177. Arun(A) can do a work in 10 days and Balu(B) in 15 days. If they work on it together for 4 days, then the fraction of the work that is left is:

- (a) $\frac{1}{5}$ (b) $\frac{1}{2}$
(c) $\frac{1}{3}$ (d) $\frac{1}{4}$

Correct Choice: (c)

Solution:

$$A's\ 1\ day's\ work = \frac{1}{10}$$

$$B's\ 1\ day's\ work = \frac{1}{15}$$

$$(A + B)'s\ 1\ day's\ work = \left[\frac{1}{10} + \frac{1}{15}\right] =$$

$$\frac{5}{30} =$$

$$\frac{1}{6} =$$

$$\frac{1}{6}$$

$$(A + B)'s\ 4\ day's\ work = \left[\frac{1}{6} \times 4\right] = \frac{2}{3} = \text{Therefore, Remaining work} = \left[1 - \left(\frac{2}{3}\right) = \frac{1}{3}\right]$$

178. A tank is filled in 8 hours by three pipes A, B and C. The pipe C is twice as fast as B and B is twice as fast as A. How much time will pipe A alone take to fill the tank?

- (a) 42 hrs. (b) 46 hrs.
(c) 52 hrs. (d) 56 hrs.

Correct Choice: (d)

Solution:

Suppose pipe A alone takes x hours to fill the tank.

Then, pipes B and C will take $\frac{x}{2}$ and $\frac{x}{4}$ hours respectively to fill the tank.

$$\frac{1}{x} + \frac{2}{x} + \frac{4}{x} = \frac{1}{8}$$

$$\frac{7}{x} = \frac{1}{8}$$

$$x = 56 \text{ hrs.}$$

179. One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the tank in 30 minutes, then the slower pipe alone will be able to fill the tank in:

(a) 105 min.

(b) 110 min.

(c) 115 min.

(d) 120 min.

Correct Choice: (d)

Solution:

Let the slower pipe alone fill the tank in x minutes.

Then, faster pipe will fill it in $\frac{x}{3}$ minutes = $\frac{1}{x} + \frac{3}{6} = \frac{1}{30}$

$$= \frac{4}{x} = \frac{1}{30}$$

$$x = 120 \text{ min.}$$

180. A sum of money is to be distributed among A, B, C, D in the proportion of 3 : 2 : 5 : 4. If C gets Rs. 1000 more than D, what is B's share?

(a) Rs. 500

(b) Rs. 1500

(c) Rs. 2000

(d) Rs. 2500

Correct Choice: (c)

Solution:

Let the shares of A, B, C and D be Rs. $5x$, Rs. $2x$, Rs. $4x$ and Rs. $3x$ respectively.

Then, $5x - 4x = 1000$

$$x = 1000.$$

$$\text{B's share} = \text{Rs. } 2x = \text{Rs. } (2 \times 1000) = \text{Rs. } 2000$$

181. Salaries of Ravi and Sumit are in the ratio 3 : 4. If the salary of each is increased by Rs. 6000, the new ratio becomes 40 : 57. What is Sumit's salary?

(a) Rs. 21,000

(b) Rs. 31,000

(c) Rs. 41,000

(d) Rs. 51,000

Correct Choice: (b)

Solution:

Let the original salaries of Ravi and Sumit be Rs. $3x$ and Rs. $4x$ respectively.

$$\text{Then } \frac{3x+6000}{4x+6000} = \frac{40}{57}$$

$$57(3x + 6000) = 40(4x + 6000) =$$

$$12x = 102000 =$$

$$3x = 25,000 =$$

$$\text{Sumit's present salary} = (3x + 6000) = \text{Rs. } (25,000 + 6000) = \text{Rs. } 31,000.$$

182. Look at this series: 37, 40, 38, 41, 39, 42, ... What number should come next?

(a) 40

(b) 31

(c) 42

(d) 43

Correct Choice: (a)

Solution:

This is a simple alternating addition and subtraction series. In the first pattern, 3 is added; in the second, 2 is subtracted.

183. Look at this series: 56, 54, 50, 48, 44, ... What number should come next?

(a) 40

(b) 42

(c) 44

(d) 48

Correct Choice: (b)

Solution:

This is an alternating number subtraction series. First, 2 is subtracted, then 4, then 2, and so on.

184. It was Sunday on Jan 1, 2010. What was the day of the week Jan 1, 2014?

(a) Thursday

(b) Friday

(c) Saturday

(d) Sunday

Correct Choice: (b)

Solution:

On 31st December, 2009 it was Saturday.

Number of odd days from the year 2010 to the year 2013 = $(1 + 1 + 2 + 1) = 5$ days.

On 31st December 2013, it was Thursday.

Thus, on 1st Jan, 2014 it is Friday.

185. Today is Friday. After 61 days, it will be:

(a) Saturday

(b) Sunday

(c) Wednesday

(d) Thursday

Correct Choice: (c)

Solution:

Each day of the week is repeated after 7 days.

So, after 63 days, it will be Friday.

After 61 days, it will be Wednesday.

186. Which of the following options is fifth to the left of the 10th letter from the left in a forward series of the alphabet?

(a) G

(b) F

(c) E

(d) H

Correct Choice: (b)

Solution:

A B C D E F G H I J . Here J is the tenth letter in the series, now from the tenth letter we need to go five letters to the left again which will be: J I H G F. Hence F is the correct answer which is number 2 in the option.

187. If the name of a game is formed by rearranging the letters of the word "RPCFEET", then what will be the first and the last letter of the name?

(a) PE

(b) CT

(c) PT

(d) ET

Correct Choice: (c)

Solution:

Here the name of the game that will be formed is Perfect. And its first and last letters are P and T. Thus option (3) is the correct answer.

188. An accurate clock shows 10 o'clock in the morning. Through how many degrees will the hour hand rotate when the clock shows 2 o'clock in the afternoon?

(a) 144°

(b) 144°

(c) 204°

(d) 240°

Correct Choice: (d)

Solution:

Angle traced by the hour hand in 8 hours = $\left[\frac{360}{12} \times 8\right] = 240^\circ$

189. How many times do the hands of a clock coincide in a 12hrs?

(a) 10

(b) 11

(c) 12

(d) 13

Correct Choice: (b)

Solution:

The hands of a clock coincide 11 times in every 12 hours (Since between 11 and 1, they coincide only once, i.e., at 12 o'clock).

190. In certain code 'FISH' is written as GRHE. How is 'LION' written in that code?

(a) KMHN

(b) MKNH

(c) MNHK

(d) KMNH

Correct Choice: (c)

Solution:

Explanation: Reverse the word and move each letter -1 . Reverse of FISH is HSIF subtract 1 from each letter of HSIF. So code of FISH become GRHE. LION is NOIL subtract 1 from each letter of NOIL become MNHK

191. In a certain code 'ONLINE' is written as 'OLNNIE'. How is 'BOTTLE' written in that code?

(a) ETOLTB

(b) TBOLTE

(c) BTOLTE

(d) BTLOTE

Correct Choice: (c)

Solution:

First and last letter remain same. The others interchange their positions in pair of two. So, OT become TO TL become LT so code of BOTTLE will be BTOLTE

192. Find out the odd one out

(a) kid

(b) kit

(c) foal

(d) Coop

Correct Choice: (d)

Solution:

Coop is called hen home. Except all are animal young ones

193. Find the odd one out

(a) Bray

(b) Mule

(c) Neigh

(d) Chirp

Correct Choice: (b)

Solution:

Mule is the young one of Donkey. Except 3 are animals roaring sound.

194. If the sides of a triangle are 24 cm, 22 cm and 10 cm, what is its area?

(a) $60cm^2$

(b) $80cm^2$

(c) $100cm^2$

(d) $110cm^2$

Correct Choice: (d)

Solution:

The triangle with sides 24 cm, 22 cm and 10 cm is right angled, where the hypotenuse is 24 cm.

Area of the triangle = $\frac{1}{2} \times 22 \times 10 = 110cm^2$

195. The perimeter of a triangle is 38cm and the inradius of the triangle is 2.5 cm. What is the area of the triangle?

(a) $40cm^2$

(b) $50cm^2$

(c) $60cm^2$

(d) $70cm^2$

Correct Choice: (c)

Solution:

Area of a triangle = $r s$

Where r is the inradius and s is the semi perimeter of the triangle.

Area of triangle = $2.5 \times 24 = 60cm^2$

196. (Direction, Q.No.21-25) The following pie-chart shows the percentage distribution of the expenditure incurred in publishing a book. Study the pie-chart and the answer the questions based on it.

Various Expenditures (in percentage) Incurred in Publishing a Book

Solution:

For the publisher to earn a profit of 25%, S.P. = 125% of C.P.

Also Transportation Cost = 12% of C.P.

Let the S.P. of 5500 books be Rs. x.

Then, $12 : 125 = 82500 : x \Rightarrow x = \text{Rs. } \frac{(125 \times 82500)}{12} = \text{Rs. } 859375$

Therefore S.P. of one book = $\text{Rs. } \frac{859375}{5500} = \text{Rs. } 156.25$

200. Royalty on the book is less than the printing cost by:

(a) 10%

(b) 11%

(c) 12%

(d) 13%

Correct Choice: (b)

Solution:

Printing Cost of book = 18% of C.P.

Royalty on book = 16% of C.P.

Difference = (18% of C.P.) - (16% of C.P.) = 2% of C.P.

Therefore Percentage difference = $\left(\frac{\text{Difference}}{\text{PrintingCost}} \right) \times 100\% =$

$\left[\left(\frac{2}{18} \right) \times 100\% \right] = 11.11\% \text{ (approximately)}$