

Antonyms

Directions (Q. 1-20) : Each of the following 20 items consists of a word in capital letters, followed by four words. Select the word that is farthest in meaning to the word in capital letters.

1. **ESTEEM**
(a) Power (b) Guess
(c) Contempt (d) Estimate
2. **SPURIOUS**
(a) Sumptuous (b) Relevant
(c) Sporadic (d) Genuine
3. **CONVICTED**
(a) Charged (b) Relieved
(c) Dismissed (d) Acquitted
4. **INTIMIDATING**
(a) Authoritative (b) Casual
(c) Non-serious (d) Friendly
5. **FRUGAL**
(a) stingy (b) Extravagant
(c) Timid (d) Frightening
6. **ZENITH**
(a) Under (b) Nadir
(c) Root (d) Base
7. **LUCRATIVE**
(a) Advantageous (b) Economical
(c) Unprofitable (d) Gainful
8. **UNPRECEDENTED**
(a) Exceptional (b) Consistent
(c) Abnormal (d) Usual
9. **PENURY**
(a) Wealth (b) Abundance
(c) Prosperity (d) Surplus
10. **PRUDENCE**
(a) Absurdity (b) Desperation
(c) Detriment (d) Recklessness
11. **OBSCURE**
(a) Clear (b) Dogged
(c) Decent (d) Sensible
12. **REPELLENT**
(a) Troublesome (b) Attractive
(c) Tiring (d) Hostile
13. **DEFUSE**
(a) Control (b) Understand
(c) Aggravate (d) Decelerate
14. **BAFFLING**
(a) Simple (b) Puzzling
(c) Difficult (d) Worrying

15. **AMIALE**
(a) Unkind (b) Inhospitable
(c) Unapproachable (d) Unfriendly
16. **INGENIOUS**
(a) Uneducated (b) Uninventive
(c) Unintelligent (d) Untrained
17. **PLAUSIBLE**
(a) Unacceptable (b) Incredible
(c) Unlikely (d) Untrue
18. **GENEROUS**
(a) Cruel (b) Stupid
(c) Ignorant (d) Mean
19. **SLUGGISH**
(a) Aggressive (b) Optimistic
(c) Vigorous (d) Budding
20. **RUTHLESS**
(a) Kind (b) Soft
(c) Forgetful (d) Tender

Spotting Errors

Directions (Q. 21-38) :

- (i) In this Section a number of sentences, are given. The sentences are underlined in three separate parts and each one is labelled (a), (b) and (c); Read each sentence to find out whether there is an error in any underlined part. No sentence has more than one error. When you find an error in any one of the underlined parts (a), (b) or (c), indicate your response on the separate Answer Sheet at the appropriate space. You may feel that there is no error in a sentence. In that case letter (d) will signify a 'No error' response.
- (ii) You are to indicate only one response for each item in your Answer Sheet. (If you indicate more than one response, your answer will be considered wrong.) Errors may be in grammar, word usage or idioms. There may be a word missing or there may be a word which should be removed.
- (iii) You are not required to correct the error. You are required only to indicate your response on the Answer Sheet.

Example 'P' and 'Q' have been solved for you.

P. The young child singed a very sweet song.
(a) (b) (c)

No error
(d)

Q. We worked very hard throughout the season.
(a) (b) (c)

No error
(d)

Explanation

In item P, the word 'singed' is wrong. The letter under this part is (b) ; so (b) is the correct answer. Similarly, for item Q, (d) is the correct answer, as the sentence does not contain any error.

21. Neither of them are going to attend
(a) (b)
the party on 10th October. No error
(c) (d)
22. I have not seen him since twenty years
(a)
and so I cannot say with certainty
(b)
whether he is alive or de No error
(c) (d)
23. He walked five- miles which are really a great distance
(a)
for a man like him who is not only old but also ill.
(b) (c)
No error
(d)
24. The student requested the teacher
(a)
to explain him the theory of relativity
(b)
with some examples which he could understand easily.
(c)
No error
(d)
25. When he did not find his cook in the kitchen
(a)
he asked his wife where had he gone,
(b) (c)
No error
(d)
26. We are proud to announce
(a)
that every one on our team has earned
(b)
a good name No error
(c) (d)
27. Either my colleague or a peon are coming home
(a) (b)
with the material today No error
(c) (d)
28. Never I asked my Englishman a how much he earned
(a) (b) (c)
No error
(d)
29. The Vice-Chancellor of our university urged to
(a)
the agitating students to shun violence
(b)
and maintain peace on the campus No error
(c) (d)
30. When her son got a job she was
(a) (b)
besides herself with joy No error
(c) (d)

31. Here is the man whom I think
(a) (b)
committed the crime. No error
(c) (d)
32. We have studied the two specimens carefully
(a)
X differs to Y in only one respect. No error
(b) (c) (d)
33. Bread and butter is all we want. No error
(a) (b) (c) (d)
34. What are their reasons
(a) (b)
to say it. No error
(c) (d)
35. He took his younger sister with himself. No error
(a) (b) (c) (d)
36. Can you cite any precedent in support of the case ?
(a) (b) (c)
No error
(d)
37. We must work very hard now to making up for the lost time
(a) (b) (c)
No error
(d)
38. Right from his childhood he used to prefer
(a) (b)
sports than studies No error
(c) (d)

Ordering of Words In A Sentence

Directions (Q. 39-56) : In the following items, some parts of the sentence have been jumbled up. You are required to re-arrange these parts which are labelled P, Q, R and S to produce the correct sentence. Choose the proper sequence and mark in your Answer Sheet accordingly.

Example 'Z' has been solved for you.

- Z. It is well-known that
the effect is very bad on children of cinema
(P) (Q) (R) (S)

The correct sequence should be

- (a) P-S-R-Q (b) S-P-Q-R
(c) S-R-P-Q (d) Q-S-R-P

Explanation

The proper way of writing the sentence is "It is well-known that the effect of cinema on children is very bad". This is indicated by the sequence P-S-R-Q and so (a) is the correct answer.

39. no conclusive evidence the enquiry committee found
(P) (Q)
to the airplane of a thermal shock
(R) (S)
The correct sequence should be
(a) R-Q-P-S (b) Q-P-S-R
(c) R-P-S-Q (d) R-P-Q-S
40. For thirty years
with slave-like docility of her tribe
(P) (Q)
his wife had submitted to his persecution
(R)

that is the badge
(S)

The correct sequence should be

- (a) R-Q-P-S (b) P-R-Q-S
(c) R-P-S-Q (d) R-P-Q-S

41. I came finally and saw an article
(P) (Q)

to the editorial page dealing with Pandit Nehru
(R) (S)

The correct sequence should be

- (a) Q-R-P-S (b) P-R-Q-S
(c) S-Q-R-P (d) P-R-S-Q

42. Although many institutions
these can have have tried to organise
(P) (Q)

remedial programmes for the weaker students,
(R)

only a peripheral impact
(S)

The correct sequence should be

- (a) P-Q-R-S (b) Q-R-P-S
(c) S-R-P-Q (d) P-R-Q-S

43. Our society to-day
that people have lost their frankness is so fragmented
(P) (Q)

and the art of conversation
(R)

'seems to be disappearing fast
(S)

The correct sequence should be

- (a) Q-P-R-S (b) P-Q-S-R
(c) Q-S-P-R (d) R-S-P-Q

44. Even today
many superstitions exist by a great many people
(P) (Q)

and are believed in among the most civilized nations
(R) (S)

The correct sequence should be

- (a) S-P-R-Q (b) P-S-Q-R
(d) S-Q-P-R (d) Q-P-R-S

45. The eyes of seeing persons
to the routine of their surroundings
(P)

and they actually see soon become accustomed
(Q) (R)

only the startling and spectacular
(S)

The correct sequence should be

- (a) P-Q-S-R (b) P-R-S-Q
(c) R-P-Q-S (d) Q-P-S-R

46. Though he was a man
when there was no choice who held all life sacred,
(P) (Q)

he did not hesitate to kill and loved all forms of life
(R) (S)

The correct sequence should be

- (a) R-P-Q-S (b) P-S-Q-R
(c) Q-S-R-P (d) S-Q-P-R

47. For a moment that I am terribly old since I was a child
(P) (Q)

and that it is very long time ago I forget
(R) (S)

- (a) Q-P-R-S (b) P-S-R-Q
(c) R-P-Q-S (d) S-P-R-Q

48. from behind a curtain he held it in such a manner
(P) (Q)

bringing the light that it fell slantwise on her face
(Q) (S)

The correct sequence should be

- (a) S-Q-R-P (b) R-P-Q-S
(c) S-P-Q-R (d) S-R-P-Q

49. The man had been a sportsman
(P)

and received many prizes
(Q)

throughout his educational career
(R)

and medals in competitions
(S)

The correct sequence should be

- (a) P-Q-R-S (b) Q-P-R-S
(c) S-P-Q-R (d) P-R-Q-S

50. He was passing when he heard by a hut
(P) (Q)

the cries of a child and went in.
(R) (S)

The correct sequence should be

- (a) P-Q-R-S (c) Q-P-R-S
(c) P-R-Q-S (d) S-P-Q-R

51. Only if we worked hard the teacher warned us
(P) (Q)

that we would pass the test for at least eight hours a day
(R) (S)

The correct sequence should be

- (a) Q-R-P-S (b) Q-P-R-S
(c) P-S-R-Q (d) S-Q-P-R

52. There is among the great powers no agreement
(P) (Q)

to ban nuclear weapons, on a treaty.
(R) (S)

The correct sequence should be

- (a) R-S-Q-P (b) S-R-P-Q
(c) Q-P-S-R (d) R-P-Q-S

53. According to one theory have descended from
(P)

all land animals organisms of the sea including man
(Q) (R) (S)

The correct sequence should be

- (a) S-P-Q-R
(b) Q-S P-R
(c) S-Q-P-R
(d) R-P-Q-S

54. The judge when he was presented in court
(P)

sentenced the prisoner to life imprisonment
(Q)

by the police on a charge of murder
(R) (S)

The correct sequence should be

- (a) P-R-S-Q (b) S-R-P-Q
(c) Q-P-R-S (4) Q-R-S-P

55. The problems of working wives are different

(P)

they have to look after

(Q)

from those of housewives because

(R)

their family as well as their jobs

(S)

The correct sequence should be

(a) P-S-R-Q

(b) P-R-Q-S

(c) Q-P-R-S

(d) P-R-S-Q

56. as the marketing and distribution of drugs

(P)

to eradicated the menace of drug addiction

(Q)

it has become increasingly problematic

(R)

generates huge illegal profits

(S)

The correct sequence should be

(a) R-Q-P-S

(b) P-S-Q-R

(c) P-R-Q-S

(d) P-S-R-Q

Comprehension

Directions (Q. 57-81) : In this Section you have Eight short passages. After each passage, you will find several questions based on the passage. First, read a passage, and then answer the questions based on it. You are required to select your answers based on the contents of the passage and opinion of the author only. Examples I and 'J' are solved for you.

Passage

In our approach to life, be it pragmatic or otherwise, a basic fact that confronts us squarely and unmistakably is the desire for peace, security and happiness. Different forms of life at different levels of existence make up the teeming denizens of this earth of ours. And, no matter whether they belong to the higher groups such as human beings or to the lower groups such as animals, all beings primarily seek peace, comfort and security. Life is as dear to a mute creature as it is to a man. Even the lowliest insect strives for protection against dangers that threaten its life. Just as each one of us wants to live and not to die, so do all other creatures.

- I. The author's main point is that
- different forms of life are found on earth
 - different levels of existence are possible in nature
 - peace and security are the chief goals, of all living beings.
 - even the weakest creature struggles to preserve its life.
- J. Which one of the following assumptions or steps is essential in developing the author's position ?
- All forms of life have a single overriding goal
 - The will to survive of a creature is identified with a desire for Peace
 - All beings are divided into higher and lower groups
 - a parallel is drawn between happiness and life and pain and death

Explanation

- The idea which represents the author's main point is "peace and security are the chief goals of all living beings", which is response (c). So (c) is the correct answer.
- The best assumption underlying the passage is "The will to survive of a creature is identified with a desire for peace" which is response (b). So (b) is the correct answer.

Passage I

Popular illusions about birds extend further than the use of the word 'egg-shape' that would suggest that all eggs are alike. For instance, there is the popular idea that owls hoot. Actually, only very few owls hoot and these include the common brown or tawny wood owl. The white barn owl screeches; the little owl has a wailing cry; the long-eared owl barks; and the short-eared owl snorts ! Another mistaken idea is that all ducks 'quack', because the common farmyard duck is a domesticated form of the common wild duck or mallard that quacks. Actually most wild ducks call with whistles.

57. The main purpose of this passage is
- to describe the life of popular birds.
 - to show our incorrect ideas of bird life.
 - to show our perfect knowledge about birds.
 - to describe the calls of owls and ducks.
58. The impression created by repeating the terms, 'popular' and 'common' are
- human beings are closely attached to birds.
 - our ideas about birds are derived from the most common types.
 - owls and ducks are our favourite birds.
 - domesticated birds are our source of information about the bird world.
59. The common duck is not a separate species but a tamed version of wild variety because it
- whistles like most wild ducks.
 - grunts like the tufted duck.
 - has the same call as other ducks.
 - 'quacks' like the mallard.

Passage II

"What is sixteen and three multiplied ?" asked the teacher. The boy blinked. The teacher persisted, and the boy promptly answered : "twenty-four", with, as it seemed to the teacher, a wicked smile on his lips. The boy evidently was trying to fool him and was going contrary on purpose. He had corrected this error repeatedly, and now the boy persisted in saying "twenty-four". How could this fellow be made to obtain fifty in the class test and go up by double-promotion to the first form, as his parents fondly hoped ? At the mention of "twenty-four" the teacher felt all his blood rushing to his head. He controlled himself, and asked again : "How Much ?" as a last chance. When the boy said the same thing obstinately, he felt as if his finger was releasing the trigger : he reached across the table, and delivered a wholesome slap on the youngster's cheek.

60. The-boy answered the question
- with fear and anxiety.
 - with the intention to fail in the class test.
 - to make some fun in the class.
 - when the teacher persisted in asking.

61. The teacher felt blood rushing to his head because
 (a) there was an arrogant smile on the boy's lips.
 (b) he thought the boy was hopelessly dull.
 (c) he thought the boy made the mistake deliberately.
 (d) the boy gave a wrong answer to such a simple question.
62. The teacher controlled his anger because
 (a) he "remembered the fond hopes of boy's parents.
 (b) he wanted to give another opportunity to the boy.
 (c) the boy was too young to pick up mathematics fast.
 (d) he believed that the boy must be taught the lesson again.

Passage III

I was at the shop early. He was standing behind the counter and as soon as I saw him, I knew that there would be some unpleasantness. Higson is never at his best unshaven, in slippers and braces and smoking on the empty stomach. The atmosphere of the little shop was heavy with the bitter odour of fresh newspaper print and ink; stacks of crisp newspapers and magazines lay neatly on the counter, and Higson and the boy were making up the daily mend.

63. At the shop Mr. Higson appeared in
 (a) his joy of smoking.
 (b) his most slipshod condition.
 (c) the most unusual condition.
 (d) in a strange mood.
64. The overall atmosphere in the shop was
 (a) pleasant, wholesome and welcome.
 (b) heavy with a lot of goods placed there.
 (c) with the inactivity of the early morning.
 (d) congenial and businesslike.

Passage IV

A village must have some trade; and this village has always been full of virility and power. Obscure and happy, its splendid energies had found employment in wresting a livelihood out of the earth, whence had come a certain dignity, and kindness, and love for other men. Civilization did not relax these energies, but it had diverted them; and all the special qualities, which might have helped to heal the world, had been destroyed. The family affection, the affection for the commune, the sane pastoral virtues - all had perished. No villain had done this thing: it was the work of ladies and gentlemen who were rich and often clever.

65. Village life is praised by the author because it
 (a) helps villagers to achieve material prosperity.
 (b) makes men complacent
 (c) breeds humane virtues.
 (d) is free from the din and hurry of city life.
66. Civilization mainly destroys
 (a) the ability to create employment.
 (b) family affection and pastoral virtues.
 (c) medical facilities for the rural people.
 (d) agricultural trade.
67. The tone used by the author in the last sentence of the passage is
 (a) Lamenting
 (b) Sarcastic
 (c) Complimentary
 (d) Ironic

Passage V

The art of growing old is one which the passage of time has forced upon my attention. Psychologically there are two dangers to be guarded against in old age. One of these is undue absorption in the past. It does not do to live in memories, in regrets for the good old days. One's thoughts must be directed to the future. This is not always easy; one's past is a gradually increasing weight. The other thing to be avoided is clinging to youth on the hope of sucking vigour from its vitality.

68. "By the art of growing old", the author means
 (a) some special skill by applying which one can grow old.
 (b) that growing old is like creating a work of art.
 (c) the acceptance of old age as a fact of life.
 (d) the refusal on one's part to grow old.
69. The passage deals with the process of growing old. What does it describe?
 (a) The decay of the senses in old age
 (b) The psychological problems of old men
 (c) The desire in man to grow old
 (d) An old man's ability to recollect his past
70. "It does not do to live in memories. This statement means that
 (a) the past is not contained in memories.
 (b) the old men are very forgetful.
 (c) old men often think of the past.
 (d) thinking of the past does no good to old men.
71. It is difficult for old men to think of the future because
 (a) they are unable to think.
 (b) they do not know what the future is like.
 (c) the past occupies their minds.
 (d) their feeling that the past was far more happier than the present grows stronger day by day.

Passage VI

It was Galileo and Newton—notwithstanding that Newton himself was a deeply religious man—who destroyed the old comfortable picture of a friendly universe governed by spiritual values. And this was effected, not by Newton's discovery of the law of gravitation nor by any of Galileo's brilliant investigations, but by the general picture of the world which these men and others of their time made the basis of the science, not only of their own day, but of all succeeding generations down to the present. That is why the century immediately following Newton, the eighteenth century, was notoriously an age of religious skepticism. Skepticism did not have to wait for the discoveries of Darwin and the geologists in the nineteenth century. It flooded the world immediately after the age of the rise of science.

72. 'The old comfortable picture of a friendly universe' was
 (a) a universe governed by religious beliefs
 (b) a universe with men like Newton who were deeply religious
 (c) a universe investigated by Galileo and Newton
 (d) the century immediately following Newton
73. Religious skepticism arose because
 (a) Galileo and Newton were not religious, being scientists
 (b) Newton discovered the law of gravitation
 (c) of the discoveries of Darwin and the geologists of the nineteenth century
 (d) of the picture of the world that became the basis of science after the seventeenth century

Passage VII

Although Louis Braille died when he was only forty-three years old, he succeeded in devising a system of reading and writing for the blind which is now taught all over the world. Braille lost his sight accidentally as a child. Nevertheless, he was able to complete his education at a school for the blind in Paris and became a teacher. In his day, the few books that were available for blind people were printed in big, raised type; the letters used were those of the ordinary alphabet. The reading of such books required immense effort. Not only that, writing was almost impossible, for a blind person was still restricted to an alphabet which was extraordinarily difficult to reproduce on paper. Braille's idea was to use raised dots, instead of raised letters. He evolved a system, which made use of only six dots in all. By various combinations of these dots, it not only proved possible to represent each letter in the alphabet, but punctuation marks, numbers and musical notation as well. Reading and writing for the blind have thus become enormously simplified. The sensitive fingers of a blind person can travel rapidly over the dots; and there is a small machine, something like a typewriter, which enables the blind to write quickly and clearly.

74. Louis Braille
- (a) was born blind.
 - (b) lost his sight when he was a child.
 - (c) lost his sight accidentally when he was forty-three years old.
 - (d) was not blind, but studied at a school for the blind.
75. Before Braille's invention, the blind had difficulty in reading because
- (a) there were only printed books.
 - (b) there were no schools for the blind'.
 - (c) the few books available used the raised letters of the ordinary alphabet.
 - (d) the books meant for the blind were heavy'.
76. Braille's system uses
- (a) only six dots.
 - (b) number's and musical notation.
 - (c) ordinary alphabets in big raised type.
 - (d) a combination of alphabet and punctuation.
77. Braille's system allows the blind
- (a) to write with ease.
 - (b) to read easily.
 - (c) to read as well as write with ease.
 - (d) to read easily but to write with great effort.

Passage VIII

The Indian culture of our times is in the making. Many of us are striving to produce a blend of all cultures that seem today to be in clash with one another. No culture can live, if it attempts to be exclusive. There is no such thing as pure Aryan culture in existence in India today. Whether the Aryans were indigenous to India or were unwelcome intruders, does not interest me much. What does interest me is the fact that my remote ancestors blended with one another with the utmost freedom and we of the present generation are a result of that blend. I do not want my house to be walled in, on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my house as freely as possible. But I refuse to be blown off my feet by any. I would have any young men and women with literary tastes to learn as much of English and other

world-languages as they like, and then expect them to give the benefits of their learning to India and the world alike like a Bose, a Ray or Tagor. But I would not have a single Indian forget, neglect or be ashamed of his mother tongue, or feel that he or she cannot think or express the best thoughts in his or her own vernacular. Mine is not a religion of the prison house.

78. The author views Indian Culture as
- (a) pure Aryan culture.
 - (b) a clash of cultures.
 - (c) a continual blend of cultures.
 - (d) the culture of remote ancestors.
79. The author thinks that
- (a) the Aryans were indigenous to India.
 - (b) the Aryans were unwelcome intruders.
 - (c) the question whether the Aryans were indigenous or not is not of interest.
 - (d) the culture that we have inherited is the Aryan culture.
80. The author wants
- (a) the cultures of others to be kept out.
 - (b) the cultures of others to replace our old culture.
 - (c) the freedom to blend other cultures with our own.
 - (d) the preservation of the culture of our ancestors.
81. The author wants Indians to
- (a) learn only English, as much as they like.
 - (b) learn English and other world languages
 - (c) learn only the mother tongue or the vernacular
 - (d) English and other world languages in addition to the mother tongue.

Synonyms

Directions (Q. 82-101) : Each of the following items consists of a word in capital letters, followed by four words or group of words. Select the word or group of words that is most *similar* in meaning to the word in capital letters.

82. MAGNIFICENT
- (a) Magnanimous
 - (b) Graceful
 - (c) Magical
 - (d) Splendid
83. CORROBORATE
- (a) Reward
 - (b) Confirm
 - (c) Correct
 - (d) Contradict
84. ELUCIDATE
- (a) "Describe
 - (b) Annotate
 - (c) Explain
 - (d) Complicate
85. APPREHENSION
- (a) Alertness
 - (b) Anticipation
 - (c) Anxiety
 - (d) Doubt
86. DIFFIDENT
- (a) Bold
 - (b) Disobedient
 - (c) Hesitant
 - (d) Improper
87. DIGRESS
- (a) Deviate
 - (b) Come back
 - (c) Remove
 - (d) Slow down
88. CONTENDING
- (a) Competing
 - (b) Antagonizing
 - (c) Fighting
 - (d) Warning
89. ACCOLADE
- (a) Wish
 - (b) Congratulate
 - (c) Comment
 - (d) Award
90. SALUBRIOUS
- (a) Convenient
 - (b) Warm
 - (c) Healthy
 - (d) Chilly

91. RESTIVE
(a) Impatient
(c) Lonely
92. PREPOSTEROUS
(a) Incredible
(c) Astonishing
93. PERSUASIVE
(a) Passionate
(c) Influential
94. ALLEVIATE
(a) Aggravate
(c) Maintain
95. FURTIVELY
(a) Quietly
(c) Delicately
96. DISPARITY
(a) Enmity
(c) Diversity
97. RECTIFY
(a) Undo
(c) Direct
98. ABSURD
(a) Feeble
(c) Devious
99. LURID
(a) Exaggerated and intentional
(b) Extravagant and silly
(c) Unreasonable and malicious
(d) Shocking and violent
100. STEADFAST
(a) Fixed
(c) Tactful
101. KINDLE.
(a) Show kindness
(c) Helpful
- (b) Inactive
(d) Peaceful
- (b) Outrageous
(d) Exorbitant
- (b) Impressive
(d) Convincing
- (b) Amend
(d) Mitigate
- (b) Stealthily
(d) Haphazardly
- (b) Inequality
(d) Segregation
- (b) Record
(d) Correct
- (b) Childish
(d) Foolish

Ordering of Sentences

Directions (Q. 102-120) : In the following items, each passage consists of six sentence. The first sentence (S_1) and the final sentence (S_6) are given in the beginning. The middle four sentences in each have been removed and jumbled up. These are labelled P, Q, R and S. You are required to find out the proper sequence of the four sentences and mark accordingly on the Answer Sheet. Example 'X' has been solved for you.

- X. S_1 : There was a boy named Jack.
 S_6 : At last she turned him out of the house.
 S_p : So, the mother asked him to find work.
 Q : They were very poor.
 R : He lived with his mother.
 S : But Jack refused to work.
 The proper sequence should be

- (a) R Q P S
 (b) P Q R S
 (c) Q P R S
 (d) R P S Q

Explanation

The correct sequence in this example is R Q P S which is marked by (a). Therefore, (a) is the correct answer.

102. S_1 : Long long ago there lived a king who was crude and very much like a savage.
 S_6 : Or at least he tried to.
 P : He was a man of great fancies and even greater enthusiasm.
 Q : Because he had so much authority as a king, he was able to force some of these fancies into reality.
 R : He had none of the grace and polish of his neighbours.
 S : He had learned some manners from 'his. Latin neighbours, but mostly he was barbaric, loud and gruff.

The proper sequence should be

- (a) R S P Q
 (b) S Q P R
 (c) R P Q S
 (d) P R Q S

103. S_1 : Our age is the age of the specialist.
 S_6 : We have to reckon with the spirit of science, understand its limitations and an outlook which is consistent with its findings.
 P : Modern specialization had led to the fragmentation of knowledge.
 Q : Each one knows more and more about less and less.
 R : We should not only be specialists but also have a sense of the meaning of life and of social responsibility.
 S : We concentrate on some narrow field and forget the larger context in which we can see the meaning of our own specialization.

The proper sequence should be

- (a) P Q S R
 (b) Q P R S
 (c) S P Q R
 (d) Q S P R

104. S_1 : He went to his friends, but none of them was ready to help him now.
 S_6 : Now the Youngman understood that he had made a mistake.
 P : He had to look after the farmer's pigs.
 Q : And when he was hungry he ate the food which was given to the pigs.
 R : He went away from the city and wandered round the countryside looking for food to eat.
 S : In the end he went to the house of a farmer and became his servant.

The proper sequence should be

- (a) P S R Q
 (b) R S P Q
 (c) S Q P R
 (d) Q P S R

105. S_1 : Man, when first came, must have been surrounded by great animals and he must have lived in fear of them.
 S_6 : Gradually, however, man raised himself and became more and more powerful till he became stronger than any animal.
 P : He makes the animals do what he likes.
 Q : But in those days he was not the master but a poor hunted creature himself trying to keep away from the great animals.
 R : Today man is the master of the world.
 S : Same he tames, same he eats and same he shoots for pleasure.

The proper sequence should be

- (a) R Q P S
 (b) R S P Q
 (c) R P S Q
 (d) P Q S R

106. S_1 : Convention has a necessary part to play in the life of everyone.
 S_6 : Their purpose, however, is always the same.
P : It is necessary and useful for this reason.
Q : Of course, there is nothing absolute about conventions.
R : They vary from country to country, from age to age.
S : In all social affairs it prescribes more or less generally accepted rules of behaviour.

The proper sequence should be

- (a) S Q R P (b) P Q S R
(c) R P S Q (d) S P Q R

107. S_1 : No one can seriously pretend to remain unaffected by advertisement.
 S_6 : Though they seem so varied all these advertisements have one thing in common : they make strong appeals to our emotions.
P : Even in the sanctity of our living rooms advertisers pounce upon their helpless victims as they tune in to their favourite radio or television programmes.
Q : It is impossible to turn a blind eye to the solicitous overtures to buy this or that article that fill our streets, newspapers and magazines.
R : Most often they bank upon our sense of fear for not doing or possessing this or that for our youth, beauty, health and security.
S : No matter how hard we resist, clever little tunes and catch-phrases seep into our subconscious mind and stay there.

The proper 'sequence should be

- (a) P Q S R (b) Q R P S
(c) R P S Q (d) S Q P R

108. S_1 : A great part of Arabia is desert.
 S_6 : Such place is called an oasis.
P : The sand is so hot that you cannot walk over it with your bare feet in the day time.
Q : These springs are few and far apart, but wherever there is one, green grass very soon covers the ground all around it.
R : Here there is nothing but sand and rock.
S : Here and there in the desert are springs of water that come from deep down under the ground.

The proper sequence should be

- (a) P S R Q (b) R S Q P
(c) R P S Q (d) P Q S R

109. S_1 : Many things about Konark seem shrouded in mystery.
 S_6 : King Narasimha probably had it built as much as a memorial to himself as he did in honour of the Sun-God.
P : It is, of course, a religious shrine.
Q : But here there also seems to be a great emphasis on purely human grandeur.
R : Why was it built ?
S : Long before the temple was built, sometime in the 13th century, Konark was one of the five holiest places in Orissa.

The proper sequence should be

- (a) R P Q S (b) R P S Q
(c) S R P Q (d) S P Q R

110. S_1 : Most of you probably did not see Gandhiji at close quarters.

- S_6 : The result was that that poor man had to try to be good.
P : One of these qualities was that he managed to draw out the good in another person.
Q : But he somehow spotted the good and laid emphasis on that good.
R : He had amazing qualities.
S : The other person may have had plenty of evil in him.

The proper sequence should be

- (a) Q P S R (b) R P S Q
(c) P R Q S (d) Q S P R

111. S_1 : Everybody thinks that this is the Age of Reason.
 S_6 : Obviously we must reexamine the view that this is the age of Reason.
P : Reason takes a backseat at such times.
Q : The ordinary events of life seem to support this view.
R : We must therefore avoid the development of such situation.
S : But the behaviour of people in crises makes us doubt this.

Proper sequence should be

- (a) R Q P S (b) S R Q P
(c) P S R Q (d) Q S R P

112. S_1 : Our villages are not now as serene and peaceful as they had been twenty five years ago.
 S_6 : This often vitiates the traditional tranquility of the rural way of living.
P : The village people now seldom live under the overall command of any single powerful headman.
Q : Local political leaders mostly control and command them.
R : Party politics had entered into the peaceful villages forcing the villagers to live polarized political lives.
S : One dangerous consequence of this is that they are often dragged into clashes even with their own relations of different political belief.

The proper sequence should be

- (a) P R S Q (b) R P Q S
(c) Q P R S (d) P S R Q

113. S_1 : People think that poverty is a great curse and wealth is a source of happiness in life.
 S_6 : All great men were born poor.
P : A life of poverty gives more genuine satisfaction than a life passed in affluence which encourages dependence on others.
Q : This is untrue.
R : Poor people are free from the evils which surround the rich.
S : They have sympathy for one another and are more self-reliant.

The proper sequence should be

- (a) P S Q R (b) Q P R S
(c) S R Q P (d) R S P Q

114. S_1 : Before man settled down, his life was not governed by the seasons.
 S_6 : However, we do not know when man first began to divide the day into twenty-four hours, and the hour into sixty minutes.
P : So man began to measure time, and first he looked for convenient unit of measurement, one of which was the day.
Q : This was done by making a mark for each day on a tree trunk.

- R : Once he settled down to the agricultural way of life, he had to be able to calculate the change of seasons on which agriculture depended.
- S : In order to calculate the passing of time, it was necessary for man to record the number of days in each season.

The proper sequence should be

- (a) P Q R S
 (b) R P S Q
 (c) Q P S R
 (d) R S Q P

115. S₁ : Imitation is not civilization.
 S₆ : When a man has begun to be ashamed of his ancestors, the end has come.
 P : As ass in a lion's skin never makes a lion.
 Q : It is verily the sign of awful degradation in a man.
 R : Cowardly imitation never makes for progress.
 S : When a man has begun to hate himself, then the last blow has come.

The proper sequence should be

- (a) P Q R S
 (b) S P R Q
 (c) P R Q S
 (d) Q S R P

116. S₁ : Democracy, more than any other form of government, needs good citizenship.
 S₆ : That is not the instinct of the natural man; yet somehow that habit, has to be acquired.
 P : But it has to be freedom of service self-chosen and sometimes of sacrifice self-imposed.
 Q : Under absolutism or dictatorship, men are forced into line.
 R : Freedom is the essence of democracy : the more complete the democracy, the more complete the freedom.
 S : But in a democracy things are not so simple.

The proper sequence should be

- (a) S Q P R
 (b) R S Q P
 (c) P R Q S
 (d) Q S R P

117. S₁ : In 1668 an important discovery was made.
 S₆ : That was the beginning of the end of the theory of spontaneous generation of higher plants and animals.
 P : He put some rotting meat and fish in open jars and watched them.
 Q : When he covered the jars with muslin, he found that flies came and laid their eggs on the muslin, but not maggots developed on the meat.
 R : In time, he noticed that flies came and laid their eggs in the meat and the maggots hatched from the eggs.
 S : An Italian physician named Redi decided to test the idea that worms were generated spontaneously in rotting meat.

The proper sequence should be

- (a) P Q S R (b) S P R Q
 (c) S R P Q (d) R P Q S

118. S₁ : There is not sound more familiar in Calcutta than the clanking of its tramcars.
 S₆ : Their progress is regarded with the mixture of dread and embarrassment reserved for the approach of a cantankerous old aunt.
 P : For a growing body of opinion in the city, trams are a symbol of urban blight.
 Q : It is also an irritant.
 R : All day and late into the night the trundling roll of a tram has become a symbol, a portent.
 S : Slow, overcrowded and unwieldy, they are thought of as obstructionist and outmoded.

The proper sequence should be

- (a) R Q P S
 (b) R Q S P
 (c) Q S P R
 (d) P S R Q

119. S₁ : In England, yesterday, villagers were amazed to see a number of youths floating over a field.
 S₆ : The others, however, returned safely to earth by puncturing their umbrellas before they had risen very far.
 P : One boy let go his umbrella and landed on a cow from a height of about ten feet.
 Q : Luckily, there were not as many casualties as there might have been.
 R : Another ended up in a pond.
 S : The youths, it appeared, had inflated their fathers' umbrellas with hydrogen and as a result were borne skywards.

The proper sequence should be

- (a) Q S P R
 (b) P Q S R
 (c) S Q P R
 (d) P Q R S

120. S₁ : A recent survey reveals that Indian Engineers play an immensely significant role in the American software industry.
 S₆ : It is high time the leaders addressed themselves to this issue seriously.
 P : Not only this, the Indian Americans own almost 25% of the small information technology firms in the US.
 Q : And then, 28% of these hold a Ph. D.—the highest percentage among all ethnic groups involved in the software industry.
 R : Some dollars might be flowing back but the best of brains are surely being lost to the nation.
 S : What catches the attention at the very outset is the number—over a million Indians work in the American software industry.

The proper sequence should be

- (a) P Q S R (b) S Q P R
 (c) S Q R P (d) S P Q R

17. The light emitted by firefly is due to
 (a) a radioactive substance
 (b) chemiluminescence process
 (c) a photoelectric process
 (d) burning of phosphorus
18. Which of the following statements about the commonly used automobile battery are true?
 I. It is usually a lead-acid battery
 II. It has six cells with a potential of 2 volt each.
 III. Its cells work as Galvanic Cells while discharging power.
 IV. Its cells work as electrolytic cells while recharging
 Select the correct answer using the code given below :
 (a) I, II, III and IV (b) I, II and III
 (c) II and IV (d) III and IV
19. Which one of the following statement regarding potato is correct?
 (a) It is a root (b) It is a normal stem
 (c) It is a modified stem (d) It is a modified root
20. Match List I with List II and select the correct answer using the code given below the Lists
- | List I
(Mineral) | List II
(Major Source) |
|---------------------|---------------------------|
| A. Iron | 1. Banana, date |
| B. Potassium | 2. Polak |
| C. Iodine | 3. Iodized common salt |
| D. Calcium | 4. Milk, egg |
- Code :
 (a) 2 1 3 4
 (b) 2 3 1 4
 (c) 4 3 1 2
 (d) 4 1 3 2
21. Which among the following oils has the maximum protein content ?
 (a) Castor oil (b) Sunflower oil
 (c) Soyabean oil (d) Safflower oil
22. Quinine is a drug used in the treatment of malaria. From which part of the plant is it obtained?
 (a) Roots (b) Stem
 (c) Bark (d) Leaves
23. Which one of the following is not a feature of eutrophic lakes?
 (a) Blooms are frequent in eutrophic lakes
 (b) Plant nutrient flux is high
 (c) Primary productivity is low
 (d) Dominated by blue green algae
24. For which one among the following diseases no vaccine is yet available?
 (a) Tetanus (b) Malaria
 (c) Measles (d) Mumps
25. Which one of the following animals breathes through the skins?
 (a) Fish (b) Pigeon
 (c) Frog (d) Cockroach
26. Anthrax is a disease of humans and cattle with a potential for biological warfare. It is caused by
 (a) Bacterium (b) Virus
 (c) Protozoan (d) Fungus
27. Which one of the following is considered normal blood pressure in man?
 (a) 120/80 mm water (b) 120/80 mm blood
 (c) 120/80 mm mercury (d) 120/80 mm air
28. Anemia is a common health problem especially in women. Which one of the following deficiencies is most frequently responsible for anemia in India?
 (a) Calcium (b) Iron
 (c) Iodine (d) Zinc
29. Primary source of vitamin D for human beings is
 (a) Citrus fruits (b) Green Vegetables
 (c) Yeast (d) Sun
30. Match List I with List II and select the correct answer using the code given below the Lists
- | List I
(Agent of Transmission) | List II
(Disease Transmitted) |
|-----------------------------------|----------------------------------|
| A. <i>Anopheles</i> mosquito | 1. Kala azar |
| B. <i>Culex</i> mosquito | 2. Dengue |
| C. <i>Aedes</i> | 3. Malaria |
| D. Sandfly | 4. Filaria |
- Code :
 (a) 3 2 4 1
 (b) 1 4 2 3
 (c) 1 2 4 3
 (d) 3 4 2 1
31. Which of the following statements about Annie Besant are correct?
 I. She founded the Central Hindu College at Benares.
 II. She organized the Home Rule League.
 III. She introduced the Theosophical Movement in India
 Select the correct answer using the code given below
 (a) I, II and III (b) I and II
 (c) II and III (d) I and III
32. Which among the following was *not* one of the provisions of the 'Communal Award'?
 (a) Members of the depressed classes were assigned reserved seats and separates electorates
 (b) Separate electorates for the Muslims
 (c) Separate electorates for the Europeans and the Sikhs
 (d) The separate electorates were to lapse at the end of 10 years
33. Consider the following statements about Swami Vivekananda
 I. He said that Vedanta was the religion of all.
 II. He believed in reviving all the best traditions of Hinduism.
 III. He was impressed by the status of women in the West.
 Which of the statements given above are correct.
 (a) I, II and III (b) I and II
 (c) II and III (d) I and III
34. Which one of the following statements is not correct?
 (a) The National Association of Securities Dealers Automated Quotations known as NASDAQ, is an American stock exchange
 (b) Nikkei is the stock market index for the Tokyo Stock Exchange
 (c) S and P CNX Nifty is the index for 50 large companies on the Bombay Stock Exchange
 (d) Hang Seng Indexes record daily changes of the largest companies of the Hong Kong stock market

35. Consider the following statement about Wholesale Price Index (WPI)
- It captures the price movement extensively and is, therefore, taken as an indicator of inflation.
 - The office of the Economic Adviser (OEA) is entrusted with the function of compilation and publication of the weekly wholesale price index number in India.
- Which of the statements given above is/are correct?
- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II
36. Consider the following statements about Gross Domestic Product
- It is the market value of all final goods and services made within the borders of a nation in a year.
 - It is equal to the total expenditures for all final goods and services produced within the country in a stipulated period of time.
- Which of the statements given above is/are correct?
- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II
37. Consider the following statement with respect to the Comptroller and Auditor General of India
- He shall only be removed from office in like manner and on the like ground as a judge of the Supreme Court.
 - He shall not be eligible for further office either under the Government of India or under the Government of any State after he has ceased to hold his office.
- Which of the statements given above is/are correct?
- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II
38. Under which of the following conditions security deposits of a candidate contesting for a Lok Sabha seat is returned to him/her?
- The nomination made by the candidate is found to be invalid.
 - The candidate has withdrawn his/her nomination even though it is found valid.
 - The candidate lost the polls but secured 1/6th of the total number of valid votes polled in that election.
- Select the correct answer using the code given below
- (a) I and II (b) I, II and III
(c) II and III (d) I only
39. If the Prime Minister is a member of the Rajya Sabha
- He/she has to get elected to the Lok Sabha within six months
 - He/she can declare the government's policies only in the Rajya Sabha
 - He/she cannot take part in the voting when a vote of no confidence is under consideration
 - He/she cannot take part in the budget deliberation in the Lok Sabha
40. The function of a *Protem* Speaker is to
- conduct the proceedings of the House in the absence of the Speaker
 - officiate as Speaker when the Speaker is unlikely to be elected
 - swear members and hold charge till a regular Speaker is elected
 - scrutinize the authenticity of the election certificates of members
41. Which one of the following rights conferred by the constitution of India is also available to non-citizens?
- Freedom of speech, assembly and form association
 - Freedom to move, reside and settle in any part of the territory of India
 - Freedom to acquire property or to carry on any occupation trade or business
 - Right to constitutional remedies
42. Who among the following was elected President of India unopposed?
- Dr. Rajendra Prasad
 - Dr. S. Radhakrishnan
 - Dr. Neelam Sanjiva Reddy
 - K.R. Narayanan
43. Consider the following statement
- A person who was born on 26th January, 1951 in Rangoon, whose father was a citizen of India by birth at the time of his birth is deemed to be an Indian citizen by descent.
 - A person who was born on 1st July, 1988 in Itanagar, whose mother is a citizen of India at the time of his birth but the father was not, is deemed to be a citizen of India by birth.
- Which of the statements given above is/are correct?
- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II
44. Which one of the following Commissions is *not* provided in the Constitution of India?
- Planning Commission
 - U.P.S.C.
 - Finance Commission
 - Election Commission
45. Identify the correct sequence of passing a Budget in the Parliament
- Vote on Account—Finance Bill—Appropriation Bill—Discussion on Budget
 - Finance Bill—Appropriation Bill—Discussion on Budget—Vote on Accounts
 - Discussion on Budget—Vote on Account—Finance Bill—Appropriation Bill
 - Discussion on Budget—Appropriation Bill—Finance Bill—Vote on Account
46. Which one of the following statements about Brihadeswara Temple at Tanjavur, is *not* correct?
- The temple is a splendid example of Chola architecture
 - It was built by emperor Rajaraja
 - The temple is constructed of granite
 - The temple is a monument dedicated to Lord Vishnu
47. Consider the following statements in respect of protection of copyright in India
- Copyright is a legal right given to creators of literary, dramatic, musical and artistic works and producers of cinematograph films and sound recordings.
 - Copyright protects only the expression and not the ideas. There is no copyright in an idea.
- Which of the statements given above is/are correct?
- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II
48. Which one of the following statements with respect to India Air Force is *not* correct?
- Chetak is a single engine turboshaft helicopter of Russian origin
 - SU-30 is a twin engine fighter of Russian origin
 - Mirage-2000 is a multi-role fighter of French origin
 - MiG-29 is a twin engine fighter aircraft of Russian origin

49. Which one of the following statements regarding Bharat Ratna award is not correct?

- (a) The original specifications for the award called for a circular gold medal, 35 mm in diameter, with the sun and the Hindi legend "Bharat Ratna" above and a floral wreath below. The reverse was to carry the state emblem and motto.
- (b) The provision of Bharat Ratna was introduced in 1954
- (c) Bharat Ratna is awarded to Indian citizens only
- (d) The first ever Indian to receive this award was the famous scientist, Chandrasekhara Venkata Raman

50. Which one of the following statements with respect to Census 2001 is not correct?

- (a) Kerala occupies the top spot in the country both in male literacy rate and female literacy rate
- (b) Female literacy rate in Jharkhand is higher than that of Bihar
- (c) Density of population of Andaman and Nicobar Island is lowest in India
- (d) Uttar Pradesh ranked first in terms of percentage of state population to total population of India

51. Match List I with List II and select the correct answer using the code given below the Lists

List I (Military Academies in India)		List II (Location)	
A.	High Altitude warfare School	1.	Agra
B.	Counter Insurgency and Jungle Warfare School	2.	Gulmarg
C.	Paratrooper's Training School	3.	Vairengte
D.	Combat Army Aviation Training School	4.	Nashik Road

Code :

	A	B	C	D
(a)	2	3	1	4
(b)	2	1	3	4
(c)	4	1	3	2
(d)	4	3	1	2

52. Consider the following statements

- I. An inconvenient Truth is a documentary film about global warming directed by Al Gore.
- II. The film focuses on Al Gore and his travels in support of his efforts to educate the public about the severity of the climate crisis.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

53. Consider the following statements

- I. The Walker Cup is associated with Golf.
- II. The event is contested biennially in odd numbered years.
- III. The teams contesting the trophy comprising the leading amateur golfers of the United Kingdom and Great Britain and Ireland.

Which of the statements given above is/are correct?

- (a) I, II and III
- (b) I only
- (c) II and III only
- (d) I and III only

54. The headquarters of Western Air command of the Indian Air Force is located at

- (a) Jodhpur
- (b) Nagpur
- (c) New Delhi
- (d) Gandhi Nagar

55. Consider the following statements

- I. Nuclear winter is a term that describes the predicted climatic effects of nuclear war.
- II. A 2008 study published in the proceeding of the National Academy of Science, USA found that a nuclear weapons exchange between Pakistan and India using their current arsenals could create a near-global ozone hole, triggering human health problems and wreaking environmental havoc for at least a decade.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

56. Mixed economy means an economy where

- (a) both agriculture and industry are equally promoted by the state
- (b) there is co-existence of public sector along with private sector
- (c) there is importance of small scale industries along with heavy industries
- (d) economy is controlled by military as well as civilian rulers

57. Consider the following statements about Noble Prize

- I. It is never awarded posthumously.
- II. Nobel Prize in Economic is given since 1901.

Which of the statements given above is/are correct?

- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

58. What is the common first digit of the number of the Superfast and Shatabdi trains regardless of zones presently running in India?

- (a) 0
- (b) 1
- (c) 2
- (d) 3

59. Which one of the following statements regarding the Association of South East Asian National (ASEAN) is not correct?

- (a) ASEAN was established in the year 1967 in Bangkok by the five original Member Countries
- (b) Singapore is one of the original members of ASEAN
- (c) Indian is a sectoral dialogue partner of ASEAN
- (d) There are ten members of ASEAN

60. Consider the following statements

- I. Jim Corbett National Park is the oldest National Park of India.
- II. It was one of the nine Tiger Reserves created at the launch of the Project Tiger in 1973.
- III. Initially it was named as 'Hailey National Park'.

Which of the statements given above are correct?

- (a) I and II
- (b) I, II and III
- (c) II and III
- (d) I and III

61. Which one of the following states does *not* have Vidhan Parishad ?

- (a) Bihar
- (b) Maharashtra
- (c) Tamil Nadu
- (d) Uttar Pradesh

62. Who among the following Indian Prime Ministers could *not* vote for himself during the 'Vote of Confidence' that he was seeking from the Lok Sabha?

- (a) VP Singh
- (b) PV Narasimha Rao
- (c) Chandra Sekhar
- (d) Manmohan Singh

63. According to the Constitution (Fifty Second Amendment) Act 1985 as amended in 2003, a legislator attracts disqualification under the Tenth Schedule if

78. The year 2009 is being celebrated by the UN as
 (a) International Year of Reconciliation
 (b) International Year of Astronomy
 (c) International Year of Human Rights Learning
 (d) All of the above
79. The acronym of which one of the following Missile is perceived as the confluence of the two nations (India and Russia) represented by two rivers?
 (a) Astra (b) Akash
 (c) Prithvi (d) BrahMos
80. Which one of the following committees was constituted by Ministry of Human Resource Development, Government of India, as per the Direction of the Supreme Court of India to frame guidelines on student' union election in colleges/ universities?
 (a) Moily Committee (b) Lyngdoh Committee
 (c) Sachar Committee (d) Ganguly Committee
81. The aircraft carrier Admiral Gorshkov procured by India from Russia is renamed as
 (a) INS Virat (b) INS Godavari
 (c) INS Trishul (d) INS Vikramaditya
82. Which one of the following pairs is *not* correctly matched?
 (a) Pawan Munjal : Hero Honda Motors
 (b) Venu Srinivasan : TVS Motors
 (c) Deepak Parekh : Tata Steel
 (d) K.V. Kamath : ICICI Bank
83. Consider the following statement and identify with the help of the code the tree with which the statement is related to?
 The branches of this tree root themselves like new trees over a large area. The roots then give rise to more trunks and branches. Because of this characteristic and its longevity, this tree is considered immortal and is an integral part of the myths and legends of India.
 (a) Banyan (b) Neem
 (c) Tamarind (*Imli*) (d) Peepul
84. Considered the following statements about national calendar of India
 I. The national calendar based on the *Saka* era with *Chaitra* as its first month.
 II. Dates of the national calendar have a permanent correspondence with dates of the Gregorian calendar.
 Which of the statement given above is/are correct?
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II
85. Recently a large number of children/infants have fallen sick because of the use of melamine contaminated dairy products in the world. Due to this many countries like South Africa, Japan and Singapore etc. have stopped import of these products. Which of the following countries was the main exporter of such products?
 (a) China (b) Bangladesh
 (c) Pakistan (d) Iran
86. Consider the following statement about bioremediation:
 I. It may be defined as any process that uses micro-organisms or their enzymes to return the environment altered by contaminants to its original condition.
 II. Bioremediation may be employed in order to attack specific contaminants, such as chlorinated pesticides that are degraded by bacteria.
 Which of the statements given above is/are correct?
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II
87. Consider the following statements about the Treaty of Lisbon (2007)
 I. This is an international agreement signed to change the functioning of European Union.
 II. To enter into legal force, the treaty must be ratified by at least 3/4th member states of the European Union.
 Which of the statements given above is/are correct?
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II
88. Which one of the following is *not* an independent Department under the Government of India?
 (a) Department of Atomic Energy
 (b) Department of Bio-Technology
 (c) Department of space
 (d) Planning Commission
89. In a significant climate responsive project, in which one of the following places, recently an abandoned thermal power plant has been converted into a mega solar power generating station which poised to give a huge fillip to India's renewable energy ambition?
 (a) Talcher (Orissa)
 (b) Namrup (Assam)
 (c) Jamuria (West Bengal)
 (d) Jaisalmar (Rajasthan)
90. Roh Moo-hyun, the President (2003-2008) of which one of the following countries has committed suicide in May, 2009?
 (a) Japan (b) South Korea
 (c) Indonesia (d) North Korea
91. Which water separates Australia from New Zealand?
 (a) Cook Straits (b) Megellan
 (c) Tasman sea (d) Great Barrier Reef
92. The ageing index in India has increased from 14% in 1951 to > 21% in 2001. With respect to this which of the following effects is/are correct?
 I. Decline in the proportion of child population.
 II. Increase in the proportion of old population
 Select the correct answer from the codes given below
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II
93. Consider the following statements
 I. In the month of July the Inter Tropical Convergence Zone is located in the Indo Gangetic plain.
 II. Northern Inter-Tropical Convergence Zone is the zone of clouds and heavy rainfall.
 Which of the statement given above is/are correct?
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II
94. Which one of the following regions is culturally closer to India but ethnically closer to China?
 (a) Central Asia (b) West Asia
 (c) Polynesia (d) South-East Asia
95. Sal trees are the typical species of
 (a) Tropical rain forest
 (b) Tropical monsoon forest
 (c) Taiga forest
 (d) Tundra forest

114. Consider the following statements relating to Sher Shah :
- I. During Sher Shah's reign, the village panchayat and zamindars were not allowed to deal with civil and criminal cases at the local level.
 - II. Sher Shah set up army cantonments in different parts of the empire and a strong garrison was posted in each of them

Which of the statements given above is/are correct?

- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II

115. Which of the following statements on Gandhian movements is not correct?

- (a) Mahatma Gandhi was in favour of mass movement
(b) Gandhian movements were non-violent in nature
(c) In Gandhian movements, leadership had no role
(d) Mahatma Gandhi was in favour of passive resistance

116. Shaikh Moinuddin, Bakhtiyar Kaki and Farid ud din Ganj-i-Shakar were

- (a) prominent military leaders of the Sultanate period
(b) prominent painters from the Sultanate period
(c) prominent Chisti Saints
(d) prominent poets from the courts of the Sultanate period

117. Consider the following statements relating to Raja Rammohan Roy:

- I. He knew that the spread of Western education was necessary to develop a national and scientific attitude in the Indian society.
- II. He played a pioneering role in the religious and social reform movements of nineteenth century Bengal.

Which of the above statements is/are correct?

- (a) I only (b) I only
(c) Both I and II (d) Neither I nor II

118. Match List I with List II and select the correct answer using the code given below the Lists :

List I (Person)	List II (Satyagraha)
A. Raj Kumar Shukla	1. Kheda Satyagraha
B. Ambalal Sarabhai	2. Ahmedabad Mill Stricke
C. Indulal Yagnik	3. Bardoli Satyagraha
D. Vallabhbhai Patel	4. Champaran Satyagraha

Code :

	A	B	C	D
(a)	3	1	2	4
(b)	4	1	2	3
(c)	4	2	1	3
(d)	3	2	1	4

119. The *Ashtadhyayi* of Panini, the *Mahabhasya* of Patanjali and the *Kashika Vritti* of Jayaditya deal with

- (a) Principles of Law (b) Principles of Phonetics
(c) Principles of Grammar (d) Principles of Linguistics

120. The doctrines of "non-violence" and "civil disobedience" associated with Mahatma Gandhi were influenced by the works of

- (a) Churchill-Irwin-Tolstoy
(b) Ruskin-Tolstoy-Thoreau
(c) Thoreau-Humen-Shaw
(d) Cripps-Tolstoy-Howes

Elementary Mathematics

1. P and Q can do a job in 2 days; Q and R can do it in 4 days; and P and R in $12/5$ days. What is the number of days required for P alone to do the job?
 (a) $5/2$ (b) 3
 (c) $14/5$ (d) 6
2. A person borrowed Rs 7500 at 16% compound interest. How much does he have to pay at the end of 2 yr to clear the loan?
 (a) Rs 9900 (b) Rs 10092
 (c) Rs 11000 (d) Rs 11052
3. A trader sells two cycles at Rs 1188 each and gains 10% on the first and loses 10% on the second. What is the profit or loss percent on the whole?
 (a) 1% loss (b) 1% gain
 (c) No loss no gain (d) 2% loss
4. What is the least number which when divided by 42, 72 and 84 leaves the remainders 25, 55 and 67 respectively?
 (a) 521 (b) 512
 (c) 504 (d) 487
5. If $a + b = 2m^2$, $b + c = 6m$, $a + c = 2$, where m is a real number and $a \leq b \leq c$, then which one of the following is correct?
 (a) $0 \leq m \leq 1/2$ (b) $-1 \leq m \leq 0$
 (c) $1/3 \leq m \leq 1$ (d) $1 < m \leq 2$
6. The mess charges for 35 students for 24 days in Rs 6300. In how many days will the mess charges be Rs 3375 for 25 students?
 (a) 12 (b) 15
 (c) 18 (d) 21
7. A person P started a business with a capital of Rs 2525 and another person Q joined P after some months with a capital of Rs 1200. Out of the total annual profit of Rs 1644, P 's share was Rs 1212. When did Q join as partners?
 (a) After 2 months (b) After 3 months
 (c) After 4 months (d) After 5 months
8. The number $\sqrt{0.0001}$ is
 (a) a rational number less than 0.01
 (b) a rational number
 (c) an irrational number
 (d) neither a rational number nor an irrational number
9. If $x : y = 1 : 3$, $y : z = 5 : k$, $z : t = 2 : 5$ and $t : x = 3 : 4$, then what is the value of k ?
 (a) $1/2$ (b) $1/3$
 (c) 2 (d) 3
10. A person walks a distance in 114 days, when he rests 9 h a day. How long will he take to walk twice the distance if he walks twice as fast and rests twice as long each day as before?
 (a) 57 days (b) 228 days
 (c) 285 days (d) 324 days
11. Two trains travel in the same direction at 50 km/h and 32 km/h respectively. A man in the slower train observes that 15 s elapse before the faster train completely passes him. What is the length of the faster train?
 (a) 75 m (b) 125 m
 (c) 150 m (d) $\frac{625}{3}$ m
12. In an army camp ration is available for 100 soldiers for 10 days. After 2 days, 60 soldiers joined. Then for how many more days will the remaining ration last?
 (a) 7 days (b) 6 days
 (c) 5 days (d) 4 days
13. Two men P and Q start from a place walking at 5 km and 6.5 km/h respectively. What is the time they will take to be 92 km apart if they walk in opposite directions?
 (a) 2 h (b) 4 h
 (c) 6 h (d) 8 h
14. The number of workers in the employment guarantee scheme increased by 15 which resulted into an increase of 20%. What was the initial number of workers?
 (a) 60 (b) 75
 (c) 80 (d) 90
15. If the rate of interest is 10% per annum and is compounded half yearly, the principal of Rs 400 in $3/2$ yr will amount to
 (a) Rs 463.00 (b) Rs 463.05
 (c) Rs 463.15 (d) Rs 463.20
16. 10% of the inhabitants of a certain city left that city. Later on 10% of the remaining inhabitants of that city again left the city. What is the remaining percentage of population of that city?
 (a) 80% (b) 80.4%
 (c) 80.6% (d) 81%
17. Which one is the largest among the following?
 (a) $0.\overline{725}$ (b) $0.7\overline{25}$
 (c) $0.7\overline{25}$ (d) $0.\overline{725}$
18. If m and n are two integers such that $m = n^2 - n$, then $(m^2 - 2m)$ is always divisible by
 (a) 9 (b) 16
 (c) 24 (d) 48
19. A milk vendor bought 28 L of milk at the cost of Rs 8.50 per litre. After adding some water, he sold the mixture at the same price. If he gains 12.5%, how much water did he add?
 (a) 5.5 L (b) 4.5 L
 (c) 3.5 L (d) 2.5 L
20. If the ratio of x to y is 25 times the ratio of y to x , then what is the ratio of x to y ?
 (a) 1 : 5 (b) 5 : 1
 (c) 25 : 1 (d) 1 : 25
21. Out of a group of swans $7/2$ times the square root of the number are swimming in the pool while the two remaining are playing outside the pool. What is the total number of swans?
 (a) 4 (b) 8
 (c) 12 (d) 16
22. A railway ticket for a child costs half the full fare but the reservation charge is the same on half ticket as much as on full ticket. One reserved first class ticket for a journey between two stations is Rs 362; one full and one half reserved first class tickets cost Rs 554. What is the reservation charge?
 (a) Rs 18 (b) Rs 22
 (c) Rs 38 (d) Rs 46

23. Students of a class are made to stand in rows. If one student is extra in a row, there would be two rows less. If one student is less in a row, there would be three rows more. What is the number of students in the class?
 (a) 65 (b) 55
 (c) 60 (d) 50

24. What is the LCM of $3(a^3 - b^3)$ and $11(a^4 - b^4)$?
 (a) $33(a^3 - b^3)(a^2 + b^2)(a + b)$
 (b) $(a^3 - b^3)(a^2 + b^2)(a - b)$
 (c) $33(a - b)(a^2 + b^2 - ab)(a^3 - b^3)$
 (d) $33(a^3 - b^3)(a^4 - b^4)$

25. A number consists of two digits, whose sum is 10. If 18 is subtracted from the number, digits of the number are reversed. What is the product?
 (a) 15 (b) 18
 (c) 24 (d) 32

26. If the HCF of $x^3 - 27$ and $x^3 + 4x^2 + 12x + k$ is a quadratic polynomial, then what is the value of k ?
 (a) 27 (b) 9
 (c) 3 (d) -3

27. When $x^{40} + 2$ is divided by $x^4 + 1$, what is the remainder?
 (a) 1 (b) 2
 (c) 3 (d) 4

28. Which one of the following statements is correct?
 (a) Remainder theorem is a special case of factor theorem.
 (b) Factor theorem is a special case of Remainder theorem.
 (c) Factor theorem and Remainder theorem are two independent results
 (d) None of the above

29. If $x = 2 + \sqrt{3}$, then what is $(x^2 + x^{-2})$ equal to?
 (a) 12 (b) 13
 (c) 14 (d) 15

30. What is the ratio of sum of squares of roots to the product of the roots of the equation $7x^2 + 12x + 18 = 0$?
 (a) 6 : 1 (b) 1 : 6
 (c) -6 : 1 (d) -1 : 6

31. When a polynomial is divided by a linear polynomial, then what is the remainder?
 (a) Constant polynomial only
 (b) Zero polynomial only
 (c) Either constant or zero polynomial
 (d) Linear polynomial

32. If $a^x = b^y = c^z$ and $abc = 1$, then what is $xy + yz + zx$ equals
 (a) xyz (b) $x + y + z$
 (c) 0 (d) 1

33. If $(37)^x = (0.037)^y = 10000$, then what is the value of $\frac{1}{x} - \frac{1}{y}$?
 (a) 1 (b) 2
 (c) $1/2$ (d) $1/4$

34. The following table shows the percentage of male and female coffee drinkers and non-coffee drinkers in two Towns A and B :

Attributes	Town A		Town B	
	Male	Female	Male	Female
Coffee drinkers	40%	5%	25%	15%
Non-coffee drinkers	20%	35%	30%	30%

If the total population of the Towns A and B are 10000 and 20000 respectively, then what is the total number of female coffee drinkers in both towns?
 (a) 8000 (b) 6000
 (c) 3500 (d) 2500

35. If $a = \frac{1+x}{2-x}$, then what is $\frac{1}{a+1} + \frac{2a+1}{a^2-1}$ equal to?
 (a) $\frac{(1+x)(2+x)}{2x-1}$ (b) $\frac{(1-x)(2-x)}{x-2}$
 (c) $\frac{(1+x)(2-x)}{2x-1}$ (d) $\frac{(1-x)(2-x)}{2x+1}$

36. If $pq + qr + rp = 0$, then what is the value of $\frac{p^2}{p^2 - qr} + \frac{q^2}{q^2 - rp} + \frac{r^2}{r^2 - pq}$?
 (a) 0 (b) 1
 (c) -1 (d) 3

37. The length of a line segment AB is 2 unit. It is divided into two parts at the point C such that $AC^2 = AB \times CB$. What is the length of CB?
 (a) $3 + \sqrt{5}$ unit (b) $3 - \sqrt{5}$ unit
 (c) $2 - \sqrt{5}$ unit (d) $\sqrt{3}$ unit

38. If $x + y + z = 0$, then what is the value of $\frac{1}{x^2 + y^2 - z^2} + \frac{1}{y^2 + z^2 - x^2} + \frac{1}{z^2 + x^2 - y^2}$?
 (a) $\frac{1}{x^2 + y^2 + z^2}$ (b) 1
 (c) -1 (d) 0

39. What is the value of k for which the system of equations $x + 2y - 3 = 0$ and $5x + ky + 7 = 0$ has no solution?
 (a) $-3/14$ (b) $-14/3$
 (c) $1/10$ (d) 10

40. For two natural numbers m and n , let g_{mn} denote the greatest common factor of m and n . Consider the following in respect of three natural numbers k, m and n :
 I. $g_{m(nk)} = g_{(mn)k}$
 II. $g_{mn}g_{nk} = g_{mk}$
 Which of the above is/are correct?
 (a) I only (b) II only
 (c) Both I and II (d) Neither I nor II

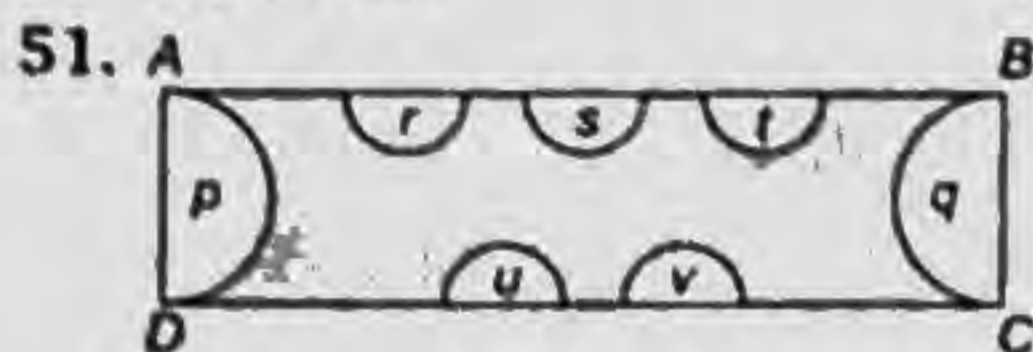
41. What is $\frac{(x-y)^3 + (y-z)^3 + (z-x)^3}{4(x-y)(y-z)(z-x)}$ equal to?
 (a) $-3/4$ (b) $1/4$
 (c) $3/4$ (d) 0

42. If the roots of the equation $\frac{x(x-1)-(m+1)}{(x-1)(m-1)} = \frac{x}{m}$ are equal, then what is the value of m ?
 (a) 1 (b) $1/2$
 (c) 0 (d) $-1/2$

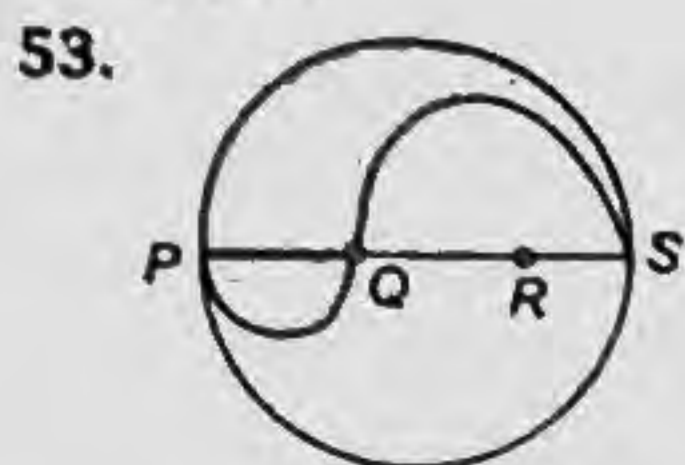
43. If $x = (a + \sqrt{a^2 + b^3})^{1/3} + (a - \sqrt{a^2 + b^3})^{1/3}$ then what is the value of $x^3 + 3bx - 2a$?
 (a) $2a^3$ (b) $-2a^3$
 (c) 1 (d) 0

44. What least value must be given to \otimes so that the number $84705 \otimes 2$ is divisible by 9?

- (a) 0 (b) 1
(c) 2 (d) 3
45. If p is an integer then every square integer is of the form
(a) $2p$ or $(4p-1)$ (b) $4p$ or $(4p-1)$
(c) $3p$ or $(3p+1)$ (d) $4p$ or $(4p+1)$
46. The paint in certain container is sufficient to paint an area equal to 5.375 m^2 . How many bricks of dimensions $12.5 \text{ cm} \times 10 \text{ cm} \times 7.5 \text{ cm}$ can be painted out of this container?
(a) 225 (b) 180
(c) 150 (d) 100
47. The ratio of volumes of two cones is $4 : 5$ and the ratio of the radii of their bases is $2 : 3$. What is the ratio of their vertical heights?
(a) $5 : 6$ (b) $6 : 5$
(c) $9 : 5$ (d) $5 : 9$
48. A right triangle ABC with sides 5 cm , 12 cm and 13 cm is revolved about the side 12 cm . What is the volume of the solid so obtained?
(a) $50\pi \text{ cm}^3$ (b) $100\pi \text{ cm}^3$
(c) $125\pi \text{ cm}^3$ (d) $150\pi \text{ cm}^3$
49. How many litres of water flow out of a pipe having an area of cross-section of 5 cm^2 in one minute, if the speed of water in the pipe is 30 cm/s ?
(a) 90 L (b) 15 L
(c) 9 L (d) 1.5 L
50. A wire is in the form of a circle of radius 42 cm . If it is bent into a square, then what is the side of the square?
(a) 66 cm (b) 42 cm
(c) 36 cm (d) 33 cm

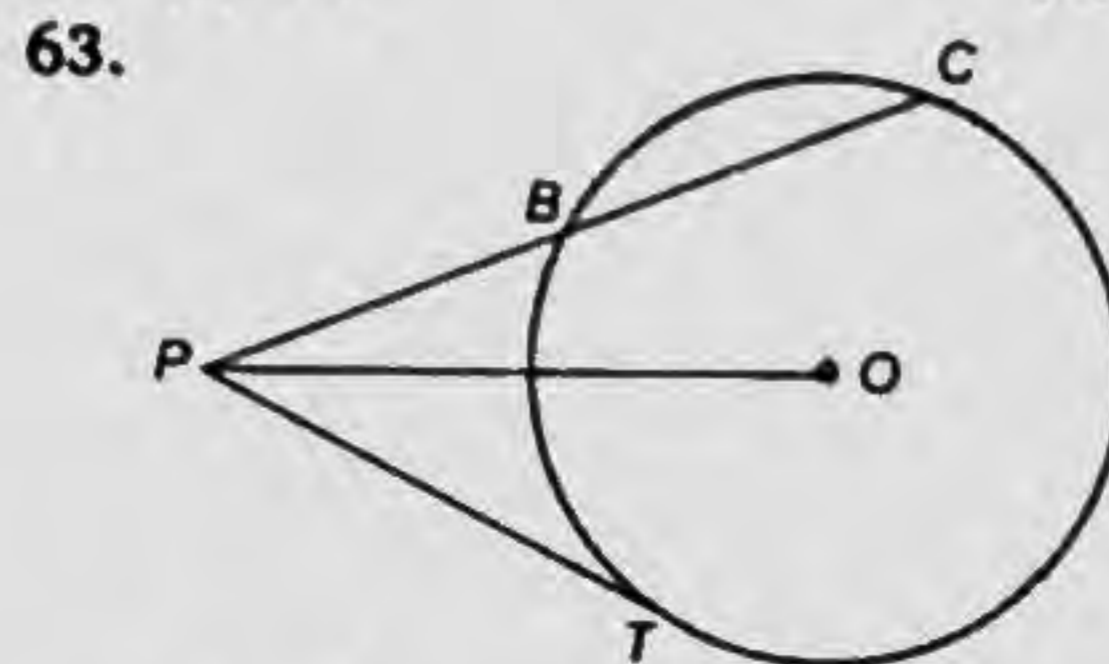


- Seven semi-circular areas are removed from the rectangle $ABCD$ as shown in the figure above, in which $AB = 2 \text{ cm}$ and $AD = 0.5 \text{ cm}$. The radius of each semi-circle r, s, t, u, v is half of that of semi-circle p or q . What is the area of the remaining portion?
(a) $(128 - 13\pi)/128 \text{ cm}^2$ (b) $(125 - 13\pi)/125 \text{ cm}^2$
(c) $(128 - 15\pi)/128 \text{ cm}^2$ (d) None of these
52. If the radius of the base and the height of a right circular cone are increased by 20% then what is the approximate percentage increase in volume?
(a) 60 (b) 68
(c) 73 (d) 75



- $PQRS$ is a diameter of a circle of radius 6 cm as shown in the figure above. The lengths PQ, QR and RS are equal. Semi-circles are drawn on PQ and QS as diameters. What is the perimeter of the shaded region?
(a) $12\pi \text{ cm}$ (b) $14\pi \text{ cm}$
(c) $16\pi \text{ cm}$ (d) $18\pi \text{ cm}$

54. How many litres of water (approximately) can a hemispherical container of radius 21 cm hold?
(a) 19.4 L (b) 38.8 L
(c) 194 L (d) 388 L
55. A bucket which is in the form of a frustum of a cone, has radii 3 and 5 unit and vertical height 6 unit. How much water can the bucket hold?
(a) $33\pi \text{ cu unit}$ (b) $45\pi \text{ cu unit}$
(c) $48\pi \text{ cu unit}$ (d) None of these
56. ABC is a triangle right-angled at C . If p is the length of the perpendicular from C to AB and a, b, c are the sides, then which one of the following is correct?
(a) $pa = bc$ (b) $pb = ca$
(c) $pc = ab$ (d) $p^2 = ab$
57. A person rides a bicycle round a circular path of radius 50 m . The radius of the wheel of the bicycle is 50 cm . The cycle comes to the starting point for the first time in 1 h . What is the number of revolutions of the wheel in 15 min ?
(a) 20 (b) 25
(c) 30 (d) 35
58. A cylindrical can of internal diameter 24 cm contains water. A solid sphere of radius 6 cm is completely immersed in water in the cylinder. The water level increases by
(a) 0.25 cm (b) 0.5 cm
(c) 2 cm (d) 3 cm
59. If a sphere of radius 10 cm is intersected by a plane at a distance 8 cm from its centre, what is the radius of the curve of intersection of the plane and the sphere?
(a) 8 cm (b) 6 cm
(c) 5 cm (d) 4 cm
60. From a cylindrical log whose height is equal to its diameter, the greatest possible sphere has been taken out. What is the fraction of the original log which is cut away?
(a) $1/2$ (b) $1/3$
(c) $1/4$ (d) $2/3$
61. In the triangle ABC , $AB = 2 \text{ cm}$, $BC = 3 \text{ cm}$ and $AC = 4 \text{ cm}$. D is the middle point of AC . If a square is constructed on the side BD , what is the area of the square?
(a) 4.5 cm^2 (b) 2.5 cm^2
(c) 6.35 cm^2 (d) None of these
62. A solid cone of height 8 cm and base radius 6 cm is melted and recast into identical cones, each of height 2 cm and radius 1 cm . What is the number of cones formed?
(a) 36 (b) 72
(c) 144 (d) 180



- In the figure given above, PT is a tangent to a circle of radius 6 cm . If P is at a distance of 10 cm from the centre O and $PB = 5 \text{ cm}$, then what is the length of the chord BC ?
(a) 7.8 cm (b) 8.0 cm
(c) 8.4 cm (d) 9.0 cm

64. A point P moves such that its distance from two given points A and B are equal. Then what is the locus of the point P ?

- (a) A straight line which is the right bisector of AB
- (b) A circle with centre at A
- (c) A circle with centre at B
- (d) A straight line passing through either A or B

65. ABC is a triangle. X is a point outside the triangle ABC such that $CD = CX$, where D is the point of intersection of BC and AX ; and $\angle BAX = \angle XAC$. Which one of the following is correct?

- (a) Triangles ABD, ACX are similar
- (b) $\angle ABD < \angle ACD$
- (c) $AC = CX$
- (d) $\angle ADB > \angle DXC$

66. Consider the following statements :

- I. Congruent triangles are similar.
- II. Similar triangles are congruent.
- III. If the hypotenuse and a side of one right triangle are equal to the hypotenuse and a side of another right triangle respectively, then the two right triangles are congruent.

Which of the statement given above is/are correct?

- (a) I only
- (b) II only
- (c) II and III
- (d) I and III

67. ABC is a triangle and the perpendicular drawn from A meets BC in D . If

$AD^2 = BD \cdot DC$, then which one of the following is correct?

- (a) ABC must be an obtuse angled triangle
- (b) ABC must be an acute angled triangle
- (c) Either $\angle B \geq 45^\circ$ or $\angle C \geq 45^\circ$
- (d) $AC^2 = AB^2 + BC^2$

68. ABC is a triangle in which $AB = AC$. Let BC be produced to D . From a point E on the line AC let EF be a straight line such that EF is parallel to AB . Consider the quadrilateral $ECDF$ thus formed. If $\angle ABC = 65^\circ$ and $\angle EFD = 80^\circ$, then what is $\angle FDC$ equal to

- (a) 43°
- (b) 41°
- (c) 37°
- (d) 35°

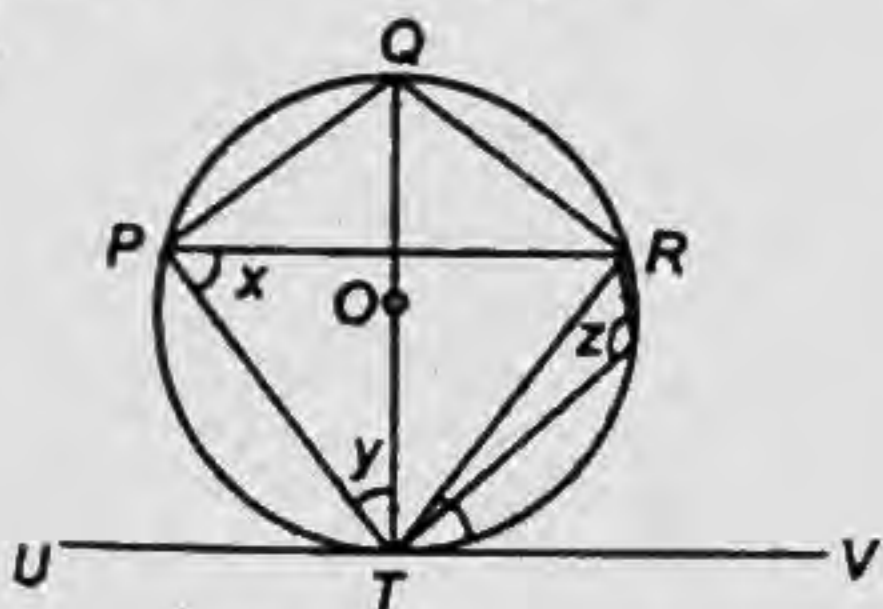
69. The bisectors of the angles ABC and BCA of a triangle ABC meet in a point O . What is the angle at O facing the side BC ?

- (a) $90^\circ - (A/2)$
- (b) $90^\circ + (A/2)$
- (c) $90^\circ - A$
- (d) $90^\circ + A$

70. What is the number of points in the plane of a triangle ABC which are at equal distance from the vertices of the triangle?

- (a) 0
- (b) 1
- (c) 2
- (d) 3

71.

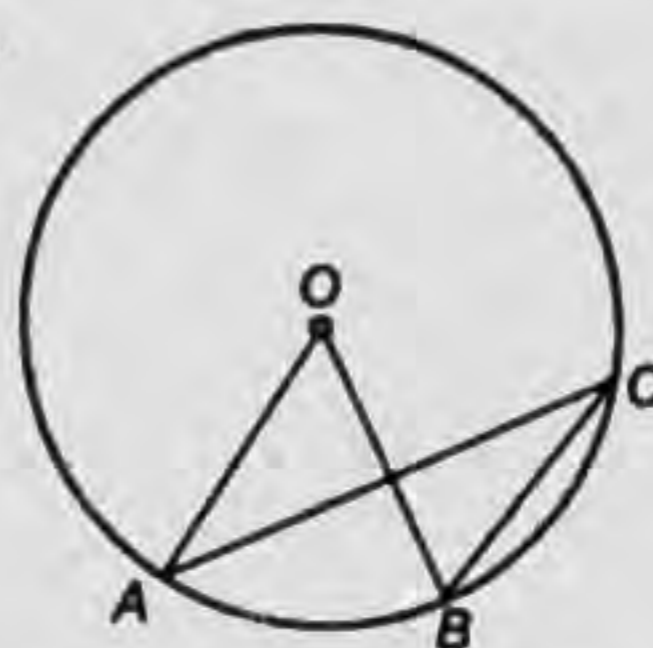


In the figure given above, O is the centre of the circle. The line UTV is a tangent to the circle at T , $\angle VTR = 52^\circ$ and triangle PTR is an isosceles triangle such that $TP = TR$.

What is $\angle x + \angle y + \angle z$ equal to?

- (a) 175°
- (b) 208°
- (c) 218°
- (d) 250°

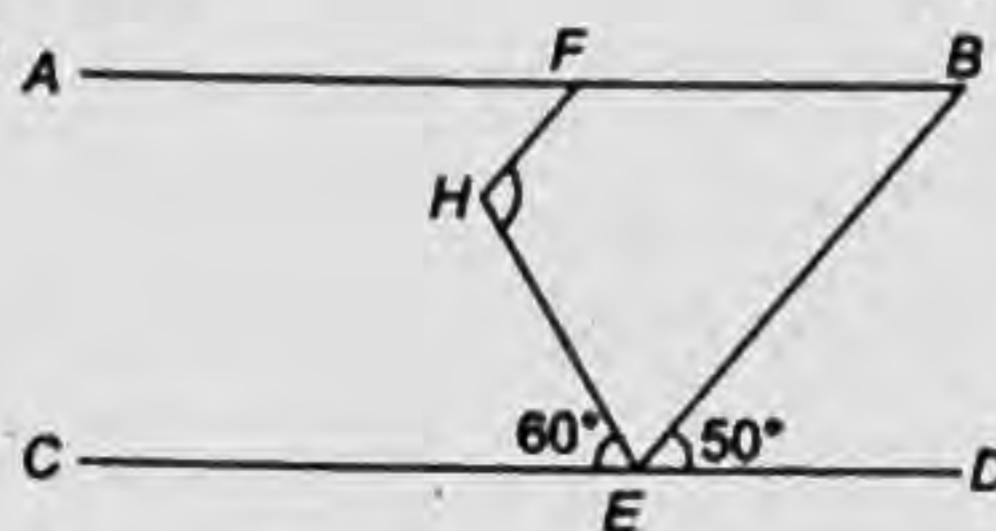
72.



In the figure given above, $\angle AOB = 46^\circ$; AC and OB intersect each other at right angles. What is the measure of $\angle OBC$? (O is the centre of the circle)

- (a) 44°
- (b) 46°
- (c) 67°
- (d) 78.5°

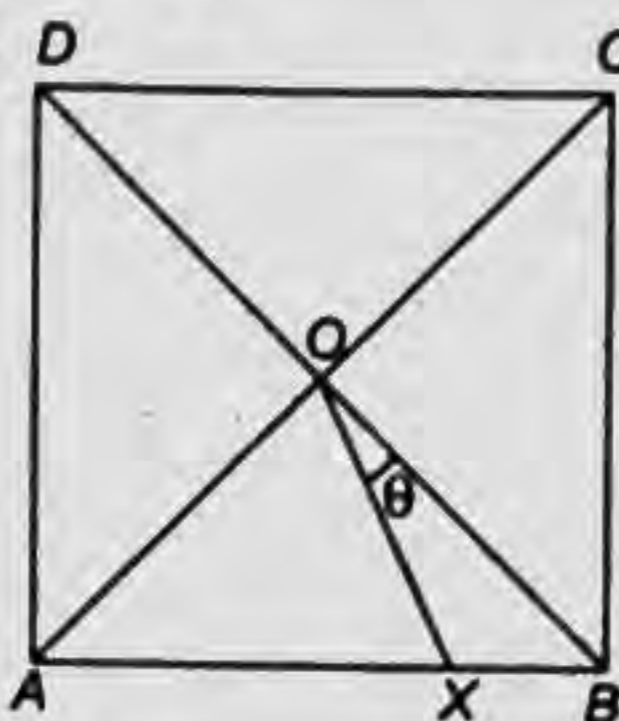
73.



In the figure AB is parallel to CD and BE is parallel to FH . What is $\angle FHE$ equal to?

- (a) 110°
- (b) 120°
- (c) 125°
- (d) 130°

74.



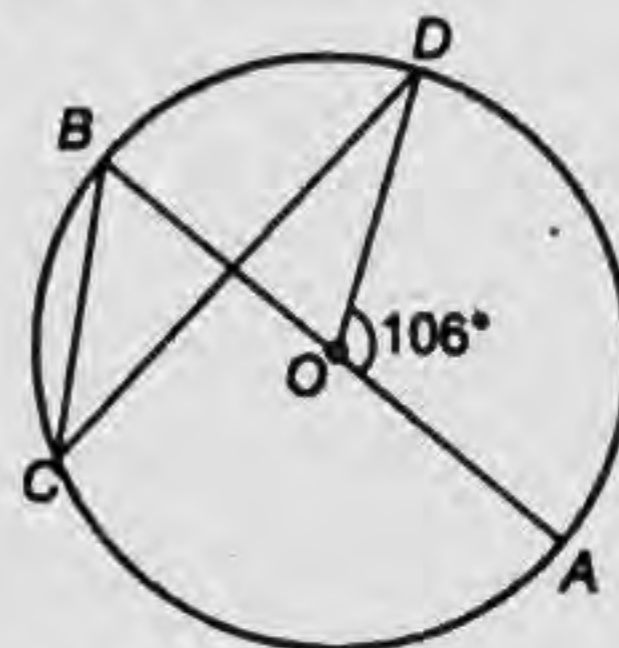
In the figure given above, $ABCD$ is a square in which $AO = AX$. What is $\angle XO B$?

- (a) 22.5°
- (b) 25°
- (c) 30°
- (d) 45°

75. The quadrilateral formed by joining the mid-points of the sides AB, BC, CD, DA of a quadrilateral $ABCD$ is

- (a) a trapezium but not a parallelogram
- (b) a quadrilateral but not a trapezium
- (c) a parallelogram only
- (d) a rhombus

76.



In the figure given above, O is the centre of the circle $\angle AOD = 106^\circ$. What is $\angle BCD$ equal to?

- (a) 53°
- (b) 43°
- (c) 40°
- (d) 37°

77. If $\cot \theta = 8/15$, then what is the value of $\sqrt{\frac{1 - \cos \theta}{1 + \cos \theta}}$ where θ is a positive acute angle?

- (a) $1/5$
- (b) $2/5$
- (c) $3/5$
- (d) $4/5$

78. What is the angle subtended at the centre of a circle of radius 8 m after traversing 4π m along its circumference?

- (a) $\pi/3$ (b) $\pi/2$
(c) $2\pi/3$ (d) $3\pi/4$

79. Consider the following

I. $\frac{\cos^2 \theta - \sin^2 \theta}{\cos^2 \theta + \sin^2 \theta} = \cos^2 \theta (1 + \tan \theta)(1 - \tan \theta)$
 II. $\frac{1 + \sin \theta}{1 - \sin \theta} = (\tan \theta + \sec \theta)^2$

Which of the statements given above is/are correct?

- (a) I only (b) II only
(c) Both I and II (d) Neither I nor II

80. $\frac{\cos \theta}{1 - \sin \theta} - \frac{\cos \theta}{1 + \sin \theta} = 2$ is satisfied by which one of the following values of θ ?

- (a) $\pi/2$ (b) $\pi/3$
(c) $\pi/4$ (d) $\pi/6$

81. The difference of the two angles in degree measure is 1 and their sum in circular measure is also 1. What are the angles in circular measure?

- (a) $\left(\frac{1}{2} - \frac{\pi}{360}\right), \left(\frac{1}{2} + \frac{\pi}{360}\right)$
 (b) $\left(\frac{1}{2} - \frac{90}{\pi}\right), \left(\frac{1}{2} + \frac{90}{\pi}\right)$
 (c) $\left(\frac{1}{2} - \frac{\pi}{180}\right), \left(\frac{1}{2} + \frac{\pi}{180}\right)$
 (d) None of the above

82. If $0 < x < 45^\circ$ and $45^\circ < y < 90^\circ$, then which one of the following is correct?

- (a) $\sin x = \sin y$ (b) $\sin x < \sin y$
(c) $\sin x > \sin y$ (d) $\sin x \leq \sin y$

83. What is the value of $\sin^3 60^\circ \cot 30^\circ - 2 \sec^2 45^\circ + 3 \cos 60^\circ \tan 45^\circ - \tan^2 60^\circ$?

- (a) $35/8$ (b) $-35/8$
(c) $-11/8$ (d) $11/8$

84. If $\tan \theta = \frac{p}{q}$, then what is

$\frac{p \sec \theta - q \operatorname{cosec} \theta}{p \sec \theta + q \operatorname{cosec} \theta}$ equal to?

- (a) $\frac{p-q}{p+q}$ (b) $\frac{q^2-p^2}{q^2+p^2}$
(c) $\frac{p^2-q^2}{q^2+p^2}$ (d) 1

85. The value of $\operatorname{cosec}^2 \theta - 2 + \sin^2 \theta$ is always

- (a) less than zero (b) non-negative
(c) zero (d) 1

86. If $\cot \theta = \frac{2xy}{x^2 - y^2}$, then what is $\cos \theta$ equal to?

- (a) $\frac{x^2 - y^2}{x^2 + y^2}$ (b) $\frac{x^2 + y^2}{x^2 - y^2}$
(c) $\frac{2xy}{x^2 + y^2}$ (d) $\frac{2xy}{\sqrt{x^2 + y^2}}$

87. The length of the shadow of a person s cm tall when the angle of elevation of the sun is α is p cm. It is q cm when the angle of elevation of the sun is β . Which one of the following is correct when $\beta = 3\alpha$?

- (a) $p - q = s \left(\frac{\tan \alpha - \tan 3\alpha}{\tan 3\alpha \tan \alpha} \right)$
 (b) $p - q = s \left(\frac{\tan 3\alpha - \tan \alpha}{3 \tan 3\alpha \tan \alpha} \right)$
 (c) $p - q = s \left(\frac{\tan 3\alpha - \tan \alpha}{\tan 3\alpha \tan \alpha} \right)$
 (d) $p - q = s \left(\frac{\tan 2\alpha}{\tan 3\alpha \tan \alpha} \right)$

88. The angles of a triangle are in AP and the greatest angle is double the least. What is the ratio of angles in the radian measure?

- (a) 2 : 3 : 4 (b) 1 : 2 : 3
(c) 3 : 3 : 6 (d) 4 : 5 : 7

89. For what value of θ is $(\sin \theta + \operatorname{cosec} \theta) = 2.5$ where $0 < \theta \leq 90^\circ$?

- (a) 30° (b) 45°
(c) 60° (d) 90°

90. If $0 < \theta < \phi < 90^\circ$, then which one of the following is correct?

- (a) $(\sin \theta + \cos \theta)^2 > 2$ (b) $(\sin^2 \theta + \cos^2 \phi) \leq 2$
(c) $(\sin^2 \theta + \cos^2 \phi) < 2$ (d) $(\sin^2 \theta + \cos^2 \phi) > 2$

91. Which one of the following is not correct in respect of the sets A and B?

- (a) If $A \subseteq B$, then $B \cup A = B$
 (b) If $A \subseteq B$, then $A \cap (A - B) = \phi$
 (c) If $A \subseteq B$, then $B \cap A = A$
 (d) If $A \cap B = \phi$, then either $A = \phi$ or $B = \phi$

92. A boy travels a distance of 8 km at the rate of 4 km/h, 6 km at the rate of 3 km/h and 4 km at the rate of 2 km/h. What is the average speed for the entire journey?

- (a) 2 km/h (b) 3 km/h
(c) 4 km/h (d) 6 km/h

93. What is the value of $[\log_{13}(10)] / [\log_{169}(10)]$?

- (a) $1/2$ (b) 2
(c) 1 (d) $\log_{10} 13$

94. There are four numbers forming a GP in which the third term is greater than the first by 9 and the second term is greater than the fourth by 18. What is the first term?

- (a) 2 (b) 3
(c) -2 (d) -3

95. If $27 \times (81)^{2n+3} - 3^m = 0$, then what is m equal to?

- (a) $2n + 5$ (b) $5n + 6$
(c) $8n + 3$ (d) $8n + 15$

96. Consider the following pairs of numbers:

- I. (8, 12) II. (9, 11) III. (6, 24)

Which pairs of number have the same harmonic means?

- (a) I and II (b) II and III
(c) I and III (d) I, II and III

97. The median of three positive integers, no two of which are equal, is 5. What is the least possible value of the arithmetic means of these integers?

- (a) 2
(b) 3
(c) 4
(d) No such least possible value exists

98. Which one of the following can be obtained from a histogram?
(a) Mean
(b) Median
(c) Mode
(d) None of these

99. Examples of data are given below:
I. Information on households collected by an investigator by door-to-door visits.
II. Data on the percentage of literates, sex-wise, for the different districts of a state collected from records of the census of India.
III. General information about families, collected by telephonic interviews.

Which one of the following in respect of the above is correct?

- (a) I and II are primary data
- (b) I and III are primary data
- (c) II and III are primary data
- (d) I, II and III are primary data

100. What is the geometric means of the observations 125, 729, 1331?
(a) 495
(b) 1485
(c) 2221
(d) None of these