

Section – I

Direction for questions 1 to 5: In these questions, you have a set of four sentences consisting of a blank each that is followed by four words that are marked as alternatives. You have to mark the alternative wherein the word can fill in the maximum number of blanks in the sentences.

1. A. Anna is ____ about the problems she is facing with Tom.
 B. They had a/an ____ discussion about the future.
 C. She has a/an ____, trusting nature.
 D. I cannot understand the ____ language of the inspector's reports.
 a. frankly b. candid c. opaque d. open
2. A. The beautician made ____ conversation with the client.
 B. Out on the bay the morning is ____.
 C. There are lots of books crammed with ____ ideas.
 D. The doctor worked busily between the ____ lights of the delivery room.
 a. blinding b. radiant c. light d. bright
3. A. Poverty and unemployment are ____ hard to tackle.
 B. The government has deliberately ____ his efforts to gain work permits for his foreign staff.
 C. Roberta felt ____ and angry.
 D. The results show the level of ____ among the hospital doctors.
 a. frustration b. frustratingly
 c. frustrated d. frustrate

4. A. He was suffering from ____ and shock but his condition was said to be stable.
B. All the candidates have been getting an enormous amount of ____ on television and press.
C. The whole system has been based on divine ____ in the scriptures.
D. The ____ often last till dawn.
a. openness b. revelation c. exposure d. revels
5. A. All Italy's political parties have accepted that it is time to ____ the system.
B. Ricardo Bofill, the Catalan architect, has designed the ____ airport.
C. She lives in a large, ____ house.
D. The ____ includes replacing the old navy uniform with a crisp blue and white cotton outfit.
a. renovate b. renovated
c. revamp d. Both (a) and (b)

Direction for questions 6 to 15: In each question a blank is left. Choose the correct alternative to fill in the blank.

6. Education is the ____ jewel of person's being.
a. crowning b. finishing c. diamond d. sapphire
7. Discipline is the ____ of achievement.
a. basic b. bedrock
c. predecessor d. None of these
8. Laughter is considered to be of a/an ____ human response which develops during the first weeks of life.
a. basic b. mechanical
c. dreadful d. innate

9. One who is educated, is understood to have ____ the learning of good and bad.
a. motivated b. stipulated c. imbibed d. instigated
10. In days such as these, ____ with scams and scandals of all sizes, education's moorings with ethics is a critical issue.
a. populated b. fraught
c. completed d. None of these
11. Discipline on the other hand, would be critical to achieve ____ of discrete efforts to yield a common goal.
a. organise b. saving c. creation d. alignment
12. There are no prizes until one keeps to the task with enduring ____.
a. trepidation b. effort
c. perseverance d. meaning
13. Only a disciplined society can ____ such perseverance.
a. exhibit b. squander
c. Both (a) and (b) d. None of these
14. Education must not ____ itself to bookish concepts alone, but cultivate the power of reason in the minds of the students.
a. restrict b. forward c. offer d. prevent
15. An educated man's ____ is how he carries himself steadily even under adverse situations.
a. symbol b. problem
c. hallmark d. None of these

Direction for questions 16 to 25: In each of the questions, one complete pair of words or phrases and one term of another pair are given. Complete the second pair by choosing the correct term from the given choices.

16. Blacksmith : Hammer :: Pilot : ____
a. Steering b. Joystick c. Scalpel d. Dosage
17. Memorandum : Memoranda :: Bacillus: ____
a. Bacchus b. Bacteria c. Bacii d. Bacilli
18. Star : Cluster :: Tree : ____
a. Orbit b. Clump c. Plant d. Trees
19. Duplicate : Genuine : Reflection : ____
a. Object b. Mystify c. Elucidate d. Magnify
20. Herpetology : Reptiles : : Dermatology : ____
a. Mummies b. Dirt c. Hair d. Skin
21. Bird : Snare :: Fish : ____
a. Seine b. Fins c. Swim d. Gills
22. Microscope : Small :: Telescope : ____
a. Distant b. Lens c. Tube d. Sun
23. Ebb : Tide :: Subside : ____
a. Desert b. Storm
c. Road d. None of these

24. Horse : Elegant :: Mischevious : ____
a. Hippopotamus b. Giraffe
c. Monkey d. Tiger
25. Car : Boot :: Ship : ____
a. Container b. Tank c. Cargo d. Hold

Direction for questions 26 to 30: Read the passage carefully and indicate the meaning of the words underlined by choosing one of the four alternatives given.

Aware that the next ten years will be a watershed in the history of the prison system, Criminon engaged in a programme to handle and reform the future of crime: juvenile offenders. The Criminon programme was tested, then revised and tested again inside the Los Angeles Central Juvenile Hall, unit K/L. All of the participants of the programme were accused of murder in the first degree, and all were gang members.

The results were unprecedented.

It all started in the Spring of 1994. Joan Lonstein, the President of Criminon for the Western United States, gathered together a handful of her best supervisors and started delivering the full regimen of the Criminon programme to a group of 25 young offenders.

26. Watershed
a. Radical change b. Upheaval
c. Uneasiness d. Makeover

27. Reform
a. Formulation
c. Manipulation
b. Tampering
d. Amendment
28. Unprecedented
a. Former President
c. Unparalleled
b. Preceding
d. Uncontrollable
29. Regimen
a. Order
c. List
b. Record
d. None of these
30. Offenders
a. Cult members
c. Students
b. Accused
d. Comrade

Direction for questions 31 to 40: In each question a word is given. Choose the word with the opposite meaning.

31. COWARD
a. Forthcoming
c. Valiant
b. Foolish
d. Covert
32. VULGAR
a. Athletic
c. Aristocratic
b. Sober
d. Incredible
33. ENDORSE
a. Clear
c. Refute
b. Support
d. None of these

34. ADORE
a. Detest b. Worship c. Oppose d. Unwilling
35. SUBTLE
a. Stupidity b. Clever c. Dexterous d. Blunt
36. IRRITATE
a. Reiterate b. Charm c. React d. Pretty
37. PERENNIAL
a. Temporal b. Eternal
c. Potent d. Long-lasting
38. LAVISH
a. Extravagant b. Rich
c. Miserly d. Poverty
39. HOSTILE
a. Friendly b. Nervous c. Malicious d. Enmity
40. BETRAYAL
a. Ditch b. Forsake
c. Loyalty d. Remembrance

Direction for questions 41 to 50: Read the following passage carefully and indicate the meaning of the words or phrases underlined by choosing the correct alternative.

Just a few weeks ago, Ketan Parekh was threatening to sue the Bank of India for defamation, because it complained about the bouncing of Rs 1.3-billion pay orders issued to the broker by the Madhavpura Mercantile Co-operative Bank. He seemed to suggest there is nothing more that the authorities would be able to pin against him.

Yet, in the last couple of weeks, investigations by the Central Bureau of Investigation and the Securities and Exchange Board of India reveal that the sheer magnitude of money moved around by Parekh or available to him for his market manipulation was a staggering Rs. 64 billion.

A couple of weeks ago, the CBI called a press conference to announce it had unearthed a Swiss bank account in which Parekh was listed as the beneficiary. The Bureau claimed there was \$80 million (Rs. 3.4 billion) in the account, which has since been frozen. In the past, CBI announcements were usually followed up with a quick arrest, this time it has gone silent.

The Securities and Exchange Board of India's preliminary investigation in May revealed that Rs. 29 billion were transferred out of the country through five Overseas Corporate Bodies between March 1999 to March 2001. These OCBs had together invested just Rs. 7.77 billion in the Indian market but remitted a whopping Rs. 36.77 billion out of the country. This direct flight of capital occurred through European Investments, Far East Investments, Wakefield Holding, Brentfield Holdings and Kensington Investment. Three of these companies have a paid up capital of just \$10.

SEBI says the pattern of investments and transactions through these accounts shows a clear misuse of the OCB/Foreign Institutional Investor route. They seem to be used as a channel to repatriate profits earned through stock price manipulation. Many of these OCBs were sub-accounts of Credit Suisse First Boston whose brokerage operations have been suspended. But there were other FIIs too. Strangely, SEBI has not yet placed any restrictions on them so far.

In answer to a Joint Parliamentary Committee query, SEBI now admits to have unearthed six more OCBs, where there is evidence that Parekh's companies may have used them for 'cornering and parking of stocks.' Dossier Stock Inc, Greenfield Investments Ltd, AOM Investments Ltd, Symphony Holdings Ltd, Almel Investments (Mauritius) Ltd, and Delgrada Ltd.

- | | | | | |
|-----|---------------|-------------|------------------|------------|
| 41. | Defamation | | | |
| | a. Deride | | b. Award | |
| | c. Scandalise | | d. Joyous | |
| 42. | Mercantile | | | |
| | a. Brokerage | | b. Guild | |
| | c. Commercial | | d. None of these | |
| 43. | Unearthed | | | |
| | a. Forfeit | b. Discover | c. Dig | d. Worldly |
| 44. | Evidence | | | |
| | a. Source | b. Standard | c. Proof | d. Blame |
| 45. | Frozen | | | |
| | a. Stalled | b. Closed | c. Icy | d. Sticky |
| 46. | Remitted | | | |
| | a. Despatch | b. Invite | c. Return | d. Retard |
| 47. | Whopping | | | |
| | a. Hopping | | b. Miniscule | |
| | c. Mild | | d. None of these | |

48. 'Flight of capital'
a. Siphoning of funds
b. Transfer of financial interests
c. Movement of bank accounts
d. None of these
49. Repatriate
a. Penalise
b. Award
c. Refund
d. Unbecoming
50. FII stands for
a. Financial Institutional Investors
b. Foreign Institutional Investors
c. Fluid Investment Institutions
d. Foreign Investment and Interests

Direction for questions 51 to 60: Read the following passages and answer the questions that follow.

Passage – 1

Terrorism of a particular type is on the rise, and it is the terrorism of the old. It is the rise of fanaticism and fundamentalism. It was remanifesting itself before the end of the Cold War, and festered after the fall of the Soviet empire. The escalation of the war between Israel with the Arabic countries and the war in Afghanistan during the '80 had have produced more and new generation of fanatics and fundamentalists. The Talibans or Islamic religious students are radicalized by extremist clerics who advocate violence as the answers for their conflicts with the non-Islamic world. It is the goal of these terrorists that

measures the degree of their fanaticism. As seemed around the world like in USA, East and Western Europe, Middle East, South and South-east Asia, these terrorists want to undermine the government and freedom of non-Islamic countries by using their liberty and freedom as cover for their activities. They want the revival of old Islamic glory when Islam spread all over the known world and as the dominating factor in world economy and politic. They seemed to think that they are the victims and not the perpetrators according to their clerics. The economic destabilization and removal of non-Islamic governments is one of their main goal.

51. What according to the passage is the 'terrorism of the old'?
- | | |
|----------------|---------------------|
| a. Fanaticism | b. Fundamentalism |
| c. Intolerance | d. Both (a) and (b) |
52. What according to the passage led to the decay of terrorism after the Cold War?
- a. Fall of the Berlin Wall
 - b. Gulf War
 - c. Fall of the Soviet Empire
 - d. None of these
53. The escalation of tension between Israel and Arab countries has
- a. led to a rise in terrorist attacks
 - b. led to birth of new terrorist outfits
 - c. propagated a new generation of fundamentalism
 - d. None of these

54. What according to the passage, does 'Taliban' stand for?
- a. Terrorist outfit
 - b. Arab mercenaries
 - c. Students of Islamic religion
 - d. Islamic clergymen
55. This passage seems to be
- a. from a newspaper
 - b. from an economics journal
 - c. a figment of the writer's imagination
 - d. part of a government white paper.

Passage – 2

Rule utilitarianism is a form of utilitarianism, which maintains that a behavioural code or rule is morally right if the consequences of adopting that rule are more favourable than unfavourable to everyone. It is contrasted with *act utilitarianism*, which maintains that the morality of each action is to be determined in relation to the favourable or unfavourable consequences that emerge from that action. The principle of rule-utilitarianism is a litmus test only for the morality of moral rules, such as 'stealing is wrong' and not a test for particular actions. Adopting a rule against theft clearly has more favourable consequences than unfavourable consequences for everyone. The same is true for moral rules against lying or murdering. Rule-utilitarianism, then, offers a three-tiered method for judging conduct. A particular action, such as stealing my neighbour's lawn furniture, is judged wrong since it violates a moral rule against theft. In turn, the rule against theft is morally binding because adopting this rule produces favourable consequences for everyone.

Rule-utilitarianism attempts to avoid some of the problems with act-utilitarianism. For example, with act-utilitarianism it seems that we should have to give up television for charity work if it was determined that each of our leisure moments would yield greater social benefit if we did charity work instead. With rule-utilitarianism, though, a rule prohibiting leisure time is not socially beneficial; hence we are not required to abandon leisure for charity. Similarly, under rule-utilitarianism, enslaving someone would be morally wrong if it was determined that a general rule prohibiting slavery was more socially beneficial. Even if a particular act of enslaving someone produced more benefit for the slave owners than disbenefit for the slave himself, the act would still be wrong since it would violate the rule prohibiting slavery. But by side-stepping the problems of act-utilitarianism, rule-utilitarianism creates a new problem: it is conceivable that, on balance, a rule permitting slavery actually produces more benefit for society.

56. According to the passage, rule utilitarianism is
- a. an extension of utilitarianism.
 - b. an extension of act utilitarianism.
 - c. an old redundant concept.
 - d. None of these
57. According to rule utilitarianism, a code of conduct is valid if
- a. it delivers good for select number of people.
 - b. it delivers good for all important people.
 - c. it delivers good for the maximum number of people.
 - d. None of these

58. The basic difference between rule and act utilitarianism is that the former talks about rules and the latter about
- a. actions
 - b. the necessity of actions
 - c. the futility of actions
 - d. the consequences of actions
59. According to the passage, rule utilitarianism is explained with what analogy?
- a. Test of faith
 - b. Test of trust
 - c. Litmus test
 - d. None of these
60. What does rule utilitarianism provide for judging conduct?
- a. Book of rules
 - b. Three-tiered approach
 - c. List of penalties
 - d. None of these

Direction for questions 61 to 70: Fill in the blanks left in each question by choosing the correct alternative from among the given four choices.

61. ____ long, France has been a country which has charmed the world in more than one way.
- a. Quite
 - b. Very
 - c. Since
 - d. Never
62. Be it Dom Perignon's champagne or art, France ____ us all.
- a. had enthralled
 - b. enthralled
 - c. has enthralled
 - d. enthrall
63. Paris has been the seat of many upheavals, from the French revolution ____ Renaissance.
- a. to
 - b. to the
 - c. and the
 - d. of the

64. To some, Paris ____ up images of the guillotine and to others the Eiffel Tower.
a. projects b. shows
c. conjures d. None of these
65. There are others still who could wait for a lifetime ____ the promenades of Champs De Elysee.
a. to walk b. walking
c. walk d. None of these
66. I have a friend, who would swear that nowhere else has he seen such beautiful women as in Paris. He is a sailor and ____ more shores than I have heard about, so I would take his verdict.
a. was seeing b. had seen
c. has seen d. saw
67. France is a brand. Its wines, perfumes, fashion and even café's are the world's _____.
a. objective b. sin c. regret d. delight
68. France has been a tourist ____ for long and a must see if Europe is your domain.
a. haunt b. den
c. destination d. depression
69. Such has been Paris, that even Hitler's war machine kept it away from ____ way.
a. destiny's b. fate's c. fortune's d. harm's

- Direction for questions 71 to 80:** In the following questions, you are given four words in a group. Mark the odd word out of the group.

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Section – II

Direction for questions 81 to 90: Answer the questions based on the following information.

$f(x) = 2x - 1$, where x is an integer. The n th forward difference operator of the function $f(x)$ is

$\Delta^n f(x) = \Delta^{n-1} f(x+1) - \Delta^{n-1} f(x)$ and the n th backward difference operator of the function $f(x)$ is

$\nabla^n f(x) = \nabla^{n-1} f(x) - \nabla^{n-1} f(x-1)$, where n is a positive integer.

81. The value of $\Delta^2 f(17) - \nabla^2 f(13)$ is
a. 5 b. 10 c. 12 d. 29
82. The value of $\Delta^3 f(23)$ is
a. 65 b. -91 c. -121 d. -39
83. The value of $\nabla^3 f(51)$ is
a. 97 b. -89 c. -71 d. None of these
84. The value of $\Delta^3 f(x^2)$ is
a. $-2x^2 + 7$ b. $-2x^2 - 7$
c. $2x^2 - 7$ d. None of these
85. The value of $\nabla^3 f(2x)$ is
a. $4x - 13$ b. $-4x + 13$
c. $-4x - 35$ d. None of these

86. Which of the following is correct?
- $\Delta^2 f(x+2) = \nabla^2 f(x+3)$
 - $\Delta^2 f(x+3) = \nabla^2 f(x+5)$
 - $\Delta^2 f(x+4) = \nabla^2 f(x+7)$
 - None of these
87. Find the value of x , if $\Delta^2 f(x) = 125$.
- 75
 - 60
 - 35
 - None of these
88. Which of the following value of x is valid, if $\nabla^2 f(x) < 0$?
- 6
 - 4
 - 5
 - None of these
89. Which of the following value of x is valid, if $\Delta^3 f(x) < 0$?
- 4
 - 2
 - 3
 - None of these
90. How many values of x are satisfied, if $\Delta^2 f(x) > 0$ and $\nabla^2 f(x) < 0$?
- 1
 - 3
 - 2
 - None of these

Direction for questions 91 to 100: Answer the questions based on the following function.

$$f(x_n, y_n) = \begin{cases} y_0 + f(x_{n-1}, y_{n-1}) \text{ and } f(x_0, y_0) = x_0 - y_0 \text{ if } x_0 > y_0 \\ x_0 + f(x_{n-1}, y_{n-1}) \text{ and } f(x_0, y_0) = y_0 - x_0, \text{ if } x_0 < y_0 \end{cases}$$

and x_0 and y_0 are integers.

91. If $x_0 = 3$ and $y_0 = 1$, then $f(x_3, y_3)$ is
- 6
 - 5
 - 4
 - 8

92. If $x_0 = -3$ and $y_0 = 5$, then $f(x_4, y_4)$ is
a. 8 b. 6 c. -4 d. -6
93. If $x_0 = 9$ and $y_0 = 17$, then $f(x_5, y_5)$ is
a. 53 b. 47 c. 57 d. -53
94. If $x_0 = 7$ and $y_0 = -1$, then $f(x_4, y_4) - f(x_3, y_3)$ is
a. 3 b. 7 c. -1 d. 1
95. If $x_0 = 5$ and $y_0 = -3$, then $f(x_5, y_5) - 4f(x_3, y_3) + 5f(x_1, y_1)$ is
a. 29 b. -19 c. 19 d. 22
96. $f(x_7, y_7)$ is
a. $x_0 + 6y_0$ b. $y_0 + 6x_0$
c. Both (a) and (b) d. Either (a) or (b)
97. Which of the following value of x_0 and y_0 is valid, if $f(x_6, y_6) < 0$?
a. $x_0 = 6, y_0 = -1$ b. $x_0 = 4, y_0 = -1$
c. $x_0 = -2, y_0 = 12$ d. None of these
98. Which of the following value of x_0 and y_0 is valid, if $f(x_9, y_9) > 0$?
a. $x_0 = -2, y_0 = 15$ b. $x_0 = 14, y_0 = -2$
c. $x_0 = 9, y_0 = -1$ d. None of these
99. How many pairs of x_0 and y_0 are valid, if $f(x_7, y_7) < 0$ and $18 > x_0 > 0, -3 < y_0 < 0$?
a. 5 b. 33 c. 16 d. None of these
100. If $-3 < x_0 < 0, 2 > y_0 > 0$, and $f(x_n, y_n) > 0$, then which of the following value of n is possible?
a. $n = 2$ b. $n = 1$ c. $n = 3$ d. None of these

Direction for questions 101 to 110: Answer the questions based on the information given below.

Consider a square grid of $(n + 1) \times (n + 1)$ equi-spaced lines, i.e. two sets of $(n + 1)$ parallel to each other such that the lines of one set are perpendicular to the lines of the other set. The distance between any two adjacent parallel lines is 1 cm.

101. In how many ways can two squares of dimensions 1 cm \times 1 cm be selected such that they have exactly one corner in common?
- a. $(n - 1)^2$ b. $2(n - 1)^2$
c. $2n^2$ d. n^2
102. In how many ways can two squares of dimensions 1 cm \times 1 cm be selected such that they have exactly one edge in common?
- a. $n(n - 1)$ b. $2n^2 - 4n$
c. $2n^2 - n$ d. $2n(n - 1)$
103. In how many ways can 9 squares, each of size 1 cm \times 1 cm be selected such that they form a square of size 3 cm \times 3 cm?
- a. $(n - 2)^2$ b. $(n - 3)^2$
c. $(n - 2)(n - 3)$ d. None of these
104. If n is even, in how many ways can two squares of dimensions 1 cm \times 1 cm be selected such that they lie along one of the diagonals?
- a. $n(n - 1)$ b. n^2
c. $n(n + 1)$ d. $(n - 1)^2$

105. If n is odd, in how many ways can two squares of dimensions $1 \text{ cm} \times 1 \text{ cm}$ be selected such that each of them lies along a diagonal?
- a. $(n - 1)^2$ b. $n(n - 1)$
c. $(n - 1)(2n - 1)$ d. $(2n - 1)^2$
106. In how many ways can two squares of dimensions $1 \text{ cm} \times 1 \text{ cm}$ be selected such that they do not lie on the same column or row?
- a. $\frac{(n - 1)^2}{2}$ b. $\frac{2(n - 1)}{2}$
c. $\frac{(n - 1)^2 \times n^2}{2}$ d. None of these
107. How many distinct squares of dimensions $m \text{ cm} \times m \text{ cm}$ exists on the board? ($m \leq n$)
- a. $(n - m + 1)^2$ b. $(n - m)^2$
c. $(n - m + 1)(n - m)$ d. None of these
108. In how many ways can 5 squares, each of dimension $1 \text{ cm} \times 1 \text{ cm}$ be selected such that any two out of 4 of these do not have any corner common between them but each of these 4 have exactly one corner common with the fifth one?
- a. $(n - 2)^2$ b. $(n + 1)^2$
c. $n(n - 2)$ d. $n(n + 1)$

109. How many rectangles of distinct area are present on the board?

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

110. In how many ways can two squares of dimension 1 cm × 1 cm be selected such that they do not have even a single corner in common?

- a. $\frac{(n^4 - 9n^2 + 12n - 4)}{2}$ b. $\frac{(n^4 - 9n^2 - 12n - 4)}{2}$
 c. $\frac{(n^4 + 9n^2 - 12n + 4)}{2}$ d. $\frac{(n^4 + 9n^2 + 12n - 4)}{2}$

Direction for questions 111 to 120: Answer the questions based on the information given below.

On Mars, any polynomial $C_0x^0 + C_1x^1 + C_2x^2 + \dots + C_nx^n$ is expressed as $(C_0, C_1, C_2, \dots, C_n)$. Further the kth quotient when the polynomial is divided by $(x - A)$ is expressed and given by the following operation:

$(C_0, C_1, C_2, \dots, C_n) * A * k = f^k(A, C_0, C_1, C_2, \dots, C_n)$ where
 $f^k(x_1, x_2, x_3, \dots, x_n) = f^1(x_1, f^{k-1}(x_1, x_2, x_3, \dots, x_n))$ if $k \neq 1$ and
 $= B_1, B_2, B_3, \dots, B_{n-1}$ where $k = 1$, such

that $B_n = \begin{cases} x_{n+1} + x_1 \times B_{n-1} & \text{for } n > n \\ x_{n+1} & n = 1 \end{cases}$

111. What is the second quotient when $x^2 - 5x + 6$ is divided by $(x - 3)$?
- a. 0
b. 6, 31, 133
c. 1, 1, 3
d. None of these
112. If the 2nd quotient when a polynomial is divided by $(x - 2)$ is 1, 2, 4, 8, then what is the 3rd quotient for the same division?
- a. 1, 4, 8, 16
b. 1, 4, 8, 32
c. 1, 4, 12, 32
d. Cannot be determined
113. What is the 3rd quotient when $x^3 - x^2$ is divided by $(x + 1)$?
- a. -1, 4
b. 0, 0, -1, 4
c. 1, -4
d. None of these
114. $(1, 2, 0, 2, 1) * 4 * 1 = ?$
- a. 1, 6, 24, 98, 393
b. 1, 5, 12, 24, 42
c. 1, 6, 18, 42, 84
d. None of these
115. $((12, 6, 3) * 2 * 1) * 1 * 2$
- a. 12, 42, 105
b. 12, 30, 51
c. $((12, 6, 3) * 1 * 2) * 2 * 1$
d. None of these
116. If the 3rd quotient of a polynomial divided by $(x + 1)$ is 3, 5, 2, 7, the 2nd quotient of the same division is
- a. 3, 8, 7, 9
b. 3, 2, 3, 5
c. 3, 2, 7, 5
d. Cannot be determined

Additional direction for 117 to 120 : Answer the questions based on the information given below.

The 5th quotient of a division is 5, 6, 10, 9 and the 6th quotient for the same division is $x, y, z, 93$ where x, y, z are unknowns

117. In the above division, if the divisor is $(x - A)$, then the value of A is
 a. 1 b. 2 c. 3 d. None of these
118. $x = ?$
 a. 5 b. 6 c. 10 d. 9
119. $y = ?$
 a. 11 b. 16 c. 1 d. 4
120. $z = ?$
 a. 16 b. 23 c. 28 d. 42

Direction for questions 121 to 130: Answer the questions based on the information given below.

A sequence of numbers $s_1, s_2, s_3, \dots, s_n$ is denoted by S .

$T(S, k, x_1, x_2, x_3, \dots, x_k)$ breaks the sequence S into k distinct sequences $S_1, S_2, S_3, \dots, S_k$ such that

$$S_n = s_{x_0+x_1+\dots+x_{n-1}}, s_{x_0+x_1+\dots+x_{n-1}+1}, \dots, s_{x_0+x_1+\dots+x_{n-1}+(x_n-1)}$$

where $x_0 = 1$ (given that $x_1 + x_2 + x_3 + \dots + x_k = n$)

Further the following transformations are defined on any sequence of numbers.

$$F(s_0, s_1, s_2, s_3, \dots, s_n) = s_n, s_{n-1}, s_{n-2}, \dots, s_0$$

121. $S = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$. S_2 of $T(S, 3, 2, 3, 5) = ?$
 a. 1, 2, 3 b. 4, 5, 6 c. 2, 3, 4 d. 3, 4, 5
122. $S = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$.
 S_1 of $T(S_3$ of $T(S, 3, 2, 3, 5), 2, 1, 4) = ?$
 a. 3, 4, 5 b. 3 c. 6 d. 7
123. $S = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10$. $F(S_2$ of $T(S, 2, 4, 6)) = ?$
 a. 5, 6, 7, 8, 9, 10 b. 10, 9, 8, 7, 6
 c. 4, 3, 2, 1 d. None of these
124. If $F(S_2$ of $T(S, 2, 2, 2)) = (4, 5)$, then s_4 of $S = ?$
 a. 4 b. 5
 c. 2 d. Cannot be determined
125. $S_1 = 3, 5, 7$; $S_2 = 2, 5$; $S_3 = 1, 7, 9$ are the complete result of $T(S, k, x_1, x_2, \dots, x_k)$, then $S = ?$
 a. 3, 5, 7, 2, 5, 1, 7, 9 b. 1, 7, 9, 2, 5, 3, 5, 7
 c. 7, 5, 3, 5, 2, 9, 7, 1 d. None of these
126. In question 125, the value of $k = ?$
 a. 1 b. 2 c. 3 d. 4
127. In question 125, the value of $x_3 = ?$
 a. 1 b. 2 c. 3 d. 4
128. $S = 1, 3, 5, \dots, 95, 97, 99$.
 $F(S_{20}$ of $T(S, 25, 2, 2, 2, \dots, 2)) = ?$
 a. 77, 79 b. 81, 79
 c. 79, 77 d. 77, 75

129. If S is as defined in question 128 and S_k of $T(S, 25, 2, 2, 2, \dots, 2) = 61, 63$, then $k = ?$
 a. 25 b. 16 c. 15 d. 12
130. If $S = (1, 4, 7, \dots, 34)$ and $T(S, k, x_1, x_2, x_3, \dots, x_k)$ is a valid transformation, then the value of $x_1 + x_2 + x_3 + \dots + x_k = ?$
 a. 9 b. 10 c. 11 d. 12

Direction for questions 131 to 140: Answer the questions based on the following information.

The function 'f' is defined as $f(x_n, x_{n-a}, x_{n-b}, x_{n-c}, \dots, x_{n-j}, k) = k^n(x-j) + k^{n-a}(x-i) + k^{n-b}(x-h) + \dots + k^{n-i}(x-a) + k^{n-j}x$ where k is a non-negative integer and a, b, c, \dots, j , and n are natural numbers.

131. Find the expression of the function $f(x_5, x_4, x_3, x_2, 1)$.
 a. $5x - 10$ b. $5x + 10$
 c. $4x - 6$ d. None of these
132. Find the expression of the function $f(x_6, x_4, x_2, x_1, 2)$.
 a. $84x - 392$ b. $86x - 392$
 c. $102x - 396$ d. None of these
133. Find the expression of the function $f(x_7, x_5, x_3, x_2, x_1, 2)$.
 a. $174x - 968$ b. $170x - 946$
 c. $172x + 396$ d. $192x - 946$
134. Find the expression of the function $f(x_9, x_8, x_5, x_3, x_1, 0)$.
 a. $1024x - 1626$ b. 0
 c. $810x - 1024$ d. None of these

135. Find the value of the function $f(x_6, x_5, x_4, x_{-2}, 2)$, if $x = -4$.
 a. -1141 b. -491 c. -941 d. -1041
136. Find the value of the function $f(x_4, x_3, x_2, x_{-1}, 3)$, if $x = 3$.
 a. -116 b. -208 c. -207 d. -117
137. Find the expression of the function $f(x_5, x_3, x_2, x_{-1}, 2)$.
 a. $42x - 124$ b. $85x - 448$
 c. $\frac{89x - 448}{2}$ d. None of these
138. Which of the following function has the expression value $39x - 63$?
 a. $f(x_3, x_{-1}, x_{-2}, 3)$ b. $f(x_4, x_3, x_2, 2)$
 c. $f(x_3, x_2, x_1, 3)$ d. $f(x_3, x_2, x_{-1}, 2)$
139. Find the function of the value 6, if $x = 5$.
 a. $f(x_3, x_{-1}, x_{-2}, 1)$ b. $f(x_3, x_{-1}, x_{-2}, 3)$
 c. $f(x_3, x_2, x_1, 3)$ d. $f(x_3, x_2, x_{-1}, 1)$
140. Which of the following function has the correct expression?
 a. $f(x_3, x_{-1}, x_{-2}, 3) = 3^3(x - 5) + 3^{-1}(x - 4) + 3^{-2}x$
 b. $f(x_3, x_{-1}, x_{-2}, 3) = 3^3(x + 5) + 3^{-1}(x + 4) + 3^{-2}x$
 c. $f(x_4, x_3, x_2, x_{-1}, 3)$
 $= 3^4(x + 5) + 3^3(x - 2) + 3^2(x - 1) + 3^{-1}x$
 d. None of these

Section – III

141. The person in a company that deals with the computer and networking issues is called
a. Administrator b. Database Administrator
c. Networking Specialist d. None of these
142. The instrument that acts as a mobile phone and as a personal digital assistant is called
a. Cellphone b. Simputer
c. Palmtop d. None of these
143. What is the capital of Ethiopia?
a. Addis Ababa b. Dar es Salaam
c. Abuja d. Harare
144. Which of the following is the capital city of East Timor?
a. Kiev b. Dilli c. Zagareb d. Abidjan
145. The ocean that occupies larger area than the area occupied by the earth is
a. Atlantic Ocean b. Arctic Ocean
c. Pacific Ocean d. Indian Ocean
146. The metal that is costlier than gold in the given options is
a. Mercury b. Tungsten c. Platinum d. Uranium
147. Edwin Land is associated with this company and this company has filed for bankruptcy also. Can you identify the name of this company from the given options?
a. Kodak b. Polaroid c. Fuji d. Konica

155. Name the first Indian movie to have been insured by GIC.
a. *Taal* b. *Hum Apke Hain Kaun*
c. *Sarfarosh* d. *Dil Chahata Hai*
156. Name the first Indian company to have been listed on NYSE.
a. Infosys Technologies b. Wipro Technologies
c. Reliance Industries d. ICICI
157. What is Prime Meridian?
a. It is the zero degree longitude from which the south and north are reckoned.
b. It is the zero degree latitude from which north and south are reckoned.
c. It is the zero degree longitude from which the east and west are reckoned.
d. It is the zero degree latitude from which east and west are reckoned.
158. Name the fabric that is named on the place called Nime in France.
a. Denim b. Khaki c. Polyester d. Rayon
159. The latest country to have joined the United Nations is
a. Tuvalu b. Switzerland
c. East Timor d. Nauru
160. Who among the following personalities is the winner of the Nobel Prize for Literature for 2003?
a. D. B. C. Peare b. J. M. Coetzee
c. V. S. Naipaul d. Margret Atwood

161. What is HELPAGE India?
- a. An organization for the support of the poor and elderly.
 - b. An organization for the support of the blinds.
 - c. An organization for the support of the helpless women.
 - d. A project launched by the Maharashtra government for the help of the orphan children.
162. A line drawn on the map, along which the value of a particular phenomenon or product is uniform, is known as
- a. Isobath
 - b. Isonomal
 - c. Isohalines
 - d. Isopleth
163. Which of the following famous personalities autobiography is titled as *Daughter of the East*?
- a. Aung San Suu Kyi
 - b. Benazir Bhutto
 - c. Megawati Sukarnoputri
 - d. Chandrika Kumaratunge
164. The first factory of East India Company was established at
- a. Bombay
 - b. Madras
 - c. Calcutta
 - d. Surat
165. Which of the following is NOT a Special Economic Zone (SEZ)?
- a. Kandla
 - b. Surat
 - c. Mumbai
 - d. Bhopal
166. The present chief minister of Uttar Pradesh is
- a. Mulayam Singh Yadav
 - b. Mayawati
 - c. Rajnath Singh
 - d. Kalyan Singh
167. Einstein's last letter was addressed to which of the following peacemakers?
- a. F. D. Roosevelt
 - b. Bertrand Russell
 - c. Martin Luther King
 - d. Clement Atlee

168. Which among the following represents the place where the headquarters of Red Cross are located?
a. Rome b. Geneva c. London d. Berne
169. The new chairman of IRDA is
a. N. Rangachari b. C. S. Rao
c. C. Ranagarajan d. Dr. Bimal Jalan
170. The name of the movie directed by Steven Spielberg nominated for 11 categories in Oscars but did not win any is
a. *Schindler's list* b. *The Colour Purple*
c. *Amistad* d. *Saving Private Ryan*
171. Who discovered the safety lamp?
a. William Harvey b. Humphry Davy
c. James Watt d. Thomas Alva Edison
172. The first Indian state to have launched the train called 'Palace on Wheels' is
a. Madhya Pradesh b. New Delhi
c. Rajasthan d. Maharashtra
173. Name the instrument used for measuring the atmospheric pressure.
a. Odometer b. Barometer
c. Lactometer d. Sphygmomanometer
174. Department of Posts launched eSeva in collaboration with which of the companies?
a. Netlinx Ltd b. HCL Technologies
c. i-Flex Solutions d. Silverline Technologies

175. Who is known as the Father of Genetics and is known for conducting experiments with peas?
- a. G. J. Mendel
 - b. Charles Darwin
 - c. Franklin Rosalind
 - d. M. J. Schleiden
176. Who is the founder of Jainism?
- a. Rishabha
 - b. Mahavir
 - c. Parshvanath
 - d. Shantinath
177. Rights of prisoners of war are associated with which of the following conventions?
- a. The Hague Convention
 - b. Geneva Convention
 - c. Prague Convention
 - d. Kosovo Convention
178. Emergency declaration by the President due to the constitutional breakdown of the machinery in the state is associated with which of the following articles of the Constitution?
- a. Article 280
 - b. Article 352
 - c. Article 356
 - d. Article 370
179. LAN is a type of
- a. Internet
 - b. Intranet
 - c. Modem
 - d. Computer software
180. What is the expansion of NAFTA?
- a. North Atlantic Free Trade Association
 - b. North American Free Trade Agreement
 - c. New American Free Trade Association
 - d. New Association of Freely Trading Americans

- a. Nelson Mandela b. Mohammad Khatami
c. Thaksin Shinawatra d. S. R. Nathan
189. *Harry Potter* series is authored by
a. Jhumpa Lahiri b. J. K. Rowling
c. E. M. Foster d. Irwing Wallace
190. Who among the following personalities is the author of the book titled *Small is beautiful*?
a. E. F. Schumacher b. Abraham Maslow
c. Adam Smith d. Robert A. Mundell
191. The meaning of Utopia is
a. any real or imaginary perfect place
b. state of trans
c. excited state
d. enlightened state
192. What is Amnesty International?
a. World's foremost medical organization
b. World's foremost human rights organization
c. World's foremost philanthropic organization
d. An Scout and Guides Organization
193. Forest Research Institute is based at
a. Indore b. Lucknow
c. Dehra Dun d. Gwalior
194. Why did USA abandoned the use of Mercury thermometers?
a. Because its readings were not accurate
b. To reduce the mercury pollution as it is non-biodegradable

- c. Because other cheaper substitutes of Mercury are available
d. None of these
195. What does Sharda Act deal with?
a. Prohibition of child labour
b. Prohibition of child marriage
c. Prohibition of dowry system
d. Prohibition of *Sati pratha*
196. Which of the following countries would you associate with the initiation of the Industrial Revolution?
a. France b. Germany c. England d. China
197. In the 552 members of the Lok Sabha, how many members are there from the Union Territories?
a. 40 b. 30 c. 20 d. 10
198. The Indian state that has the lowest population, according to the latest census 2001, is
a. Tripura b. Nagaland c. Sikkim d. Manipur
199. The first Non-Aligned countries conference took place in 1961 at
a. Durban b. Lisbon c. Belgrade d. New Delhi
200. The minimum age required to become the President, Vice-President of India or Governor of an Indian state is
a. 35 years b. 30 years
c. 25 years d. 21 years