

Secretariat Assistant Exam Held on 5-6-2004

Questions 1 to 5: Choose synonymous word

1. To surprise somebody greatly:
(a) Appraise (b) Antonyms (c) Astonish (d) Reveal
2. To make something more important than it really:
(a) Excess (b) Elaborate (c) Stress upon (d) Exaggerate
3. Express one's opinion without evidence or full knowledge:
(a) Specify (b) Speculate (c) Concede (d) Sensing
4. An event that will happen soon:
(a) Imminent (b) Damnsure (c) Immense (d) Immutable
5. To lead somebody to do something:
(a) Persuade (b) Placate (c) Persecute (d) Perpend

Questions 6 to 10: Four words are given in each. Three of them can be grouped together applying a principle. One word does not belong to the group. Find it out.

6. (a) Violet (b) Blue (c) Magenda (d) Green
7. (a) Cucumber (b) Carrot (c) Brinjal (d) Ladies finger
8. (a) Yaswanth Sinha (b) Jaswant Singh
(c) Shatrugnan Sinha (d) Manmohan Singh
9. (a) Cancel (b) Nullify (c) Void (d) Confirm
10. (a) G. Sankarakuruppu (b) O.N.V. Kuruppu
(c) S.K. Pottekkadu (d) Thakazhi Sivasankarapillai

Questions 11 to 13: Three words are given. There is a relationship between the first two words. Select a word that expresses a similar relationship with the third word from the given alternatives.

11. Pather Panjali : Sathyajith Ray; Athithi :
(a) K.P. Kumaran (b) M.T. Vasudevan Nair
(c) T.V. Chandran (d) P.A. Backer
12. Pareekkutty : Madhu; Chemban Kunju :
(a) P.J. Antony (b) Jose Prakash
(c) Govindankutty (d) Kottarakara Sreedharan Nair
13. Bangladesh: Dhaka; Austria:
(a) Canberra (b) Lapaz (c) Santiago (d) Vienna

Question 14 to 20: choose correct answer from the alternative to fill the blank space:

14. A,E,J,O,—
(a) M,Q (b) S,X (c) T,Y (d) U,Z
15. ADH, BEI, CFJ,—
(a) DGL (b) DHK (c) EHL (d) FIM
16. Veluthampi Dalawa — a brave fight against British Army.
(a) Put up (b) Put off (c) Put in (d) Put down
17. The train was coming, the supervisor — the workers to stop working on rail.
(a) called off (b) called in (c) called away (d) called out
18. It — rain this evening.
(a) can (b) may (c) could (d) is
19. — the suspected cause for earthquakes is the construction of dams.
(a) Most of (b) Only (c) One of (d) None of these
20. There were — telephone booths around, so that the old one is closed.
(a) few (b) a little (c) a few (d) little

Questions 21 to 35: Select appropriate answer:

21. Adolph Hitler committed suicide in

- (a) 1943 (b) 1944 (c) 1945 (d) 1946
22. Congress Socialist Party was formed in
(a) 1934 (b) 1935 (c) 1936 (d) 1938
23. IMF/World Bank was formed in
(a) 1942 (b) 1944 (c) 1946 (d) 1947
24. Kyoto Conference was held in
(a) 1992 (b) 1993 (c) 1996 (d) 1997
25. Indian Patent Act was formed in
(a) 1970 (b) 1975 (c) 1977 (d) 1980
26. 'One Life' is written by:
(a) Dr. B. Iqbal (b) Bergnan (c) Kurozowa (d) Dr. Christiaan Bernard
27. 'The Interpretation of Dreams' is written by:
(a) Eric Erikson (b) Sigmund Freud (c) A. Beck (d) Kraepelin
28. 'Kesavante Vilapangal' is written by:
(a) M. Mukundan (b) O.V. Vijayan (c) Anand (d) Perumbadavam Sreedharan
29. First Malayalam cinema is:
(a) Balan (b) Newspaper Boy (c) Harishchandra (d) Vigatha Kumaran
30. The Director of the film 'Susanna' is:
(a) T.V. Chandran (b) Priyadarsan
(c) Adoor Gopalakrishnan (d) Lenin Rajendran
31. The Nigerian Novelist who won the Nobel prize:
(a) Clod Seamong (b) Vol Soyinga
(c) Joseph Brodsky (d) None of the above
32. 'World AIDS Day':
(a) April 17th (b) June 5th
(c) December 1st (d) February 14th
33. The famous film song 'Easwaran Hinduvala, Islamalla, Christianiyalla, Indranum Chandranumalla' was written by:
(a) O.N.V. Kuruppu (b) S.L. Puram Sadanandan
(c) Vayalar Ramavarma (d) None of the above
34. FIFA President:
(a) Sep Blatter (b) Urz Linzy (c) H.K. Dua (d) None of the above
35. Erethrean Sea is:
(a) Bay of Bengal (b) Indian Ocean
(c) Red Sea (d) Arabian Sea
- Questions 36 to 55: Choose the correct answer:**
36. Find out the values of 'x' and 'y' if $x + y = 7$; $3x - 2y = 11$.
(a) 4, 3 (b) 5, 2 (c) 3, 4 (d) 2, 5
37. Five years ago I was thrice as old as my son and ten years later I shall be twice as old as my son. How old are we now?
(a) 30 & 40 (b) 50 & 20 (c) 40 & 15 (d) 35 & 15
38. 3 chairs and 2 tables cost Rs. 700 and 5 chairs and 3 tables cost Rs. 1,100. What is the cost of 2 chairs and 2 tables?
(a) Rs. 400. (b) Rs. 500. (c) Rs. 600. (d) Rs. 900.
39. Find two consecutive natural numbers whose squares have been the sum 221.
(a) 10, 11 (b) 9, 10 (c) 12, 13 (d) 13, 15
40. Find out the values of x & y if $2x + 3y = 31$; $17x - 11y = 8$.
(a) 4, 7 (b) 5, 7 (c) 6, 8 (d) 5, 8
41. The sum of two numbers is 15. If the sum of their reciprocals is $\frac{3}{10}$, find out the numbers.

- (a) 9,6 (b) 8,7 (c) 5,10 (d) 4,11
42. The length of a rectangular plot is 8 metres greater than its breadth. If the area of the plot is 308 m. find the length and breadth of the plot in metre.
(a) L-16, B-8 (b) L-18, B-10 (c) L-20, B-12 (d) L-22, B-14
43. A lawn is in the shape of a rectangle of length 60 metres and width 40 meters. Outside the lawn there is a foot path of uniform width 1 metre broadening the lawn. Find out the area of the path.
(a) 4m² (b) 204m² (c) 204m (d) 184m²
44. A chess board contain 64 equal squares and the area of each square is 6.25 cm². A border round the board is 2cm wide. Find the length of the side of the chess board.
(a) 24cm (b) 42cm (c) 60cm (d) 64cm²
45. The area of a triangle is 48cm², the base is 12 cm. What is its altitude?
(a) 4cm (b) 6cm (c) 8cm (d) 12cm
46. The minute hand of a clock is 10cm long. Find the area on the face of the clock described by the minute hand between 9.00 am. and 9.35 am.
($\pi=3.14$)
(a) 183 cm² (b) 160 cm² (c) 100 cm² (d) 314 cm²
47. The number of children in 10 families in a locality are listed: 3, 1,4,0, 2, 1, 1,2,3,3. Find out the mean number of children.
(a) 1 (b) 2 (c) 3 (d) 4
48. The mean of a set of 40 values is 6. Each of the values is increased by 5. What will be the mean of the set of new values?
(a) 11 (b) 45 (c) 60 (d) 70
49. Find out the median of the values 5,10,3,7,2,9,6,2,11.
(a) 2 (b) 6 (c) 11 (d) 9
50. 5:6,7:8, 13:16-Which of the following is correct, if the above values are arranged in descending order of magnitude?
(a) 5:6>7:8>13:16(b) 13:16>7:8>5:6 (c) 7:8>5:6>13:16 (d) 7:8>13:16>5:6
51. What must be added to the numbers 6, 10, 14 and 22 so that they became successive proportional?
(a) 1 (b) 2 (c) 3 (d) 4
52. Which one of the following is having greater value?
(a) 5:3 (b) 6:4 (c) 7:6 (d) 9:7
53. Nalini purchases a cycle for Rs. 660 including sales tax. If the rate of sales tax is 10%, find out the sale price of the cycle.
(a) Rs. 500 (b) Rs. 550 (c) Rs. 560 (d) Rs. 600
54. What will be the next number in the following series of numbers 2, 4, 16,
(a) 32 (b) 64 (c) 256 (d) 300
55. What will be the next number, if the series of numbers is as follows 3,11,27,59,
(a) 70 (b) 86 (c) 100 (d) 123

Questions 56 to 100: Select the appropriate answer:

56. Who proposed the atomic theory?
(a) John Dalton (b) Neils Bohr (c) Chadwick (d) Rutherford
57. Father of Electricity:
(a) Michal Faraday (b) J.J. Thompson (c) Edison (d) Ampere
58. Who is related to Green Revolution in India?
(a) Varghese Kurian (b) Anand
(c) Dr. M.S. Swaminathan (d) Medha Padkar
59. Dengue Fever is caused by ———
(a) Bacteria (b) Virus (c) Fungi (d) Not produced by infective agent
60. Temporary hardness of water is due to ———.
(a) Calcium chloride (b) Sodium carbonate
(c) Sodium chloride (d) Magnesium bicarbonate

61. Global warming is due to the increased production of all the following EXCEPT:
 (a) Carbon dioxide (b) Ethane (c) Methane (d) Sulphur dioxide
62. The concept that 'all plants are made of cells' was put forward by:
 (a) Theodor Schwann (b) R. Virchow
 (c) Louis Pasteur (d) M.J. Schleiden
63. All the following are noble metals EXCEPT:
 (a) Mercury (b) Gold (c) Silver (d) Platinum
64. EEG is used to study the functions of:
 (a) Heart (b) Muscle (c) Brain (d) Nerve
65. DNA model is put forward by:
 (a) Ian Wilmut (b) Dr Henri Becquerel
 (c) Robert Hook (d) None of the above
66. World Heavy - weight Champion of 2003:
 (a) Clistco (b) Muhammed Ali
 (c) Linnex Lewis (d) None of the above
67. Second Kerala Chief Minister is:
 (a) Pattom Thanu Pillai (b) E.M.S.
 (c) C. Achutha Menon (d) R.Sankar
68. The slogan 'Inquilab Zindabad' was first used by:
 (a) Bhagat Singh (b) Subhash Chandra Bose
 (c) V.I. Lenin (d) Ajay Ghosh
69. 'Sadhu Jana Paripalana Sangam' is founded by:
 (a) A.K. Gopalan (b) Ayyankali
 (c) Sree Narayana Guru (d) Vakkom Maulavi.
70. All of the following are Dravidian language EXCEPT:
 (a) Malayalam (b) Telugu (c) Thulu (d) Marathi
71. First Internal Affairs Minister of independent India:
 (a) Jawaharlal Nehru (b) Lal Bahadur Shastri
 (c) Sardar Vallabhai Patel (d) V. Krishna Menon
72. Capital of Kenya:
 (a) Aman (b) Nairobi (c) Cairo (d) Beirut
73. First computer virus:
 (a) Gappi (b) Meleesa (c) Norton (d) Apple
74. Who declared that "Swaraj is my birth right and I must have it"?
 (a) Bhagat Singh
 (b) Balgangadhar Tilak
 (c) Mahatma Gandhi (d) Subhash Chandra Bose
75. All of the following persons are extremists of Independence movement EXCEPT:
 (a) Lala Lajpat Rai (b) Bipin Chandrapal
 (c) Gopalakrishna Gokhale (d) Aurobindo Ghosh
76. Which of the following event is related to General Dyer?
 (a) Jalianwala Bagh massacre (b) Wagon Tragedy
 (c) Chittagong Riot (d) Punnapra- Vayalar struggle
77. First battle of Panipat was between:
 (a) Hemu and Akbar (b) Marathas and East India Company
 (c) Babur and Ibrahim Lodi (d) East India Company and Portuguese
78. Where did Gandhiji launch his first struggle?
 (a) Navaghal (b) Dandi (c) Kappad (d) Champaran

79. Who presided the first session of All India Trade Union Congress?
 (a) Subhash Chandra Bose (b) Lala Lajpat Rai
 (c) C.R. Das (d) Jawaharlal Nehru
80. Volunteer captain of Guruvayoor Temple Sathyagraha:
 (a) A.K. Gopalan (b) K. Kelappan
 (c) Pattom Thanupillai (d) Ayyankali
81. The East India Company established its first factory at
 (a) Surat (b) Pune (c) Calcutta (d) Bombay
82. Formation of the INA was the result of the great efforts made by
 (a) Captain Lakshmi Bai (b) Rash Behari Bose
 (c) Subhash Chandra Bose (d) Aurobindo Ghosh
83. In which conference did Subhash Chandra Bose was elected as the president of Indian National Congress?
 (a) Avadi (b) Pune (c) Tripuri (d) Bombay
84. RSS was banned in 1948 in relation with
 (a) India-Pak division (b) Hindu-Muslim War
 (c) Bengal Division (d) Assassination of Mahatma Gandhi
85. 'Bhruhaspathi' is related with
 (a) Arya Samajam (b) Medicine
 (c) Indus civilization (d) Charvakamatham
86. The slogan 'American Model Arabikadalil' is related with
 (a) Telungana struggle (b) Punnapra-Vayalar struggle
 (c) Kayyur struggle (d) Vaikom Sathyagraha
87. 'Keralam Malayalikalude Mathrubhoomi' was written by
 (a) Kumaranasan (b) Thakazhi (c) E.M.S. (d) Vallathol
88. Male-female sex ratio of India in 2001 census is:
 (a) 1000 : 933 (b) 1000 : 1040 (c) 1000 : 939 (d) 1000 : 1046
89. The Prime Minister who started privatization in Britain:
 (a) Margaret Thatcher (b) John Major
 (c) Tony Blair (d) Winston Churchill
90. The smallest state in the world
 (a) Russia (b) Vatican (c) Sri Lanka (d) Cuba
91. The persons who became the Chief Minister for the longest period in India:
 (a) E.K. Nayanar (b) Vasantha Sate
 (c) Jyothi Basu (d) K. Karunakaran
92. Who was the first speaker of Lok Sabha?
 (a) Sivaraj Patel (b) Jagjeevan Ram
 (c) Lal Bahadur Shastri (d) G.V. Mavlankar
93. Panchayathi Raj instructions came into effect with the amendment of the constitution:
 (a) 70th (b) 73rd (c) 76th (d) 79th
94. Who is the president of newly declared independent country, East Timor?
 (a) Xanana Gusmao (b) Hugo Chavez
 (c) Lula da Silva (d) Nuster Kitchnarre
95. The Chairman of Constitution review committee:
 (a) Kuldip Nayyar (b) Justice Kbare
 (c) Justice Varma (d) Justice Venkita Chellaiya
96. Monthly salary of Chief Justice of India:
 (a) Rs. 30,000 (b) Rs. 31,000 (c) Rs. 1,10,000 (d) Rs. 50,000

97. What is B.O.D.?
 (a) Biological Oxygen Demand
 (b) Biochemistry of Diseases
 (c) Biochemical Oxygen Demand (d) None of the above
98. Meenamatha disease is related with
 (a) Cadmium (b) Mercury (c) Lead (d) Iron
99. National party is one which could secure not less than — % of the total valid votes in the previous general election.
 (a) 4% (b) 6% (c) 8% (d) 9%
100. The theory that 'the continents will travel' was first put forward by:
 (a) Antonio Sneider (b) F.J. Wine (c) D.H. Mathews (d) Alfred Wegner

**Answers with Explanations
 Secretariat Assistant (Preliminary)**

1. (c) Astonish 2. (d) Exaggerate
 3. (b) Speculate 4. (a) Imminent
 5. (a) Persuade
 6. (c) Magenda
 ▶ All the others colours present in rainbow.
 7. (b) Carrot
 ▶ It is a root vegetable.
 8. (c) Shatrugnan Sinha. (Most correct answer)
 ▶ All others were Finance Ministers of India (d) Manmohan Singh can also be the answer as others were only union ministers while Manmohan Singh is the Prime Minister.
 9. (d) Confirm. മറ്റുള്ളവ negative meaning ഉള്ള synonyms ആണ്. Void എന്നാൽ നിയമപാബദ്ധ്യം ഇല്ലാത്തത് എന്നാണ് അർത്ഥം. Null and void പ്രയോഗം ഓർമ്മിക്കുക.
 10. (b) O.N.V. Kuruppu.
 ▶ G. Sankarapuruppu, S.K. Pottekkadu and Thakazhi were all the recipients of Jnanpith award.
 11. (a) K.P. Kumaran
 12. (d) Kottarakara Sreedharan Nair
 ▶ P.J. Antony-First Keralite get Bharat award.
 13. (d) Vienna
 ▶ Canberra - capital of Australia
 ▶ Santiago - capital of Chile
 14. (c) T, Y

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |

E 5th position J 10th position
 O 15th position T 20th position
 Y 25th position

15. (c) and (d) are correct
 $A + 3 = D, D + 4 = H$
 $B + 3 = E, E + 4 = I$
 $C + 3 = F, F + 4 = J$
 $E + 3 = H, H + 4 = L$
 So answer is EHL
 FIM also comes in the same manner

16. (a) Put up 17. (d) Called out
 18. (b) May 19. (c) One of the
 20. (c) a few
 21. (c) 1945
 ▶ Hitler became the Chancellor of Germany in 1933.
 22. (a) 1934
 ▶ Congress Socialist Party was set up in 1934 under Acharya Narendra Dev and Jayaprakash Narayan.
 23. No right answer
 IMF-was established in 1945 and started functioning in 1947. Wold Bank was set up in 1944 and began operation in 1946.
 ഇവിടെ ചോദ്യകർത്താവ് ഉദ്ദേശിച്ചത് IBRD/World Bank എന്നാണ്. ഇങ്ങനെയാണ് ചോദ്യം ആയിരുന്നെങ്കിൽ ഉത്തരം (b) ആകുമായിരുന്നു.

24. (d) 1997
 ▶ ജപ്പാനിലെ Kyoto-യിൽ വച്ചാണ് ആഗോള താപനത്തിന് കാരണമായ വാതകങ്ങൾ പുറത്ത് വിടുന്നത് കുറയ്ക്കാനായി Kyoto Protocol ഒപ്പുവച്ചത്.
25. (a) 1970
26. (d) Christiaan Bernard. *One life* is a book written by Dr Christiaan Bernard. He made the first human heart transplant in 1967.
27. (b) Sigmund Freud
 ▶ Freud was the founder of Psychoanalysis. *Psychopathology of Every Life, The Ego and the Id* are his other famous works.
28. (a) M. Mukundan
 ▶ നൃത്തം, ചൈവത്തിന്റെ വികൃതികൾ, മയ്യുഴിച്ചുഴയുടെ തിരങ്ങളിൽ എന്നിവ മുകുന്ദന്റെ മറ്റു കൃതികളാണ്.
29. (d) Vigatha Kumaran
 ▶ മലയാളത്തിലെ ആദ്യത്തെ ശബ്ദ ചിത്രം - ബാലൻ
30. (a) T.V. Chandran
 ▶ ശ്രീശ്രീഷ് ഫിലിം ഇൻസ്റ്റിറ്റ്യൂട്ട് അവാർഡ് നേടിയ ഒരേയൊരു മലയാള ചലച്ചിത്രകാരനാണ് അടൂർ ഗോപാലകൃഷ്ണൻ.
31. (b) Vol Soyinga
 ▶ Dr Zhivago is a book written by the Russian novelist Boris Pasternak.
32. (c) December 1st
 ▶ World Health Day - April 7 ▶ World Environment Day - June 5
 ▶ Valentines Day - February 14
33. (c) Vayalar Ramavarma
 ▶ എനിക്കു മരണമില്ല, കൊത്തുപുണ്യം, ഒരു കവിയുടെ ഡയറി തുടങ്ങിയവ വയലാറിന്റെ പ്രധാന കൃതികളാണ്.
34. (a) Sepp Blatter
 ▶ FIFA celebrated its 100th anniversary in 2004. FIFA was formed on May 21, 1904.
35. (c) Red sea.
 ▶ Malagasy islands is the biggest island in the Indian ocean.
36. (b) $x + y = 7$ (1)
 $3x - 2y = 11$ (2)
 $(1) \times 2 \Rightarrow 2x + 2y = 14$
 $3x - 2y = 11$
 $5x = 25$
 $x = 5$
 $\therefore y = 7 - x = 7 - 5 = 2$
37. (b) 50 & 20
 Let 'x' be the age of son,
 $3x + 15 = 2(x + 15)$
 $3x + 15 = 2x + 30$
 $\therefore x = 15$
 Present age of son = $x + 5 = 20$
 Father = $3x + 5 = 50$
38. (c) Rs. 600
 $3 \text{ chair} + 2 \text{ table} = 700$ (1)
 $5 \text{ chair} + 3 \text{ table} = 1100$ (2)
 $3 \times (1) \Rightarrow 9 \text{ chair} + 6 \text{ tables} = 2100$ (3)
 $2 \times (2) \Rightarrow 10 \text{ chair} + 6 \text{ tables} = 2200$ (4)
 $(4) - (3) \Rightarrow \text{Chair} = 100$
 $\therefore \text{tables} = 200$
 $2 \text{ chair} + 2 \text{ tables}$
 $= 200 + 400$
 $= 600$
39. (a) 10, 11
 ie., $10^2 + 11^2 = 100 + 121 = 221$
40. (b) 5, 7
 $2x + 3y = 31$ (1)
 $17x - 11y = 8$ (2)
 $(1) \times 11, 22x + 33y = 341$
 $(2) \times (3), 51x - 33y = 24$
 $73x = 365$
 $x = \frac{365}{73} = 5$
 $\therefore 10 + 3y = 31 \quad 3y = 21$
 $\therefore y = 7$
41. (c) 5, 10
 If a = 5 and b = 10
 $a + b = 5 + 10 = 15$
 Sum of their reciprocals
 $= \frac{1}{a} + \frac{1}{b} = \frac{1}{5} + \frac{1}{10} = \frac{2+1}{10} = \frac{3}{10}$

42. (d) L - 22, B - 14
 $l - b = 8m$ $lb = 308$

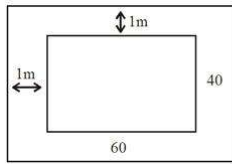
$$l + b = \sqrt{(l - b)^2 + 4lb} = \sqrt{64 + 1232} = \sqrt{1296}$$

$$l + b = 36$$

$$l - b = 8$$

$$2l = 44, \quad l = 22, \quad b = 36 - 22 = 14$$

43. (b) $204m^2$



Area of the path = Area of the larger rectangle - Area of the smaller rectangle.
 $= (62 \times 42) - 60 \times 40 = 2604 - 2400 = 204m^2$

44. (a) 24cm

$$\text{Total area of the chess board} = 64 \times 6.25 \text{ cm}^2$$

$$\text{Side of the chess board} = \sqrt{64 \times 6.25} = 20 \text{ cm}$$

$$\text{Length of the side of the chess board}$$

$$= 20 + (2 \times 2) = 24 \text{ cm}$$

45. (c) 8cm

$$\text{Area} = \frac{1}{2} bh$$

$$\frac{1}{2} \times 12 \times h = 48$$

$$h = 8 \text{ cm}$$

46. (a) $183cm^2$ Angle subtend is 210° .

$$\text{Area} = \pi r^2 \frac{\theta}{360} = \pi \times 10 \times 10 \times \frac{210}{360} = 183 \text{ cm}^2$$

47. (b) 2

$$\text{Mean} = \frac{\text{Sum}}{\text{Number}} = \frac{3+1+4+0+2+1+1+2+3+3}{10} = \frac{20}{10} = 2$$

48. (a) 11

$$\text{New mean} = 5 + \text{old mean} = 5 + 6 = 11$$

49. (b) 6

Values written in ascending order

2, 2, 3, 5, 6, 7, 9, 10, 11

Middle value is the median. i.e., 6

50. (c) $7 : 8 > 5 : 6 > 13 : 16$ $\frac{5}{6} = 0.86$, $\frac{7}{8} = 0.87$, $\frac{13}{16} = 0.81$

$$7 : 8 > 5 : 6 > 13 : 16$$

51. (b) 2



$$(6 + x)(22 + x) = (14 + x)(10 + x)$$

$$132 + 6x + 22x + x^2 = 140 + 14x + 10x + x^2$$

$$28x - 24x = 140 - 132$$

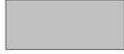
$$4x = 8$$

$$x = 2$$

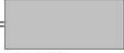
52. (a) 5 : 3



53. (d) 600



cp=



54. (c) 256 2, 4, 16
 $4 = 2^2$, $16 = 4^2$, $256 = 16^2$
55. (d) 3, 11, 27, 59, 123
 (+8 +16 +32 +64)
 Difference between the consecutive numbers are 8, 16, 32, 64
56. (a) John Dalton
 ▶ Dalton proposed that all matter is composed of extremely small particles called atoms.
57. (a) Michael Faraday
 ▶ Father of Nuclear Physics - Ernest Rutherford.
 ▶ Father of Atom Bomb - Otto Hahn.
58. (c) Dr. M.S. Swaminathan
 ▶ M.S. Swaminathan, eminent agricultural scientist will now heads a committee appointed by the Agriculture Ministry to prepare a national policy on Agrie - Biotechnology.
59. (b) Virus
 ▶ ആർബോ വൈറസ് മൂലമാണ് ഡെങ്കിപ്പനി ഉണ്ടാകുന്നത്.
60. (d) Magnesium bicarbonates
 ▶ Temporary hardness of water is due the presence of bicarbonates of calcium and magnesium.
61. (d) Sulphur dioxide
 ▶ Carbon compounds are mainly responsible for Green House Effect. തന്നിരിക്കുന്ന മറ്റുള്ളവയെല്ലാം കാർബണിന്റെ സംയുക്തങ്ങളാണ്.
62. (d) M.J. Schleiden
 ▶ സസ്യശരീരം കോശങ്ങളാൽ നിർമ്മിതമാണെന്ന് കണ്ടെത്തിയത് എം.ജെ. ഷ്ലീഡൻ എന്ന ജർമ്മൻ ശാസ്ത്രജ്ഞനാണ്. എന്നാൽ സെൽ തിയറി രൂപീകരിച്ചത് Schwan ഉം Schleiden നും ഒരുമിച്ചാണ്. ചോദ്യം സസ്യശരീരമായതിനാൽ ഉത്തരം (d).
63. (a) Mercury
 ▶ Mercury is referred to as the first superconducting metal.
64. (c) Brain
 ▶ ECG (Electrocardiogram) is used to study the function of Heart.
65. (d) None of the above
 ▶ DNA model was propounded by Watson and Crick in 1953.
66. (c) Linnex Lewis
67. (a) Pattom Thanu Pillai.
 ▶ ആദ്യത്തെ കോൺഗ്രസ് മുഖ്യമന്ത്രി ആർ. ശങ്കരാണ്.
68. (a) Bhagat Singh
 ▶ The slogan of 'Inquilab Zindabad' was given by the revolutionary, group 'Hindustan Socialist Republic Association.
69. (b) Ayyankali
 ▶ ശ്രീ നാരായണ ധർമ്മപരിപാലന യോഗത്തിന്റെ സഹപങ്കനാണ് ശ്രീനാരായണഗുരു.
70. (c) All except Marathi are Dravidian languages.
71. (c) Sardar Vallabhbhai Patel.
 ▶ Internal Affairs refers to Home Ministry.
72. (b) Nairobi
 ▶ Cairo is the capital of Egypt.
73. (d) APPLE
 ▶ VIRUS refers to Vital Information Resources Under Siege.
74. (b) Balgangadhar Tilak
 ▶ "Dilli Chalo" and "Jai Hind" were coined by Subhash Chandra Bose.
75. (c) Goplakrishna Gokhale
 ▶ Gokhale, Dadabhai Naoroji and Feroz Shah Mehta were liberal politicians.
76. (a) Jallianwala Bagh Massacre
 ▶ Jallianwala Bagh Massacre was held on April 13, 1919 at Amritsar.
77. (c) Babur and Ibrahim Lodhi
 ▶ The first battle of Panipat was held in A.D. 1526.
78. (d) Champaran
 ▶ Gandhiji's first satyagraha in India was for the rights of indigo workers in Champaran in 1917.
79. (c) C.R. Das
 ▶ All India Trade Union Congress was formed in 1920.
80. (a) A.K. Gopalan
 ▶ K. Kelappan was the leader of Gurdvayoor Satyagraha in 1931.

81. (a) Surat
 ▶ Dutch East India Company was established in 1592.
82. (b) Rash Behari Bose
 ▶ The Idea of the INA was first conceived in Malaya by Mohan Singh, an Indian officer of the British Indian Army.
 ▶ On September 1, 1942, the first division of the INA was formed with 16,300 men led by Mohan Singh, Rash Behari Bose and Niranjan Singh Gill.
 ▶ The Second phase of the INA began on July 2, 1943 by Subhash Chandra Bose in Singapore.
83. (c) Tripuri
 ▶ Subhash Chandra Bose became the first elected President of INC in 1938 (Haripura Session).
84. (d) Assassination of Mahatma Gandhi.
 ▶ Gandhiji was assassinated by a Hindu fanatic Nathuram Vinayak Godse.
85. (d) Charvakamatham
86. (b) Punnappra Vayalar Struggle (1946)
 ▶ ബ്രിട്ടീഷുകാർക്കെതിരെ കേരളത്തിലുണ്ടായ ആദ്യത്തെ സംഘടിത കലാപമാണ് ആറ്റിങ്ങൽ കലാപം (1721).
87. (c) E.M.S.
88. (a) 1000 : 933
 ▶ The sex ratio of Kerala according to the 2001 census is 1000 : 1058.
89. (a) Margaret Thatcher
 ▶ Thatcher is known as the 'Iron Lady'. She is also the first woman Prime Minister of Britain.
90. (b) Vatican
 ▶ Vatican is also the least populous city in the world.
91. (c) Jyothi Basu
 ▶ E.K. Nayanar is the longest serving Chief Minister of Kerala.
92. (d) G.V. Mavlankar
 ▶ R. Shankara Narayanan Thampi became the first speaker of Kerala.
93. (b) 73rd
 ▶ Kerala Panchayati Raj Act became operational on April 24, 1994.
94. Correct answer is Jose Ramos Horta
 ▶ East Timor became the 191st member of United Nations.
95. (a) Justice Venkita Chellaya
 ▶ ഇന്ത്യൻ ഭരണഘടന ഭേദഗതി ചെയ്യാനുള്ള അധികാരം പാർലമെന്റിൽ നിക്ഷിപ്തമായിരിക്കുന്നു.
96. (c) Rs. 1,10,000
 ▶ സൂപ്പർ കോടതി ജഡ്ജിന്റുടെ മാസശമ്പളം 90,000 രൂപയാണ്.
97. (a) & (c) are correct. Biological Oxygen Demand and Biochemical Oxygen Demand.
 ▶ The estimation B.O.D. gives an idea of the amount of pollution in water.
98. (b) Mercury
 ▶ 1984-ലെ ഭോപ്പാൽ ദുരന്തത്തിനു കാരണമായ വാതകമാണ് മീതൈൽ ഐസോ സയനേറ്റ് (MIC).
99. (b) 6%
 ▶ To be recognised as a national party a party must get at least six percent of valid votes in four or more states (According to a revised 1998 order of Election Commission)
100. (d) Alfred Wegner
 ▶ Alfred Wegner in 1915 first gave the term 'Continental drift'.