

BOOKLET NO.

12005

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO
SS : 10(P)/02 TEST BOOKLET SERIES

SESSION : AFTERNOON
APTITUDE TEST
PAPER II

A

Time Allowed : 2 Hours]

[Maximum Marks : 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES A, B, C OR D AS THE CASE MAY BE IN THE APPROPRIATE PLACE.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.
4. This Test Booklet contains 100 items (questions). Each item is printed both in Hindi and English except for Questions relating to English Language Comprehension which are in English only. Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer Sheet provided.
6. All items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer Sheet**. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong Answers :**
THERE WILL BE PENALTY (NEGATIVE MARKING) FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
 - (i) There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, **one third** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answer happen to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank i.e. no answer is given by the candidate, there will be **no penalty** for that question.

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Note : Hindi version of the instructions is printed on the back cover of this Booklet.
ध्यान दें : अनुदेशों का हिन्दी रूपान्तर इस पुस्तिका के पिछले पृष्ठ पर छपा है।

Paper II

Aptitude Test

Duration : 2 Hours]

[Marks : 200

Directions (Questions 1 to 5) : Read the following passage and answer the questions that follow :

Dimensions of corruption have become a part and parcel of our national life. At the time of independence, a statesman like C. Rajagopalachari called the Public Works Department the biggest enemy of the country, in terms of scope for corruption that the department provided. Today every department, nay, every stratum of society, has become a Public Works Department. A Prime Minister buys MPs to secure a majority for the ruling party. Corruption has seeped so much into society that it was the running theme of the President, the Prime Minister and the Speaker during the golden jubilee celebrations of the country's independence. The then Speaker, Mr. P.A. Sangma, even called for

a second freedom struggle to rid the country of corruption. Both, the former Election Commissioner Mr. T.N. Seshan and his successor, Mr. M.S. Gill have called for electoral reforms to strike at the roots of corruption. But the results of the just held assembly elections in various states show that even criminals can win seats in the Assembly.

1. Which of the following is a correct statement ?
- (A) The passage deals with the ethics of politics.
 - (B) The author expresses his concern over the rampant corruption prevalent in our country.
 - (C) The passage discusses the economic development of India.
 - (D) The author wants the common man to take steps to curb corruption.

2. Which of the following can be deduced from the passage ?
 - (A) All politicians occupying prime positions are corrupt and buy MPs.
 - (B) Corruption has seeped into every aspect of our society.
 - (C) Our political system is completely marred by criminals.
 - (D) All politicians are corrupt and oppose electoral reforms.
3. The most appropriate heading for the passage would be :
 - (A) Politicians and Corruption
 - (B) Politicians, Criminals and Our Political System
 - (C) Corruption : Problems and Perspectives
 - (D) Corruption and Public Life
4. What does the author mean by a second freedom struggle ?
 - (A) Despite getting freedom from the British our country is still not free.
 - (B) We got freedom from the British but now we have to struggle again to get freedom from corruption.
 - (C) We have to wage a freedom struggle for electoral reforms.
 - (D) We have to launch a second struggle for freedom in society.

5. According to some election commissioners, electoral reforms are needed so that :
 - (A) free and fair elections can be ensured.
 - (B) corruption can be weeded out.
 - (C) the commissioners can do their duty fearlessly.
 - (D) continued freedom of franchise can be ensured.

Directions (Questions 6 to 10) : Read the following passage and answer the questions that follow :

The idea of building "Satellite Towns" to absorb growth is frequently considered a cure-all for urban problems. It is erroneously assumed that if new residents can be diverted from existing centres, the present urban situation at least will get no worse. It is further and equally erroneously assumed that since such towns in Europe which have been developed with a focus on social needs have been successful, we can expect the same sort of result in India.

Present planning, thinking, and legislation will not produce the kind of Satellite Towns that have been successful abroad. It will multiply suburbs or encourage developments in areas where land is cheap and construction profitable rather than where Satellite Towns are genuinely needed.

Such ill-considered projects not only will fail to relieve pressures on existing cities but will, in fact, tend to weaken these cities further by drawing away high-income citizens and increasing the concentration of low-income groups that are unable to provide tax revenues. The remaining taxpayers, accordingly, will face increasing burdens, and industry and commerce will seek escape. Unfortunately, this mechanism is already at work in some metropolitan areas.

6. The passage implies that Satellite Town projects are often considered a viable solution to the problem of :
- (A) poverty in the central cities
 - (B) excessive suburban population
 - (C) uncontrolled urban growth
 - (D) declining property values

7. It can be inferred from the passage that the author regards past and present Satellite Town projects in India as :

- (A) poorly planned
- (B) socially innovative
- (C) hampered by government regulation
- (D) financially sound

8. According to the passage, European Satellite Towns have been designed with greater concern for :

- (A) social needs
- (B) typical suburban life-styles
- (C) the profits of builders and developers
- (D) the needs of high-income residents

9. It can be inferred from the passage that the author considers present Indian Satellite Town laws to be :

- (A) overly restrictive
- (B) improperly planned
- (C) politically expedient
- (D) unrealistically idealistic

10. In the present scenario of Indian Satellite towns, taxpayers will face increasing burdens because :
- (A) the commerce and industry sectors do not meet their tax liabilities.
 - (B) there has been an increase in the number of suburbs.
 - (C) the towns have been developed without proper legislation.
 - (D) the towns have low income groups which do not add to tax revenues.
12. The work of an efficient person is in all its
- (A) true; angles
 - (B) accurate; aspects
 - (C) improper; prospects
 - (D) capable; perspectives
13. It is a fact that ancient Indian could calculate the eclipses of the sun and the moon.
- (A) historic; astrologers
 - (B) historical; astronomers
 - (C) scientific; botanists
 - (D) known; biologists
14. Meditation helps us to on the present and the past and the future.
- (A) focus; ignore
 - (B) think; obliterate
 - (C) clarify; repair
 - (D) cope; forget
15. Writers many worlds at one and the same time and all of them are equally
- (A) clear; improper
 - (B) beautify; ugly
 - (C) forget; tampered
 - (D) inhabit; true

Directions (Questions 11 to 15) :

Each sentence below has two blanks and is followed by four sets of words. Choose the set of words that best fills in the blanks :

11. It would be very easy to the work of others if we had the technological to do so.
- (A) produce; incentive
 - (B) populate; inefficiency
 - (C) create; inability
 - (D) duplicate; efficiency

16. Read carefully the statements and conclusions given below and answer the question that follows :

Statements :

Ramesh is a very good sportsman.

Sportsmen have good health.

Conclusions :

- (I) All healthy individuals play sports.
- (II) Ramesh is a healthy individual.

Which one of the following is correct ?

- (A) Only conclusion I follows from the statement.
- (B) Only conclusion II follows from the statement.
- (C) Both conclusions I and II follow from the statement.
- (D) Neither conclusion I nor conclusion II follows from the statement.

17. Given below is a statement followed by two reasons. You have to decide which of the reasons is strong. Choose answers from the alternatives given.

Statement :

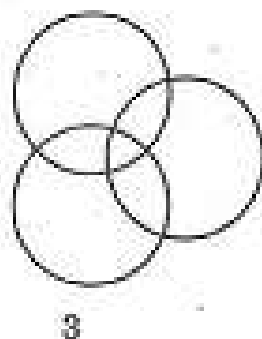
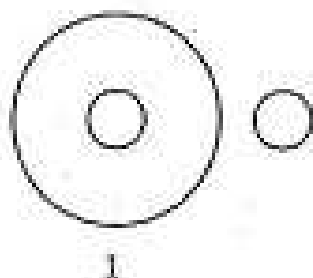
There should be a ban on strikes.

Reason 1. Yes. It is essential to maintain discipline among the employees.

Reason 2. No. It is contrary to the democratic rights of the citizens.

- (A) Reason 1 is strong
- (B) Reason 2 is strong
- (C) Both 1 and 2 are strong
- (D) Neither 1 nor 2 is strong

Directions (Questions 18 to 20) :
Choose the figure that describes the three given classes in each question.



18. Female, Sportsperson, Musician

- (A) 1
- (B) 2
- (C) 3
- (D) 4

19. Lecturer, Post Graduate, Player

- (A) 1
- (B) 2
- (C) 3
- (D) 4

20. Drawing room, Window, Wall

- (A) 1
- (B) 2
- (C) 3
- (D) 4

21. Three of the following are alike in a certain way and form a group. Which one *does not* belong to that group ?

- (A) cup
- (B) jug
- (C) tumbler
- (D) plate

22. How many such pairs of digits are there in the number 53146827 each of which has as many digits between them in the number as we get when the digits are arranged in ascending order within the number ?

- (A) one
- (B) two
- (C) three
- (D) none

23. A's mother is sister of B and daughter of C. D is the daughter of B and sister of E. How is C related to E ?
- (A) Father
(B) Uncle
(C) Grandmother
(D) Grandfather
24. Yunus said, 'this girl is the wife of the grandson of my father.' Who is Yunus to the girl ?
- (A) Husband
(B) Father
(C) Grandfather
(D) Father-in-law
25. Pointing to a man, Sushama said, 'his mother is the only daughter of my mother.' How is Sushama related to the man ?
- (A) Daughter
(B) Sister
(C) Mother
(D) Grandmother
26. Rahim started walking straight facing east. After walking a distance of 20 meters, he took a right turn, and again, after walking 10 meters, he took a left turn, and after walking 10 meters, he took a left turn. Which direction is he facing now ?
- (A) North
(B) West
(C) East
(D) South
27. Diwakar is twice as old as Latif but twice younger than Bablu. Mohan is half the age of Latif but twice the age of Anand. Which of the following individuals form the pair of the youngest and the oldest ?
- (A) Anand and Bablu
(B) Latif and Diwakar
(C) Mohan and Anand
(D) Diwakar and Anand

Directions (Questions 28 to 32) : Carefully read the following information and find answers to the questions.

In a medical college, student admission is made on the basis of the following criteria. The students need to fulfill the following conditions :

- (1) He/she must be 18 years of age on July 10, 2010.
- (2) Students must have 80 percent marks in CBSE examination.
- (3) Students must have 70 percent marks in the admission test.
- (4) Must pay Rs. 40,000 at the time of admission.
- (5) In the case of a candidate, who fulfills all other criteria except (3) above but has obtained 95 percent marks in the CBSE science examination, should be referred to the Dean of the Medical College.
- (6) In the case of a candidate, who fulfills all other criteria except (4) above can be admitted provisionally.

Examine the following cases and decide about them individually and choose one answer.

Question no.	Name	Marks in CBSE	Subject	Admission test marks	Amount that can be paid	Date of birth
28	Suman	96	Biology	60	Rs. 40,000	Aug. 14, 1990
29	Alisha	93	Biology	80	Rs. 40,000	April 18, 1991
30	James	98	Biology	75	Rs. 40,000	Oct. 17, 1994
31	Ramesh	91	Biology	80	Rs. 20,000	March 19, 1991
32	Lukman	63	Biology	80	Rs. 40,000	December 17, 1994

28. (A) Admitted
(B) Not admitted
(C) Refer to dean
(D) Admitted provisionally
29. (A) Admitted
(B) Not admitted
(C) Refer to dean
(D) Admitted provisionally
30. (A) Admitted
(B) Not admitted
(C) Refer to dean
(D) Admitted provisionally
31. (A) Admitted
(B) Not admitted
(C) Refer to dean
(D) Admitted provisionally
32. (A) Admitted
(B) Not admitted
(C) Refer to dean
(D) Admitted provisionally

Directions (Questions 33 to 35) : In the following questions, there is a certain relationship between two given words on one side of :: and one word is given on another side of :: while another suitable word is to be found from the given alternatives, having the same relationship with this word as the words of the given pair hold. Choose the correct alternative.

33. Anger : Provocation :: Fear : ?
(A) Panic
(B) Threat
(C) Force
(D) Compulsion
34. Man : Machine :: Master : ?
(A) Manager
(B) Worker
(C) Slave
(D) Home

35. Bird : Wing :: Fish : ?

- (A) Tail
- (B) Fin
- (C) Water
- (D) Push

Directions (Questions 36 to 38) :

Three of the words will be in the same category the remaining one will not. Your answer will be the one word that does not belong to the same category as the others.

36. Which word does *not* belong with the others ?

- (A) guitar
- (B) flute
- (C) violin
- (D) cello

37. Which word does *not* belong with the others ?

- (A) dodge
- (B) flee
- (C) duck
- (D) avoid

38. Which word does *not* belong with the others ?

- (A) branch
- (B) leaf
- (C) dirt
- (D) root

Directions (Questions 39 to 41) : In the series given below you will be looking at both the letter pattern and the number pattern. Fill the blank in the series.

39. ELFA, GLHA, ILJA,
MLNA

- (A) OLPA
- (B) KLMA
- (C) LLMA
- (D) KLLA

40. CMM, EOO, GQQ,
KUU

- (A) GRR
- (B) GSS
- (C) ISS
- (D) ITT

41. QPO, NML, KJI,, EDC

- (A) HGF
- (B) CAB
- (C) JKL
- (D) GHI

Directions (Questions 42 to 44) : Each question has an underlined word followed by four answer choices. Choose the word that is a necessary part of the underlined word.

42. language

- (A) tongue
- (B) slang
- (C) writing
- (D) words

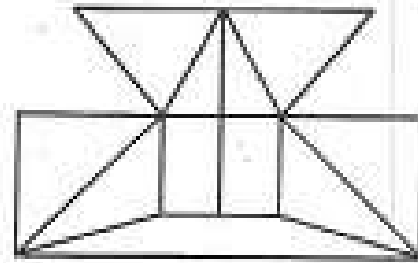
43. school

- (A) student
- (B) report card
- (C) test
- (D) learning

44. pain

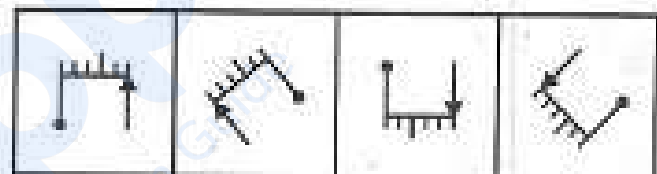
- (A) cut
- (B) burn
- (C) nuisance
- (D) hurt

45. Find the minimum number of straight lines required to make the given figure.



- (A) 16
- (B) 17
- (C) 18
- (D) 19

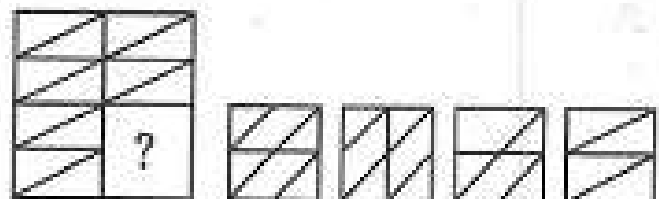
46. Choose the figure which is different from the rest.



(1) (2) (3) (4)

- (A) 1
- (B) 2
- (C) 3
- (D) 4

47. Identify the figure that completes the pattern.



(X) (1) (2) (3) (4)

- (A) 1
- (B) 2
- (C) 3
- (D) 4

48. Referring to a photograph of a male person Rajeeva remarked "The mother of this person happens to be the wife of my father's son. I do not have any sister or brother." The person being indicated by Rajeeva is his

- (A) son
- (B) cousin
- (C) uncle
- (D) nephew

49. Find the statement that must be true according to the given information :

Last summer, Mukesh spent two weeks at a summer camp. There, he went hiking, swimming, and canoeing. This summer, Mukesh looks forward to attending a two-week music camp, where he hopes to sing, dance, and learn to play the guitar.

- (A) Mukesh's parents want him to learn to play the guitar.
- (B) Mukesh prefers music to outdoor activities.
- (C) Mukesh goes to some type of camp every summer.
- (D) Mukesh likes to sing and dance.

50. Tara's commute never bothered him because there were always seats available on the train and he was able to spend his 40 minutes comfortably reading the newspaper or catching up on paperwork. Ever since the train schedule changed, the train has been extremely crowded, and by the time the doors open at his station, there isn't a seat to be found.

- (A) Tara would be better off taking the bus to work.
- (B) Tara's commute is less comfortable since the train schedule changed.
- (C) Many commuters will complain about the new train schedule.
- (D) Tara will likely look for a new job closer to home.

51. When they heard news of the hurricane, Maya and Mohan decided to change their vacation plans. Instead of travelling to the island beach resort, they booked a room at a fancy new spa in the mountains. Their plans were a bit more expensive, but they'd heard wonderful things about the spa and they were relieved to find availability on such short notice.

- (A) Maya and Mohan take beach vacations every year.
- (B) The spa is overpriced.
- (C) It is usually necessary to book at least six months in advance at the spa.
- (D) Maya and Mohan decided to change their vacation plans because of the hurricane.

Directions (Questions 52 to 55) : Study the following table and answer the questions based on it.

The following table shows the number of new employees added to different categories of employees in a company and also the number of employees from these categories who left the company every year since the foundation of the Company in 1995.

Year	Managers		Technicians		Operators		Accountants		Peons	
	New	Left	New	Left	New	Left	New	Left	New	Left
1995	760	—	1200	—	880	—	1160	—	820	—
1996	280	120	272	120	256	104	200	100	184	96
1997	179	92	240	128	240	120	224	104	152	88
1998	148	88	236	96	208	100	248	96	196	80
1999	160	72	256	100	192	112	272	88	224	120
2000	193	96	288	112	248	144	260	92	200	104

52. What is the difference between the total number of Technicians added to the Company and the total number of Accountants added to the Company during the years 1996 to 2000 ?
- (A) 128
- (B) 112
- (C) 96
- (D) 88
53. What was the total number of peons working in the Company in the year 1999 ?
- (A) 1312
- (B) 1192
- (C) 1088
- (D) 968

54. What is the pooled average of the total number of employees of all categories in the year 1997 ?
- (A) 1325
(B) 1195
(C) 1265
(D) 1235
55. During the period between 1995 and 2000, the total number of operators who left the company is what percent of total number of operators who joined the company ?
- (A) 19%
(B) 21%
(C) 27%
(D) 29%
56. The day before the day before yesterday is three days after Saturday. What day is it today ?
- (A) Tuesday
(B) Wednesday
(C) Thursday
(D) Friday
57. Which number should come next in the series ?
25, 24, 22, 19, 15, ?
- (A) 4
(B) 5
(C) 10
(D) 14
58. As bell is related to "sound", lamp is related to ?
- (A) Flame
(B) Light
(C) Wick
(D) Oil
59. Read the statements and conclusions. Pick the correct answer :
Statement 1 : All boxes are benches.
Statement 2 : All boxes are chairs.
Conclusions :
- (I) All benches are chairs.
(II) All benches are boxes.
(III) Some benches are chairs.
(IV) Some chairs are boxes.
- Pick the correct answer from the alternatives given below :
- (A) All
(B) Only I and II
(C) Only II and IV
(D) Only III and IV

60. In a row of boys Udai 23rd from the left and Ashok is 8th from the right. When they interchange their position they become 18th from the right. What will be the position of Ashok from the left ?
- (A) 15th
(B) 10th
(C) 40th
(D) Data inadequate
61. Pointing to Manju, Gaurav said, "she is the wife of the only son of my father's father". How is Manju related to Gaurav ?
- (A) Mother
(B) Sister
(C) Aunt
(D) Sister-in-law
62. How many eights are there in the following number series which are preceded by even number and followed by an odd number ?
4 3 8 5 2 3 8 2 1 3 6 8 5 4 2 8 1 2 2 8 6 5 8 2
- (A) 2
(B) 4
(C) 3
(D) 5
63. In the following series which is the fifth letter to the left of fourteenth letter from your right ?
ABCDEFGHIJKLMNOPQRSTUVWXYZ
- (A) L
(B) I
(C) J
(D) K
64. If the first letter is interchanged by 6th letter, second letter by 7th letter and so on, in the word INTERVOLVE, then which will be the sixth letter from your right in the new word ?
- (A) L
(B) E
(C) V
(D) O
65. CTPN : DSQM = MUSK : ?
- (A) NITJ
(B) NVTL
(C) NTTL
(D) LTRJ

66. In a certain code HOUSE is written as FTVPI. How is CHAIR written ?

- (A) MBFVA
- (B) BFVMA
- (C) AMBFV
- (D) VFBMA

67. Three of the following are alike in certain way and so form a group. Which is the one that does not belong to the group ?

- (A) FH
- (B) KM
- (C) PR
- (D) JM

68. Six people P, Q, R, S, T, U are sitting in a circular path, who are facing the center. R is 3rd from P in the right. Q is 3rd from T in the left. U is between P and T, S is 3rd from U in the left.

What is the order of the six people from the left ?

- (A) SQRUTP
- (B) TSRQUP
- (C) SRTUPQ
- (D) SQPUTR

69. Ram is five times as old as Shyam. If their difference of age is 8 years, then how old is Ram ?

- (A) 8 years
- (B) 10 years
- (C) 12 years
- (D) 5 years

70. A person climbs up a pole of 88 meters high. In every minute he climbs 12 meters but slips down 8 meters. How much time will he take to reach the top ?

- (A) 19
- (B) 29
- (C) 28
- (D) 22

71. Three of the following are alike in certain way and so form a group. Which does not belong to the group ?

- (A) 17
- (B) 19
- (C) 23
- (D) 27

72. Five boys Mahindra, Anjani, Anil, Anand and Alok are sitting in a row. Anil is not a neighbour of Anjani. Mahindra is not the neighbour of Anjani. Anil is a neighbour of Alok. If Alok is just in the middle, who is the neighbour of Mahindra ?

- (A) Anand
- (B) Alok
- (C) Anil
- (D) Anjani

73. Eight executives J, K, L, M, N, O, P, Q are sitting around a circular table for meeting. J is 2nd to the right of P who is 3rd to the right of K. M is 2nd to the left of O, who sits between P and J. L is not a neighbour of K or N.

Who is to the immediate left of K ?

- (A) N
- (B) J
- (C) Q
- (D) Cannot say

74. Find the odd one out :

- (A) BFD
- (B) NRP
- (C) HLG
- (D) QUS

75. A technique that might be used by an active listener is to :

- (A) explain the speaker's meaning
- (B) paraphrase the speaker's meaning
- (C) express concern
- (D) offer a point of view when in conversation

76. A message can only be deemed effective when it is :

- (A) understood by others and produces the intended results
- (B) repeated back as proof of understanding
- (C) communicated face to face
- (D) delivered with confidence

77. Those who have effective interpersonal skills will be able to :
- (A) sympathize with people
 - (B) direct people
 - (C) empathize with people
 - (D) persuade people
78. The tone of a complaint letter is likely to be :
- (A) Matter-of-fact
 - (B) Humorous
 - (C) Ironic
 - (D) Angry
79. What type of Websites are Facebook and MySpace ?
- (A) Personal
 - (B) News
 - (C) Informational
 - (D) Advocacy
80. When implementing your strategies it is important to establish :
- (A) goals and mission statements.
 - (B) visions and values.
 - (C) time lines and check points.
 - (D) plans and priorities.
81. If the fractions $\frac{5}{6}$, $\frac{7}{8}$, $\frac{6}{7}$, $\frac{8}{9}$ are arranged in descending order then the correct sequence is :
- (A) $\frac{5}{6}$, $\frac{7}{8}$, $\frac{6}{7}$, $\frac{8}{9}$
 - (B) $\frac{5}{6}$, $\frac{6}{7}$, $\frac{7}{8}$, $\frac{8}{9}$
 - (C) $\frac{8}{9}$, $\frac{7}{8}$, $\frac{5}{6}$, $\frac{6}{7}$
 - (D) $\frac{8}{9}$, $\frac{7}{8}$, $\frac{6}{7}$, $\frac{5}{6}$
82. The value of $\sqrt{0.0625}$ is :
- (A) 25
 - (B) 2.5
 - (C) 0.25
 - (D) 0.025

83. If $a : b = 2 : 5$, then the value of $(2a + 3b) : (7a + 5b)$ is ;

(A) 19/39
(B) 99/13
(C) 31/19
(D) 19/30

84. Consider the following :

$$2 + \frac{1}{1 + \frac{1}{1 + \frac{1}{2}}}$$

The correct value of the above is :

(A) 11/3
(B) 13/5
(C) 12/5
(D) 14/5

85. If the sum and difference of two numbers are 20 and 4, then the product is :

(A) 84
(B) 108
(C) 54
(D) 96

86. The L.C.M. of $2/3$, $3/4$, $5/6$ is :

(A) 30
(B) 24
(C) 60
(D) 72

87. Which one of the following is the smallest ?

(A) $64^{1/3}$
(B) $9^{3/2}$
(C) $32^{1/5}$
(D) $16^{3/4}$

88. Which term of the arithmetic progression 100, 95, 90, is 10 ?

(A) 18th
(B) 19th
(C) 20th
(D) 21st

89. If $x + x^{-1} = 3$, then the value of $x^2 + x^{-2}$ is :
- (A) 10
(B) 9
(C) 8
(D) 7
90. The sum of the series $2^2 + 3^2 + \dots + 10^2$ is :
- (A) 386
(B) 385
(C) 384
(D) 383
91. A cricketer has completed 20 innings and his average is 44.5 runs. How many runs must he make in the next innings so as to raise his average to 45 ?
- (A) 55
(B) 60
(C) 50
(D) 54
92. Consider the following scores :
5000, 5000, 15000, 5000, 5000
Which one of the following is correct ?
- (A) mean = median = mode
(B) mean = median < mode
(C) mean < median = mode
(D) mean > median = mode
93. The arithmetic mean of :
0, 1, 3, 5,, $2n - 1$
is :
- (A) n
(B) $\frac{n^2}{n+1}$
(C) $n - 1$
(D) $\frac{n^2 + 1}{n}$
94. The Mean of ten observations is 23. If two observations 4 and 7 are substituted by 3 and 8, then the new value of Mean will be :
- (A) 20
(B) 19
(C) 23
(D) 25
95. What is the Mode of the following set of observations ?
-20, 7, 0, 4, 81, 6, 4, -13, 0, 5, 1, 4, -70
- (A) 0
(B) 4
(C) -13
(D) 2
96. The Mean of 10 observations is 21. If each observation is multiplied by 4 and 5 is subtracted from each of them, then the mean will be :
- (A) 79
(B) 81
(C) 84
(D) 16

97. The following is the distribution of marks in Mathematics for 15 students :

73, 92, 57, 89, 64, 95, 65, 76,
82, 93, 45, 40, 79, 52, 67

Consider the following statements :

- (i) the percent of students with marks between 70 and 80 is same as that between 90 and 100
(ii) the percent of students with marks between 60 and 70 is not the same as that between 40 and 50

Which of the above statements is/ are true ?

- (A) (i) only
(B) (ii) only
(C) both (i) and (ii)
(D) neither (i) nor (ii)

98. In a survey each of the 1500 interviewers responded as 'yes' or 'no'. The results are tabulated below :

Response	Percentage of interviewers
Yes	60%
No	40%

The difference between the number of interviewers saying 'Yes' and that saying 'No' is :

- (A) 250
(B) 300
(C) 200
(D) 400

99. Consider the following table :

Region	No. of inhabitants (in millions)	Percentage of literates
A	20	50
B	5	40
C	20	30

The percent of literates for all the three regions taken together is :

- (A) 35
(B) 50
(C) 40
(D) 45

100. In a statistical investigation of 1000 families of a city, it was found that 60 families had neither a radio nor a TV. 790 families had a radio and 210 families had a TV. How many families in the sample had both ?

- (A) 60
(B) 0
(C) 90
(D) 100