

**DIRECTIONS** for Questions 1 to 12: Select the correct alternative from the given choices.

1. How many arrangements of four 0's (zeroes), two 1's, and two 2's are there in which the first 1 occurs before the first 2?  
 (1) 320 (2) 420 (3) 300 (4) 210

2. The following operators are defined where  $b \neq 0$

$a + b = a$  multiplied by  $b$

$a - b = a$  added to  $b$

$a \div b = a$  reduced by  $b$

$a \times b = a$  divided by  $b$

Which of the following statements are always true?

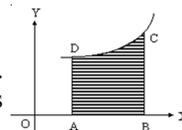
I.  $(a + b)(a \times b)$  is greater than  $(a - b)(a \div b)$

II.  $a + (b \div c) = (b \div a) + c$  whenever  $a = c$

- (1) I only (2) II only (3) Both I and II (4) Neither I nor II

3. From 7 men and 5 ladies a committee of 4 is to be formed. If Mrs. X is not willing to join the committee in which Mr. Y is a member whereas Mr. Y is willing to join the committee only if Mrs. Z is included, how many such committees in all are possible?

- (1) 366 (2) 375 (3) 450 (4) 495



4. In the graph alongside, the four labelled points are A(5, 0), B(7, 0), C(7, 9) and D(5, 4). Which of the following is closest to the area of the shaded region?

- (1) 13 (2) 18 (3) 17 (4) 14

5. ABC is a triangle with sides AB = 10, BC = 8, and CA = 7 units. D and E are the feet of the altitudes from the vertices A and B to the respective opposite sides. What is the ratio of the length of CD to that of CE?

- (1) 7 : 8 (2) 12 : 7 (3) 3 : 2 (4) 2 : 3

6. When numbers are written to the base 11, how many two-digit numbers are possible which are thrice the numbers formed by reversing their respective digits?

$$\frac{x^2 - x - 6}{x^2 + x - 2} + \frac{x^2 + 2x - 8}{x^2 + 3x - 4} + \frac{2x^2 - x - 1}{x^2 - 2x + 1}$$

- (1) 0 (2) 1 (3) 2 (4) 3

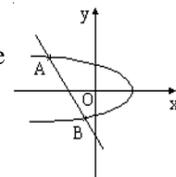
7. The points of intersection, A and B, in the given figure could possibly be determined by solving which of the following pairs of equations?

(1)  $y^2 = 4x$  and  $y = 3x$

(2)  $x^2 = y$  and  $y = 2x + 5$

(3)  $y^2 + 3x - 1 = 0$  and  $2x + y + 1 = 0$

(4)  $2y^2 - 5x - 1 = 0$  and  $3y + 8x - 5 = 0$



8. If  $x$  is a positive number not equal to 1, then what is the value of the following expression?

$$\frac{x^2 + 3x - 10}{x^2 - 5x - 14}$$

- (1) 3 (2) 4 (3) 1 (4) None of these

9. The Congress government promised in 1991 that they would bring down prices in 100 days. They failed to do so and the prices went up by 10% each year for the next five years i.e., from 1992 to 1996. Then BJP got elected and successfully brought down the prices by 10% each year from 1997 onward. Find approximately by what percentage will prices in 1999 be more than those in 1992?

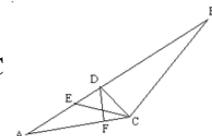
- (1) 18% (2) 5% (3) 8% (4) 7%

10. Given that  $x$  is real and  $|x| < 4$ , which of the following is a permissible range for the value that  $x$  can assume so that is always positive?

- (1)  $x < -2$  or  $x > 2$  (2)  $-3 < x < 3$  (3)  $x < -3$  or  $x > 3$  (4)  $-2 < x < 2$

11. In the triangle ABC, E and D are points on AB while F is a point on AC. It is known that BC = BD, ED = DC, EC = EA and DF is perpendicular to AC. If FC = 3 cm and  $\angle B = 20^\circ$ , what is the length of DC?

- (1)  $3\sqrt{3}$  cm (2) 6 cm (3)  $2\sqrt{3}$  cm (4) None of these



12. Akash regularly makes a round trip up and down a river to meet his friend Rashmi. Today, his speed downstream is half his usual downstream speed while his speed upstream is double his usual upstream speed. If his usual speed in still water is 12 kmph and the usual stream speed is 8 kmph, how many hours (approximately) is he going to spend on today's round trip of 40 km?

- (1)  $2\frac{1}{2}$  (2)  $4\frac{1}{2}$  (3)  $5\frac{1}{3}$  (4)  $5\frac{1}{2}$

**DIRECTIONS** for questions 13 and 14: These questions are based on the data given below:

Let  $S_n$  be defined as the sum of the first  $n$  natural numbers and let  $E(S_M)$  be the number of values of  $n$ , ( $n \leq M$ ), for which  $S_n$  is even while  $Z(S_M)$  be the number of values of  $n$ , ( $n \leq M$ ), for which  $S_n$  ends with a zero.

13. Find  $E(S_{4939})$ .  
(1) 2468 (2) 2469 (3) 2472 (4) 2512.

14. Find  $Z(S_{1000})$ .  
(1) 100 (2) 110 (3) 120 (4) 200

**DIRECTIONS** for questions 15 to 17: These questions are based on the following data.

Digits from 1 - 6 are arranged, without repetition to form a six-digit number such that the number formed from the first two digits from the left is divisible by 2, that from the first three digits is divisible by 3, that from the first four digits is divisible by 4 and that from the first five digits is divisible by 5.

15. How many six-digit numbers can be formed satisfying the given conditions?  
(1) 2 (2) 4 (3) 6 (4) 5

16. If the digit in the units place is 3, then what is the digit in the hundreds place?  
(1) 2 (2) 6 (3) 4  
(4) Cannot be determined uniquely

17. How many different digits are possible in the first position from the left?  
(1) 3 (2) 1 (3) 4 (4) 2

**DIRECTIONS** for Questions 18 to 21: Select the correct alternative from the given choices.

18. In a box there are 90 slips numbered from 1 to 90. Ramu picks up four slips at random one after the other without replacement. What is the probability that the numbers on the slips in the order he has picked up are ascending?

(1)  $\frac{1}{6}$  (2)  $\frac{1}{12}$  (3)  $\frac{1}{24}$  (4)  $\frac{2}{45}$

19. How many positive integral values between 17 and 337 (both values inclusive) can  $z$  assume, given that  $z = 2x + 7y$ , where  $x$  and  $y$  are natural numbers?

(1) 161 (2) 184 (3) 207 (4) 321

20. Anne, Bet and Corr are three bees that start from the same flower and fly away in three different directions in search of nectar. After some time Corr is as distant from the mid point 'D' of the straight line joining Anne and Bet as Anne is from D. Anne and Bet are 300 m apart while Bet is 180 m from Corr. At this instant Anne sends a distress signal which is received simultaneously by the other two bees. If a bee can fly at a speed of 3 m/sec then who among Bet and Corr can reach Anne quicker and by how many seconds?

(1) Corr – by 20 seconds (2) Bet – by 20 seconds  
(3) Bet – by 18 seconds (4) Cannot be determined

21. Two outlets of the same capacity when opened together can empty a full tank of volume 3000 cu.m in 24 hr. If the tank is going to be filled by a tap at the rate of 300 cu.m/hr, what is the least number of additional outlets (which have the same capacity as the former outlets) that have to be opened, so that the tank never overflows?

(1) 4 (2) 5 (3) 3 (4) 7

**DIRECTIONS** for questions 22 to 24: These questions are based on the following data.

A, B, C, D, E and F are six points on a plane. Some of the distances between them are given below: AE = 19.5, BC = 14.5, CE = 5, AB = 15, BD = 6.5, DC = 8, DF = 5, BE = 19.5. Each question in this set is independent of the other questions in the set.

22. What is the maximum number of triangles that can be formed by joining any three of the six points mentioned?

(1) 10 (2) 14 (3) 16 (4) 20

23. What is the maximum possible area of the triangle whose vertices are D, E and F?

(1) 30 sq.units (2) 32.5 sq.units (3) 60 sq.units (4) None of these

24. If F is equidistant from A and B then in how many distinct possible ways can the six points be located relative to each other?

(1) 1 (2) 2 (3) 3 (4) None of these

**DIRECTIONS** for Questions 25 and 26: These questions are based on the data given below.

Five friends – Pramod, Quadir, Rabjot, Samuel and Tarun – have Rs.150 among them. The following information is also known.

- (i) None of them has less than Rs.15.
- (ii) The amount with each of the persons, except one, is odd.
- (iii) The amounts with no two persons is the same.
- (iv) The amount with the person who has the maximum money is not even.

25. What can be the maximum difference between the highest and the least amount held by any of these persons?

(1) Rs.63 (2) Rs.64 (3) Rs.68 (4) None of these

26. If each of the five amounts is a multiple of 5 and the amount which is an even number is the third highest, then which among the following must be the even amount?

(1) Rs.50                      (2) Rs.40                      (3) Rs.30                      (4) 20

**DIRECTIONS for questions 27 to 30:** These questions are based on the following data.

In the recent elections held in four states – Chhattisgarh, Madhya Pradesh, Rajasthan and Delhi, four candidates emerged victorious and were sworn in as Chief Ministers. They were SD, VRS, UB and RS. In terms of popularity, they were ranked as

1. SD                      2. VRS                      3. RS                      4. UB

The incumbent Chief Ministers who were defeated in these polls were AS, AG, MLK and DS. The following data is given regarding the victorious candidates, the incumbent Chief Minister who they defeated, the state they belonged to and the number of seats their party secured in the polls.

- (a) SD did not defeat MLK or AS and she did not contest from Delhi or Rajasthan.
- (b) UB’s party secured 50 seats and neither did she defeat AG nor did she contest from Delhi or Madhya Pradesh.
- (c) VRS defeated MLK and her party secured more number of seats than what UB’s party had secured.
- (d) The person who contested against AS contested in the state in which the winning party got the least number of seats among the winning parties of the four states.
- (e) The party of one of the winning contestants got 30 seats more than one of the other three and 30 seats less than one of the other three.
- (f) RS did not defeat AS but contested from Rajasthan.
- (g) The winning party in Delhi secured 80 seats and none of the winning parties got less than 20 seats. It is also known that the parties represented by the victorious candidates got different numbers of seats each.
- (h) The number of seats secured by a party of a winning candidate is directly proportional to the rank of the candidate on the attribute of popularity. i.e., more the popularity - more the number of seats secured as compared to any other winning candidate.

27. Who defeated AS in the polls?

(1) SD                      (2) UB                      (3) RS                      (4) Cannot be determined

28. Who defeated DS in the polls?

(1) SD                      (2) UB                      (3) Either (1) or (2)                      (4) Cannot be determined

29. How many seats did the winning party in Madhya Pradesh get?

(1) 80                      (2) 110                      (3) 140                      (4) Cannot be determined

30. Which of the following is definitely false?

(1) SD defeated DS.                      (2) RS defeated AS.  
 (3) UB defeated AS.                      (4) Both (1) and (3)

**DIRECTIONS for Questions 31 and 32:** Select the correct alternative from the given choices.

31. How is Venkat’s brother’s father’s brother’s father’s daughter’s sister’s daughter’s brother related to Venkat?

(1) Himself                      (2) Cousin                      (3) Brother                      (4) Uncle

32. A team of 3 boys and 2 girls is to be selected from five boys – A, B, C, D and E and four girls – P, Q, R, and S, as per the following restrictions.

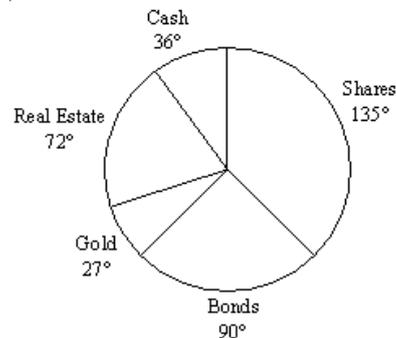
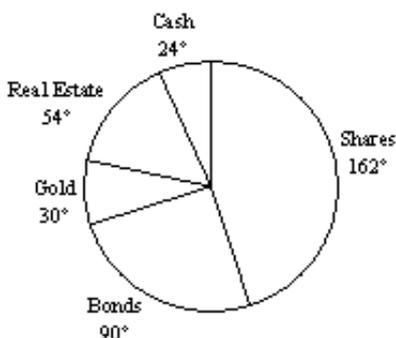
A can be selected only if Q is selected  
 Exactly one of C and D must be selected.  
 B and S cannot be selected together.  
 Exactly one of E and R must be selected.  
 If E is selected, then who among the following must be selected?

(1) A                      (2) B                      (3) Q                      (4) S

**DIRECTIONS for questions 33 to 36:** These questions are based on the following data.

The tall Mr. Y.S. Ray was a worried man. The pretty newsreader on the television had just managed to worsen his mood with the announcement that the stock market had crashed again. He had already seen 20% of his net worth wiped out in the last calendar year partly due to stock market conditions. Now with six months of 1995 just over, he decided to review his portfolio.

The charts below give his investments at the beginning of this year and last year.



33. What was the decline in the value of his holding in shares during 1994?  
 (1)  $33\frac{1}{3}\%$  (2) 27% (3) 17% (4) 7.5%
34. Mr. Ray did a quick calculation and found that as on date his shares had declined by  $33\frac{1}{3}\%$  compared to their value at the beginning of the year. If all his other assets grew by 20%, what will be the angle pertaining to cash, if he made a new chart today?  
 (1)  $24^\circ$  (2)  $43^\circ$  (3)  $30^\circ$  (4)  $36^\circ$
35. What is the change in the value of Mr. Ray's holdings in bonds during 1994?  
 (1) No change (2) 20% decline  
 (3) 10% increase (4) Cannot be determined
36. If the angle pertaining to Gold investments on 1-1-95 was 54 instead of 27 and that of real estate 45 instead of 72 the growth rate in price of Gold during 1994 was  
 (1) Nil (2) 44% (3) 24% (4) Cannot be determined

**DIRECTIONS** for question 37 to 40: Select the correct alternative.

A well-known Management Entrance Training Institute [METI] is introducing a new course. The course Director identified the activities to be taken up before batches for the new course can be started. He also worked out the time required (with his existing resources) for each of these activities. However certain activities cannot be taken up unless certain other activities have been completed fully/partially. He has also estimated the cost incurred per week for each activity. All the details that he gathered are given below:

S.NO.	Activity	Time taken to complete the activity	Other activities to be completed before this activity	Cost per week
1	Course material preparation	12 weeks	—	30,000/-
2	Course material typing	3 weeks	1	2,000/-
3	Course material printing	3 weeks	2	25,000/-
4	Faculty selection	1 week	—	10,000/-
5	Faculty Orientation	2 weeks	4	12,500/-
6	Counsellors	1 week	—	5,000/-
7	Marketing and promotion	4 weeks	—	50,000/-

The first batch for the new course can be started only after activities 5, 6 and 7 are completed and at least one third of activity 3 is completed.

He estimated a student enrolment of 500 for the first year for the new course.

Denote as week 1 the week in which the course work starts.

37. What is the earliest that batches for the new course can be started?  
 (1) Week 26 (2) Week 16 (3) Week 17 (4) Week 27
38. What is the total minimum expenditure incurred before the first batch is started excluding that on Marketing & Promotion?  
 (1) Rs.4,31,000 (2) Rs.4,81,000 (3) Rs.4,93,500 (4) None of these

**Use the following additional data for questions 39 and 40:**

Material preparation, Material typing, Material printing and Faculty Orientation can be compressed. Compression is done only for work in multiples of two weeks. Two weeks of work for the above activities can be compressed in to one week. The cost for every compressed week is thrice that for a normal week.

39. What is the earliest that all the activities will be completed fully after compressing the activities to the maximum extent?  
 (1) 10 Weeks (2) 11 Weeks (3) 12 Weeks (4) None of these
40. What is the least total cost in the above case with compression?  
 (1) Rs.9,14,000 (2) Rs.9,00,500 (3) Rs.9,01,500 (4) Rs.8,88,000

**DIRECTIONS** for Questions 41 to 43: These questions are based on the table given below.

**Infrastructural Details of the Maldives**

		1985	1990	1995	2000	2005
Irrigated land (in hectares)		-	30440	32469	36794	45500
Drinking water (% of population having access)	Total	-	27	34	52	66
	Urban	-	-	-	87	96
	Rural	-	-	-	45	54
Sanitation (% of population having access)	Total	-	28	19	12	18
	Urban	-	-	-	32	56
	Rural	-	-	-	08	05
Electricity production (million of kwh)		20123	68264	82134	123564	317649
Generating capacity (in thousand kw)		5580	17456	21089	37402	81085
Paved Roads (in km)		278943	324758	486795	623998	819650
Railroads (in km)		58946	59997	60018	61240	72226
Telephone Main Lines (no. of connections)		-	-	116800	2295530	5074734

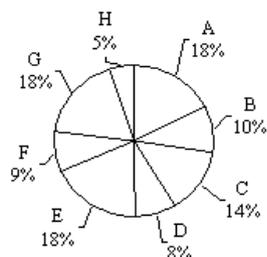
- ‘-’ indicates non availability of data.
- Maximum possible Electricity production in a year (in kwh) = Generating capacity (in kw) x number of hours in a year
- Capacity Utilization (%) =  $\frac{\text{Actual electricity production}}{\text{Maximum possible electricity production}} \times 100$

41. If ‘efficiency of power production’ is defined as 0.85 x Capacity Utilization, then what was the efficiency in 1985 (approximately)?  
 (1) 35.5%                      (2) 39.5%                      (3) 41%                      (4) 42%
42. If in the year 2000, rural population was p% of the total population, then what is the approximate value of p? (Refer to sanitation data).  
 (1) 23.08                      (2) 25                      (3) 77                      (4) 83
43. The increase/decrease in the length of Railroad tracks between the years 1990 and 2000 is what percent of that of paved roads for the same period?  
 (1) 0.039%                      (2) 0.41%                      (3) 1.54%                      (4) None of these

**DIRECTIONS** for Questions 44 to 47: These questions are based on the pie chart, table and the bar graph given below.

**Statistics regarding the employees of M/s. Creative Software, for the year 2000**

**Break up of number of employees by occupation**



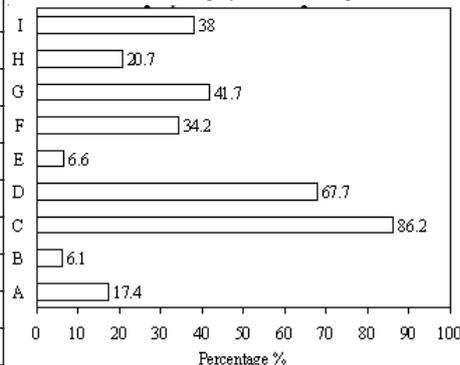
Total number of employees = 88,300

A - Java professionals
B - IBM Mainframe specialists
C - Quality Assurance
D - Oracle Administrators
E - Multimedia Consultants
F - LAN Operators
G - Other Programmers
H - Other Staff Members
I - All Occupations

**Median Monthly Salary (in Rs.)**

Male	Female	Occupation
12,390	9,093	All Occupations
15,740	12,650	Java Professionals
12,885	9,445	IBM Mainframes Specialists
13,622	9,827	Quality Assurance
9,054	7,761	Oracle Professionals
9,723	8,456	Multimedia Consultants
11,657	8,892	LAN Operators
9,547	7,307	Other Programmers
18,723	14,066	Other Staff Members

**Female employees in each occupation as a percent of the total employees in that occupation**



44. The median annual salary of males who are Oracle Professionals is approximately what percent greater than that of females in the same occupation?  
 (1) 10% (2) 40% (3) 17% (4) 25%
45. The number of LAN operators employed by M/s. Creative Software is approximately how much more/less than the number of IBM Mainframe Specialists employed by it?  
 (1) 3,532 (2) 1,766 (3) 3,962 (4) None of these
46. What is the difference between the number of females employed in Quality Assurance and the number of males employed in LAN operations (approximately)?  
 (1) 5,400 (2) 7,900 (3) 8,830 (4) None of these
47. Which of the following statements is/are true?  
 I. The number of Java Professionals is more than  $\frac{3}{20}$  of the total number of employees.  
 II. The number of females among Other Staff Members exceeds the number of males in the same occupation.  
 III. The median annual salary of males working as 'Other Programmers' is approximately 1.3 times the median annual salary of females in the same occupation.  
 (1) Only I and II (2) Only II (3) Only I and III (4) None of these

**DIRECTIONS for questions 48 to 50:** Each question is followed by two statements, I and II. Answer each question using the following instructions.

Mark 1, if the question can be answered by one of the statements alone and not by the other.

Mark 2, if the question can be answered by either statement alone.

Mark 3, if the question can be answered only by using both statements together.

Mark 4, if the question cannot be answered even by using both the statements.

48. If  $x$  and  $y$  are co-primes and their sum is prime, then how many factors of  $x$  are less than  $y$ ?  
 I. L.C.M of  $x$  and  $y$  is 180 and  $x > y$ .  
 II. None of the factors of  $x$  is a multiple of 5.
49. Is the sum of the two sides of a triangle ABC more than the diameter of the circle C?  
 I. The triangle ABC is inscribed in the circle C.  
 II. The longest side of the triangle ABC is equal to the diameter of the circle C.
50. Each of five friends A, B, C, D and E are of a different height. Who is the tallest among them?  
 I. A is taller than C and D.  
 II. B's height is equal to that of the average height of the group and he is taller than C as well as E.

**DIRECTIONS for questions 51 to 55:** The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.

51. A. Indians obviously care for medicinal plants because they know so much about them and have done a lot of work on their applications.  
 B. The living folk traditions in the rural communities as well as the scholarly traditions of the codified knowledge systems i.e., Ayurveda, Siddha, Unani and Tibetan emphasize the fact that the use of medicinal plants is still a living tradition.  
 C. No other medicinal culture in the world has so extensive, detailed and deep an understanding about the medicinal value of plants.  
 D. The people of India had an incredible knowledge of phyto-medicine driven apparently by a tremendous passion for the study of medicinal plants.  
 (1) ABCD (2) DCAB (3) DBAC (4) BCAD
52. A. Except reducing the number of vehicles on the road there seems to be no possible solution.  
 B. Reacting to the alarming findings in the report published by the centre for science and Environment, the supreme court in an unprecedented move proposed sweeping changes and restrictions, ranging from suspension of vehicle licenses to keeping automobiles off the road in order to check pollution levels.  
 C. Vehicular pollution has emerged a front-runner among other major pollutants in metropolises and major cities.  
 D. Pollution caused by vehicles is snow-balling and causing a major threat to city dwellers.  
 (1) DCAB (2) CDAB (3) CADB (4) BDAC
53. A. The healthy and positive effects of yoga make people revere this ancient science.  
 B. Yoga, an ancient discipline, has gained relevance in today's world as a means of attaining a balance between body, mind and soul.  
 C. Yoga has been made a part of the school education in Northern India and studies have revealed that by practising yoga the students become more self-confident and there has been a significant increase in their power of concentration, reasoning and analysis.  
 D. In the modern world where depression, stress and psychosomatic problems have become the order of the day, practising yoga seems to be the most viable solution to problems in living.  
 (1) DBAC (2) ABCD (3) BCDA (4) BACD
54. A. Human resource is the key word today.  
 B. The information age renders such a characterisation fallacious; a country's wealth lies in its people, particularly in the development of their mental capacities.  
 C. Human Resource Development, the department that includes education, has become one of the most important and controversial in the government.  
 D. A rich country with poor people, was the traditional way of characterising India referring to its vast natural resources, flourishing paddy fields, forests, mineral wealth, a land where even the dust is golden in the ancient metaphor.  
 (1) ACDB (2) ADCB (3) DBAC (4) DABC

55. A. Environmental pollution has adversely affected lives of people – be it through the air they breathe or the water they drink.  
 B. It is a matter of regret that some of our most profitable industries have seriously impacted on the environment causing permanent damage.  
 C. One of the great products of forest in India are the 300 rivers and perennial streams that are not just born within but flow out to provide drinking water and irrigation for large tracts of land.  
 D. As forests have been excessively exploited great negative changes have taken place in our water regimes both underground and overground, thereby depicting that an environmental catastrophe is about to tear the country apart and millions will suffer.
- (1) CDAB (2) BACD (3) DCAB (4) ADBC

**DIRECTIONS for questions 56 to 60:** Each question has a sentence with two blanks followed by four pairs of words as choices. From the choices, select the pair of words that can best complete the given sentence.

56. In a workplace, just as a \_\_\_\_\_ tradition ought to be followed to ensure that people of any religion or no religion are not made to feel uncomfortable or out of place, there should also be an atmosphere where women can feel safe and respected and not just \_\_\_\_\_ because of their gender.  
 (1) religious . . . reprimanded (2) spiritual . . . discriminated  
 (3) secular . . . venerated (4) neutral . . . victorious
57. Women employed in the lower rungs of an organization are far more \_\_\_\_\_ to harassment from their male counterparts than women who are in powerful posts, of whom the numbers are still \_\_\_\_\_ but growing.  
 (1) prone . . . alarming (2) susceptible . . . a minuscule  
 (3) vulnerable . . . enormous (4) subjected . . . extraordinary
58. \_\_\_\_\_ is like a magic word, which fuels the urge to do better and makes us \_\_\_\_\_ to achieve the highest possible honours.  
 (1) Motivation . . . strive (2) Appreciation . . . slog  
 (3) Criticism . . . responsible (4) Imagination . . . struggle
59. As several parts of the state were reeling under severe drought conditions, the helpless people \_\_\_\_\_ God to bless the land with rains and \_\_\_\_\_ their suffering.  
 (1) enjoined . . . alleviate (2) appealed . . . dispel  
 (3) besought . . . destroy (4) invoked . . . mitigate
60. While the Delhi-Lahore bus service has \_\_\_\_\_ reopened the door to India-Pakistan interaction, Noor has in more senses than one opened a/an/the \_\_\_\_\_ of sub-continental friendship.  
 (1) really . . . deluge (2) literally . . . profusion  
 (3) symbolically . . . floodgates (4) suddenly . . . outpouring

**DIRECTIONS for questions 61 to 65:** Each question has a sentence broken into four parts (1), (2), (3) and (4). One of the 4 parts has an error. Your answer choice should be the number of the part that has the error.

61. I would rather / prefer going by feet / than board / an overcrowded bus.  
 (1) (2) (3) (4)
62. If you intend to pursuing / a course in Business Administration / at a premier institute / you must work hard.  
 (1) (2) (3) (4)
63. With the rains / playing truant this year / much parts of the country / are facing a drought situation.  
 (1) (2) (3) (4)
64. Each of the research scholars / was asked to submit / their dissertations / before the stipulated time.  
 (1) (2) (3) (4)
65. Although Bob and Bill are brothers / the former is very warm and friendly / when the latter / is reserved.  
 (1) (2) (3) (4)

**DIRECTIONS for Questions 66 to 70:** In each of the questions, four different ways of presenting an idea are given. Choose the one that conforms most closely to Standard English usage.

66. A. At a time when there is so much revulsion towards corruption in all walks of life, Sachin seeking to subvert the law sends out entirely wrong signals.  
 B. At a time when there is so much revulsion towards corruption in all walks of life, Sachin has been seeking to subvert the law sends out wrong signals entirely.  
 C. At a time when there is so much revulsion in corruption in all walks of life Sachin has been seeking to subvert the law entirely sends out wrong signals.  
 D. At a time when there is so much revulsion in corruption in all walks of life Sachin seeking to subvert the law is sending out entirely wrong signals.
- (1) A (2) B (3) C (4) D

67. A. The biggest developmental successes in recent years has been in places like China and Vietnam, where the western economical ideas, to the extent that they were considered at all, lost out to more practically oriented policy makers.  
 B. The biggest development successes, to the extent that they were considered at all in recent years, have been in places like China and Vietnam where the western economic ideas, lost out to more practically oriented policy makers.  
 C. The biggest development successes in recent years have been in places like China and Vietnam, where the western economic ideas, to the extent that they were considered at all, lost out to more practically oriented policy makers.  
 D. The biggest development successes in recent years have been in places like China and Vietnam where the western economical ideas, lost out to more practically oriented policy makers, to the extent that they were considered at all.  
 (1) A (2) B (3) C (4) D
68. A. People who think about radical change and growth have to be necessarily aware of the need of something more than mere learning new skills or habits to help them in the process.  
 B. People who seek radical change and growth have necessarily to be aware of the need for something more than merely learning new skills or habits to help them in the process.  
 C. People who seek radical change and growth to help them in the process, have necessarily to be aware of the need for something more than merely learning new skills or habits.  
 D. People who think about radical change of growth have necessarily to be aware of the need of something more than mere learning new skills or habits to help them in the process.  
 (1) A (2) B (3) C (4) D
69. A. As their economy sputters, Ukrainians, from consumers to government purchasing agents, resorted to the economics of barter for the survival of the hardships forging a market economy.  
 B. As their economy sputters, Ukrainians, from consumers to government purchasing agents, are resorting to the economics of barter to survive the hardships of forging a market economy.  
 C. As their economy splits, Ukrainians, from consumers to government purchasing agents, resorted to the economics of barter to survive the hardships of foraging a market economy.  
 D. As their economy splits, Ukrainians, from consumers to government purchasing agents, are resorting to the economics of barter for the survival of the hardships foraging a market economy.  
 (1) A (2) B (3) C (4) D
70. A. One basic ingredient in decision-making, which unconsciously few of us are aware of, are the emotional values we assign to some of our choices.  
 B. One basic ingredient in decision-making, which a few of us are aware of, is the emotional values we assign to some of our unconscious choices.  
 C. One basic ingredient in decision-making, which few of us are aware of, is the unconscious emotional values we assign to some of our choices.  
 D. One basic ingredient which few of us are aware of, in decision-making is the unconscious choice which we assign to some of our emotional values.  
 (1) A (2) B (3) C (4) D

**DIRECTIONS** for questions 71 to 75: For each of the words given below, a contextual usage is provided. From the alternatives given, pick the word that is most inappropriate in the given context.

71. Dispirited : Children are very creative; however when faced with failure, they might become dispirited.  
 (1) disheartened (2) demoralized (3) disconsolate (4) expendable
72. Chasm : Today, an unprecedented chasm separates the so called common people and their elected governments.  
 (1) abyss (2) isolation (3) gulf (4) schism
73. Livid : When the Australian team bundled out the Indian team for a measly score, Indian cricket fans were livid.  
 (1) upset (2) irate (3) infuriated (4) incensed
74. Licentious : True freedom is liberation from ego; and not its licentious demonstration.  
 (1) wanton (2) biased (3) indecent (4) degenerate
75. Scurrilous : Some politicians launch scurrilous attack on their opponents in order to belittle them in front of the voters.  
 (1) vituperative (2) venomous (3) pejorative (4) assiduous

**DIRECTIONS** for the questions 76 to 85: Read the passages given below and answer the questions that follow them.

### Passage - 1

Over the years, breakers of the law have time and again managed to get around the country's banking and tax laws. Loopholes have resulted in their successful dealing in unaccounted money. Since the securities scam of 1992, intelligence agencies have begun investigations into the misuse of banking channels. It is now clear that large amounts of black money are laundered through banks and that they are being misused for illegal economic activities. Investigations reveal several kinds of misuse.

Depositing of black money under fictitious names for laundering is the most prevalent misuse. The money is then transferred from these accounts – either by way of loans or investments. Recent investigations have unearthed many bank accounts in fictitious names involving crores of rupees.

A network of bogus investment companies is set up and several public companies are floated in order to launder black money by showing fictitious share subscriptions. Paying in forex against bogus imports is another way of using the system to serve illegal ends. A large number of cases have been detected where nonobservance of banking procedure has led to illegal remittances of foreign exchange through fake imports.

The tremendous drain on foreign exchange by such a misuse can be judged by the fact that just two cases detected at Bombay, involved remittances of Rs.90 crores without any actual imports having taken place. Large quantities of imports under the open general licence (OGL), under fictitious names is yet another way in which the revenue authorities are hoodwinked. Bank accounts are opened under bogus names and addresses where cash deposits are made for importing goods. After the imports of goods, the accounts are closed and importers cannot be traced.

Large consignments of goods on which excise duties have been evaded, smuggled goods and even regular goods are freely traded all over the country against demand drafts on fictitious names. Names of the purchasers and payees are both bogus. For instance, a single party purchased watches from Hyderabad Allwyn worth Rs. 3.15 crore, under several fictitious names against drafts. A study revealed that as much as 51 per cent of the demand drafts over Rs. 1 lakh purchased against cash payment at six sample branches were related to unaccounted transaction.

The depositing of black money in bank lockers under fictitious names is a tried way for safe keeping. It is clear that tax evaders prefer banking channels for reasons of respectability attached to banks, the low costs and the ready availability of a vast banking network. If the misuse of banking channels is curbed the cost of keeping and generating black money for evaders, will be much higher and the black money will come out in the open.

There are several ways by which the misuse of the banking system could be prevented. The main problem which has to be resolved is the operation of fictitious accounts. Such accounts are apparently operated with impunity as there is no system for proper verification. Although, from time to time, instructions are issued by the RBI to ensure proper identification of the account holders, the unscrupulous elements sometimes in connivance with the bank employees succeed in defeating the system.

The real and effective solution involves affixing the photograph of the account holder along with the specimen signature on the account opening form. Since people affix photographs on driving licences, ration cards, registration of properties and passports, there should not be any problem if they are asked to do the same at the time of opening a bank account. Already, illiterate persons are required to affix photographs and some banks such as Punjab & Sind Bank have provided cameras to the bank managers of rural branches for this purpose. In view of pervasive misuse of banking channels, there is no reason for not insisting on photographs being required to be affixed by all account holders.

The second major issue, which is a matter of great concern to all the investigating agencies, relates to the problem faced in obtaining information from the banks in exercise of the powers vested in these agencies under various laws. For instance, under the provisions of Section 133(6) of the Income tax Act, the income tax authorities are empowered to call for information from the banks. But the stand taken by the banking sector and RBI has been that the income tax (IT) authorities cannot call for 'general' information described as of 'roving nature' and that the IT department should call for information only in specific cases after furnishing the name and address of the account holder. This refusal of information by banks hampers effective investigations relating to the unearthing of black money.

76. A suitable title for the passage would be

- (1) Black Money – the Role of Banks.
- (2) Nexus between Importers and Banks.
- (3) Fictitious imports – A sure way of Black Money generations.
- (4) Black Money – How to generate it.

77. The tone of the article is

- (1) critical.
- (2) informative.
- (3) analytical.
- (4) cynical.

79. Which of the following is suggested by the author as one of the main reasons for tax-evaders preferring banking channels?

- (1) Government's import policies and regulations
- (2) Low cost and ready availability of banking network
- (3) Connivance of bank employees in opening fictitious accounts
- (4) Safety due to non disclosure of information by banks to IT authorities

79. Which of the following according to the author should be done to enable unearthing of black money from fictitious accounts?

- I. Giving more powers to Income tax authorities under section 133(6) of Income tax Act
  - II. Compliance by banks and RBI to provide information called for by Income tax authorities
  - III. Affixing photograph of the account holder along with the specimen signature
- (1) Only I
  - (2) Only II
  - (3) Only III
  - (4) Only II & III

80. Which of the following as per the passage, are ways used by people for laundering black money?

- I. Fictitious share subscriptions in several public companies
  - II. Transferring the money deposited in fictitious bank accounts
  - III. Depositing of money in bank lockers
- (1) I Only
  - (2) II Only
  - (3) I & II Only
  - (4) II & III Only

### Passage - 2

Cholesterol is a fatty substance (a **lipid**) that is an important part of the outer lining (membrane) of cells in the body of animals. Cholesterol is also found in the blood circulation of humans. The cholesterol in a person's blood originates from two major sources, dietary intake and liver production. Dietary cholesterol comes mainly from meat, poultry, fish, and dairy products. Organ meats, such as liver, are especially high in cholesterol content, while foods of plant origin contain no cholesterol. After a meal, cholesterol is absorbed by the intestines into the blood circulation and is then packaged inside a protein coat. This cholesterol-protein coat complex is called a chylo. The liver is capable of removing cholesterol from the blood circulation as well as manufacturing cholesterol and secreting cholesterol into the blood circulation. After a meal, the liver removes chylomicrons from the blood circulation. In between meals, the liver manufactures and secretes cholesterol back into the blood circulation.

Cholesterol, like oil, cannot dissolve in the blood unless it is combined with special proteins called lipoproteins. (Without combining with lipoproteins, cholesterol in the blood will turn into a solid substance.) The cholesterol that is secreted by the liver into the blood is combined either with very low-density lipoproteins (VLDL) or high-density lipoproteins (HDL). VLDL cholesterol is then metabolized in the bloodstream to produce LDL cholesterol. The cholesterol combined with low-density lipoprotein is called LDL cholesterol, and the cholesterol combined with high-density lipoproteins is called HDL cholesterol.

LDL cholesterol is called “bad” cholesterol, because elevated LDL cholesterol is associated with an increased risk of coronary heart disease. LDL lipoprotein deposits cholesterol on the artery walls, causing the formation of a hard, thick substance called cholesterol plaque. Over time, cholesterol plaque causes thickening of the artery walls and narrowing of the arteries, a process called atherosclerosis. Arteries that supply blood and oxygen to the heart muscles are called coronary arteries. When coronary arteries are narrowed by atherosclerosis, they are incapable of supplying enough blood and oxygen to the heart muscle during exertion. Lack of oxygen (ischemia) to the heart muscle causes chest pain, also formation of a blood clot in the artery can cause complete blockage of the artery, leading to death of heart muscle (heart attack). Atherosclerotic disease of coronary arteries (coronary heart disease) is the most common cause of death in the United States, accounting for about 600,000 deaths annually.

HDL is called the “good cholesterol” because HDL cholesterol particles prevent atherosclerosis by extracting cholesterol from the artery walls and disposing of them through the liver. Thus, high levels of LDL cholesterol and low levels of HDL cholesterol (high LDL/HDL ratios) are risk factors for atherosclerosis, while low levels of LDL cholesterol and high level of HDL cholesterol (low LDL/HDL ratios) are desirable.

The liver not only manufactures and secretes LDL cholesterol into the blood, it also removes LDL cholesterol from the blood. To remove LDL cholesterol from the blood, the liver relies on special proteins called LDL receptors that are normally present on the surface of liver cells. LDL receptors snatch LDL cholesterol particles from the blood and transport them inside the liver. A high number of active LDL receptors on the liver surfaces is associated with the rapid removal of LDL cholesterol from the blood and low blood LDL cholesterol levels. A deficiency of LDL receptors is associated with high LDL cholesterol blood levels.

Both heredity and diet have a significant influence on a patient’s LDL, HDL and total cholesterol levels. For example, familial hypercholesterolemia (FH) is a common inherited disorder whose victims have a diminished number or nonexistent LDL receptors on the surface of liver cells. The resultant decreased activity of the LDL receptors limits the liver’s ability to remove LDL cholesterol from blood. Thus, affected family members have abnormally high LDL cholesterol levels in the blood. They also tend to develop atherosclerosis and heart attacks during early adulthood.

Diets that are high in saturated fats and cholesterol decrease the LDL receptor activity in the liver, thereby raising the levels of LDL cholesterol in the blood. Fats are classified as saturated or unsaturated according to their chemical structure. Saturated fats are derived primarily from meat and dairy products and can raise blood cholesterol levels. Some vegetable oils made from coconut, palm, and cocoa are also high in saturated fats. On the other hand, most other vegetable oils are high in unsaturated fats. Unlike saturated fats, unsaturated fats do not raise blood cholesterol and can sometimes lower cholesterol. Olive and canola oil are high in monounsaturated fats, which may have a protective effect against coronary heart disease. Unfortunately, some vegetable oils are converted to saturated fats during a process called “hydrogenation” which can be required for food processing.

81. Heart attack, especially after physical exertion, occurs when
- (a) heart muscles are deprived of oxygen.
  - (b) a clot blocks the coronary artery.
  - (c) H.D.L. cholesterol form a plaque.
  - (d) L.D.L. cholesterol is absent in the blood.
- (1) a and b                    (2) b and c                    (3) c and d                    (4) a and d
82. The significant role of liver in relation to cholesterol is it
- (1) manufactures and secretes cholesterol.
  - (2) removes cholesterol from the blood.
  - (3) manages the cholesterol level in the blood.
  - (4) prepares chylo.
83. Cholesterol is like oil because it
- (a) is a fatty substance.
  - (b) can turn solid.
  - (c) combines with lipoproteins.
  - (d) is insoluble in liquid, i.e., blood.
- (1) a and b                    (2) b and c                    (3) c and d                    (4) a and d
84. Meat and dairy products raise L.D.L. cholesterol level in blood because
- (1) they are rich in L.D.L. cholesterol.
  - (2) they contain unsaturated fats.
  - (3) they decrease the activity of the L.D.L receptors in the liver.
  - (4) they are hydrogenated.
85. The following are true, according to the passage.
- (a) Cholestrol is useful to the human body.
  - (b) Hydrogenated oils can be bad for health.
  - (c) Cashewnut may not have cholesterol.
  - (d) Lipoproteins help in maintaining the physical state of cholesterol.
- (1) only a                    (2) b, c and d                    (3) a and b                    (4) c, d and a