## Quantitative Aptitude

1. A sphere of 30 cm radius is dropped into a cylindrical vessel of 80 cm diameter, which is partly filled wikth water, then its level rises by x cm . Find x :
a) 27.5 cm
b) 22.5 cm
c) 18.5 cm
d) Data inadequate
e) None of these
2. On dividing a number by 357 , we get 39 as remainder. On dividing the same number by 17 , what will be the remainder?
a) 0
b) 3
c) 5
d) 11
e) None of these
3. After replacing an old member by a new member, it was found that the average age of five members of a club is the same as it was 3 years ago. What is the difference between the ages of the replaced and the new member?
a) 2 years
b) 4 years
c) 8 years
d) 15 years
e) None of these
4. The LCM of two numbers is 495 and their HCF is 5 . If the sum of the numbers is 10 , then their difference is
a) 10
b) 46
c) 70
d) 90
e) None of these
5. A child has three different kinds of chocolates costing Rs.2, Rs. 5 and Rs.10. He spends total Rs. 120 on the chocolates. What is the minimum possible number of chocolates, he can buy, if there must be atleast one chocolate of each kind?
a) 22
b) 19
c) 17
d) 15
e) None of these
6. A, B, C rent a pasture. A puts 10 oxen for 7 months, B puts 12 oxen for 5 months and C puts 15 oxen for 3 months for grazing. If the rent of the pasture is Rs. 175 , how much must C pay as his share of rent?
a) Rs. 45
b) Rs. 50
c) Rs. 55
d) Rs. 60
e) None of these
7. A letter lock consists of 4 rings, each ring contains 9 non-zero digits. This lock can be opened by setting a 4 digit code with the proper combination of each of the 4 rings Maximum how many codes can be formed to open the lock?
a) $4^{9}$
b) 9 p 4
c) $9^{4}$
d) Data inadequate
e) None of these
8. A bag contains 6 black and 8 white balls. One ball is drawn at random. What is the probability that the ball drawn is white?
a) $3 / 4$
b) $4 / 7$
c) $1 / 8$
d) $3 / 7$
e) None of these
9. The ratio between the present ages of $P$ and $Q$ is 6 : 7. If $Q$ is 4 years old than $P$, what will be the ratio of the ages of P and Q after 4 years?
a) $3: 4$
b) $3: 5$
c) $4: 3$
d) $7: 8$
e) None of these
10. I gain 70 paise on Rs.70. My gain percent is
a) $0.1 \%$
b) $1 \%$
c) $7 \%$
d) $10 \%$
e) None of these
11. In an A.P. consisting of 23 terms, the sum of the three terms in the middle is 114 and that of the last three is 204 . Find the sum of first three terms :
a) 14
b) 42
c) 24
d) 69
e) None of these
12. Which one of the following numbers has rational square root?
a) 0.4
b) 0.09
c) 0.9
d) 0.025
e) None of these
13. The distance between two cities $A$ and $B$ is 330 Km . A train starts from $A$ at 8 a.m. and travel towards B at $60 \mathrm{~km} / \mathrm{hr}$. Another train starts from B at $9 \mathrm{a} . \mathrm{m}$ and travels towards A at 75 $\mathrm{Km} / \mathrm{hr}$. At what time do they meet?
a) $10 \mathrm{a} . \mathrm{m}$
b) 10:30a.m
c) $11 \mathrm{a} . \mathrm{m}$
d) 11:30a.m
e) None of these
14. 10 women can complete a work in 7 days and 10 children take 14 days to complete the work. How many days will 5 women and 10 children take to complete the work?
a) 3
b) 5
c) 7
d) Data inadequate
e) None of these
15. $B H$ is perpendicular to $A C$. Find $x$ the length of BC.
a) 12.3
b) 2.3
c) 3.2
d) 13.2
e) None of these
16. Find the lengths of the other two sides of a right triangle if the length of the hypotenuse is 8 inches and one of the angles is $30^{\circ}$.
a) $4,4 \sqrt{3}$ inches
b) 5, 6 inches
c) $2,4 \sqrt{2}$
d) $3,4 \sqrt{2}$ inches
e) None of these
17. A man takes 3 hours 45 minutes to row a boat 15 km downstream of a river and 2 hours 30 minutes to cover a distance of 5 km upstream. Find the speed of the river current in $\mathrm{km} / \mathrm{hr}$.
a) $1 \mathrm{~km} / \mathrm{hr}$
b) $2 \mathrm{~km} / \mathrm{hr}$
c) $3 \mathrm{~km} / \mathrm{hr}$
d) $4 \mathrm{~km} / \mathrm{hr}$
e) None of these

Directions (Q. 18-22) Study the following table and answer the questions.
Number of Candidates Appeared and Qualified in a Competitive Examination from Different States Over the Years.

| State | Year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1997 |  | 1998 |  | 1999 |  | 2000 |  | 2001 |  |
|  | App. | Qual. | App. | Qual. | App. | Qual. | App. | Qual. | App. | Qual. |
| M | 5200 | 720 | 8500 | 980 | 7400 | 850 | 6800 | 775 | 9500 | 1125 |
| N | 7500 | 840 | 9200 | 1050 | 8450 | 920 | 9200 | 980 | 8800 | 1020 |
| P | 6400 | 780 | 8800 | 1020 | 7800 | 890 | 8750 | 1010 | 9750 | 1250 |
| Q | 8100 | 950 | 9500 | 1240 | 8700 | 980 | 9700 | 1200 | 8950 | 995 |
| R | 7800 | 870 | 7600 | 940 | 9800 | 1350 | 7600 | 945 | 7990 | 885 |

18. Total number of candidates qualified from all the states together in 1997 is approximately what percentage of the total number of candidates qualified from all the states together in 1998?
a) $72 \%$
b) $77 \%$
c) $80 \%$
d) $83 \%$
e) None of these
19. What is the average candidates who appeared from State Q during the given years?
a) 8700
b) 8760
c) 8990
d) 8920
e) None of these
20. In which of the given years the number of candidates appeared from State p has maximum percentage of qualified candidates?
a) 1997
b) 1998
c) 1999
d) 2001
e) None of these
21. What is the percentage of candidates qualified from State N for all the years together, over the candidates appeared from State N during all the years together?
a) $12.36 \%$
b) $12.16 \%$
c) $11.47 \%$
d) $11.15 \%$
e) None of these
22. The percentage of total number of qualified candidates to the total number of appeared candidates among all the five states in 1999 is?
a) $11.49 \%$
b) $11.84 \%$
c) $12.21 \%$
d) $12.57 \%$
e) None of these
23. How many times are the hands of a clock at right angle in a day?
a) 22
b) 24
c) 44
d) 48
e) None of these
24. Two vessels $A$ and $B$ contain milk and water mixed in the ratio $8: 5$ and $5: 2$ respectively. The ratio in which these two mixtures be mixed to get a new mixture containing $69 \frac{3}{4} \%$ milk is :
a) $2: 7$
b) $3: 5$
c) $5: 2$
d) $5: 7$
e) None of these
25. A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?
a) 3 hrs 15 min
b) 3 hrs 45 min
c) 4 hrs
d) 4 hrs 15 mins
e) None of these
26. How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at $4.5 \%$ per annum of simple interest?
a) 3.5 years
b) 4 years
c) 4.5 years
d) 5 years
e) None of these
27. If $20 \%$ of $a=b$, then $b \%$ of 20 is the same as:
a) $4 \%$ of a
b) $5 \%$ of a
c) $20 \%$ of a
28. Which one of the following numbers will completely divide $\left(4^{61}+4^{62}+4^{63}+4^{64}\right)$ ?
a) 3
b) 10
c) 11
d) 13
e) None of these
29. The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?
a) 0
b) 1
c) 10
d) 19
e) None of these
30. The greatest possible length which can be used to measure exactly the length $7 \mathrm{~m}, 3 \mathrm{~m}, 85 \mathrm{~cm}$, $12 \mathrm{~m}, 95 \mathrm{~cm}$ is
a) 15 cm
b) 25 cm
c) 35 cm
d) 42 cm
e) None of these
31. If $(\mathrm{a}+\mathrm{b}):(\mathrm{a}$ ? b$)=15: 1$, then the value of $a^{2}$ ? $b^{2}$ is:
a) 56
b) 15
c) 112
d) 8
e) None of these
32. Simran started a software business by investing Rs.50,000. After six months, Nanda joined her with a capital of Rs.80,000. After 3 years, they earned a profit of Rs.24,500. What was Simran's share in the profit?
a) Rs. 9423
b) Rs.10,250
c) Rs. 10,500
d) Rs.14,000
e) None of these
33. Out of 7 consonants and 4 vowels, how many words of 3 consonants and 2 vowels can be formed?
a) 210
b) 1050
c) 25200
d) 21400
e) None of these
34. What is the probability of getting a sum 9 from two throws of a dice?
a) $1 / 6$
b) $1 / 8$
c) $1 / 9$
d) $1 / 12$
e) None of these
35. My brother is 3 years elder to me. My father was 28 years of age when my sister was born while my mother was 26 years of age when I was born. If my sister was 4 years of age when my brother was born, then, what was the age of my father and mother respectively when my brother was born?
a) 32 yrs., 23 yrs.
b) 32 yrs., 29 yrs.
c) 35 yrs., 29 yrs.
d) 35 yrs., 33 yrs.
e) None of these

## Reasoning Ability

36. Each odd digit in the number 5263187 is substituted by the next higher digit and each even digit is substituted by the previous lower digit and the digits so obtained are rearranged in ascending order, which of the following will be the $3^{\text {rd }}$ digit from the left end after the rearrangement?
a) 2
b) 4
c) 5
d) 6
e) None of these
37. Town D is towards East of town F. Town B is towards North of town D. Town H is towards South of town B. Towards which directions is town H from town F ?
a) East
b) South-East
c) North-East
d) Data inadequate
e) None of these
38. Among $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E each having different weight, D is heavier than only A and C is lighter than B and E . Who among them is the heaviest?
a) B
b) E
c) C
d) Data inadequate
e) None of these

39．How many such pairs of letters are there in the word SEARCHES each of which has as many letters between them in the word as in the English alphabet？
a）None
b）One
c）Two
d）Three
e）More than three

40．If ‘ $\div$ means＇＇+ ＇，‘回 means＇$x$＇，‘ $x$＇means ‘ $\div$＇and＇+ ＇means＇${ }^{\text {『 }}$ ，then 15 回 $8 \times 6 \div 12+4=$ ？
a） 20
b） 28
c） $8-4 / 7$
d） $2-2 / 3$
e）None of these

41．Ashok started walking towards South．After walking 50 m he took a right turn and walked 30 m ．He then took a right turn and walked 100 m ．He again took a right turn and walked 30 m and stopped．How far and in which direction was he from the starting point？
a） 50 m South
b） 150 m North
c） 180 m East
d） 50 m North
e）None of these
42．How many meaningful English words can be made with the letters DLEI using each letter only once in each word？
a）None
b）One
c）Two
d）Three
e）More than three

43．In a certain code TEMPORAL is written as OLDSMBSP．How is CONSIDER written in that code？
a）RMNBSFEJ
b）BNMRSFEJ
c）RMNBJEFS
d）TOPDQDCH
e）None of these

44．In a certain code language＇how many goals scored＇is written as＇5 397 ＇；＇many more matches＇is written as＇ 982 ＇and＇he scored five＇is written as＇ 163 ＇．How is＇goals＇written in that code language？
a） 5
b） 7
c） 5 or 7
d）Data inadequate
e）None of these

45．Pratap correctly remembers that his mother＇s birthday is before $23^{\text {rd }}$ of April but after $19^{\text {th }}$ of April，whereas his sister correctly remembers that their mother＇s birthday is not on or after $22^{\text {nd }}$ of April．On which day in April is definitely their mother＇s birthday？
a） $20^{\text {th }}$
b） $21^{\text {st }}$
c） $20^{\text {th }}$ or $21^{\text {st }}$
d）Can＇t be determined
e）None of these

Directions（Q．46－50）In each of the questions below are given four statements followed by four conclusions numbered I，II，III and IV．You have to take the given statements to be true even if they seem to be at variance from commonly known facts．Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts．

| 46．Statements： | All cups are bottles． |
| :---: | :--- |
|  | Some bottles are jugs． |
| No jug is plate． |  |
| Conclusions： | Some plates are tables． |
|  | I．Some tables are bottles． |
|  | II．Some plates are cups． |
|  | III．No table is bottle． |
|  | IV．Some jugs are cups． |

a) Only I follows
b) Only II follows
c) Only III follows
d) Only IV follows
e) Only either I or III follows
47. Statements: All birds are horses. All horses are tigers. Some tigers are lions. Some lions are monkeys.
Conclusions: I. Some tigers are horses.
II. Some monkeys are birds.
III. Some tigers are birds.
IV. Some monkeys are horses.
a) Only I and III follow
b) Only I, II and III follow
c) Only II, III and IV follow
d) All I, II, III and IV follow
e) None of these
48. Statements: Some chairs are handles.

All handles are pots.
All pots are mats.
Some mats are buses.
Conclusions: I. Some buses are handles.
II. Some mats are chairs.
III. No bus is handle.
IV. Some mats are handles.
a) Only I, II and IV follow
b) Only II, III and IV follow
c) Only either I or III and II follow
d) Only either I or III and IV follow
e) Only either I or III and II and IV follow
49. Statements: Some sticks are lamps.

Some flowers are lamps. Some lamps are dresses. All dresses are shirts.
Conclusions: I. Some shirts are sticks.
II. Some shirts are flowers.
III. Some flowers are sticks.
IV. Some dresses are sticks.
a) None follows
b) Only I follows
c) Only II follows
d) Only III follows
e) Only IV follows
50. Statements: Some benches are walls. All walls are houses.
Some houses are jungles. All jungles are roads.
Conclusions: I. Some roads are benches.
II. Some jungles are walls.
III. Some houses are benches.

> IV. Some roads are houses.
a) Only I and II follow
b) Only I and III follow
c) Only III and IV follow
d) Only II, III and IV follow
e) None of these

Directions (Q. 51-55) Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight employees of an organization working in three departments viz. Personnel, Administration and Marketing with not more than three of them in any department. Each of them has a different choice of sports from Football, Cricket, Volleyball, Badminton, Lawn Tennis, Basketball, Hockey and Table Tennis not necessarily in the same order.

D works in Administration and does not like either Football or Cricket. F works in Personnel with only A who likes Table Tennis. E and H do not work in the same department as D. C likes Hockey and does not work in Marketing. G does not work in Administration and does not like either Cricket or Badminton. One of those who work in Administration likes Football. The one who likes Volleyball works in Personnel. None of those who work in Administration likes either Badminton or Lawn Tennis. H does not like Cricket.
51. Which of the following groups of employees work in Administration department?
a) EGH
b) AF
c) BCD
d) BGD
e) Data inadequate
52. In which department does E work?
a) Personnel
b) Marketing
c) Administration
d) Data inadequate
e) None of these
53. What is E's favourite sport?
a) Cricket
b) Badminton
c) Basketball
d) Lawn Tennis
e) None of these
54. Which of the following combinations of employees-department-favourite sport is correct?
a) E-Administration-Cricket
b) F-Personnel-Lawn Tennis
c) H-Marketing-Lawn Tennis
d) B-Administration-Table Tennis
e) None of these
55. What is G's favourite sport?
a) Cricket
b) Badminton
c) Basketball
d) Lawn Tennis
e) None of these

Directions (Q. 56-60) In the following questions, the symbols @, \$, *, \# and! are used with the following meaning as illustrated below:
'P \$ Q' means 'P is not smaller than Q '.
' $P$ @ $Q$ ' means ' $P$ is neither smaller than nor equal to $Q$ '.
' P \# Q ' means ' P is neither greater than nor equal to Q '.
' P ! Q ' means ' P is neither greater than nor smaller than Q '.
' P * Q ' means ' P is not greater than Q '.
Now, in each of the following questions assuming the given statements to be true, find which of the four conclusions I, II, III and IV given below them is/are dfinitely true and give your answer accordingly.
56. Statements:

Conclusions:

N! B, B \$ W, W \# H, H * M
I. M @ W
II. H @ N
III. W! N
IV. W \# N
a) Only I is true
b) Only III is true
c) Only IV is true
d) Only either III or IV is true
e) Only either III or IV and I are true
57. Statements: Conclusions:

R*D, D \$ J, J \# M, M @ K
I. K \# J
II. D @ M
III. R \# M
IV.D @ K
a) None is true
b) Only I is true
c) Only II is true
d) Only III is true
e) Only IV is true
58. Statements: $\quad$ H @ T, T \# F, F! E, E * V

Conclusions: I. V \$ F
II. E @ T
III. H @ V
IV. T \# V
a) Only I, II and III are true
b) Only I, II and IV are true
c) Only II, III and IV are true
d) Only I, III and IV are true
e) All I, II, III and IV are true
59. Statements: D \# R, R * K, K @ F, F \$ J

Conclusions:
I. J \# R
II. J \# K
III. R \# F
IV. K @ D
a) Only I, II and III are true
b) Only II, III and IV are true
c) Only I, III and IV are true
d) All I, II, III and IV are true
e) None of these
60. Statements: M\$K,K @ N, N * R, R \# W

Conclusions:
I. W @ K
II. M \$ R
III. K @ W
IV. M @ N
a) Only I and II are true
b) Only I, II and III are true
c) Only III and IV are true
d) Only II, III and IV are true
e) None of these

Directions (Q. 61-65) Study the following information carefully and answer the questions given below:

Following are the conditions for selecting Senior Manager-Credit in bank. The candidate must
(i) Be a Graduate in any discipline with at least $60 \%$ marks.
(ii) Have post qualification work experience of at least 10 years in the Advances Section of a bank.
(iii) Be at least 30 years and not more than 40 years as on 01.04.2010.
(iv) Have secured at least $40 \%$ marks in the group discussion.
(v) Have secured at least $50 \%$ marks in inverview.

In the case of a candidate who satisfies all the conditions

## Except

(a) At (i) above but has secured at least $50 \%$ marks in graduation and at least $60 \%$ marks in post graduation in and discipline the case is to be referred to the General Manager-Advances.
(b) At (ii) above but has total post qualification work experience of at least seven years out of which at least three years as Manager-Credit in a bank, the case is to be referred to Executive Director.
In each question, below details of one candidate is given. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01.04.2010.

Give answer (a) if the case is to be referred to Executive Director.
Give answer (b) if the case is to be referred to General Manager-Advances.
Give answer (c) if the data are inadequate to take a decision.
Give answer (d) if the candidate is not to be selected.
Give answer (e) if the candidate is to be selected.
61. Prakash Gokhale was born on $4^{\text {th }}$ August 1977 . He has secured $65 \%$ marks in post graduation and $58 \%$ marks in graduation. He has been working for the past 10 years in the Advances Department of a bank after completing his post graduation. He has secured $45 \%$ marks in the group discussion and $50 \%$ marks in the interview.
62. Amit Narayan was born on $28^{\text {th }}$ May 1974. He has been working in the Advances Department of a bank for the past 11 years after completing his B.Sc. degree with $65 \%$ marks. He has secured $55 \%$ marks in group discussion and $50 \%$ marks in the interview.
63. Shobha Gupta has secured $50 \%$ marks in the interview and $40 \%$ marks in the group discussion. She has been working for the past eight years out of which four years as ManagerCredit in a bank after completing her B.A. degree with $60 \%$ marks. She was born on $12^{\text {th }}$ September, 1978.
64. Rohan Maskare was born on $8^{\text {th }}$ March 1974. He has been working in a bank for the past 12 years after completing his B.Com degree with $70 \%$ marks. He has secured $50 \%$ marks in both the group discussion and the interview.
65. Sudha Mehrotra has been working in the Advances Department of a bank for the past 12 years after completing her B.Com. degree with $60 \%$ marks. She has secured $50 \%$ marks in the group discussion and $40 \%$ marks in the interview. She was born on $15^{\text {th }}$ February 1972.

Directions (Q. 66-70) In each questions below is given a statement followed by three courses of action numbered (A), (B) and (C). A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problem, policy, etc. On the basis of the information given in the statement, you have to assume everything in the statement to be true, then decide which of the suggested courses of action logically follow(s) for pursuing.
66. Statement: Many political activists have decided to stage demonstrations and block traffic movement in the city during peak hours to protest against the steep rise in prices of essential commodities.

## Courses of action

(A) The government should immediately ban all forms of agitationsin the country.
(B) The police authority of the city should deploy additional forces all over the city to help traffic movement in the city.
(C) The state administration should carry out preventive arrests of the known criminals staying in the city.
a) Only (A)
b) Only (B)
c) Only (C)
d) Only (A) and (B)
e) None of these
67. Statement: The school dropout rate in many districts in the state has increased sharply during the last few years as the parents of these children make them work in the fields owned by others to earn enough for them to get at least one meal a day.

## Courses of action

(A) The government should put up a mechanism to provide foodgrains to the poor people in these districts through public distribution system to encourage the parents to send their wards to school.
(B) The government should close down some of these schools in the district and deploy the teachers of these schools to nearby schools and also ask remaining students to join these schools.
(C) The government should issue arrest warrants for all the parents who force their children to work in fields instead of attending classes.
a) Only (A)
b) Only (B)
c) Only (C)
d) Only (A) and (B)
e) None of these
68. Statement: A large private bank has decided to retrench one-third of its employees in view of the huge losses incurred by it during the past three quarters.

## Courses of action

(A) The government should issue a notification to general public to immediately stop all transactions with the bank.
(B) The government should direct the bank to refrain from retrenching its employees.
(C) The government should ask the central bank of the country to initiate an enquiry into the bank's activities and submit its report.
a) None
b) Only (A)
d) Only (C)
e) None of these
69. Statement: One aspirant was killed due to stampede while participating in a recruitment drive of police constables.

## Courses of action

(A) The officials incharge of the recruitment process should immediately be suspended.
(B) A team of officials should be asked to find out the circumstances which led to the death of the aspirant and submit its report within a week.
(C) The government should ask the home department to stagger the number of aspirants over more number of days to avoid such incidents in future.
a) Only (A)
b) Only (B)
c) Only (C)
d) Only (B) and (C)
e) None of these
70. Statement: A heavy unseasonal downpour during the last two days has paralysed the normal life in the state in which five persons were killed but this has provided a huge relief to the problem of acute water crisis in the state.

## Courses of action

(A) The state government should set up a committee to review the alarming situation.
(B) The state government should immediately remove all therestrictions on use of potable water in all the major cities in the state.
(C) The state government shouldsend relief supplies to all the affected areas in the state.
a) None
b) Only (A)
c) Only (B) and (C)
d) Only (C)
e) All (A), (B) and (C)

## English Language

Directions (Q. 71-80) Read the following passage carefully and answer the questions given below it. Certain words have been printed in bold to help you to locate them while answering some of the questions.

Banking sector reforms in India were introduced in order to improve efficiency in the process of financial intermediation. It was expected that banks would take advantage of the changing operational environment and improve their performance. Towards this end, the Reserve Bank of India initiated a host of measures for the creation of a competitive environment. Deregulation of interest rates on both deposit and lending sides imparted freedom to banks to appropriate price their products and services. To compete effectively with non-banking entities, banks were permitted to undertake newer activities like investment banking, securities trading and insurance business. This was facilitated $t$ hrough amendments in the relevant acts which permitted PSBs to raise equity from the market up to threshold limit and also enabling the entry of new private and foreign banks. This changing face of banking led to an erosion of margins on traditional banking business, promoting banks to search for newer activities to augment their free incomes. At the same time, banks also needed to devote focused attention to operational efficiency in order to contain their transaction costs. Simultaneously with the deregulation measures prudential norms were instituted to strengthen the safety and soundness of the banking system. Recent internal empirical research found that over the period 1992-2003, there has been a discernible improvement in the efficiency of Indian banks. The increasing trend in efficiency has been fairly uniform, irrespective of the ownership pattern. The rate of such improvement has, however, not been sufficiently high. The analysis also reveals that PSBs and private sector banks in India did not differe significantly in terms of their efficiency measures. Foreign banks, on the other hand, recorded higher efficiency as compared with their Indian counterparts.
71. Prudential norms were initiated in the banking sector with a view to
a) Increase operational efficiency
b) Contain the non-performing assets
c) Strengthen the soundness of banking system
d) Improve the customer service
e) None of these
72. Banking sector reforms in India were introduced for the purpose of
a) Giving more and more employment opportunities to the educated unemployed
b) Taking care of the downtrodden masses
c) Increasing efficiency in the banking activities
d) Giving bettern return to the Central Government
e) None of these
73. Banks can control their transaction costs by
a) Restricting their lending activities
b) Undertaking more and more non-banking activities
c) Encouraging the customers to bank with other banks
d) Devoting more attention to operational efficiency
e) None of these
74. The recent internal empirical research conducted by the RBI found that
a) There is cut-throat competition in banking industry
b) The rate of return is not commensurate with the operational cost
c) The rate of improvement has not been high
d) Nationalised banks and private sector banks did differ in the efficiency measures
e) None of these
75. Which of the following statements recognising improvement in efficiency is True in the cotext of the passage?
a) There is no discernible difference in efficiency parameters
b) The foreign banks recorded higher efficiency
c) The efficiency of foreign banks is not comparable with Indian banks
d) The rate of such improvement in efficiency was very high
76. Which of the following is/are the measure(s) taken by Reserve Bank of India to create a competitive environment in the Banking sector?
I. Banks were given freedom to take up newer activities.
II. Entry of new private and foreign banks in the field.
III. Amendments in the relevant acts to enable PSBs to raise equity from the market.
a) None
b) I and II
c) I and III
d) II and III
e) All the three
77. Choose the word which is most nearly the same in meaning as the word printed in bold as used in the passage.
Relevant
a) Recorded
b) Opposite
c) Appropriate
d) Germane
e) None of these
78. Choose the word which is most nearly the same in meaning as the word printed in bold as used in the passage.
Augment
a) make
b) become
c) enlarge
d) increase
e) None of these
79. Choose the word that is most opposite of the word printed in bold as used in passage. Improve
a) Retard
b) Disprove
c) Prove
d) Accelerate
e) None of these
80. Choose the word that is most opposite of the word printed in bold as used in passage. Reveal
a) Show
b) Conceal
c) Secretive
d) Exhibit
e) None of these

Directions (Q. 81-85) Read each sentence to find out whether there is any grammatical error or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is 'No error', the answer is (5) (Ignore errors of punctuation, if any)
81. The area was plunged into (1) / darkness mid a wave of (2) / cheering and shouting (3) / slogans like 'Save The Earth'. (4) No error (5)
82. The poll contestants approached (1) the commission complaining that the hoardings (2) / violated the code of conduct (3) / and influenced public perception. (4) No error (5)
83. The country has (1) / adequate laws but problems (2) / arise when these are not (3) / implemented in letter and spirit. (4) / No error (5)
84. The management feels that (1) / the employees of the organisation are (2) / non-productive, and do not want (3) / to work hard (4) / No error
85. As far the issue of land encroachment (1) / in villages is concerned, people will (2) / have to make a start from their villages by (3) / sensitising and educating the villagers this issue. (4) No error (5)

Directions (Q. 86-90) Which of the phrases (1), (2), (3) and (4) given below each sentence should replace the word/phrase printed in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, mark (5) as the answer.
86. US Secretary of State made it clear that time running out for diplomacy over Iran's nuclear programme and said that talks aimed at preventing Tehran from acquiring a nuclear weapon would resume in April.
a) runs out
b) was running out
c) ran out
d) run
e) No correction required
87. While the war of the generals rage on, somewhere in small town India, wonderful things are happening, quietly and minus fanfare.
a) rage
b) raging
c) rages on
d) raged on
e) No correction required
88. According to WWF, the small Island nation of Samoa was the first in switch off its lights for Earth Hour.
a) first to switch off
b) the first to switch off
c) the first of switch off
d) first in switch off
e) No correction required
89. The campaign is significant because not just the youths are directly appealing to the World but because their efforts challenge the chimera of normalcy in the area.
a) not just because
b) just not because
c) not just
d) because just
e) No correction required
90. The doctor's association has threatened to go on indefinite strike support of their teachers.
a) on supporting to
b) to supporting
c) for support
d) in support of
e) No correction required

Directions (Q. 91-100) In the following passage there are blanks, each of which has been numbered. These numbers are printed below the passage and againsteach, five words/phrases are suggested, one of which fits the blank appropriately. Find out the appropriate word/phrase in each case.

Greenhouse gases are only (91) of the story when it comes to global warming. Changes to one part of the climate system can (92) additional changes to the way the planet absorbs or reflects energy. These secondary changes are (93) climate feedbacks, and they could more than double the amount of warming caused by carbon dioxide alone. The primary feedbacks are (94) to snow and ice, water vapour, clouds and the carbon cycle.

Perhaps the most well (95) feedback comes from melting snow and ice in the Northern Hemisphere. Warming temperatures are already (96) a growing percentage of Arctic sea ice, exposing dark ocean water during the (97) sunlight of summer. Snow cover on land is also (98) in many areas. In the (99) of snow and ice, these areas go from having bright, sunlight reflecting surfaces that cool
the planet to having dark, sunlight absorbing surfaces that (100) more energy into the Earth system and cause more warming.
91. a) whole
b) part
c) material
d) issue
e) most
92.
a) raise
b) brings
c) refer
d) stop
e) cause
93. a) sensed
b) called
c) nothing
d) but
e) term
94. a) due
b) results
c) reason
d) those
e) because
95.
a) done
b) known
c) ruled
d) bestowed
e) said
96. a) mastering
b) sending
c) melting
d) calming
e) increasing
97. a) make-shift
b) ceasing
c) troubled
d) perpetual
e) absent
98. a) dwindling
b) manufactured
c) descending
d) generating
e) supplied
99. a) progress
b) reduced
c) existence
d) midst
e) absence
100.
a) repel
b) waft
c) monitor
d) bring
e) access

## Answers:

1. Volume of water displaced $=$ volume of sphere

$$
\pi \times(40)^{2} \times \mathrm{h}=\frac{4}{3} \pi \times(30)^{3}
$$

$\mathrm{h}=\frac{90}{4}=22.5 \mathrm{~cm}$
Thus, the level of water rises by 22.5 cm .
Note The volume of water will be calculated by considering it in the cylindrical shape since the water takes the shape of vessel in which it is filled.
2. Let $x$ be the number and $y$ be the quotient. Then,
$\mathrm{x}=357 \times \mathrm{y}+39$
$=(17 \times 21 \times y)+(17 \times 2)+5$
$=17 \times(21 \mathrm{y}+2)+5$
So, required number $=5$
3. Age decreased $=5 \times 3$ years $=15$ years

So, required difference $=15$ years
4. Let the numbers be $x$ and ( 1000 x$)$

Then, $x(100$ T $x)=5 \times 495$

$$
\begin{aligned}
& x^{2} \text { ? } 100 x+2475=0 \\
& (x \text { ? } 55)(x \text { ? } 45)=0 \\
& x=55 \text { or } x=45
\end{aligned}
$$

Therefore, the numbers are 45 and 55.
Required difference $=(55$ 245 $)=10$
5. Minimum number of chocolates are possible when he purchases maximum number of costliest chocolates.
Thus, $2 \times 5+5 \times 2=$ Rs. 20
Now, Rs. 100 must be spend on 10 chocolates as $100=10 \times 10$
Thus, minimum number of chocolates $=5+2+10=17$
6. $\mathrm{A}: \mathrm{B}: \mathrm{C}=10 \times 7: 12 \times 5: 9 \times 5$

$$
\begin{aligned}
& =70: 60: 45 \\
& =14: 12: 9 \\
& =\text { Rs. } 175 \times \frac{9}{35}=\text { Rs. } 45
\end{aligned}
$$

7. $9 \times 9 \times 9 \times 9=9^{4}$
8. Let number of balls $=(6+8)=14$

Number of white balls $=8$
$\mathrm{P}($ drawing a white ball $)=\frac{8}{14}=\frac{4}{7}$
9. Let P's age and Q's age be $6 x$ years and $7 x$ years respectively.

Then

$$
7 x \text { 6x }
$$

$$
x=4
$$

Required ratio $\quad=(6 x+4):(7 x+4)$

$$
=28: 32
$$

$$
=7: 8
$$

10. Gain $\%=\left[\frac{0.70}{70} \times 100\right] \%$
11. $T_{11}+T_{12}+T_{13}=114$
$T_{12}=\frac{114}{3}=38$
$a+11 d=38$
and $T_{21}+T_{22}+T_{23}=204$
$T_{22}=68$
$a+21 d=68$
from equations (i) and (ii)

$$
\begin{aligned}
& 10 d=30 \\
& d=3
\end{aligned}
$$

So, $\mathrm{a}=5$
$T_{1}+T_{2}+T_{3}=5+8+11=24$
12. $\sqrt{0.09}$
$=\overline{9 / 100}$

$$
=\frac{3}{10}
$$

## 0.3 , which is rational.

13. Suppose they meet $x$ hrs. after 8 a.m. then
(Distance moved by first in x hrs.) $+=300$
[Distance moved by second in (x Q 1) hrs.]

$$
\text { Therefore } 60 x+75(x \text { 回 } 1) \quad \ll 330
$$

$$
x=3
$$

So, they meet at $(8+3)$ i.e. 11 a.m.
14. 1 woman's 1 day's work

$$
=\frac{1}{70}
$$

1 child's 1 day's work

$$
=\frac{1}{140}
$$

( 5 women +10 children)'s day's work $=\left[\frac{5}{70}+\frac{10}{140}\right]=\left[\frac{1}{14}+\frac{1}{14}\right]=\frac{1}{7}$
5 women and 10 children will complete the work in 7 days.
15. BH perpendicular to AC means that triangles ABH and HBC are right triangles. Hence
$\tan \left(39^{\circ}\right)=11 / \mathrm{AH}$ or $\mathrm{AH}=11 / \tan \left(39^{\circ}\right)$
$\mathrm{HC}=19$ ? $\mathrm{AH}=19$ 2 $11 / \tan \left(39^{\circ}\right)$
Pythagora's theorem applied to right triangle $\mathrm{HBC}: 11^{2}+H C^{2}=x^{2}$
Solve for x and substitute $\mathrm{HC}: \mathrm{x}=\operatorname{sqrt}\left[11^{2}+\left(19\right.\right.$ ? $\left.11 / \tan \left(39^{\circ}\right)^{2}\right]$
$=12.3$
16. This is a right triangle with a $30^{\circ}$ angle so it must be a $30^{\circ} 60^{\circ}$ ? $90^{\circ}$ triangle.

You are given that the hypotenuse is 8 . Substituting 8 into the third value of the ratio $n: n \sqrt{3}$ :
2n,
we get that $2 \mathrm{n}=8$
$\mathrm{n}=4$
Substituting $\mathrm{n}=4$ into the first and second value of the ratio we get that the other two sides are 4 and $4 \sqrt{3}$
The lengths of the two sides are 4 inches and $4 \sqrt{3}$ inches.
17. Rate downstream $=\left[\frac{15}{3} \frac{3}{4}-\right] \mathrm{km} / \mathrm{hr}=\left[15 \times \frac{4}{15}\right] \mathrm{km} / \mathrm{hr}=4 \mathrm{~km} / \mathrm{hr}$

Rate upstream $=\left[\frac{5}{2 \frac{1}{2}}\right] \mathrm{km} / \mathrm{hr}=\left[5 \times \frac{2}{5}\right] \mathrm{km} / \mathrm{hr}=2 \mathrm{~km} / \mathrm{hr}$
So, speed of current $=\frac{1}{2}(4$ Q 2$) \mathrm{km} / \mathrm{hr}=1 \mathrm{~km} / \mathrm{hr}$
18. Required percentage $=\left[\frac{720+840+780+950+870}{1980+1050+1020+1240+940} \times 100\right] \%$
$=\left[\frac{4160}{5230} \times 100\right] \%$
$=79.54 \% \sim 80 \%$
19. Required average $\quad=\frac{8100+9500+8700+9700+8950}{5}$

$$
=\frac{44950}{5}=8990
$$

20. The percentages of candidates qualified to candidates appeared from State P during different years are :
For $1997=\left[\frac{780}{6400} \times 100\right] \%=12.19 \%$

1020
8800
890
7800
1010
8750
1250
9750

$$
\begin{aligned}
& 840+1050+920+980+1020 \\
& 7500+9200+8450+9200+8800 \\
& 4810 \\
& 43150 \\
& \\
& 850+920+890+980+1350 \\
& 7400+8450+7800+8700+9800 \\
& 4990 \\
& 42150
\end{aligned}
$$

| 8 |  |  |  | 8 |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 13 |  |  |  | 13 |  |
| 5 |  |  |  | 5 |  |
| 7 |  |  | 9 | 7 | 9 |
|  | 900 | 1 | 9 |  | 13 |

9
13
C.P. of 1 litre mixture in $A$
C.P. of 1 litre mixture in B


21
$91 \quad 13$

```
                    100 81
                            450 45
20
100
\begin{tabular}{cccccccc} 
& & \(b\) & & 20 & 1 & & 4 \\
& & 100 & & 100 & 100 & & 100 \\
& & & & & & & \\
61 & 62 & 63 & 64 & 61 & & 2 & 3
\end{tabular}\(\quad 61\)
crer a+b
    a}\mp@subsup{a}{}{2}\quad\mp@subsup{b}{}{2
                                    3
                                    7
lllll
nE 4 1
nS 36 9
```





Flowers


| Person | A | B | C | D | E | F | G | H |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Departm | Person | Administra | Administra | Administra | Market | Person | Market | Marketi |
| ent | nel | tion | tion | tion | ing | nel | ing | ng |
| Sports | Table | Football | Hockey | Basket ball | Cricket | Volley | Lawn | Badmin |
|  | Tennis |  |  |  |  | ball | Tennis | ton |

55. Option D
56. Option E
$\mathrm{N}=\mathrm{B}, \mathrm{B} \geq \mathrm{W}, \mathrm{W}<\mathrm{H}, \mathrm{H} \leq \mathrm{Q}$
So, $\mathrm{N}=\mathrm{B} \geq \mathrm{W}<\mathrm{H} \leq \mathrm{M}$
I. $\quad \mathrm{M}>\mathrm{W} \quad$ (True)
II. $\quad \mathrm{H}>\mathrm{N} \quad$ (False)
III. $\mathrm{W}=\mathrm{N}$ or
IV. $\quad \mathrm{W}<\mathrm{N}$
$\mathrm{N} \geq \mathrm{W}$
57. Option A
$\mathrm{R} \leq \mathrm{D}, \mathrm{D} \geq \mathrm{J}, \mathrm{J}<\mathrm{M}, \mathrm{M}>\mathrm{K}$
So, $\mathrm{R} \leq \mathrm{D} \geq \mathrm{J}<\mathrm{M}>\mathrm{K}$
I. $\quad \mathrm{K}<\mathrm{J} \quad$ (False)
II. $\quad \mathrm{D}>\mathrm{M} \quad$ (False)
III. $\quad \mathrm{R}<\mathrm{M} \quad$ (False)
IV. $\quad \mathrm{D}>\mathrm{K} \quad$ (False)

So, none is true
58. Option B
$\mathrm{H}>\mathrm{T}, \mathrm{T}<\mathrm{F}, \mathrm{F}=\mathrm{E}, \mathrm{E} \leq \mathrm{V}$
So, $\mathrm{H}>\mathrm{T}<\mathrm{F}=\mathrm{E} \leq \mathrm{V}$
I. $\quad \mathrm{V} \geq \mathrm{F} \quad$ (True)
II. $\mathrm{E}>\mathrm{T} \quad$ (True)
III. $\mathrm{H}>\mathrm{V} \quad$ (False)
IV. $\mathrm{T}<\mathrm{V} \quad$ (True)

So, only I, II and IV are true
59. Option E
$\mathrm{D}<\mathrm{R}, \mathrm{R} \leq \mathrm{K}, \mathrm{K}>\mathrm{F}, \mathrm{F} \geq \mathrm{J}$
So, $\mathrm{D}<\mathrm{R} \leq \mathrm{K}>\mathrm{F} \geq \mathrm{J}$
I. $\mathrm{J}<\mathrm{R} \quad$ (False)
II. $\mathrm{J}<\mathrm{K} \quad$ (True)
III. $\mathrm{R}<\mathrm{F}$ (False)
IV. $\mathrm{K}>\mathrm{D} \quad$ (True)

So, only II and IV are true
60. Option E
$\mathrm{M} \geq \mathrm{K}, \mathrm{K}>\mathrm{N}, \mathrm{N} \leq \mathrm{R}, \mathrm{R}<\mathrm{W}$
So, $M \geq K>N \leq R<W$
I. $\quad \mathrm{W}>\mathrm{K} \quad$ (False)
II. $\quad \mathrm{M} \geq \mathrm{R} \quad$ (False)
III. $\mathrm{K}>\mathrm{W} \quad$ (False)
IV. $\quad \mathrm{M}>\mathrm{N} \quad$ (True)

So, only IV is true
61. Option B

Prakash has less than $60 \%$ in graduation but more than $60 \%$ in PG. So, his case is to be referred to the GM-advance.
62. Option E

Amit Narayan fulfils all requirement.
63. Option A

Shobha Gupta does not fulfil condition II but B fulfils. So, her case is to be referred to the ED.

## 64. Option C

Data insufficient (experience in advance department is not clear)
65. Option D

Sudha Mehrotra has less than $50 \%$ marks in interview. So, she is not to be selected.
66. Option B

Statement followed by course of action B only to solve the traffic problems.
67. Option A

Course of action A is logically follow.
68. Option D

Course of action C logically follows, because government controls banking system with the help of Central Bank.
69. Option D

Course of action B and C logically follow.
70. Option E

All course of action follow.
71. Option C
72. Option C
73. Option D
74. Option C
75. Option B
76. Option E
77. Option D
78. Option D
79. Option A
80. Option B
81. Option B
82. Option D
83. Option E
84. Option C
85. Option A
86. Option B
87. Option C
88. Option B
89. Option A
90. Option D
91. Option B
92. Option E
93. Option B
94. Option A
95. Option B
96. Option C
97. Option D
98. Option A
99. Option E
100. Option E

