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## Instructions

- There are three sections in the exam. Namely, English Language, Reasoning ability and Quantitative Aptitude
- Each question carries 1 mark
- This test contains 100 questions
- There is negative marking of 0.25 for every wrong answer


## English Language

Directions (Q. 1-15) 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.

The education sector in India is in ferment, hit by a storm long waiting to happen. The butterfly that flapped its wings was the much-reiterated statement in a much publicized report that hardly a fourth of graduating engineers and an even smaller percentage of other graduates, was of employable quality for IT-BPO jobs. This triggered a cyclone when similar views were echoed by other sectors which led to widespread debate. Increased industry-academia interaction, "finishing schools" and other efforts were initiated as immediate measures to bridge skill deficits. These, however, did not work as some felt that these are but band-aid solutions: instead, radical systemic reform is necessary.

Yet there will be serious challenges to overdue reforms in the education system. In India as in many countries education is treated as a holy cow: sadly the administrative system that oversees it has also been deceived. Today, unfortunately, there is no protest against selling drinking water or paying to be cured of illness, or for having to buy food when one is poor and starving: nor is there an outcry that in all these cases there are commercial companies operating on a profit-making basis. Why, then is there an instinctively adverse reaction to the formal entry of 'for profit' institutes in the realm of education? Is potable water, health or food, less basic a need, less important a right, than higher education?

While there are strong arguments for free or subsidized higher education, we are not writing on a blank page. Some individuals and businessmen had entered this sector long back and found devious ways of making money, thought the law stipulates that educational institutes must be 'not-for-profit' trusts or societies. Yet, there is opposition to the entry of 'for-profit' corporates, which would be more transparent and accountable. As a result, desperately needed investment in promoting the wider reach of quality education has been stagnated at a time when financial figures indicate that the allocation of funds for the purpose is but a fourth of the need.

Well-run corporate organizations, within an appropriate regulatory framework, would be far better than the so-called trusts which barring some noteworthy exceptions are a blot on education. However, it is not necessarily a question of choosing one over the other: different organizational forms can coexist, as they do in the health sector. A regulatory framework which creates competition, in tandem with a rating system, would automatically ensure the quality and relevance of education. As in sectors like telecom and packaged goods, organizations will quickly expand into the hinterland to tap the large unmet demand. Easy loan/scholarship arrangements would ensure affordability and access.

The only real structural reform in higher education was the creation of the institutes for technology and management. They were also given autonomy and freedom beyond that of the universities. However, in the last few years, determined efforts have been underway to curb their autonomy. These institutes, however, need freedom to decide on recruitment, salaries and admissions, so as to compete globally.

However, such institutes will be few. Therefore, we need a regulatory framework that will enable and encourage states and the centre, genuine philanthropists and also corporates to set up quality educational institutions. The regulatory system needs only to ensure transparency, accountability, competition and widely available independent assessments or ratings. It is time for
radical thinking, bold experimentationand new structures; it is time for the government to bite the bullet.

1. Why, according to the author, did the initiatives such as increased industry-academia and finishing schools did not help to bridge the skill deficit?
A. These steps were only superficial remedies and the problem could be answered only by reforming the entire education system.
B. These initiatives operated on a profit making basis rather than aiming at any serious systemic reforms.
C. The allocation of funds to such initiatives was only one fourth of the need.
a) Only A
b) Only B
c) Only B and C
d) Only A and B
e) None of these
2. Which of the following suggestions have been made by the author to improve the state of education in India?
A. Allowing the corporate organizations to enter the education sector.
B. Easy availability of loans and scholarships for making education more affordable.
C. A rating system for all the organizations to ensure quality.
a) Only A
b) Only A and B
c) Only A and C
d) All A, B and C
e) None of these
3. According to the author, what 'triggered a cyclone' which saw similar views on the state of education being echoed across other sectors as well?
a) The campaign for allowing corporates in the education sector on a 'for profit' basis
b) The support for the increase in the industry academia interaction
c) The report mentioning that only a small percentage of graduates were employable in software industry
d) The report supporting the idea of making the education completely 'for profit' in order to improve upon the standards
e) None of these
4. Which argument does the author put forward when he compares the education sector with sectors catering to health and potable water etc.?
a) Education should also be provided free of cost to all as health services and water
b) Taking an example from these sectors, there should be a protest against the commercialization of education as well
c) Allowing corporate entry in education would result in rampant corruption as in the sectors of health and potable water etc.
d) As in these sectors, commercial organizations should also be allowed to enter the education sector
e) None of these
5. What does the author mean by the phrase 'we are not writing on a blank page' in context of the passage?
a) Corporates would never enter education if they are forced to function on a non profit making basis
b) The commercialization of education has already started in India
c) Education has been reduced to a profit making sector by some corporate organizations
d) Government will not allow corporates to enter education as India can't afford to have costly education
e) None of these
6. What is the author's main objective in writing the passage?
a) To suggest the ways to improve quality of education in India
?
b) To highlight the corruption present in the education sector
c) To compare the education sector with other sectors
d) To suggest some temporary solutions to the problems in education
e) None of these
7. According to the author, which of the following was the only step taken in order to reform the higher education?
a) Allowing organizations to enter the education sector on a 'for profit' basis
b) Creation of autonomous institutes for management and technology which were not under university control
c) Setting up the regulatory framework for all the existing universities
d) Making the availability of educational loans and scholarships easier
e) None of these
8. Which suggestion does the author make in order to make the institutes of higher learning for technology and management capable of competing globally?
a) To limit their autonomy to acceptable limit and give partial controls to the government
b) To allow corporate organizations to take them over in order to provide more funds
c) To increase the allocation of funds to such institutes
d) All of the above
e) None of these
9. Which of the following is not true in context of the given passage?
a) According to the law, education institutes should not be run for profit
b) There has been no protest against the selling of drinking water and paying for the health services
c) Only either corporate organizations or government controlled organizations can exist in the education sector
d) The introduction of 'for profit' corporates in the education sector has been facing a lot of criticism
e) All are true

Directions (Q. 10-12) Choose the word which is most similar in meaning to the word printed in bold as used in the passage.
10. Devious
a) Dishonest
b) Different
d) Various
e) Trivial
c) Severe
11. Measures
a) Amount
b) Quantity
c) Steps
d) Capacity
e) Length
12. Bridge
a) Connect
b) Eliminate
c) Unite
d) Link
e) Fuse in bold as used in the passage.
13. Promoting
a) Demoting
b) Delaying
c) Postponing
d) Broadening
e) Hampering
14. Noteworthy
a) Unnoticed
b) Insignificant
c) Indefinite
d) Remarkable
e) Obsolete
15. Transparent
a) Reputed
b) Opaque
c) Defective

Directions (Q. 16-20) Read each sentence to find out whether there is any grammatical error in it. The error if any will be in one part of the sentence the number of that part will be the answer. If there is no error, mark (5) as the answer. (Ignore errors of punctuation, if any)
16. I may go to the (1) / swimming class tomorrow (2) / if I have recovered (3) / from the cold. (4) / No error (5)
17. The Prime Minister announced (1) / that the taxes will be (2) / increasing from the (3) / beginning of the next year. (4) No error (5)
18. He is the most (1) / intelligent and also (2) / the very talented (3) / student of the college. (4) No error (5)
19. She immediately quit (1) / the job in which (2) / neither the skill nor (3) / knowledge were required. (4) No error (5)
20. The meteorological department (1) / predicted that the (2) / rains and thunderstorm may (3) / continue throughout today. (4) No error (5)

Directions (Q. 21-25) Which of the phrases (1), (2), (3) and (4) given below each statement should replace the 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.
21. The corruption charges were a huge blow to his reputation and his business suffered to a great extent.
a) his business suffers to
b) his business suffered on
c) his business suffering to
d) his business suffers on
e) No correction required
22. Airline companies pay nearly 25 billion dollars for their right of fly over the countries other than their parent country.
a) their right to fly
b) their right in flying
c) their right to flying
d) there right of flight
e) No correction required
23. When he fell down the ditch, he shouted with all his might so that to catch someone's attention.
a) such that to catch
b) so as to catch
c) so that to catching
d) so then to catch
e) No correction required
24. The disparity between the earnings of the poor and the rich has widen in the last few decades.
a) have widen in
b) has widened on
c) have widened in
d) has widened in
(3) e) No correction required
25. Instead of teaching abstracted concepts, the new and improved textbooks tell stories of real people so that the children can identify with the characters.
a) Inspite of teaching abstracted
b) Instead of taught abstract
c) Instead of teaching abstract
d) Inspite of taught abstract
e) No correction required

Directions (Q.26-30) Rearrange the following sentences (A), (B), (C), (D), (E) and (F) to make a meaningful paragraph and then answer the questions which follow.
(A) The blame for lacking creativity is, however, put on the present generation by the modern educationists.
(B) The concept of home work began so that the pupils could revise that was being taught in the class.
(C) By doing so, most of the schools took away the leisure time of the children.
(D) Instead, these educationists should suggest lowering of burden of homework to the commission for educational reforms.
(E) The purpose of this concept was, however, defeated when the schools started overburdening students with so called homework.
(F) Lack of such leisure time does not allow the children to develop creative pursuits.
26. Which of the following sentence should be $3^{\text {rd }}$ after rearrangement?
a) A
b) E
c) D
d) F
e) C
27. Which of the following sentence should be $1^{\text {st }}$ after rearrangement?
a) A
b) B
c) C
d) D
e) E
28. Which of the following sentence should be $2^{\text {nd }}$ after rearrangement?
a) A
b) B
c) D
d) E
e) F
29. Which of the following sentence should be $6^{\text {th }}$ (Last) after rearrangement?
a) B
b) C
c) D
d) E
e) F
30. Which of the following sentence should be $5^{\text {th }}$ after rearrangement?
a) A
b) B
c) C
d) E
e) F

## Reasoning Ability

31. If it is possible to make only one meaningful word from $1^{\text {st }}, 3^{\text {rd }}, 6^{\text {th }}$ and $8^{\text {th }}$ letters of the word 'EXAMINATION', using each letter only once, $1^{\text {st }}$ letter of that word is your answer. If more than one such word can be formed your answer is ' X ' and if no such word can be formed your answer is ' Y '.
a) A
b) T
c) N
d) X
e) Y
32. If in a certain code language 'CLUB' is written as 'XOFY', 'NOT' is written as 'MLG', then how will 'PUNCTUAL' be written in that code language?
a) KFMGXZFO
b) KFMXGZFO
c) KFMXGFZO
d) KFMXGFOZ
e) None of these
33. Mukesh is taller than Suresh but shorter than Rakesh. Rakesh is taller than Harish but shorter than Amar. Who among them is the shortest?
a) Mukesh
b) Suresh
c) Harish
d) Can't be determined
e) None of these

Directions (Q.34-39) In each of the following questions, two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the questions below the rows of numbers are to be answered. The operations of numbers progress from left to the right.

## Rules

(i) If an odd number is followed by another composite odd number, they are to be added.
(ii) If an even number is followed by an odd number, they are to be added.
(iii) If an even number is followed by a number which is the perfect square, the even number is to be subtracted from the perfect square.
(iv) If an odd number is followed by a prime odd number, the first number is to be divided by the second number.
(v) If an odd number is followed by an even number, the second one is to be subtracted from the first number.
34. $15 \quad 8 \quad 21$
$\begin{array}{lll}\mathrm{P} & 3 & 27\end{array}$
If ' $p$ ' is the resultant of the first row, what will be the resultant o the second row?
a) 58
b) 76
c) 27
d) 82
e) None of these
35. $12 \quad 64 \quad 17$
20 m 16

If ' $m$ ' is the resultant of the first row, what will be the resultant of the second row?
a) 69
b) 85
c) 101
d) 121
e) None of these
36. $85 \quad 17 \quad 35$
$16 \quad 19 \quad r$
If ' $r$ ' is the resultant of the first row, what will be the resultant of the second row?
a) 175
b) -5
c) 75
d) 210
e) None of these
37. $2415 \quad 3$

D 6
If 'd' is the resultant of the first row, what will be the resultant of the second row?
a) 37
b) 8
c) 22
d) 29
e) None of these
38. $28 \quad 49 \quad 15$
$\begin{array}{lll}\mathrm{h} & 3 & 12\end{array}$
If ' $h$ ' is the resultant of the first row, what will be the resultant of the second row?
a) 13
b) 15
c) 19
d) 27
e) None of these
39. $36 \quad 15 \quad 3$

12 3
If ' $n$ ' is the resultant of the first row, what will be the resultant of the second row?
a) $15 / 17$
b) 32
c) $12 / 17$
d) 36
e) None of these

Directions (Q. 40-44) Read the following information carefully to answer the questions given below.
I. There are six members in a family.
II. The members are A, B, C, D, E and F.
III. $\quad \mathrm{D}$ is the daughter of F who is the mother of E .
IV. E is the daughter of A .
V. A is the son of C.
VI. The family consists of one couple who has their parents and their children.
40. What relationship do D and E bear to each other?
a) Mother and son
b) Sister and brother
c) Sisters
d) Grandmother and granddaughter
41. Who are the male members in the family?
a) A, B and D
b) C and F
c) A and C
d) Can't be determined
e) None of these
42. Which of the following pairs are the parents of the children?
a) BF
b) CF
c) BC
d) Can't be determined
e) None of these
43. How many female members are there in the family?
a) 4
b) 3
c) 2
d) Can't be determined
e) None of these
44. Which of the following pairs are the parents of the couple?
a) CF
b) AF
c) BC
d) AB
e) None of these
45. The priest told the devotees, 'the bell is rung at regular intervals of 45 min . The last bell was rung 5 min . ago. The next bell is due to be rung at 7:45 am. At what time did the priest give the information to be devotees?
a) 6:55 am
b) 7:00 am
c) 7:05 am
d) 7:40 am
e) None of these
46. If day before yesterday was Saturday, then what day of the week will it be on day after tomorrow?
a) Friday
b) Thursday
c) Wednesday
d) Tuesday
e) None of these
47. A man goes towards East 5 km , then he takes a turn to South-West and goes 5 km . He again takes a turn towards North-West and goes 5 km with respect to the point from where he started, where is he now?
a) At the starting point
b) In the west
c) In the East
?
d) In the North East
e) None of these

Directions (Q.48-52) Study the information carefully and answer the questions.
$\mathrm{S}, \mathrm{T}, \mathrm{U}, \mathrm{V}, \mathrm{W}, \mathrm{X}, \mathrm{Y}$ and Z are sitting around a circle area, with equal distance amongst each other but not necessarily in the same order.

Only two people face the centre and the rest face outside (i.e. in a direction opposite to the centre)

Y sits $2^{\text {nd }}$ to left of $W$. $S$ sits $2^{\text {nd }}$ to left of Y. Only one person sits between $S$ and $Z$. $T$ sits to immediate right of S . T is not an immediate neighbor of Y . V is not an immediate neighbor of Y .

Both the immediate neighbours of X face the centre.
48. Who is sitting to immediate right of Z ?
a) Y
b) V
c) T
d) X
e) W
49. Which of the following is true regarding U as per the given sitting arrangement?
a) $X$ sits $2^{\text {nd }}$ to left of $U$
b) Only three people sit between $U$ and $Y$
c) Z is one of the immediate neighbours of U
d) U faces the centre
e) $S$ sits to immediate left of $U$
50. What is T's position with respect of Y?
a) $2^{\text {nd }}$ to the right
b) $2^{\text {nd }}$ to the left
c) $5^{\text {th }}$ to the left
d) $4^{\text {th }}$ to the right
e) $3^{\text {rd }}$ to the left
51. Which of the following groups represents the immediate neighbours of $X$ ?
a) WY
b) VW
c) TZ
d) VZ
e) SU
52. Four of the following five are alike in a certain way based on the given sitting arrangement and so form a group. Which is the one that does not belong to that group?
a) Z
b) T
c) Y
d) V
e) $X$

Directions (Q. 53-62) Study the following information carefully and answer the questions given below.

Following are the conditions for granting agricultural loan of Rs. 1 Lakh to the farmers by a Gramin Bank.
The farmer must
(i) Have at least three acres of land
(ii) Not be more than 55 years old as on $1^{\text {st }}$ November, 2008
(iii) Be able to provide collateral security of at least Rs. 50000
(iv) Not be having any other outstanding loan from the bank
(v) Repay the loan in two years time

In the case of a farmers who satisfies all other criteria except
(a) At (iii) above but can give collateral security of at least Rs.25000, the case is to be referred to the GM of the bank.
(b) At (iv) above but the balance outstanding loan is less than Rs.40000, the case is to be referred to the Chairman of the bank.

In each question below is given the details of one farmer. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above. You are not to assume anything other than the information provided in each question. All these cases are given to you as on $01^{\text {st }}$ November, 2008.
Give answer
(a) If the loan is to be granted to the farmer
(b) If the loan is not to be granted to the farmer
(c) If the data provided are inadequate to take a decision
(d) If the case is referred to GM
(e) If the case is to be referred to the Chairman
53. SauravBehera was born on $12^{\text {th }}$ July, 1962. He will repay the loan in 24 equated monthly installments. He has provided collateral security of Rs.20000. He does not have any outstanding loan from the bank. He owns four acre of land.
54. Jagat Das owns six acre of land. He was born on $5^{\text {th }}$ December, 1960. He has an outstanding loan from the bank of Rs. 35000 . He has provided collateral security of Rs. 50000 . He will repay the loan in two years time.
55. Sudesh Gaur has provided collateral security of Rs.30000. He owns six acre of land. He will repay the loan in two year time. He does not have any outstanding loan from the bank. He was born on $28^{\text {th }}$ February, 1961.
56. Mohd. Ghous owns three acre of land. He was born on $20^{\text {th }}$ October, 1953. He does not have any outstanding loan from the bank. He will repay the loan in 2 years time. He has provided collateral security of 80000 .
57. Nimesh Patel has an outstanding loan from the bank to the extent of Rs.35000. He will repay the loan on two years time. He owns five acre of land. He has provided documents of collateral security of Rs. 55000 . He was born on $08^{\text {th }}$ May, 1958.
58. SushilGhatgeowns three acre of land and he does not have any outstanding loan from the bank. He will repay the loan in 24 equated monthly installments. He has provided collateral security of Rs. 60000.
59. Mohan Dev was born on $02^{\text {nd }}$ April, 1955. He owns four acre of land. He does not have any outstanding loan from the bank. He will repay the loan within 2 years. He has provided documents of collateral security of Rs. 70000 .
60. Francis D'Costa owns four acre of land. He was born on $15^{\text {th }}$ July, 1959. He can repay the loan in 2 years time. He has an outstanding loan from the bank to the extent of Rs.35000. He has provided collateral security of Rs. 65000.
61. Sukhdev Singh was born on $12^{\text {th }}$ October, 1955. He will repay the loan in 24 equated monthly installments. He has provided collateral security of Rs.70000. He own seven acre of land.
62. Neeraj Kumar owns five acre of land. He will repay the loan in 2 years time. He does not have any outstanding loan from the bank. He has provided collateral security of Rs.30000. He was born on $19^{\text {th }}$ December, 1958.

Directions (Q. 63-65) Following questions are based on the five three digit numbers given below.

$$
\begin{array}{lllll}
519 & 378 & 436 & 624 & 893
\end{array}
$$

63. If the positions of the $1^{\text {st }}$ and the $3^{\text {rd }}$ digits within each number are interchanged, which of the following will be $2^{\text {nd }}$ smallest number?
a) 519
b) 378
c) 436
d) 624
e) 893
64. If ' 1 ' is subtracted from $1^{\text {st }}$ digit in each number and ' 1 ' is added to $2^{\text {nd }}$ digit in each number, which will be $3^{\text {rd }}$ digit of $2^{\text {nd }}$ highest number?
a) 9
b) 8
c) 6
d) 4
e) 3
65. If the position of $1^{\text {st }}$ and $2^{\text {nd }}$ digits within each number are interchanged, which of the following will be the highest number?
a) 519
b) 378
c) 436
d) 624
e) 893

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## Quantitative Aptitude

66. The LCM of two numbers is 45 times their HCF. If one of the numbers is 125 and the sum of HCF and LCM is 1150 , the other number is
a) 215
b) 220
c) 225
d) 235
e) None of these
$\qquad$
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67. If $\frac{1}{3+3^{-1}}+\frac{1}{1+3^{2}}=4 a$, then the value of $a$ is
a) 1
b) 10
c) $\frac{1}{10}$
d) $\frac{3}{10}$
e) None of these
68. If $\sqrt{11}=3.316, \sqrt{110}=10488$ then the value of $\sqrt{1.1}+\sqrt{1100}+\sqrt{0.011}$ is
a) 31.72
b) 34.31
c) 38.63
d) None of these
69. If a son is younger than his father by 20 years and the father was 40 years old 5 years ago. What will be total age of the father and son after 5 years?
a) 70
b) 90
c) 85
d) 80
e) None of these
70. The denominator of a fraction is 3 more than its numerator. If the numerator is increased by 7 and the denominator is decreased by 2 , we obtain 2 . The sum of numerator and denominator of the fraction is
a) 7
b) 11
c) 13
d) 17
e) None of these
71. Pradeep invested $20 \%$ more than Mohit. Mohit invested $10 \%$ less than Raghu. If the total sum of their investment is Rs.17880. How much amount did Raghu invest?
a) Rs. 6000
b) Rs. 8000
c) Rs. 7000
d) Rs. 5000
e) None of these
72. An article when sold for Rs. 200 fetches $25 \%$ profit. What would be the percentage profit/loss if 6 such articles are sold for Rs. 1056 ?
a) $10 \%$ loss
b) $10 \%$ profit
c) $5 \%$ loss
d) $5 \%$ profit
e) None of these
73. The average of 5 consecutive even numbers $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ and E is 66 . What is the product of B and E ?
a) 4352
b) 4340
c) 4480
d) 4224
e) None of these
74. Pradip distributes the money among his two sons, one daughter and wife in such a way that each son gets double the amount of the daughter and the wife gets double the amount of each son. If each son gets Rs. 4500 what was the total amount distributed?
a) Rs. 15750
b) Rs. 15500
c) Rs 22500
d) Rs. 20250
e) None of these
75. A sum of money is to be divided among $A, B$ and $C$ in the ratio $2: 3: 7$. If the total share of A and B together is Rs. 1500 less than C, what is A's share in it?
a) Rs. 1000
b) Rs. 1500
c) Rs. 2000
d) Data sufficient
e) None of these
76. A mixture of an herbal liquid and a base oil contains $45 \%$ herbal liquid by weight. 25 gm of base oil is added to such 200 gm of mixture. What \% of herbal liquid by weight is there in the new mixture?
a) 25
b) 60
c) 80
d) 40
e) None of these
77. In a test consisting 75 questions carrying one mark each Anil answered $75 \%$ of the first 40 questions correctly. What approximate percent of the other 35 questions does he need to answer correctly to score $80 \%$ on the entire test.
a) 90
b) 86
c) 70
d) 65
e) None of these
78. 26 men can complete a piece of work in 17 days. How many more men must be hired to complete the work in 13 days?
a) 34
b) 8
c) 18
d) 6
e) None of these
79. A cistern is filled in 9 hours and it takes 10 hours when there is a leak in its bottom. If the cistern is full, in what time shall the leak empty it?
a) 90 h
b) 94 h
c) 92 h
d) 91 h
e) None of these
80. If Rs. 12000 is divided into two parts such that the simple interest on the first part for 3 years at $12 \%$ p.a. is equal to the simple interest on the second part for $4-1 / 2$ years at $16 \%$ p.a., the greater part is
a) Rs. 6000
b) Rs. 8000
c) Rs. 7500
d) Rs. 9000
e) None of these
81. A certain sum amounts to Rs. 1452 in two years and to Rs. 1597.20 in three years at compound interest, then rate percent is
a) 10
b) 11
c) 13
d) 9
e) None of these
82. Nair borrowed a sum of Rs. 100 from Kapoor at the simple rate of $5 \%$ p.a. for 3 years. He then added some more money to the borrowed sum and lent it to Dipak for the same time at $8 \%$ p.a. If Nair gains Rs. 173 by way of interest on the total lent out money, then find the amount lent out.
a) Rs. 300
b) Rs. 550
c) Rs. 261
d) Rs. 1400
e) None of these
83. A car starts running with the initial speed of $40 \mathrm{~km} / \mathrm{h}$, with its speed increasing every hour by $5 \mathrm{~km} / \mathrm{h}$. How many hours will it take to cover a distance of 385 km ?
a) 9 h
b) $9-1 / 2 \mathrm{~h}$
c) $8-1 / 2 \mathrm{~h}$
d) 7 h
e) None of these
84. A train 100 metre long meets a man going in opposite direction at $5 \mathrm{~km} / \mathrm{h}$ and passes him in $7-1 / 5$ seconds. The speed of the train is
a) $40 \mathrm{~km} / \mathrm{h}$
b) $45 \mathrm{~km} / \mathrm{h}$
c) $36 \mathrm{~km} / \mathrm{h}$
d) $52 \mathrm{~km} / \mathrm{h}$
e) None of these
85. A person can swim in still water at $4 \mathrm{~km} / \mathrm{h}$. If the speed of water is $2 \mathrm{~km} / \mathrm{h}$, how many hours will the man take to swim back against the current for 6 km .
a) 3
b) 4
c) $4-1 / 2$
d) Insufficient data
e) None of these

Directions (Q. 86-90) Study the following table carefully to answer to questions that follow.
Number of students studying in six different colleges over the years

| Colleges | P | Q | R | S | T | U |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Year |  |  |  |  |  |  |
| 2004 | 2500 | 2250 | 2450 | 2150 | 2020 | 2300 |
| 2005 | 2040 | 2300 | 2400 | 2200 | 2090 | 2120 |
| 2006 | 2100 | 2150 | 2330 | 2250 | 2180 | 2260 |
| 2007 | 2280 | 2600 | 2260 | 2340 | 2250 | 2490 |
| 2008 | 2540 | 2540 | 2120 | 2380 | 2310 | 2520 |
| 2009 | 2320 | 2440 | 2500 | 2480 | 2400 | 2440 |

86. What is the total number of students from all the Colleges together in the year 2005?
a) 10350
b) 13150
c) 15310
d) 11350
e) None of these
87. What is the percent increase in the number of students in College T in the year 2007 from the previous year? (rounded off to two digits after decimal)
a) 8.33
b) 5.18
c) 6.63
d) 3.21
e) None of these
88. Number of students in College $P$ in the year 2008 forms approximately what percent of the total number students in that College from all the years together?
a) 11
b) 31
c) 18
d) 26
e) 23
89. What is the respective ratio of total number of students in College $S$ in the years 2006 and 2009 together to the total number of students in College $U$ from the same years?
a) $473: 470$
b) $470: 473$
c) $371: 390$
d) $390: 371$
e) None of these
90. What is the average number of students in all the Colleges together in the year 2004 ? (rounded off to the nearest integer)
a) 2208
b) 2196
c) 2144
d) 2324
e) 2278

Directions (Q.91-95) Study the following graph carefully to answer the questions that follow
Number of females and males working in five different organizations

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91. The number of Males in the organization D forms what percent of the total number of employees from that organization? (rounded off to two digits after decimal)
a) 54.17
b) 62.64
c) 52.25
d) 61.47
e) None of these
92. What is the respective ratio of the number of Females to the number of Males from organization A?
a) $11: 8$
b) 7:6
c) $8: 11$
d) $6: 7$
e) None of these
93. Number of Females from organization E forms approximately what percent of the total number of employees from that organization?
a) 58
b) 60
c) 52
d) 62
e) 55
94. What is the total number of Females from all the organizations together?
a) 11540
b) 11750
c) 12440
d) 10250
e) None of these
95. What is the total number of employees working in organization C and B together?
a) 8950
b) 9520
c) 8250
d) 9500
e) None of these
96. If $10^{\text {th }}$ June, 2001 is Sunday, then what day of week lies on $10^{\text {th }}$ June, 2004 ?
a) Monday
b) Tuesday
c) Thursday
d) Wednesday
e) None of these
97. If a train A crosses a pole in 33 seconds, second train B crosses the pole in 55 seconds. The length of $\operatorname{train} \mathrm{A}$ is $3 / 4^{\text {th }}$ of B , then ration of their speeds is
a) $3: 5$
b) $9: 20$
c) $5: 4$
d) $4: 5$
e) None of these
98. The areas of a square and a rectangle are equal. The length of the rectangle is greater than the length of any side of the square by 5 cm . and breadth is less by 3 cm . The perimeter of the rectangle is
a) 17 cm
b) 26 cm
c) 34 cm
d) 30 cm
e) None of these
99. If three metallic spheres of radii $6 \mathrm{~cm}, 8 \mathrm{~cm}$ and 10 cm , are melted to form a single sphere, the diameter of the new sphere will be
a) 24 cm
b) 16 cm
c) 36 cm
d) 20 cm
e) None of these
100. An examination paper contains 8 questions of which 4 have 3 possible answers each, 3 have 2 possible answers each and the remaining one question has 5 possible answers. The total number of possible answers to all the question is
a) 1278
b) 1728
c) 1306
d) 3240
e) None of these

## Answers:

1. Option A
2. Option D
3. Option C
4. Option D
5. Option B
6. Option A
7. Option B
8. Option D
9. Option C
10. Option A
11. Option C
12. Option B
13. Option E
14. Option B
15. Option B
16. Option C
17. Option B
18. Option C
19. Option D
20. Option C
21. Option E
22. Option A
23. Option B
24. Option D
25. Option C
26. Option E
27. Option B
28. Option D
29. Option C
30. Option A
31. Option D
$\begin{array}{llllllllll}\text { E } & \text { X } & \text { A } & \text { M } & \text { I } & \text { N } & \text { A } & \text { T } & \text { I } & \text { O } \\ 1^{\text {st }} & 3^{\text {rd }} & & & 6^{\text {th }} & & 8^{\text {th }} & & & \text { N }\end{array}$
Meaningful words $=$ NEAT, ANTE
32. Option C
33. Option D

Rakesh>Mukesh>Suresh
Amar >Rakesh> Harish
The relation between Harish and Suresh cannot be established from the given information.
So, it is not possible to find out the shortest person.

## Rules

(i) Odd number + Composite odd number
(ii) Even number + Odd number
(iii) Even Number $\rightarrow$ Perfect square number, then Perfect square number - Even number
(iv) Odd number $\div$ Prime odd number
(v) Odd number - Even number
34. Option A

| $1^{\text {st }}$ row 15 | 8 | 21 | $\rightarrow 15-8=7$ | (rule V) <br> $7+21=28$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
| $=\mathrm{p}$ (rule i) |  |  |  |  |

35. Option E
$1^{\text {st }}$ row 12
$52+17=69$
$=\mathrm{m}$
$2^{\text {nd }}$ row 20
$m \quad 16$

| $\rightarrow 64-12=52$ (rule iii) |  |  |
| :---: | :---: | :---: |
|  |  | (rule ii) |
| $\rightarrow 2069$ |  | 16 |
|  |  | (rule ii) |
|  |  | (rule v) |

$20+69=89$
,

Resultant of $2^{\text {nd }}$ row $=73$
36. Option B
$1^{\text {st }}$ row 85
$1735 \rightarrow 85 \div 17=5$ (rule iv)
$5+35=40$
= r
$2^{\text {nd }}$ row $16 \quad 19 \quad r \quad r \quad 16 \quad 19 \quad 40$
$16+19=35$
$35-40=-5$
(rule ii)
Resultant of second row $=-5$
37. Option C

| $1^{\text {st }}$ row 24 | 15 | 3 | $\rightarrow 24+15=39$ | (rule ii) <br> $39 \div 3=13$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| (rule iv) |  |  |  |  |  |

38. Option D
$1^{\text {st }}$ row $28 \quad 49 \quad 15 \rightarrow 49-28=21 \quad$ (rule iii)
$21+15=36$
(rule i)
$=\mathrm{h}$
$2^{\text {nd }}$ row h $\quad 3 \quad 12 \quad \rightarrow \quad 36 \quad 3 \quad 12$
$36+3=39 \quad$ (rule ii)
$39-12=27$
(rule v)
Resultant of $2^{\text {nd }}$ row $=27$
39. Option A
$1^{\text {st }}$ row $36 \quad 15 \quad 3 \quad \rightarrow 36+15=5$
$51 \div 3=17$
$=\mathrm{n}$
$2^{\text {nd }}$ row $12 \quad 3 \quad \mathrm{n} \quad \rightarrow \quad 12 \quad 3 \quad 17$
$12+3=15$
$15 \div 17=15 / 17$
Resultant of $2^{\text {nd }}$ row $=15 / 17$
40. Option C
41. Option D
42. Option E
43. Option A
44. Option C
45. Option C

Time of ringing bell $=(7: 45-0: 45)=7: 00 \mathrm{am}$
But it happened 5 min . before the priest gave the information to the devotees.
Time of giving information $=7: 00+0: 05=7: 05 \mathrm{am}$
46. Option C

Day before yesterday $=$ Saturday
Yesterday $=$ Saturday $+1=$ Sunday
Today $=$ Sunday $+1=$ Monday
Tomorrow $=$ Monday $+1=$ Tuesday
Day after tomorrow $=$ Tuesday $+1=$ Wednesday
47. Option A

48. Option B
49. Option A
50. Option E
51. Option A
52. Option C

| Gandidates | (i) | (ii) | (iii)(a) | (iv)(b) | (v) |
| :--- | :--- | :--- | :--- | :--- | :--- |


| Saurav | True | True | False | True | True |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Jagat | True | True | True | True | True |
| Sudesh | True | True | True | True | True |
| Mohd. Ghous | True | False | -- | -- | -- |
| Nimesh | True | True | True | True | True |
| Sushil | True |  | True | True | True |
| Mohan | True | True | True | True | True |
| Francis <br> D'Costa | True | True | True | True | True |
| Sukhdev | True | True | True | $?$ | ? |
| Neeraj | True | True | True | -- | True |

53. Option B
54. Option E
55. Option D
56. Option B
57. Option E
58. Option C
59. Option A
60. Option E
61. Option C
62. Option D
63. Option D
64. Option D
65. Option E
66. Option C
$\mathrm{L}=45 \mathrm{H}$ and $\mathrm{L}+\mathrm{H}=1150$
$46 \mathrm{H}=1150$
$\mathrm{H}=25$
Let x be other number, $\mathrm{L} \times \mathrm{H}=$ Product of two numbers
$(45 \times 25) \times 25=x \times 125$
$\mathrm{x}=225$
67. Option A
68. Option B
$\sqrt{1.1}+\sqrt{1100}+\sqrt{0.011}$
$\frac{\overline{110}}{100}+\sqrt{11} \times 100+\frac{\overline{110}}{\frac{10000}{10}}$
$\frac{10.488}{10}+3.313 \times 10+\frac{\mathrm{i} 0.488}{100}$
$1.0488+33.16+.10488$
$=34.31$
69. Option D

5 years ago, father's age $=40$ years
Son's age $=40-20=25$
After 5 years, sum $=40+20+10+10=80$
70. Option C

Let numerator $=\mathrm{x}$, denominator $=\mathrm{x}+3$
$\frac{x+7}{x+3-2}=2$
$x=5$, fraction $=\frac{5}{8}$, sum $=13$
71. Option A

Investment of last person i.e. Raghu $=$ Rs. 100
Mohit $=100-10=90$, Pradeep $=1.2 \times 90=108$
Total investment $=100+90+108=298$, then investment of Raghu $=$ Rs. 100
When total investment $=17880$, investment of Raghu $=\frac{100}{298} \times 17880=$ Rs .6000
72. Option B
$\mathrm{CP}=\frac{200}{5 / 4}=160$
$\%$ profit $=\frac{107-160}{160} \times 100=10 \%$
73. Option C

Let the even numbers are $2 \mathrm{x}, 2 \mathrm{x}+2 \ldots .2 \mathrm{x}+8$
$10 x+20=66 \times 5$
$\mathrm{x}=31$
$(2 x+2)(2 x+8)=64 \times 70=4480$
74. Option D
$\mathrm{W}: \mathrm{S}=2: 1, \mathrm{~S}: \mathrm{D}=2: 1$
$\mathrm{W}: \mathrm{S}: \mathrm{D}=4: 2: 1$
$2 \mathrm{x}=4500$
There are 2 sons, so ratio distribution is $4: 2 \times 2: 1=4: 4: 1$
$9 x=\frac{4500}{2} \times 9=$ Rs. 20250
75. Option B
$C-(A+B)=1500$
$7 x-(2 x+3 x)=1500$
$x=750$
A's share $=2 \mathrm{x}=$ Rs. 1500
76. Option D
$\frac{45 \% \text { of } 200}{200+25}=40 \%$
77. Option B
$75 \% \times 40+x \% \times 35=80 \% \times 75$
$\mathrm{x}=86$
78. Option B
$\mathrm{x}=26 \times 17=13 \times \mathrm{x}$
$\mathrm{x}=34,34-26=8$
79. Option A
$\mathrm{T}=\frac{x(x+p)}{p}=\frac{9 \times 10}{1}=90$ hours
80. Option B
$\frac{x_{1} \times 3 \times 12}{100}=\frac{x_{2 \times \frac{9}{2} \times 16}}{100}$
$\frac{x_{1}}{x_{2}}=\frac{2}{1}$
$x_{1}=$ Rs. 8000
81. Option A

Interest difference $=1597.20-1452=145.20$ for 1 year
$\mathrm{R}=\frac{100 \times 145.20}{1452 \times 1}=10 \%$

## 82. Option A

$$
\begin{aligned}
& 3 \times(8-5) \% 1100+3 \times 8 \% \text { of } x=\text { Rs. } 173 \\
& x=300
\end{aligned}
$$

83. Option D

$$
\begin{aligned}
& \frac{n}{2}(2 \times 40+(n-1) 5=385 \\
& n=7
\end{aligned}
$$

84. Option B
$\mathrm{t}=\frac{L t}{V_{\mathrm{t}}-V}$
$\frac{36}{5} \times \frac{5}{18}=\frac{100}{V_{t}+5}$
$V_{t}+5=50$
$V_{t}=45 \mathrm{~km} / \mathrm{h}$
85. Option A

Using simple logic of relative velocity, current opposes the man, $s$
Time $=\frac{d}{x-y}$
$\mathrm{t}=\frac{6}{4-2}=3$ hours
86. Option B

Total number of students from all the colleges together $=2040+2300+2400+2200+2090$
$+2120=13150$
87. Option D

Required percentage growth $=\frac{2250-2180 \times 100}{2180}$
$=\frac{70 \times 100}{2180}=3.21$
88. Option C

Required percentage $=\frac{2540 \times 100}{2500+2040+2100+2280+2540+2320}$
$=\frac{2540 \times 100}{13780}=18.43 \%=18 \%$
89. Option A

Required ratio $=2250+2480: 2260+2440$
$=4730: 4700$
$=473: 470$
90. Option E

Required average number $=\frac{2500+2250+2450+2150+2020+2300}{6}$
$=\frac{13670}{6}=2278.33=2278$
91. Option A

Required percentage $=\frac{\text { Number of males in organization } D}{\text { Number of males and females in organization } D} \times 100$
$=\frac{3250}{3250+2750} \times 100=\frac{3250}{6000} \times 100=54.167=54.17$
92. Option D

Required ratio $=$ Number of females in organization $A:$ Number of males in organization $A=$ $1500: 1750=6: 7$

## 93. Option C

Required percentage $=\frac{\text { Number of females in organization } E}{\text { Total number of employees in organization }} \times 100$
$=\frac{2750 \times 100}{2750+2500}=\frac{2750 \times 100}{5250}=52.38=52$
94. Option B

Number of females from all the organization together $=1500+2250+2500+2750+2750=$ 11750
95. Option E

Total number of employees working in organizations $C$ and $B=5000+4250=9250$
96. Option C

In each ordinary years no of odd day $=1$ So, $10^{\text {th }}$ June, 2001 $\qquad$ $10^{\text {th }}$ June, 2002 $\qquad$ $10^{\text {th }}$ June, 2003
2004 is a leap year, in a leap year, no. of odd days $=2$
$10^{\text {th }}$ June $2004=$ Thursday
97. Option C

Le the lengths are $3 x, 4 x$ then A's speed $=\frac{3 x}{33}$
B's speed $=\frac{4 x}{55}$ ratio $=\frac{3}{33} \times \frac{55}{4}=\frac{5}{4}$
98. Option C
$a^{2}=1 \times b=(a+5)(a-3)$
$a^{2}=a^{2}+2 a-15$
$\mathrm{a}=\frac{15}{2}$
Perimeter $=2(a+5+a-3)=2(2 a+2)=34$
99. Option A
100. Option D

No. of ways $=3^{4} \times 2^{3} \times 5^{1}=3240$

