



SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

SBI PO – Prelims – Model Paper

\$\$\$ (1-10):

Read the passage carefully and answer the questions given below it. Certain words/phrases have been given in bold to help you locate them while answering some of the questions.

The revelations about offshore accounts that came to light in the so-called Panama Papers will **reinvigorate** government efforts to rein in not just tax evasion, which is illegal, but tax avoidance, too.

They will also add to popular frustration that will challenge the authority of some government officials. The **uproar** will bring about enhanced enforcement measures. Yet there also will be unintended consequences that will further erode the credibility and effectiveness of the political establishment, including its ability to govern from the centre, which is already being tested.

In the wake of the global financial crisis, and given the alarming surge in wealth inequality, the governed will prove far less accepting of the legal distinction between tax evasion and tax avoidance. Both are now viewed not just as "tax dodges", but also as the unfair perks of the better-off and more-connected members of society in many countries.

"Panama Papers" are the trove of more than 11 million pages of documents from Mossack Fonseca. The documents suggest that in both advanced and developing countries, some of those who hold power, and those with access to them along with the "rich and famous", used the firm to establish and manage offshore entities that are designed to protect capital and minimise taxation.

The political repercussions were immediate, and are likely to spread. Already, the scandal has led to the resignation of Iceland's PM, to a political outcry that has required UK PM David Cameron to release his tax returns, and has abruptly ended the political honeymoon of Argentina's new president, Mauricio Macri.

In addition, countries including Germany are stepping up efforts to look into curbs on legal, but morally questionable, tax avoidance schemes that benefit the wealthiest. As with earlier steps to limit money laundering, the focus will be on more **stringent** reporting requirements and better international sharing of data.

These changes will be quite visible; and will have a meaningful impact for those who, until now, have found it easy to use offshore financial vehicles to reduce their tax payments. The measures' effects on politics and governance, while they will be less visible, could be more consequential for broader segments of society.

The Panama Papers are yet another blow to the political establishment. They **amplify** popular resentment towards governments that already are perceived by a segment of the population as turning a blind eye to tax-dodging. Though no laws were broken in most cases, the documents will feed the perception that the privileged are allowed to play by different rules.

There's no doubt that the Panama Papers will produce greater efforts to reduce tax minimisation. That is good news for liberal democratic systems. But in the short term this will be



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accompanied by even stronger resistance to the kind of political unity that is needed in several countries to deliver high growth and genuine financial stability.

\$\$\$

Q1. How did the Panama-based firm benefit the offshore entities? Answer in the context of the passage.

- 1) By converting black money into white
- 2) By protecting the capital of the concerned entities
- 3) By setting up a company in Panama
- 4) By providing share in profit of the firm and guaranteeing employment to kith and kin of the concerned person
- 5) Other than those given as options

Q2. What is the meaning of the phrase 'in the wake of' used in the passage?

- 1) For the sake of
- 2) Instead of
- 3) As a result of
- 4) In lieu of
- 5) In spite of

Q3. What will be the 'effect(s)' of Panama Papers revelations on the Indian government?

(A) The authority of some government officials will come within the circumference of doubt. (B) The persons whose name appeared in Panama Papers will either close their offshore accounts or leave their country. (C) The government will further tighten the tax laws to curb the menace of tax evasion and tax avoidance.

- 1) Only (A) and (B)
- 2) Only (B) and (C)
- 3) Only (A) and (C)
- 4) All (A), (B) and (C)
- 5) Only (C)

Q4. Which of the following statements is not true in the context of the given passage?

- 1) Panama Papers revelations will create financial unstability for short term.
- 2) It is certain that Panama Papers will mobilise tax payers-to file their tax returns in time.
- 3) The unintended consequences of Panama Papers revelations will be that the credibility of the political establishments will be further eroded.
- 4) It is general perception that the government turns a blind eye to tax-dodging.
- 5) None of the above.



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Q5. Why do the common people not readily accept the legal distinction between tax evasion and tax avoidance? Answer in the context of the given passage.

(A) Because of the abnormal increase in wealth inequality. (B) Because of the similar nature of offence. (C) Because of global financial crisis

- 1) Only (A) and (B)
- 2) Only (B) and (C)
- 3) Only (A) and (C)
- 4) All (A), (B) and (C)
- 5) Only (B)

Q6. Choose the word which is **MOST SIMILAR** in meaning to the word printed in bold as used in the passage.

Reinvigorate

- 1) finish
- 2) rehearse
- 3) reiterate
- 4) destabilise
- 5) refresh

Q7. Choose the word which is **MOST SIMILAR** in meaning to the word printed in bold as used in the passage.

Surge

- 1) decline
- 2) operate
- 3) rise
- 4) erode
- 5) devalue

Q8. Choose the word which is **MOST SIMILAR** in meaning to the word printed in bold as used in the passage.

Stringent

- 1) flexible
- 2) lenient
- 3) tolerant
- 4) poignant
- 5) inexact

Q9. Choose the word which is **MOST OPPOSITE** in meaning of the word printed in bold as used in the passage.

Uproar



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- 1) peace
- 2) commotion
- 3) clamour
- 4) melee
- 5) confusion

Q10. Choose the word which is **MOST OPPOSITE** in meaning of the word printed in bold as used in the passage.

Amplify

- 1) augment
- 2) exaggerate
- 3) magnify
- 4) lessen
- 5) strengthen

\$\$\$ (11-15):

Read each sentence to find out whether there is any grammatical 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.)

\$\$\$

Q11. /1)/ Bombay High court made it clear /2)/ that mere possession of meat of cattle /3)/ slaughtered outside the state cannot /4)/ be inviting criminal action. /5)/ No error

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5

Q12. /1) Himanshu had taken the money /2)/ to open a photograph studio, /3)/but losses in business rendered him jobless /4)/ and unable to repay the loan. /5)/No error

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5

Q13. /1) The Nitish Kumar government extended a red carpet welcome /2)/ to JNU student leader and 'son of the soil' /3)/ Kanhaiya Kumar to give /4)/ him unprecedented security. /5)/No error

- (1) 1



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- (2) 2
- (3) 3
- (4) 4
- (5) 5

Q14. /1)/ Allowing professionals and individuals with minimum /2)/ experience often years and giving /3)/ large non-banking finance companies a chance to /4)/convert themselves into banks are welcome. /5)/No error

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5

Q15. /1)The best way to foster financial inclusion /2)/ is to leverage on the use of /3)/ technologies such as mobile banking / 4) and taking advantage of the Aadhar Project. /5)/No error

- (1) 1
- (2) 2
- (3) 3
- (4) 4
- (5) 5

\$\$\$ (16-20):

Rearrange the following six sentences (A), (B), (C), (D), (E) and (F) in the proper sequence to form a meaningful paragraph and then answer the questions given below.

(A) After sizeable shrinkage in new business premiums between 2009 and 2014, life insurers returned to double-digit growth only in FY 16. (B) In the last seven years, the insurance sector has witnessed considerable turbulence which has forced players to streamline costs and restructure operations. (C) While SKBI's regulations require insurers to disclose unique risk factors, IRDA has standardised its accounting and valuation norms. (D) Life insurers have witnessed a shakeout triggered by tightening regulations on costs in market-linked plans which have forced them to shuffle between traditional and market-linked plans. (E) This hiatus has allowed SEBI and IRDA to work on customised IPO norms for insurers. (F) General insurers, too have only lately managed to stem their large losses in the motor insurance business.

\$\$\$

Q16. Which of the following should be the **FIRST** sentence after rearrangement?

- 1) A
- 2) B



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- 3) C
- 4) D
- 5) E

Q17. Which of the following should be the **SECOND** sentence after rearrangement?

- 1) F
- 2) A
- 3) B
- 4) C
- 5) D

Q18. Which of the following should be the **THIRD** sentence after rearrangement?

- 1) E
- 2) F
- 3) A
- 4) B
- 5) C

Q19. Which of the following should be the **FIFTH** sentence after rearrangement?

- 1) D
- 2) C
- 3) E
- 4) B
- 5) A

Q20. Which of the following should be the **LAST (SIXTH)** sentence after rearrangement?

- 1) C
- 2) D
- 3) F
- 4) A
- 5) B

\$\$\$ (21-25):

Each question below has two blanks, each blank indicating that something has been omitted. Choose the set of words for each blank that best fits the meaning of the sentence as a whole.

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Q21. The Nasscom, which has begun a serious effort to _____ the Japanese market two years ago, feels that India is _____ well now to tap the opportunity.

- 1) surpass, adjusted
- 2) crack, poised
- 3) smash, qualified
- 4) capture, minded
- 5) hold, waiting

Q22. India is _____ for space in the global marketplace with other rising _____ and needs robust energy supply to compete effectively.

- 1) bumping, dynamism
- 2) pushing, faculty
- 3) squeezing, starts
- 4) jostling, powers
- 5) pressing, potential

Q23. If you are an _____, now you can look for help from premier business schools to make your start-up _____.

- 1) investor, defensible
- 2) economist, rational
- 3) entrepreneur, sustainable
- 4) Indian, feasible
- 5) engineer, reasonable

Q24. Currently, disclosure standard of the insurance _____ on both _____ are inferior to that of other vehicles such as mutual funds.

- 1) business, regions
- 2) management, areas
- 3) sector, numbers
- 4) corporation, results
- 5) industry, counts

Q25. Bhutan, landlocked and _____ between Sikkim and Arunachal Pradesh, has significant _____ for hydropower production.

- 1) sandwiched, potential
- 2) placed, role
- 3) interjected, power
- 4) situated, dominance
- 5) inserted, source



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\$\$\$ (26-30):

In the following passage, some of the words have been left out, each of which is indicated by a number. Find the suitable word from the options given against each number and fill up the blanks with appropriate words to make the paragraph meaningful.

India's bank NPAs (non-performing assets) are a major problem. But (26) interest rates high is a bigger problem than NPAs. Low rates can (27) India's NPA issue. It could make projects (28) due to higher cost of capital viable. Companies like GMR, GVK or JP Group will find some (29) to stand. Inflation is not as big an issue as it is (30) out to be.

\$\$\$

Q26. I

- 1) placing
- 2) keeping
- 3) calculating
- 4) bringing
- 5) assuming

Q27. II

- 1) undertake
- 2) question
- 3) project
- 4) address
- 5) decide

Q28. III

- 1) slow
- 2) interrupt
- 3) stalled
- 4) hampered
- 5) delayed

Q29. IV

- 1) ground
- 2) place
- 3) estate
- 4) field
- 5) landscape



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- Q30. V
- 1) taken
 - 2) made
 - 3) built
 - 4) shaped
 - 5) brought

\$\$\$ (31-35):

What will come in place of question mark (?) in the given number series?

\$\$\$

Q31. 250, 62.50, 31.25, 31.25, 62.50, ?

- 1) 187.5
- 2) 218.75
- 3) 250
- 4) 125
- 5) 156.25

Q32. 300, 60, 15, 5, 2.5, ?

- 1) 2.5
- 2) 1.25
- 3) 1
- 4) 1.75
- 5) 0

Q33. 9, 25, 97, 481, 2881, ?

- 1) 20159
- 2) 20161
- 3) 20119
- 4) 23039
- 5) 23041

Q34. 6, 9, 18, 45, 135, ?

- 1) 506.25
- 2) 438.75
- 3) 540
- 4) 2295
- 5) 472.5

Q35. 42, 7.7, 11.95, 17.7, 26.45, ?

- 1) 32.45



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- 2) 38.45
- 3) 40.95
- 4) 41.2
- 5) 46.5

\$\$\$ (36-40):

What approximate value will come in place of question mark (?) in the given questions? (Note: You are not expected to calculate the exact value.)

\$\$\$

Q36. $6892 \times 2\frac{1}{4} + 781 \div 12 = 13526 \div 8 + ?$

- 1) 14889
- 2) 15624
- 3) 14881
- 4) 14471
- 5) 13881

Q37. $11/110 \times 54329 + 6.6/13 \times 277 + 56.788 \div 8 - 31.2 \times 5.2 = ?$

- 1) 5400
- 2) 6663
- 3) 5426
- 4) 5417
- 5) 4516

Q38. $\sqrt[3]{35936.87} \times \sqrt[3]{85184.79} \div 16 + \sqrt{4355.9} \times \sqrt{5928.9} \div 18 = ?$

- 1) 385
- 2) 373
- 3) 458
- 4) 473
- 5) 361

Q39. $1681 \div ? + 172.8 \times 1.89 = 643.2 - 256.48$

- 1) 54
- 2) 41
- 3) 36
- 4) 48
- 5) 49

Q40. $15.75\% \text{ of } 47.89 - 24.75\% \text{ of } 5.20 = ?$

- 1) -4.98
- 2) -6.5
- 3) 6.43



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4) 5.25

5) 7.43

\$\$\$ (41-45):

In each question two equations numbered I and II are given. You have to solve both the equations and mark the appropriate answer.

\$\$\$

Q41. I. $5x^2 + 32x + 12$

II. $2y^2 + 8y + 8$

1) $x \leq y$

2) $x \geq y$

3) $x > y$

4) $x < y$

5) Relationship between x and y cannot be established

Q42. I. $7x^2 + 6x - 16$

II. $9y^2 - 22y - 15$

1) $x > y$

2) $x \leq y$

3) Relationship between x and y cannot be established

4) $x < y$

5) $x \geq y$

Q43. I. $11x^2 + 19x - 6 = 0$

II. $4y^2 + 12y - 16$

1) Relationship between x and y cannot be established

2) $x \geq y$

3) $x < y$

4) $x > y$

5) $x \leq y$

Q44. I. $3x^2 + 19x + 16 = 0$

II. $6y^2 + 31y + 18 = 0$

1) $x > y$

2) $x < y$

3) $x \leq y$

4) Relationship between x and y cannot be established

5) $x \geq y$

Q45. I. $4x^2 - 7x - 15 = 0$

II. $9y^2 + 33y + 18 = 0$

1) Relationship between x and y cannot be established

2) $x \geq y$

3) $x < y$

4) $x > y$

5) $x \leq y$



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\$\$\$ (46-50):

Study the table to answer the given questions.

Data related to the expenses of six colleges (IMT, BHU, XLRI, IIPM, MDU and IIM) in April 2012 under different heads

College	Total (in Rs. lakh)	Distribution of expenses (in percentage)		
		Food	Laundry	Lodging
IMT	25	26	28	20
BHU	35	16	22	46
XLRI	30	25	45	15
IIPM	40	15	30	40
MDU	45	20	24	16
IIM	36	25	30	35

Note: There may also be some expense other than the ones mentioned under the given heads. For calculation purposes please consider other expenses also.

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Q46. What is the ratio of total expenses on Food of the college BIU, IIPM and IIM together to the total expenses on Lodging of the college MDU, XLRI and IMT together?

- 1) 241 : 167
- 2) 206 : 167
- 3) 167 : 241
- 4) 251 : 177
- 5) 351 : 157

Q47. If total expenses of IMT college increases by 20% from the year 2012 and the expenses on Laundry decreases by 20%, what will be the total expenses (in Rs) on Food and Laundry of IMT college in the year 2013?

- 1) 11,20,000
- 2) Data inadequate
- 3) 14,20,000
- 4) 12,10,000
- 5) 16,20,000

Q48. The expenses on Laundry of BHU is what per cent more or less than the expenses on the same head of MDU?

- 1) 26.45%



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- 2) 25.2%
- 3) 28.70%
- 4) 27.60%
- 5) 29.20%

Q49. What are the expenses (in Rs) other than those mentioned in the table by all the colleges in April 2012?

- 1) 380000
- 2) 3780000
- 3) 3580000
- 4) 4420000
- 5) 5680000

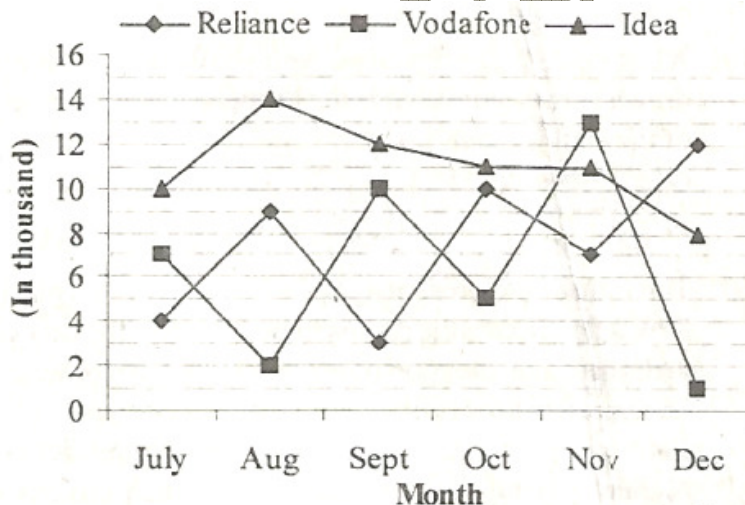
Q50. What is the difference between the expenses on Food of BHU, IIM and IIPM together and the expenses on Lodging of MDU, XLRI and IMT together?

- 1) 790000
- 2) 590000
- 3) 290000
- 4) 390000
- 5) 620000

\$\$\$ (51-55):

Refer to the graph and answer the given questions.

Data related to the number of sim cards sold by three companies (Idea, Reliance and Vodafone) during the given six months by a mobile store.



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Q51. The number of Idea sim cards sold in the month of September and November is what per cent of the Reliance sim cards sold in the month of July and December?

- 1) 143.75
- 2) 156.75
- 3) 140.75
- 4) 142.60
- 5) 152.50

Q52. What is the average of Reliance sim cards sold by a mobile store in all six months? (Give answer in approx.)

- 1) 5500
- 2) 6500
- 3) 7500
- 4) 4500
- 5) 8500

Q53. If a mobile store sold two types of Reliance sim cards 4G and 3G and their ratio is 2 : 3, then what is the no. of Reliance 4G sim cards sold by the mobile store in the month of August, October and December together?

- 1) 16200
- 2) 12400
- 3) 17200
- 4) 14200
- 5) 19200

Q54. If the Idea sim cards distributed among men and women are in the ratio of 3 : 7 in all the six months, then what is the total number of Idea sim cards distributed to women in all the six months?

- 1) 48600
- 2) 47600
- 3) 46200
- 4) 49500
- 5) 47300

Q55. The number of Vodafone sim cards sold by a mobile store in all the given months is what per cent more than the Idea sim cards sold in all six months?

- 1) 69%
- 2) 78.94%
- 3) 64.94%
- 4) 70%
- 5) 73.68%



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Q56. A copper wire is bent in the shape of a square of area 324 cm^2 . If the same wire is bent in the form of a semicircle, then the radius (in cm) of the semicircle is

(take $\pi = 22/7$)

- 1) 18
- 2) 16
- 3) 15
- 4) None of these
- 5) 14

Q57. A tradesman marks the price of his goods such that after allowing a discount of 25%, he earns a profit of 30%. What is the marked price (in Rs) of an article whose cost price is Rs.150?

- 1) 210
- 2) 240
- 3) 260
- 4) 180
- 5) None of these

Q58. Vishal scored 83 marks in Mathematics. He scored 66% marks in Science and X marks in English. The maximum marks for each subject is 250. The overall percentage of marks obtained by Vishal in all three subjects together is 64%. How much marks did Vishal score in English?

- 1) 252
- 2) 226
- 3) 232
- 4) 270
- 5) 248

Q59. A bag contains 14 red and 6 white balls. Two balls are drawn at random. What is the probability that they are of the same colour?

- 1) $53/48$
- 2) $3/8$
- 3) $4/45$
- 4) $53/96$
- 5) $7/16$

Q60. The ratio of the present age of a boy to that of a girl is 3 : 4. After 4 years the ratio will be 5 : 6. If at the time of their marriage, the ratio of girl to boy will become 13 : 11 then after how many years will they be married?

- 1) 4
- 2) 5
- 3) 8
- 4) 6



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5) None of these

Q61. A train moving at the speed of 108 kmph crosses a bridge in 15 seconds. Another train 50 metres shorter than the former train moving at the speed of 36 kmph crosses the same bridge. Find the time taken by the second train to cross the bridge.

- 1) 20 seconds
- 2) 50 seconds
- 3) 40 seconds
- 4) 30 seconds
- 5) 60 seconds

Q62. Three persons A, B, C invested their annual savings in a bank at the simple rate of interest 30% per annum. Each of them gets an equal amount after 15, 20 and 25 years respectively. If all together they invested Rs. 579 lakh in the bank, what was the ratio of their initial investments?

- 1) 140 : 110 : 77
- 2) 238 : 179 : 164
- 3) 140 : 187 : 579
- 4) 238 : 187 : 154
- 5) 238 : 187 : 569

Q63. A started working and left after 3 days. Then B started the remaining work and finished it in another 5 days. Had A left the work after working for 4 days and then B would have started the remaining work, it would have been finished in another 2 days. In how many days can each of them alone finish the whole work?

- 1) 16, $\frac{2}{3}$
- 2) $4\frac{2}{3}$, 14
- 3) $9\frac{2}{3}$, 14
- 4) $7\frac{2}{3}$, 16
- 5) $5\frac{2}{3}$, 5

Q64. In an examination, 40% marks is required to pass the exam. 'A' obtains 10% less marks than the required pass marks. B obtains $11\frac{1}{9}\%$ less marks than A, and C obtains $41\frac{3}{17}\%$ less marks than that obtained by A and B together. What marks does C obtain in the examination?

- 1) 60
- 2) 50
- 3) 70
- 4) 30
- 5) 40



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Q65. Rahul purchased 30 dozen notebooks-at Rs.50 per dozen. He sold 10 dozens of it at 15% profit and the remaining 20 dozens at 25% profit. What is his percentage profit in the whole transaction?

- 1) $15 \frac{2}{3}\%$
- 2) $21 \frac{2}{3}\%$
- 3) $18 \frac{2}{3}\%$
- 4) $25 \frac{1}{3}\%$
- 5) $26 \frac{2}{3}\%$

\$\$\$ (66-71):

Study the following information carefully and answer the questions given below:

Ten friends J, K, L, M, N, O, P, Q, R and S are sitting at a rectangular table in such a way that four of them sit at the corners, two each on the longer sides and one each on the smaller sides, but not necessarily in the same order. Some of them are facing the centre while the rest are not facing the centre. Not more than two friends sitting together face the same direction.

J sits on one of the smaller sides and third to the right of O. R is not an immediate neighbour of J, K or O, but sits on the immediate right of L, who is not facing the centre. Only two among four sitting on the corners face outward. Q and M are sitting on the immediate left and third to the left of S respectively. One of the four friends sitting on the corner is R. N sits on the immediate left of M and is not an immediate neighbour of L. J and N face the same direction. M and P sit diagonally and face opposite directions. Five of them face the same direction.

Note: Facing the same direction means if one person faces the centre then the other person also faces the centre and if one person faces outward then the other person also faces outward. Facing the opposite direction means if one person faces the centre then the other person faces outward and vice versa.

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Q66. Which of the following groups sit on the corners the rectangular table?

- 1) MRQS
- 2) SMRP
- 3) QMPR
- 4) QMPL
- 5) None of these

Q67. Who among the following sits third to the right of N?

- 1) P
- 2) Q
- 3) J
- 4) S
- 5) None of these

Q68. What is the position of M with respect to J?



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- 1) Immediate right
- 2) Second to the right
- 3) Fourth to the right
- 4) Can't be determined
- 5) None of these

Q69. Who among the following sits opposite Q?

- 1) R
- 2) K
- 3) M
- 4) N
- 5) None of these

Q70. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?

- 1) OL
- 2) JN
- 3) RN
- 4) QK
- 5) MS

Q71. How many persons are not facing the centre?

- 1) Three
- 2) Four
- 3) Five
- 4) Six
- 5) None of these

\$\$\$ (72-77):

Study the following information carefully and answer the questions given below:

Twelve friends A, B, C, D, E, F, G, H, I, J, K and L are sitting in a row facing east. J sits third to the left of E, who sits sixth to the right of A. G sits fourth to the right of L, who is not an immediate neighbour of C. B sits fifth from the right end and H sits second to the left of D. E is not an immediate neighbour of I or F, but sits second to the right of B. There are two friends between C and K. K is not an immediate neighbour of J.

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Q72. What is the position of F with respect to H?

- 1) Third to the right
- 2) Second to the left
- 3) Seventh to the left
- 4) Can't be determined



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5) None of these

Q73. If K is an immediate neighbour of I then who among the following is on the immediate right of D?

- 1) F
- 2) E
- 3) L
- 4) A
- 5) None of these

Q74. How many persons are there between G and E?

- 1) Two
- 2) Three
- 3) Four
- 4) Five
- 5) None of these

Q75. If F is immediate neighbour of L then who among the following sit on the extreme ends of the line?

- 1) KD
- 2) LI
- 3) HF
- 4) IF
- 5) None of these

Q76. Who among the following sits third to the right of the eighth from the right end?

- 1) B
- 2) H
- 3) E
- 4) F
- 5) None of these

Q77. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?

- 1) CA
- 2) BC
- 3) JH
- 4) EB
- 5) KL

\$\$\$ (78-82):



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In each question three statements followed by three conclusions numbered I, II and III have been given. You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

\$\$\$

Q78. **Statements:** No pen is a pin. All needles are pins. Some copies are pens.

Conclusions: I. No copy is a pin. II. At least some pens are copies. III. At least some needles are pens.

- 1) Only I follows
- 2) Only II follows
- 3) Only II and III follow
- 4) None follows
- 5) None of these

Q79. **Statements:** Some frames are pictures. All pictures are images. No image is a paper.

Conclusions: I. All images being frames is possibility. II. All images are pictures. III. No picture is a paper.

- 1) Only I and III follow
- 2) Only II and III follow
- 3) Only I and II follow
- 4) All I, II and III follow
- 5) None of these

Q80. **Statements:** All deserts are roads. Some rivers are deserts. Some hills are rivers.

Conclusions: I. At least some hills are deserts. II. All roads being hills is a possibility. III. All rivers being roads is a possibility.

- 1) Only I follows
- 2) Only II follows
- 3) Only II and III follow
- 4) All I, II and III follow
- 5) None of these

Q81. **Statements:** All bats are balls. No stick is a ball. All bottles are sticks.

Conclusions: I. All balls being bats is a possibility. II. Some bats are not sticks. III. At least some bottles are not balls.

- 1) Only I follows
- 2) Only II and III follow
- 3) Only III follows
- 4) Only I and II follow
- 5) None of these



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Q82. Statements: Some potatoes are vegetables. All vegetables are grains. No grain is a fruit.

Conclusions: I. Some potatoes are grains. II. Some potatoes are not fruits. III. No fruit is a grain.

- 1) Only II and III follow
- 2) Only III follows
- 3) All I, II and III follow
- 4) None follows
- 5) None of these

\$\$\$ (83-87):

Study the following information carefully and answer the questions given below:

Eight family members P, Q, R, S, W, X, Y and Z are sitting around a circular table facing the centre. The husband of Z sits second to the right of Q, who sits exactly between two males. X sits second to the left of the son of S. X is sister of Y, who is sister of R. X is not an immediate neighbour of Z's husband. Only one person sits between P and X. P is father of Y. S, who is brother of Z, sits on the immediate left of his mother. Only one person sits between Z's mother and W. Only one person sits between Z and Y. Y is not an immediate neighbour of W. R sits second to the right of S and is not the sister of Y. The son of S sits second to the left of Q.

\$\$\$

Q83. What is the position of Q with respect to W?

- 1) Second to the left
- 2) Immediate left
- 3) Third to the right
- 4) Second to the right
- 5) None of these

Q84. How many persons sit between X and her maternal uncle if counted anticlockwise from X?

- 1) Three
- 2) One
- 3) Four
- 4) Two
- 5) None of these

Q85. Who among the following sits third to the left of P?

- 1) S
- 2) W
- 3) Z
- 4) Can't be determined
- 5) None of these



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Q86. What is the position of Y with respect to her sister?

- 1) Second to the right
- 2) Immediate left
- 3) Third to the left
- 4) Immediate right
- 5) None of these

Q87. Who among the following sits fourth to the right of P's wife?

- 1) Y
- 2) X
- 3) W
- 4) R
- 5) None of these

\$\$\$ (88-90):

Study the following information carefully and answer the questions given below:

Six students A, B, C, D, E and F obtained different marks in an examination. A obtained more marks than only two students. B obtained more marks than D but not the highest. F obtained more marks than only C. The one who obtained the second highest marks obtained 280. The one who obtained the second lowest marks obtained 190 marks. .

\$\$\$

Q88. If the total marks of the examination is 500 then who among the following possibly obtained 60% marks?

- 1) D
- 2) E
- 3) Either A or C
- 4) Either D or E
- 5) None of these

Q89. If A obtained 200 marks then who among the following possibly obtained 245 marks?

- 1) D
- 2) B
- 3) E
- 4) F
- 5) None of these

Q90. Who among the following obtained the lowest marks?

- 1) F
- 2) E
- 3) C
- 4) B



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5) None of these

\$\$\$ (91-95):

In these questions, relationship between different elements is shown in the statements. The statements are followed by two conclusions. Study the conclusions based on the given statements and select the appropriate answer.

\$\$\$

Q91. **Statements:** $L = P \leq W < V \leq N \leq R; Q < L; N = M$

Conclusions: I. $Q < V$ II. $P > M$

- 1) **Only** conclusion **I** is true
- 2) **Only** conclusion **II** is true
- 3) **Either** conclusion **I** or **II** is true
- 4) **Both** conclusion **I** and **II** are true
- 5) **Neither** conclusion **I** nor **II** is true

Q92. **Statements:** $T \geq U = B < S; U \leq P < X$

Conclusions: I. $X > B$ II. $T \geq P$

- 1) **Either** conclusion **I** or **II** is true
- 2) **Neither** conclusion **I** nor **II** is true
- 3) **Only** conclusion **I** is true
- 4) **Only** conclusion **II** is true
- 5) **Both** conclusion **I** and **II** are true

Q93. **Statements:** $A \geq U \leq P = T < O; A \leq Z > R$

Conclusions: I. $R > P$ II. $P \leq R$

- 1) **Both** conclusion **I** and **II** are true
- 2) **Either** conclusion **I** or **II** is true
- 3) **Only** conclusion **I** is true
- 4) **Neither** conclusion **I** nor **II** is true
- 5) **Only** conclusion **II** is true

Q94. **Statements:** $A \geq U \leq P = T < O; P \leq Z > R$

Conclusions: I. $U < Z$ II. $Z = U$

- 1) **Neither** conclusion **I** nor **II** is true
- 2) **Both** conclusion **I** and **II** are true
- 3) **Only** conclusion **I** is true
- 4) **Either** conclusion **I** or **II** is true
- 5) **Only** conclusion **II** is true

Q95. **Statements:** $P \geq Q \leq R < T; Q > S = M$

Conclusions: I. $M \geq R$ II. $M < T$



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- 1) **Only** conclusion **I** is true
- 2) **Both** conclusion **I** and **II** are true
- 3) **Only** conclusion **II** is true
- 4) **Either** conclusion **I** or **II** is true
- 5) **Neither** conclusion **I** nor **II** is true

\$\$\$ (96-100):

Study the following information carefully and answer the questions given below:

Seven friends D, E, F, G, H, I and J like seven different cold drinks, viz Frooti, Limca, Mirinda, Slice, Fanta, Pepsi and Sprite, but not necessarily in the same order. Each of them wears a tie of a different colour, viz Red, Pink, Blue, Green, Yellow, Black and Purple, but not necessarily in the same order.

F wears a Blue tie but he does not like Limca or Sprite. E likes Slice but he does not wear either Purple or Black tie. H likes Fanta and wears Red tie. The one who wears a Green tie like Pepsi. G likes Frooti. J wears a Pink tie. D does not like Pepsi. The one who wear Black tie likes Limca.

\$\$\$

Q96. Which of the following combinations is a true?

- 1) I- Pepsi - Green
- 2) J - Limca - Black
- 3) J - Sprite Green
- 4) F- Sprite – Pink
- 5) None of these

Q97. D wears the tie of which colour?

- 1) Blue
- 2) Green
- 3) Black
- 4) Can't be determined
- 5) None of these

Q98. Who among the following wears a tie of Green colour?

- 1) D
- 2) E
- 3) H
- 4) I
- 5) None of these

Q99. Who among the following likes Limca?

- 1) E
- 2) D



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- 3) I
- 4) J
- 5) None of these

Q100. J likes which of the following drinks?

- 1) Sprite
- 2) Pepsi
- 3) Limca
- 4) Fanta
- 5) None of these

---Answer---

- A1.2
- A2.3
- A3.3
- A4.2
- A5.3
- A6.5
- A7.3
- A8.4
- A9.1
- A10.4
- A11.4
- A12.2
- A13.3
- A14.1
- A15.4
- A16.2
- A17.5
- A18.3
- A19.3
- A20.1
- A21.2
- A22.4
- A23.3
- A24.5
- A25.1
- A26.2
- A27.4
- A28.3
- A29.1

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A30.2
A31.3
A32.1
A33.2
A34.5
A35.4
A36.5
A37.4
A38.2
A39.2
A40.3
A41.5
A42.3
A43.1
A44.4
A45.1
A46.2
A47.2
A48.3
A49.4
A50.4
A51.1
A52.3
A53.4
A54.3
A55.5
A56.5
A57.3
A58.3
A59.4
A60.2
A61.3
A62.4
A63.2
A64.5
A65.2
A66.2
A67.5
A68.3
A69.2
A70.4
A71.3

Shakthii



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A72.4
A73.1
A74.3
A75.2
A76.1
A77.3
A78.2
A79.1
A80.3
A81.5
A82.3
A83.4
A84.4
A85.1
A86.2
A87.4
A88.2
A89.1
A90.3
A91.1
A92.3
A93.4
A94.4
A95.3
A96.1
A97.3
A98.4
A99.2
A100.1

---Answer---

---Explanation---

E31. The series is $250 \times 0.25 = 62.50$, $62.50 \times 0.50 = 31.25$, $31.25 \times 1 = 31.25$. $31.25 \times 2 = 62.5$, $62.5 \times 4 = \mathbf{250}$, ...

E32. The series is $300 \div 5 = 60$, $60 \div 4 = 15$, $15 \div 3 = 5$, $5 \div 2 = 2.5$, $2.5 \div 1 = 2.5$, ...



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E33. The series is $9 \times 3 - 2 = 25$, $25 \times 4 - 3 = 97$, $97 \times 5 - 4 = 481$, $481 \times 6 - 5 = 2881$,
 $2881 \times 7 - 6 = 20161$,

E34. The series is $6 \times 1.5 = 9$, $9 \times 2 = 18$, $18 \times 2.5 = 45$, $45 \times 3 = 135$, $135 \times 3.5 = 472.5$,

E35. The series is $4.2 + 3.5 = 7.7$, $7.7 + 4.25 = 11.95$, $11.95 + 5.75 = 17.7$, $17.7 + 8.75 = 26.45$,
 $26.45 + 14.75 = 41.2$, ...

E36. $6892 \times 1 \frac{5}{4} + 781 \div 12 = 13526 \div 8 + ?$
or, $1690.75 + ? = 6892 \times \frac{9}{4} + 781 \div 12$
or, $1691 + ? \approx 15507 + 65 = 15572$
or, $? \approx 15572 - 1691 = 13881$

E37. $? \approx 11/110 \times 54329 + 6.6/13 \times 277 + 56 \div 8 - 31.2 \times 5.2$
 $\approx 5433 + 0.5 \times 277 + 7 - 162 = 5433 + 138.5 + 7 - 162$
 $= 5433 + 145.5 - 162 = 5416.5 \approx 5417$

E38. $? = 3\sqrt{3593687} \times 3\sqrt{85184} \div 16 + \sqrt{4355.9} \times \sqrt{5928.9} \div 18$
 $\approx 3\sqrt{35937} \times 3\sqrt{85184} \div 16 + \sqrt{4356} \times \sqrt{5929} \div 18$
 $= 33 \times 44/16 + 66 \times 77/18$
 $= 90.75 + 282.33 = 373.08 \approx 373$

E39. $1681 \div ? + 172.8 \times 1.89 = 643.2 - 256.48$
Or, $1681/? + 173 \times 2 \approx 643 - 256$
Or, $1681/? + 346 \approx 87$
Or, $1681/? \approx 387 - 346 = 41$
 $\therefore ? \approx 41$

E40. $? \approx 16\% \text{ of } 48 - 25\% \text{ of } 5$
 $= 16 \times 48/100 - 25 \times 5/100 = 7.68 - 1.25 = 6.43$

E41. I. $5x^2 + 32x + 12 = 0$
or, $5x^2 + 30x + 2x + 12 = 0$
or, $5x(x + 6) + 2(x + 6) = 0$
or, $(5x + 2)(x + 6) = 0$
 $\therefore x = -2/5, -6$



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$$\begin{aligned} \text{II. } & 2y^2 + 8y + 8 = 0 \\ \text{or, } & y^2 + 4y + 4 = 0 \\ \text{or, } & y^2 + 2y + 2y + 4 = 0 \\ \text{or, } & y(y + 2) + 2(y + 2) = 0 \\ \text{or, } & (y + 2)^2 = 0 \\ \therefore & y = -2 \end{aligned}$$

Hence no relationship can be established.

$$\begin{aligned} \text{E42. I. } & 7x^2 + 6x - 16 = 0 \\ \text{or, } & 7x^2 + 14x - 8x - 16 = 0 \\ \text{or, } & 7x(x + 2) - 8(x + 2) = 0 \\ \text{or, } & (7x - 8)(x + 2) = 0 \\ \therefore & x = 8/7, -2 \end{aligned}$$

$$\begin{aligned} \text{II. } & 9y^2 - 22y - 15 = 0 \\ \text{or, } & 9y^2 - 27y + 5y - 15 = 0 \\ \text{or, } & 9y(y - 3) + 5(y - 3) = 0 \\ \text{or, } & (9y + 5)(y - 3) = 0 \\ \therefore & y = -5/9, 3 \end{aligned}$$

Hence relationship cannot be established.

$$\begin{aligned} \text{E43. I. } & 11x^2 + 19x - 6 = 0 \\ \text{or, } & 11x^2 + 22x - 3x - 6 = 0 \\ \text{or, } & 11x(x + 2) - 3(x + 2) = 0 \\ \text{or, } & (11x - 3)(x + 2) = 0 \\ \therefore & x = 3/11, -2 \end{aligned}$$

$$\begin{aligned} \text{II. } & 4y^2 + 12y - 16 = 0 \\ \text{or, } & y^2 + 3y - 4 = 0 \\ \text{or, } & y^2 + 4y - y - 4 = 0 \\ \text{or, } & y(y + 4) - 1(y + 4) = 0 \\ \text{or, } & (y - 1)(y + 4) = 0 \\ & y = 1, -4 \end{aligned}$$

Hence, no relationship can be established

$$\text{E44. I. } 3x^2 + 19x + 16 = 0$$



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$$\begin{aligned} \text{or, } 3x^2 + 3x + 16x + 16 &= 0 \\ \text{or, } 3x(x + 1) + 16(x + 1) &= 0 \\ \text{or, } (3x + 16)(x + 1) &= 0 \\ \therefore x &= -16/3, -1 \end{aligned}$$

$$\begin{aligned} \text{II. } 6y^2 + 31y + 18 &= 0 \\ \text{or, } 6y^2 + 27y + 4y + 18 &= 0 \\ \text{or, } 3y(2y + 9) + 2(2y + 9) &= 0 \\ \text{or, } (3y + 2)(2y + 9) &= 0 \\ \therefore y &= -2/3, -9/2 \end{aligned}$$

Hence, no relationship can be established.

$$\begin{aligned} \text{E45. I. } 4x^2 - 7x - 15 &= 0 \\ \text{or, } 4x^2 - 12x + 5x - 15 &= 0 \\ \text{or, } 4x(x - 3) + 5(x - 3) &= 0 \\ \text{or, } (4x + 5)(x - 3) - 0 & \\ \therefore x &= -5/4, 3 \end{aligned}$$

$$\begin{aligned} \text{II. } 9y^2 + 33y + 18 &= 0 \\ \text{or, } 3y^2 + 11y + 6 &= 0 \\ \text{or, } 3y(y + 3) + 2(y + 3) &= 0 \\ \text{or, } (3y + 2)(y + 3) &= 0 \\ \text{or, } y &= -2/3, -3 \end{aligned}$$

Hence no relationship can be established.

$$\begin{aligned} \text{E46. Total expenses on Food of BHU, IIPM and IIM) : (Total expenses on Lodging of MDU, LRI \& IMT)} \\ = (35 \times 16 + 40 \times 15 + 36 \times 25) : (45 \times 16 + 30 \times 15 + 25 \times 20) &= 2060 : 1670 = 206 : 167 \end{aligned}$$

E47. From the given data we can't find the expenses on Food and Laundry in 2013 of college IMT.

$$\begin{aligned} \text{E48. Total expenses on Laundry of BHU} &= 22\% \text{ of } 3500000 = 770000 \\ \text{Total expenses on Laundry of MDU} &= 24\% \text{ of } 4500000 = 1080000 \\ \text{So, decrease percentage} &= 310000/1080000 \times 100 = 28.70\% \end{aligned}$$

E49. Other expenses of all colleges



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$$\begin{aligned} &= [26/100 \times 2500000 + 16/100 \times 3500000 + 15/100 \times 3000000 \\ &+ 15/100 \times 4000000 + 40/100 \times 4500000 + 10/100 \times 3600000 \\ &= [650000 + 560000 + 450000 + 600000 + 1800000 + 360000] = 4420000 \end{aligned}$$

E50. Total expenses on Food of BHU, IIM & IIPM
= [16/100 x 3500000 + 25/100 x 3600000 + 15/100 x 4000000]
= [560000 + 900000 + 600000] = 2060000
Total expenses Lodging of MDU, XLRI & IMT
= [16/100 x 4500000 + 15/100 x 3000000 + 20/100 x 2500000]
= [720000 + 450000 + 500000]
= 1670000

$$\therefore \text{Difference} = 2060000 - 1670000 = 390000$$

E51. Idea sim cards sold in Sep and Nov = 12000 + 11000 = 23000
Reliance sim cards sold in Jul and Dec = 4000 + 12000 = 16000
So, required percentage = 23000/16000 x 100
= 143.75%

E52. Average no. of Reliance sim cards sold in six months
= 4000 + 9000 + 3000 + 10000 + 7000 + 12000/6
= 45000/6 = 7500

E53. Ratio of 4G : 3G = 2 : 3
Total no. of Reliance sim cards sold in the month of August = 9000
4G sim cards = 2/5 x 9000 = 3600
 \therefore 3G sim cards = 5400
Similarly, in October = 10000
4G sim cards = 2/5 x 10000 = 4000
3G sim cards = 6000
Again, in December = 12000
4G sim card = 2/5 x 12000 = 4800
 \therefore 3G sim card = 7200
Total number of 4G sim cards sold by the store in three months - 3600 + 4000 + 4800 = 12400

E54. Ratio of Men : Women = 3 : 7
In July = 7/10 x 10000 = 7000



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Similarly, Aug = $7/10 \times 14000 = 9800$

Sep = $7/10 \times 12000 = 8400$

Oct = $7/10 \times 13000 = 7700$

Nov = $7/10 \times 11000 = 7700$

Dec = $7/10 \times 8000 = 5600$

\therefore Total Idea sim cards distributed among women = $7000 + 9800 + 8400 + 7700 + 7700 + 5600 = 62600$

E55. Total number of Vodafone sim cards sold in all the six months

= $7000 + 2000 + 10000 + 5000 + 13000 + 1000 = 38000$

Total number of Idea sim cards sold in all the six months = $10000 + 14000 + 12000 + 11000 + 11000 + 8000 = 66000$

\therefore Reqd % = $28000/38000 \times 100 = 73.68\%$ more

E56. Let the side of the square be x cm.

$\therefore x^2 = 324 \text{ cm}^2$

$\therefore x = 18 \text{ cm}$

\therefore Perimeter of the square = $18 \times 4 = 72 \text{ cm}$

So, perimeter of the semicircle = Perimeter of the square

$\therefore \pi r + 2r = 72 \text{ cm}$

or, $r(\pi + 2) = 72 \text{ cm}$

or, $r(22/7 + 2) = 72 \text{ cm}$

or, $r \times 36/7 = 72 \text{ cm}$

$\therefore r = 72 \times 7/36 = 14 \text{ cm}$

E57. SP = $(100 + \text{profit \%}) \times \text{CP}/100$

= $(100 + 30) \times 150/100 = 130 \times 150/100 = 195$

Now, marked price - 25% of marked price = SP

Let marked price be x .

Then, $x - 25x/100 = 195$

or, $75x = 195 \times 100/75$

$\therefore x = \text{Rs } 260$

Marked price = Rs 260

E58. Vishal scored in Mathematics = 83

Marks obtained in Science = $66 \times 250/100 = 165$

Total marks obtained by Vishal in all three subjects together = $64/100 \times 750 = 480$



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Vishal scored X marks in English.
Now, Maths + Science + English = 480
 $83 + 165 + X = 480$
or, $X = 232$

E59. Total number of balls = $14 + 6 = 20$
Number of sample space - $n(S) = {}^{20}C_2 = 190$
Number of events $n(E) = {}^{14}C_2 + {}^6C_2$
 $= 14 \times 13/2 + 6 \times 5/2 = 91 + 15 = 106$
 $\therefore P(E) = n(E)/n(S) = 106/192 = 53/96$

E60. Suppose the present age of the boy and the girls are $3x$ and $4x$ respectively.
Then, $3x + 4/4x + 4 = 5/6$
or, $18x + 24 = 20x + 20$
 $\therefore x = 2$
Hence, the present age of the boy = $3 \times 2 = 6$ years. And the present age of the girl
 $= 4 \times 2 = 8$ years
If y years later they will be married, then
 $8 + y / 6 + y = 13/11$
or, $88 + 11y = 78 + 13y$
 $\therefore 2y = 10$
 $\therefore y = 5$ years

E61. Let the length of the first train be L and that of the bridge be x .
Speed of the 1st train = 108 kmph
 $= 108 \times 5/18 = 30 \text{ ms}^{-1}$
Speed of the second train = 36 kmph
 $= 36 \times 5/18 = 10 \text{ m/s}^{-1}$
Now, Distance = Speed x Time
 $\therefore L + x = 30 \times 15 = 450 \text{ m}$
 \therefore Time taken by the second train
 $= (L + x) / 10$
 $= 450 / 10 = 45$ seconds

E62. Ratio of A : B : C
 $= 1/100 + 30 \times 15 : 1/100 + 30 \times 20 : 1/100 + 30 \times 25$
 $= 1/550 : 1/700 : 1/850 = 1/11 : 1/14 : 1/17$
 $= 238 : 187 : 154$



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E63. Let A finish the work in x days and B in y days.

Then, $\frac{3}{x} + \frac{5}{y} = 1$

Let $\frac{1}{x} = A$ and $\frac{1}{y} = B$

Again, $3A + 5B = 1$... (i)

$4A + 2B = 1$... (ii)

Solving (i) and (ii), we get

$B = \frac{1}{14}$ days $\therefore \frac{1}{y} = \frac{1}{14}$

Now, $3A + 5B = 1$

or, $3A + \frac{5}{14} = 1$

or, $3A = 1 - \frac{5}{14}$

$\therefore A = \frac{9}{14} \times \frac{1}{3} = \frac{3}{14}$ days

Hence, $B = 14$ days and $A = 4 \frac{2}{3}$ days

E64. Suppose the maximum marks is 100.

Then, pass marks = 40

Marks obtained by A = $40 \times \frac{90}{100} = 36$

Marks obtained by B = $36 \times \frac{(100 - 11 \frac{1}{9})}{100}$

= $36 \times \frac{800}{9} \times \frac{1}{100} = 32$

Total marks obtained by A and B = $36 + 32 = 68$

C's marks = $68 \times \frac{100}{17} = 40$

= $68 \times \frac{1000}{17} \times \frac{1}{100} = 40$

E65. Cost of 30 dozen notebooks = $30 \times 50 = \text{Rs } 1500$ SP of 30 dozen notebooks

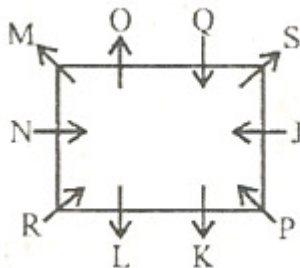
= $\frac{115}{100} \times 10 \times 50 + \frac{125}{100} \times 20 \times 50$

= $575 + 1250 = 1825$

\therefore Profit = $1825 - 1500 = 325$

\therefore Profit % = $\frac{325 \times 100}{1500} = 21 \frac{2}{3}\%$

E66.





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E72.



E76. Third to the right of eight from the right end = $(8 - 3 = 5)$ 5th from the right end, ie. B.

E78. Some copies are pens (I) + No pen is a pin (E) = $I + E = O$ = Some copies are not pins. Hence conclusion I does not follow. Some copies are pens (I) \rightarrow conversion \rightarrow Some pens are copies (I). Hence conclusion II follows.

All needles are pins (A) + No pin is a pen (E) = $A + E = E$ = No needle is a pen. Hence conclusion III does not follow.

E79. There is no negative statement between image and frame. Thus the possibility in I exists. Hence conclusion I follows.

Again. All pictures are images (A) \rightarrow conversion \rightarrow Some images are pictures (I). Hence conclusion II does not follow.

All pictures are images (A) + No image is a paper (E) = $A + E = E$ = No picture is a paper. Hence conclusion III follows.

E80. Some hills are rivers (I) + Some rivers are deserts (I) = $I + I =$ No conclusion. Hence conclusion I does not follow.

There is no negative statement. Thus the possibility in II and III can exist. Hence conclusion II and III both follow.

E81. All bats are balls (A) \rightarrow conversion \rightarrow Some balls are bats (I). Thus the possibility in I exists. Hence conclusion I follows.

All bats are balls (A) + (No stick is a ball \rightarrow conversion \rightarrow) No ball is a stick (E) = $A + E = E$ = No bat is a stick. Hence conclusion II follows.

All bottles are sticks (A) + No stick is a ball (E) = $A + E = E$ = No bottle is a ball. Hence conclusion III follows.



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Increasing Confidence ; Reaching Goals

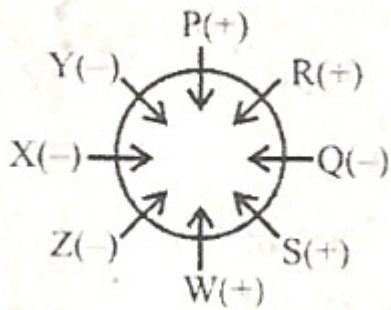
E82. Some potatoes are vegetables (I) + All vegetables are grains (A) - I + A = I = Some potatoes are grains. Hence conclusion I follows.

Some potatoes are grains (I) + No grain is a fruit (E) = I + E O = Some potatoes are not fruits. Hence conclusion II follows.

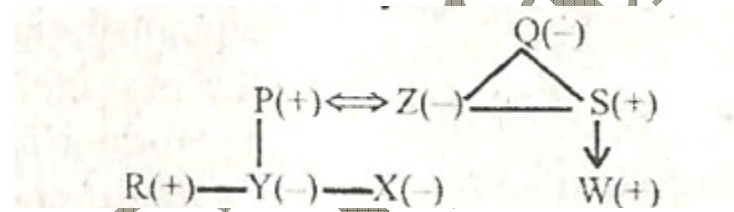
No grain is a fruit (E) → conversion → No fruit is a grain (E). Hence conclusion III follows.

E83.

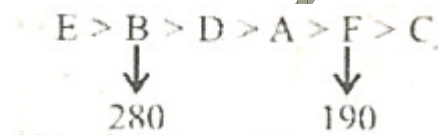
..



Family trees



E88.



E88. 60% of 500 - 300

Hence the possible marks 300 was obtained by E.



SHAKTHII ACADEMY

Increasing Confidence ; Reaching Goals

E91. Given statements:

$$L = P \leq W < V \leq N \leq R \dots\dots(i)$$

$$Q < L \dots\dots(ii)$$

$$N = M$$

Combining (i) and (ii), we get

$$Q < L = P \leq W < V \leq N \leq R$$

Thus, $Q < V$ is true. Hence I is true.

Again, from (i) and (iii), we have

$$P \leq W < V \leq M$$

Thus, $P < M$ is true. Hence II ($P > M$) is not true.

E92. Given statements:

$$T \geq U = B < S \dots (i)$$

$$U \leq P < X \dots (ii)$$

From (i) and (ii), we get

$$T \geq U = B \leq P < X$$

Thus, we can't compare T and P.

Hence II ($T \geq P$) is not true.

Again, $B < X$ or $X > B$ is true. Hence I is true.

E93. Given statements:

$$A \geq U \leq P = T < O \dots (i)$$

$$A \leq Z > R \dots (ii)$$

From (i) and (ii), we have

$$R < Z \geq A \geq U \leq P = T < O$$

Thus, we can't compare R and P. Hence neither I ($R > P$) nor II ($P \leq R$) is true.

E94. Given statements:

$$A \geq U \leq P = T < O \dots (i)$$

$$P \leq Z > R \dots (ii)$$

Combining (i) and (ii), we have

$$A \geq U \leq P \leq Z > R$$

Thus, $U \leq Z$ is true. It means either $U = Z$ or

$U < Z$ is true. Hence either I or II is true.

E95. Given statements:

$$P \geq Q \leq R < T \dots (i)$$

$$Q > S = M \dots (ii)$$



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Combining (i) and (ii), we get

$$T > R \geq Q > S = M$$

Thus, $R > M$ is true. Hence I ($M \geq R$) is not true.

Again, $T > M$ or $M < T$ is true. Hence II is true.

E96.

Person	Cold drink	Tie
D	Limca	Black
E	Slice	Yellow
F	Mirinda	Blue
G	Frooti	Purple
H	Fanta	Red
I	Pepsi	Green
J	Sprite	Pink

---Explanation---

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