Test-I English Language

Directions (Q. 1-15): Read the passage carefully and answer the questions given below it. Certain words/phrases are given in bold to help you locate them while answering some of the questions.

In the English dictionary, the word "reforms" means "to improve by alteration, correction of error, or removal of defects; put into a better form or condition." From time to time, large-scale policy changes become necessary for the betterment of the society and economy.

The last such initiative was undertaken in 1991; and, of course, before that, immediately after Independence. We seem to be at the crossroads once again.

What necessitated these changes at each juncture? In 1947, our society was predominantly rural and feudal, with a *minuscule* urban educated class. Industry was insignificant, barring jute and textiles. Income distribution was *skewed*.

During colonial rule, the economy was outward-looking, but deprivation, unequal income distribution, and lack of industrial self-sufficiency motivated post-Independence policymakers to adopt an inward-looking socialist model of development.

In an effort to equalise income distribution, the government dismantled the feudal system, and doled out subsidies in the form of cheaper fertiliser, while not taxing agricultural income. High import tariffs were put in place, shielding domestic industry from global competition.

These measures, perhaps appropriate to the specific context of post-Independent India, turned into an obstacle to growth and development in the later years. Too much government control and discretionary power for the bureaucracy led to corruption. Large industrialists, making super-normal profits in a protected market, lined the pockets of corrupt bureaucrats and pampered them.

Trade union leaders and government employees neglected performance. Large farmers cared little about increasing agriculture productivity. The result of this government largesse, which did not help enhance productivity, was a high fiscal deficit during the late Eighties.

That called for another set of reforms from 1991 onwards —the so-called 'economic reforms'.

The initial effects of reforms, in terms of the government acting more as a facilitator and allowing active private participation in the economy through liberalisation and globalisation, were beneficial. Banking sector reforms, by bringing down interest rates, led to an increase in private investment and corporate profitability. GDP growth increased to an average of over 8 per cent between 2003 and 2011.

Now, the economy has once again started slowing down. The Finance Ministry and PMO have initiated steps to bring the economy back on the fast-growth track. However, we should be able to distinguish between good and bad measures.

Take, for instance, the new Land Acquisition, Rehabilitation and Resettlement Bill, 2011.

As per this legislation, when it comes to *acquiring* land, the State has to pay two times the market price if the land is in urban areas, and four times the market price if the land is in rural areas. In addition, for rehabilitation, a sum of Rs.1.36 lakh has to be given to the displaced household. For *sustaining* livelihoods, a job has to be provided to one member in the household, or a one-time payment of Rs. 5 lakh would have to be made.

Scarcity of land not only hampers expansion of industry and tourism, but can also have other secondary effects. Take education, for instance. Despite the success in enrolling students in primary education there is still a vast pool of population stuck in the agricultural sector. In fact. 75 per cent of the unemployed are in the agriculture sector. For the government to promote public-private partnerships in vocational education, say, in the form of polytechnics in rural areas, would need land. For opening a polytechnic institute, the All India Council of Technical Education (AICTE) requires a minimum of 1.5 acres in urban municipal areas and 5 acres in rural areas.

Not all reforms measures are bad. For instance, the proposal to set up Cabinet Committee on Investment, to fast-track Rs. 1000-crore-plus projects on infrastructure, is a welcome move. Often, construction of railway tracks, roads and power transmission lines is delayed because of environment clearances. The Committee on Investment can now directly intervene with the ministry concerned (in this case Ministry of Environment) and speed up the process of obtaining clearances.

1. **Which of the following statements regarding the proposed Cabinet Committee on Investment is true? Give your answer in the context of the given passage.**
   (a) The committee will act on behalf of the Ministry of Finance, Govt of India.
   (b) The committee will suggest the RBI in respect of economic reforms measure.
   (c) The committee shall have power to directly intervene with the ministry concerned, if required, for speedy disposal of work.

(d) The committee will be obliged to manage ?1000 cr every year for infrastructure development.

(e) None of these

2. **What were the effects of the measures taken by the government to equalise income distribution?**
   (a) There was a high fiscal deficit during the late Eighties.
   (b) In the earlier years of Independence, the steps taken to equalise income distribution proved appropriate but in the later years these steps turned into obstacle to growth and development.
   (c) Too much government control and discretionary power for bureaucracy led to corruption.
   (d) Only (a) and (b)
   (e) All (a), (b) and (c)

3. **What is/are the characteristic features of the new Land Acquisition, Rehabilitation and Resettlement Bill 2011 ? Give your answer in the context of the passage.**
   (a) For sustaining livelihood, a job has to be provided to at least two members in the household.
   (b) For rehabilitation a sum of ?2 lakh has to be given to the displaced household.
   (c) To acquire land the government has to pay two times the market price if the land is in urban areas, and four times the market price if the land is in rural areas.
   (d) In lieu of providing jobs the govt has to make a lumpsum payment of? 1.3 6 lakh.
   (e) All the above

4. **Why has the author quoted the meaning of the word 'reforms' in the opening line of the passage?**
   (A) Because this word has been wrongly used and interpreted by many who are in the profession of journalism and writing.
   (B) Because the author thinks that too many reforms measures taken by the government turned into obstacle to growth and development.
   (C) Because only the initial effects of reforms measures such as Liberalisation and Globalisation were beneficial as these led to an increase in private investment and corporate profitability.
   (a) Only (A)   (b) Only (A) and (B)
   (c) Only (C)   (d) Only (B) and (C)
   (e) Only (A) and (C)

5. **Which of the following is incorrect about the distinctive features of colonial rule, as mentioned in the given passage?**
   (a) Unequal income distribution
   (b) Outward-looking economy
   (c) Lack of industrial self-sufficiency
   (d) Rule of only law, no crime, no corruption
   (e) None of these

6. **What steps were taken by the government to equalise income distribution among the people?**
   (A) Agricultural income was not taxed.
   (B) Many schemes such as Antyodaya and Annapuma were launched to bring the downtrodden to equal level.
   (C) The feudal system was dismantled and fertilisersat subsidised rate were made available to farmers.
   (a) Only (A) and (C)   (b) Only (B) and (C)
   (c) Only (C)   (d) Only (A) and (B)
   (e) Only (A)

7. **What was the condition of India and its society immediately after its independence?**
   (a) Very few urban people were educated.
   (b) Industries except jute and textiles had lost their significance.
   (c) The society was predominantly rural and feudal.
   (d) There was a wide gap between the incomes of people in the society.
   (e) All the above

8. **Find the statement which is not true in the context of the given passage.**
   (a) Three-fourths of the unemployed are in the agriculture sector.
   (b) Many students enrolled in primary education, are stuck in the agriculture sector due to scarcity of land for school buildings.
   (c) The All India Council of Technical Education requires at least one-and-a-half acres of land in urban municipal areas for opening a polytechnic institute.
   (d) Scarcity of land does not impede the expansion of tourism industry.
   (e) None of these

9. **What do you think is the real intention of the author behind writing the given passage? Select the mosl appropriate answer.**
   (a) The author is pessimistic about the outcomes of the reform measures taken by the government.
   (b) The author wants to enlighten the readers about the ins and outs of the reform measures and the existing problems.
   (c) The author wants to impose his own views ab bureaucrats, industrialists and trade union leaders.
   (d) The author wants to present a true picture of pre- and post-independence India.
   (e) None of these

Directions (Q. 10-12): Choose the word/group of words which is MOST SIMILAR in meaning to the word/group of words printed in bold as used in the passage.

10. **Skewed**
    (a) inclined   (b) broken
    (c) stagnant   (d) slow
    (e) distorted

11. **Sustaining**

(a) maintaining   (b) ratifying
(c) enduring   (d) earning
(e) balancing

12. **Pampered**
(a) overlooked   (b) cosseted
(c) changed   (d) terminated
(e) covered

Directions (Q. 13-15): Choose the word/group of words which is MOST OPPOSITE in meaning of the word/group of words printed in bold as used in the passage.

13. **Minuscule**
(a) diversified   (b) rich
(c) huge   (d) elite
(e) handful

14. **Dismantled**
(a) started   (b) disbanded
(c) abolished   (d) repudiated
(e) expedited

15. **Acquiring**
(a) confiscation   (b) appropriation
(c) possession   (d) distribution
(e) vindication

Directions (Q. 16-20): 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 (e). (Ignore errors of punctuation, if any.)

16. (a) Reports that India is actively considering Pakistan) proposals for a resumption of / (c) the formal dialogue between the two / (d) countries are welcome. / (e) No error

17. (a) Durga Nagpal, posted as SDM, had impounded / (b) several trucks engaged in / (c) illegal quarrying and registered / (d) over twenty FIR. / (e) No error

18. (a) India's financial system has developed considerably / (b) since 1990s and has weathered / (c) the global crisis better than / (d) a number of other countries. / (e) No error

19. (a) The ostensible reason for the ordinance issued / (b) by the Central Government was to end up an / (c) unseemly dispute between the two / (d) financial sector regulators - the SEBI and the IRDA. / (e) No error

20. (a) The Union sports ministry has appealed to / (b) the International Hockey Federation to allow India's participation / (c) in tournaments held under the / (d) aegis of the world body. / (e) No error

Directions (Q. 21-25): In the followiig questions, a sentence has been given with some part of it in bold. To make the sentence correct, you have to replace the bold part with the correct alternative given below. If the sentence is correct as it is, please give (e) as your answer (ie No correction required).

21. The Indian government is engaged in major improvements in the **qualities of transportation service** and infrastructure.
(a) the quality of transport services
(b) the qualities of transportation services
(c) qualities of transport servicing
(d) quality of transporters services
(e) No correction required

22. The phenomenon of falling growth in India's case is partly due to global economic crisis and partly **due to his own** internal deficiencies.
(a) because of his own   (b) owing to his own
(c) due to our own   (d) for the reason of his
(e) No correction required

23. Mr Sharma along with his children **are going to see** the Taj Mahal.
(a) are going to see   (b) is going to see the
(c) is going to look into   (d) are going to visit
(e) No correction required

24. The controversy **about a letter send to** US President Barack Obama, purportedly signed by 65 MPs urging him to deny visa to the Chief Minister, took a new turn.
(a) of a letter send   (b) against a letter send
(c) about a letter sent   (d) over a letter sent
(e) No correction required

25. Congress members, without thinking about the repercussions, **make statements that generate** controversy.
(a) makes statements that generates
(b) make statements that generates
(c) makes statements that generate
(d) make statement that forms
(e) No correction required

Directions (Q. 26-30): 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) There is also a vast body of laws known as subordinate legislation in the forms of rules, regulation as well as by-laws made by Central/State governments and local authorities like municipal corporations, Gram Panchayats and other local bodies.

(B) Statutes are enacted by Parliament, State legislatures and Union Territory legislatures.

(C) The fountain source of law in India is the Constitution which, in turn, gives due recognition to statutes, case law and customary law consistent with its dispensations.

(D) This subordinate legislation is made under the authority conferred or delegated either by Parliament or State or Union Territory legislatures concerned.

(E) The decisions of the Supreme Court are binding on all courts within the territory of India.

(F) As India is a land of diversities, local customs and conventions which are not against statute morality etc are to a limited extent also recognised and taken into account by courts while administering justice in certain spheres.

26. **Which of the following would be the LAST (SIXTH) sentence after rearrangement?**
(a) A   (b) E   (c) B   (d) D   (e) C

27. **Which of the following would be the FIRST sentence after rearrangement?**
(a) B   (b) F   (c) A   (d) E   (e) C

28. **Which of the following would be the THIRD sentence after rearrangement?**
(a) A   (b) D   (c) E   (d) B   (e) F

29. **Which of the following would be the FOURTH sentence after rearrangement?**
(a) F   (b) B   (c) C   (d) D   (e) A

30. **Which of the following would be the SECOND sentence after rearrangement?**
(a) D   (b) C   (c) B   (d) A   (e) E

Test-II Reasoning Ability

Directions (Q. 31-36): Study the following information carefully and answer the given questions.

There are eight friends S, T, U, V, W, X, Y and Z sitting around a circular table facing the centre and playing cards but not necessarily in the same order. All of them have a favourite card among these eight cards. Out of these eight cards, four are Kings and four are Queens of spade, club, diamond and heart.

S likes the Queen of spade and is not an immediate neighbour of the one who likes the King of club. The one who likes the Queen of diamond sits on the immediate left of T, who likes the Queen of club. U likes the King of club and sits third to the left of W. The one who likes the King of spade and the one who likes the Queen of diamond are immediate neighbours of each other but both of them are the neighbours neither of W nor of U. The one who likes the King of diamond and the one who likes the Queen of spade are immediate neighbours of each other. Neither W nor V likes the King of diamond. Only X sits between the one who likes the Queen of diamond and the one who likes the Queen of heart. Y sits third to the left of the person who likes the King of diamond.

31. **Who likes the King of spade?**
(a) X   (b) Y   (c) Z
(d) Can't be determined   (e) None of these

32. **W likes which of the following cards?**
(a) Queen of spade   (b) King of heart
(c) Queen of heart   (d) Can't be determined
(e) None of these

33. **The likes of which of the following sits exactly between T and Z?**
(a) Queen of club   (b) King of diamond
(c) King of club   (d) King of spade
(e) None of these

34. **How many persons sit between V and the person who likes the King of club?**
(a) None   (b) One   (c) Two   (d) Three
(e) None of these

35. **Which of the following pairs are the immediate neighbour of that person who likes the King of diamond?**
(a) T,U   (b) S,T   (c) W,S   (d) V,Y
(e) None of these

36. **Which of the following statements is/are true with respect to Y?**
(a) Y is the immediate neighbour of that person who likes the Queen of spade.
(b) Y sits between T and X.
(c) Y is opposite the person who likes the King of diamond.
(d) All are true
(e) None is true

Directions (Q. 37-41): In each question below are given three statements followed by two conclusions numbered I and II. 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. Give answer

(a) if only conclusion I follows.
(b) if only conclusion II follows.
(c) if either conclusion I or II follows.
(d) if neither conclusion I nor II follows.
(e) if both conclusions I and II follow.

(37-38):
Statements: Some papers are pencils.
               No paper is a bottle.
               No pencil is a pen.

37. **Conclusions : I. No pen is a bottle.**
               II. No pen is a pencil.

38. **Conclusions : I. Some pencils are not papers.**
               II. Some pens are not papers.

(39-40):
Statements : All stickers are cups.

No cup is a wire.

All wires are bulbs.

39. **Conclusions : I. All bulbs being cups is a possibility.**

II. No sticker is a wire.

40. **Conclusions: I. All stickers being bulbs is a possibility.**

II. No bulb is a sticker.

41. **Statements : Some glasses are bowls.**

All bowls are spoons.

No sppon is a plate.

Conclusions: I. Some bowls are plates.

II. Some glasses are not spoons.

42. **What should come in place of question mark (?) in the given expression to make T < Q and L ≤ T definitely true? Q ? L = M ? R = T**

(a) ≥,<   (b) ≥, >   (c) <, ≥   (d) <, ≤

(e) None of these

43. **Which of the following expressions will be false, if the expression R < E = A ≥ M > N is definitely true?**

(a) A > N   (b) E ≥ N   (c) R < A   (d) N < E

(e) None of these

44. **Which of the following symbols should be placed in blank spaces respectively to make the expressions B ≥ J, L > C and J < A definitely true? H < A_B_C = J_L**

(a) >,≥,<   (b) <,≥,>   (c) =, <, ≤   (d) <,≤,<

(e) None of these

45. **Which of the following expressions will be true if the expression $Z \geq Y > L = W \geq N > F$ is definitely true?**

(a) Z ≥ W   (b) L = N   (c) F < Z   (d) W = Y

(e) None of these

Directions (Q. 46-50): Study the following information carefully and answer the given questions.

A @ B means A is father of B

A % B means A is husband of B

A $ B means A is sister of B

A £ B means A is mother of B

A ¥ B means A is brother of B

46. **What should come in place of question mark to make the expression "E is grandfather of T" true?**

E @ V ? N % R £ T

(a) @   (b) £   (c) ¥   (d) %

(e) None of these

47. **Which of the following statements is true if the given expression is definitely true?**

A % L $ K £ B ¥ C

(a) K is sister-in-law of A   (b) C is daughter of K

(c) A is father of B   (d) C is son of L

(e) None of these

48. **Which of the following expressions, if true, makes "N is sister of R" true?**

(a) F £ U @ N $ K ¥ R   (b) N $ F £ K ¥ R S U

(c) R S U ¥ K $ N   (d) N £ F S K ¥ R $ U

(e) None of these

49. **Which of the following statements is false if the given expression is true?**

J £ K £ L @ M ¥ N S O

(a) M is son of L   (b) K is grandmother of O

(c) M is grandson of J   (d) N is sister of M

(e) None of these

50. **What is the relation between W and P if the given expression is definitely true?**

 G % H £ W ¥ V % R £ P

(a) P is son of W   (b) W is uncle of P

(c) P is sister-in-law of W   (d) Can't be determined

(e) None of these

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

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of an input and its rearrangement.

Input: 51 rest 11 loan 21 club 10 art 41

Step 1: art rest 11 loan 21 club 10 41 51

SteplI: artclubrest 11 loan 10 21 41 51

Step III: art club loan rest 10 11 2141 51

Step IV: art club loan rest 1 4 9 25 36

Step IV is the last step of the above input. As per the rules followed in the above steps find the appropriate step for the given input.

Input water 13 ferry 15 place 16 boat 22 market 18 verb 12

51. **What is the position of'place' in Step III?**

(a) Sixth from the left   (b) Fifth from the right

(c) Fourth from the left   (d) Sixth from the right

(e) None of these

52. **Which of the following would be at the 7th position from the right in Step V?**

(a) water   (b) verb   (c) 13   (d) 15

(e) None of these

53. **How many steps will be required to complete the arrangement of the above input?**

(a) Four   (b) Five   (c) Six   (d) Seven

(e) None of these

54. **Which step number would be the following output? 'boat ferry market place verb water 12 13 15 16 18 22'**

(a) III   (b) IV   (c) VI   (d) V

(e) None of these

55. **If Step III of an input is as given below, what will be the input?**

'art cute junk 15 18 punch gun 23 28 35'

(a) art cute 15 18 cute punch gun 35 28 23

(b) 35 art cute 15 18 punch gun 23 28 junk

(c) cute junk art 15 18 punch gun 23 28 35

(d) Can't be determined

(e) None of these

56. How many such pairs of letters are there in the word SEASON each of which has as many letters between them in the word as in the English alphabetical series?

(a) None   (b) One   (c) Two   (d) Three

(e) None of these

57. The position of the first and fifth letters of the word SUBSTANCE are interchanged. Similarly, the position of second and sixth letters, third and seventh letters, and fourth and eighth letters are interchanged. The ninth letter remains as it is. In the new arrangement, how many letters are there in the English alphabetical series between the letters which is second from the right end and the third from the left end?

(a) None   (b) One   (c) Two   (d) Four

(e) More than four

58. In a certain code language COURSE is written as DRQDPV. How is PUZZLE written in that code language?

(a) DKYQVA   (b) QVADKY

(c) DKYAVQ   (d) QVAAMF

(e) None of these

Directions (Q. 59-60): Study the following information carefully to answer the given questions:

A man goes to the market. He walks 2 km towards north from his home and then he turns to his left and walks 2 km. Again he turns to his left and walks 1 km. Finally he turns to his left and walks 4 km and reaches the market.

59. In which direction is man's home from the market?

(a) West   (b) South   (c) Northeast

(d) Southwest   (e) Can't be determined

60. What is the distance between his home and the market?

(a) 3 km   (b) $\sqrt{5}$ km   (c) $\sqrt{2.5}$ km   (d) 4 km

(e) None of these

61. International diplomatic practice and US immigration law enable the abuse of domestic workers. Which of the following is not in line with the above statement"?

(a) The wages of domestic workers required by US law are impossibly high.

(b) The livelihood and visa status of the workers depend on the good will of an employer protected from prosecution by diplomatic immunity.

(c) The William Wilberforce Act bolsters federal efforts to combat both international and domestic traffic in human beings.

(d) Some of the clauses of the law are simple while others are complex.

(e) None of these

62. High-end pawn stores are getting increasingly popular. Which of the following may be a probable reason for the above phenomenon!

(a) For those who borrow a couple of thousand dollars against, say, a Rolex watch, the rates range from 12% to more than 60% on an annual ised basis.

(b) That pawnshops exist to lend money to those who fall on hard times is cither a necessary or unfortunate facet of life, depending on one's point of view.

(c) Conventional lenders over the past five to six years have become increasingly reluctant to advance credit on all fronts.

(d) When a business needs liquidity to fund operations or growth, they-re able to go to the capital markets and use business assets to obtain loans.

(e) None of these

63. There are investors who arc keen to invest in equities but are afraid of losing money in the stock markets.

Which of the following is a course of action such investors should take?

(a) They should offer 20% of their money in stocks.

(b) They should invest in products with a tenure of five years.

(c) They should invest in debt-oriented hybrid funds.

(d) They should invest in schemes that are listed on stock exchanges.

(e) None of these

64. Professor-X raised serious charges of mismanagement, incompetence and illegal behaviour against the University of Mumbai's current administration.

Which of the following courses of action should be taken?

(A) The professor should be suspended.

(B) As an insider and a well-respected academic, his criticism of the administration deserves to be taken seriously.

(C) The truth should be verified by an independent committee or a court of law.

(a) Only A   (b) Only B   (c) Only C

(d) Only A and B   (e) Only B and C

65. Google is buying out Nest and there are concerns among customers about Google having so much data about people. But it has agreed that Nest's privacy policies are going to be well-respected. Which of the following. statements would most weaken Nest's beliefs?

(a) History has shown that privacy polices change.

(b) Google products can easily be integrated into Nest.

(c) The deal between the two companies has not closed.

(d) Unlike many of Silicon Valley's most popular companies that make software that costs very little to build, Nest is capital-intensive because it builds hardware.

(e) None of these

Quantitative Aptitude

Directions (Q. 66-70): What should come in place of the question mark (?) in the following questions?

66. $1\frac{8}{9} + 3\frac{2}{7} - 2\frac{1}{7} + 11\frac{1}{6} = ?$

(a) $7\frac{12}{223}$ (b) $14\frac{25}{223}$ (c) $14\frac{25}{126}$ (d) $7\frac{11}{126}$

(e) none of these

67. 56% of 958 + 67% of 1008 = ?% of 2000

(a) 60.592   (b) 47.622   (c) 42.86   (d) 91.455

(e) None of these

68. $7^{2.3} \times 49^{4.7} \times 63^{3.4} \times 81^{5.85} = 63^{?}$

(a) 16.25   (b) 15.1   (c) 13.4   (d)18.9

(e) None of these

69. $(?)^2 + (164)^2 = (307)^2 - 272$

(a) 151   (b) 189   (c) 211   (d) 259

(e) None of these

70. $\sqrt{915849} + \sqrt{795664} = (?)^2$

(a) 1849   (b) 79   (c) 33   (d) 37

(e) None of these

Directions (Q. 71-75): What approximate value should come in place of the question mark(?) in the following questions? (You are not expected to calculate the exact value.)

71. $63.9872 \times 9449.8780 \div 243.0034 = (?)^2$

(a) 2489   (b) 2500   (c) 50   (d) 45   (e) 150

72. 5237.897 – 6629.010 + 7153.999 – 2205.102 = ?

(a) 6340   (b) 4688   (c) 5240   (d) 3558

(e) 6290

73. 4985.0346 ÷ 215.987 – 3768.112 ÷ 206.868 = ?

(a) 8   (b) 5   (c) 18   (d) 11   (e) 15

74. $\sqrt{956240} = ?$

(a) 979   (b) 864   (c) 1009   (d) 647   (e) 783

75. 459% of 849.947 + 266% of 6284.012 – 1486.002 = ?

(a) 20330   (b) 12640   (c) 15000   (d) 22160

(e) 19130

Directions (Q. 76-80): In each of the following questions a number series is given. After the series a number is given followed by (a), (b), (c), (d) and (e). You have to complete the series starting with the number given, following the sequence of the original series and answer the questions that follow the series.

76. 12   30   120   460   1368   2730

16   (a)   (b)   (c)   (d)   (e)

What will come in place of (d)?

(a) 1384   (b) 2642   (c) 2808   (d) 1988

(e) None of these

77. 154   462   231   693   346.5   1039.5

276   (a)   (b)   (c)   (d)   (e)

What will come in place of (e)?

(a) 1746   (b) 621   (c) 1242   (d) 983

(e) None of these

78. 7   91   1001   7007   35035 105105

14.5   (a)   (b)   (c)   (d)   (e)

What will come in place of (c)?

(a) 21132.5   (b) 14514.5   (c) 20020.5

(d) 13864.5   (e) None of these

79. 582 574 601 537 662 446

204 (a) (b) (c) (d) (e)

What will come in place of (d)?

(a) 284   (b) 68   (c) 174   (d) 331

(e) None of these

80. 85   43   44   67.5   137   345

125 (a)   (b)   (c)   (d)   (e)

What will come in place of (c)?

(a) 86   (b) 107.5   (c) 112.5   (d) 97.5

(e) None of these

Directions (Q. 81-85): In each of the following questions, a question is followed by information given in three statements. You have to study the question along with the statements and decide that the information given in which of the statements is necessary to answer the question.

81. That is the speed of a train?

I.   The train crosses a pole in 10 seconds.

II. The length of the train is 240 metres.

III. The train crosses a platform of equal length in 20 seconds.

(a) Only I and II   (b) Only 11 and III

(c) All I, II and III   (d) Any two of the three

(e) II and either I or III

82. What is a two-digit number?

I.   The number obtained by interchanging the digits of the number is greater than the original number by 18.

II. The sum of the two digits of the number is 14.

III. The difference between the two digits of the number is 2.

(a) Any two of the three   (b) Only I and II

(c) II and either I or III   (d) All the three

(e) III and either I or II

83. In how many days can 16 men and 8 women together complete a piece of work?

I.   8 men complete the piece of work in 10 days.

II. 16 women complete the piece of work in 10 days.

III. 5 women take 32 days to complete the piece of work.

(a) Only I and II   (b) Only I and III

(c) Only II and III

(d) Only I and either II or III

(e) Any two of the three

84. What is the area of a square?

   I. The measure of diagonal of the square is given.

   II. The measure of one side of the square is given.

   III. The perimeter of the square is given.

   (a) Only II   (b) Only III

   (c) Only 1 and III   (d) Only II and III

   (e) Any one of the three

85. What is the rate of interest p.c.p.a.?

   I. Simple interest earned per annum is Rs 5,300.

   III. The difference between the compound and the simple interest on an amount is Rs 1,060 at the end of 2 years.

   III. An amount doubles itself in 5 years at simple interest.

   (a) All the three   (b) Only III

   (c) Either II or III   (d) Only III or I and II

   (e) The question cannot be answered even with the information in all the three statements

86. In how many different ways can the letters of the word 'PADDLED' be arranged?

   (a) 910   (b) 2520   (c) 5040   (d) 840

   (e) None of these

87. What would be the cost of building a 7-metre-wide garden around a circular field with diameter equal to 280 metres, if the cost per sq metre for building the garden is Rs 21?

   (a) Rs. 1,56,242   (b) Rs 2,48,521

   (c) Rs 1,11,624   (d) Rs2,06,118

   (e) None of these

88. Vipul decided to donate 5% of his salary. On the day of donation he changed his mind and donated Rs 1687.50, which was 75% of what he had decided earlier. How much is Vipul's salary?

   (a) Rs 37.500   (b) Rs 45,000

   (c) Rs 33.750   (d) Cannot be determined

   (e) None of these

89. 9 children can complete a piece of work in 360 days. 18 men can complete the same piece of work in 72 days and 12 women can complete the piece of work in 162 days. In how many days can 4 men, 12 women and 10 children together complete the piece of work?

   (a) 124   (b) 81   (c) 68   (d) 96

   (e) None of these

90. The simple interest accrued on an amount of Rs 14,800 at the end of three years is Rs 6,216. What would be the compound interest accrued on the same amount at the same rate in the same period?

   (a) Rs. 6986.1142   (b) Rs. 7042.2014

   (c) Rs. 7126.8512   (d) Rs. 8321.4166

   (e) None of these

Directions (Q. 91-95): From the following, different committees are to be made as per the requirement given in each question. In how many different ways can it be done?

   10 men and 8 women out of which 5 men are teachers, 3 men doctors and 2 are businessmen, Among the women, 3 are teachers, 2 doctors, 2 researchers and I social worker.

91. A committee of 5 in which 3 men and 2 women are there.

   (a) 3360   (b) 8568   (c) 4284   (d) 1680

   (e) None of these

92. A committee of 4 in which at least 2 women are there.

   (a) 1260   (b) 1820   (c) 3060   (d) 1890

   (e) None of these

93. A committee of 5 in which 2 men teachers, 2 women teachers and 1 doctor are there.

   (a) 75   (b) 150   (c) 214   (d) 20

   (e) None of these

94. A committee of 7.

   (a) 31824   (b) 1200   (c) 9600   (d) 15912

   (e) None of these

95. A committee of 3 in which there is no teacher and no doctor.

   (a) 100   (b) 120   (c) 10   (d) 12

   (e) None of these

Directions (Q. 96-100): In each of the following questions two equations arc given. You have to solve both the equations and find out the values of x and y and give answer

   (a) If $x > y$ (b) If $x < y$ (c) If $x \geq y$ (d) $x \leq y$

   (e) If $x = y$ or the relationships cannot be established

96. I. $x = \sqrt{7921}$ II. $y = \sqrt[3]{704969}$

97. I. $x^2 + 9x + 20 = 0$ II. $y^2 + 5y + 6 = 0$

98. I. $2x + 4y = 13$ II. $4x + 2y = 14$

99. I. $x^2 + 11x + 30 = 0$ II. $y^2 + 13y + 42 = 0$

100. I. $x^2 + 29x = -210$ II. $y^2 + 28y = -195$

✐ ANSWER KEY

1. (c)	**2.** (e)	**3.** (c)	**4.** (d)	**5.** (d)	**6.** (a)	**7.** (e)	**8.** (d)	**9.** (b)	**10.** (e)
11. (a)	**12.** (b)	**13.** (c)	**14.** (a)	**15.** (d)	**16.** (a)	**17.** (d)	**18.** (b)	**19.** (b)	**20.** (e)
21. (a)	**22.** (c)	**23.** (b)	**24.** (d)	**25.** (e)	**26.** (b)	**27.** (e)	**28.** (a)	**29.** (d)	**30.** (c)
31. (a)	**32.** (b)	**33.** (c)	**34.** (d)	**35.** (e)	**36.** (b)	**37.** (b)	**38.** (d)	**39.** (b)	**40.** (a)
41. (d)	**42.** (e)	**43.** (b)	**44.** (a)	**45.** (c)	**46.** (c)	**47.** (a)	**48.** (a)	**49.** (c)	**50.** (b)
51. (d)	**52.** (a)	**53.** (c)	**54.** (d)	**55.** (d)	**56.** (d)	**57.** (d)	**58.** (a)	**59.** (c)	**60.** (b)
61. (c)	**62.** (c)	**63.** (c)	**64.** (c)	**65.** (a)	**66.** (c)	**67.** (a)	**68.** (b)	**69.** (d)	**70.** (e)
71. (c)	**72.** (d)	**73.** (b)	**74.** (a)	**75.** (e)	**76.** (c)	**77.** (e)	**78.** (b)	**79.** (a)	**80.** (d)
81. (e)	**82.** (b)	**83.** (d)	**84.** (e)	**85.** (d)	**86.** (d)	**87.** (e)	**88.** (b)	**89.** (b)	**90.** (c)
91. (a)	**92.** (d)	**93.** (b)	**94.** (a)	**95.** (c)	**96.** (e)	**97.** (b)	**98.** (a)	**99.** (c)	**100.** (d)

Hint and Solutions

66. $? = 1\frac{8}{9} + 3\frac{2}{7} - 2\frac{1}{7} + 11\frac{1}{6}$

$$= (1 + 3 + 11 - 2) + \left(\frac{8}{9} + \frac{2}{7} + \frac{1}{6} - \frac{1}{7}\right)$$

$$= 13 + \left(\frac{8}{9} + \frac{1}{7} + \frac{1}{6}\right) = 14\frac{25}{126}$$

67. $56\% \ 958 + 67\%$ of $1008 = 536.48 + 675.36 = 1211.84$

Now, $1211.84 = ? \% \ 2000$

$\therefore \qquad ? = 60.592$

68. $7^{2.3} \times 49^{4.7} \times 63^{3.4} \times 81^{5.85}$

$= 7^{2.3} \times 7^{4.7} \times 7^{4.7} \times 63^{3.4} \times 9^{5.85} \times 9^{5.85}$

$= 7^{(2.3 + 4.7 + 4.7)} \times 9^{(5.85 + 5.85)} \times 63^{3.4}$

$= 63^{11.7} \times 63^{3.4} = 63^{15.1}$

Hence $\quad ? = 15.1$

69. $(?)^2 + (164)^2 = (307)^2 - 272$

$\therefore \qquad (?)^2 = (307)^2 - 272 - (164)^2$

$= 94249 - 272 - 26896 = 67081$

Hence, $\quad ? = \sqrt{67081} = 259$

70. $\sqrt{915849} + \sqrt{795664} = 957 + 892 = 1849$

Now, $(?)^2 = 1849$

$\therefore \qquad ? = 43$

71. $63.9872 \times 9449.8780 \div 243.0034$

$\approx 64 \times 9450 \div 243$

$\approx 64 \times 39 \approx 2496$

Now, $(?)^2 \approx 2496$

$? \approx 50$

72. $? = 5237.897 - 6629.010 + 7153.999 - 2205.102$

$= 3557.784 \approx 3558$

73. $? = 4985.0346 \div 215.987 - 3768.112 \div 206.868$

$\approx 4985 \div 216 - 3768 \div 207$

$\approx 23 - 18 \approx 5$

74. $\sqrt{956240} \approx 978$

75. $? = 459\%$ of $849.947 + 266\%$ of $6284.012 - 1486.002$

$\approx 460\%$ of $850 + 265\%$ of $6285 - 1486$

$\approx 3910 + 16655 - 1486 \approx 19079$

76. Here the series is as follows :

$12 \times 6 - 6 \times 7 = 30$

$30 \times 5 - 5 \times 6 = 120$

$120 \times 4 - 4 \times 5 = 460$

$460 \times 3 - 3 \times 4 = 1368$

$1368 \times 2 - 2 \times 3 = 2730$

Similarly,

$16 \times 6 - 6 \times 7 = 54$

$54 \times 5 - 5 \times 6 = 240$

$240 \times 4 - 4 \times 5 = 940$

$940 \times 3 - 3 \times 4 = 2808$

Hence, 2808 will come in place of (d).

77. **Here the series is as follows**

$154 \times 3 = 462$

$462 \div 2 = 231$

$231 \times 3 = 693$

$693 \div 2 = 346.5$

$346.5 \times 3 = 1039.5$

Similarly,

$276 \times 3 = 828$

$828 \div 2 = 414$

$414 \times 3 = 1242$

$1242 \div 2 = 621$

$621 \times 3 = 1863$

Hence, 1863 will cime in place of (e).

78. **Here, the series is as follows :**

$7 \times 13 = 91$

$91 \times 11 = 1001$

$1001 \times 7 = 7007$

$7007 \times 5 = 35035$

$35035 \times 3 = 105105$

Note that 3, 5, 7, 11 and 13 are consecutive prime numbers.

Hence, the required number

$= 14.5 \times 13 \times 11 \times 7 = 14514.5$

79. **Here, the series is as follows**

$582 - 2^3 = 574$

$582 - 2^3 = 574$

$601 - 4^3 = 537$

$$537 + 5^3 = 662$$
$$662 - 6^3 = 446$$

Here, we have to find the number which will come in place of (d).

Hence, the required number = $204 + (662 - 582) = 284$

80. **Here, the series is as follows :**

$$(85 + 1) \times 0.5 = 43$$
$$(43 + 1) \times 1.0 = 44$$
$$(44 + 1) \times 1.5 = 67.5$$
$$(67.5 + 1) \times 2.0 = 137$$
$$(137 + 1) \times 2.5 = 345$$

Similarly,

$$(125 + 1) \times 0.5 = 63$$
$$(63 + 1) \times 1.0 = 64$$
$$(64 + 1) \times 1.5 = 97.5$$

Hence, 97.5 will come in place of (c).

81. **From I and II :**

The speeed of the train $= \dfrac{240}{10} = 24$ metres per second

From II and III : The speed of the train $= \dfrac{240 + 240}{20}$

$$= 24 \text{ metres per second}$$

82. **From I and II : Suppose the two-digit number is $10x + y$. Then from I, we come to know that**

$$(10y + x) - (10x + y) = 18$$
$$\Rightarrow \qquad 9(y - x) = 18 \quad \therefore \quad y - x = 2 \qquad ...(i)$$

Again, from II, we get $x + y = 14$ ...(ii)

Again, from (i) and (ii), we get $x = 6$ and $y = 8$.

Hence, the requried number is $10 \times 6 + 8 = 68$

From II and III : The number is either 68 or 86

83. **From I and II :**

If 8 men complete the piece of work in 10 days then 16 men will complete the work in 5 days.

Similarly, if 16 women complete the piece of work in 10 days then 8 women will complete the work in 20 days.

Hence, the required number of days to complete the piece of work $= \dfrac{20 \times 5}{20 + 5} = 4$ days.

Similarly, we can get the answer with the help of I and III.

84. **We know that**

$$\text{Area of the square} = \left(\dfrac{\text{Diagonal}}{\sqrt{2}}\right)^2 = \text{Side}^2$$

$$= \left(\dfrac{\text{Perimeter}}{4}\right)^2$$

Hence any one of the information is enough to get the answer.

85. **From I and II : We know (for two years)**

$$\text{Rate} = 2 \times \dfrac{\text{Difference in CI and SI}}{\text{SI}} \times 100$$

Thus, in the this case

$$\text{Rate} = \dfrac{2 \times 1060}{5300 \times 2} \times 100 = 20\%$$

From III : We know

$$\text{Rate} = \dfrac{\text{Interest} \times 100}{\text{Amount} \times \text{time}}$$
$$= \dfrac{1 \times 100}{1 \times 5} = 20\%$$

86. **The required number of ways** $= \dfrac{7!}{3!} = \mathbf{840}$

88. **Vipul's salary** $= \mathbf{1687.50 \times \dfrac{100}{75} \times \dfrac{100}{5} = Rs.\ 45{,}000}$

89. **From the given information, we get**

9×360 children or 18×72 men or 12×162 women can finish the work in one day.

Hence we get :

Efficiency of 2 men = efficiency of 3 women
= efficiency of 5 children

Hence, the required number of days to finish the work $= \dfrac{9 \times 360}{\dfrac{5}{2} \times 4 + \dfrac{5}{3} \times 12 + 10} = \dfrac{9 \times 360}{40} = 81$ days

90. **We know**

$$\text{Rate\%} = \dfrac{\text{Interest} \times 100}{\text{Amount} \times \text{Time}}$$
$$= \dfrac{6216 \times 100}{14800 \times 3} = 14\%$$

Now the required compound interest

$$= 14800 \times \left(1 + \dfrac{14}{100}\right)^3 - 14800$$

$$= \text{Rs. } 7126.8512$$

91. **Required number of ways**

$$= {}^{10}C_3 \times {}^8C_2$$
$$= 120 \times 28 = 3360$$

92. **Required number of ways**

$$= {}^8C_4 \times {}^{10}C_0 + {}^8C_3 \times {}^{10}C_1 + {}^8C_2 \times {}^{10}C_2$$
$$= 70 + 560 + 1260 = 1890$$

93. **Required number of ways**

$$= {}^5C_2 \times {}^3C_2 \times {}^5C_1$$
$$= 10 \times 3 \times 5 = 150$$

94. **Required number of ways** $= {}^{18}C_7$

$$= \dfrac{18 \times 17 \times 16 \times 15 \times 14 \times 13 \times 12}{7 \times 6 \times 5 \times 4 \times 3 \times 2} = 31824$$

95. **Required number of ways** $= {}^5C_3 = \mathbf{10}$

96. **I.** $\Rightarrow x = 89$

II. $\Rightarrow y = 89$

Note : $x = \sqrt{7921}$ gives only +ve value.

Do not confuse it with $x^2 = 7921$. In this case, when we find value of x, then $x = \pm 81$.

But $x = \sqrt{7921}$ means only +ve value is given.

97. **I** $\Rightarrow x^2 + 9x + 20 = (x + 4)(x + 5) = 0$

$\Rightarrow \qquad\qquad x = -4, -5$

II. $\Rightarrow$ $y^2 + 5y + 6 = (y+2)(y+3) = 0$

$\Rightarrow$ $y = -2, -3$

Therefore $x < y$.

98. I + II $\Rightarrow$ $x = 2.5$ and $y = 2$

Therefore $x > y$.

99. I $\Rightarrow (x+5)(x+6) = 0$

$\therefore$ $x = -5, -6$

II $\Rightarrow$ $(y+6)(y+7) = 0$

$\therefore$ $y = -6, -7$

Therefore $x \geq y$.

100. I $\Rightarrow x^2 + 29x + 210 = 0$

$\Rightarrow$ $(x+14)(x+15) = 0$

$\Rightarrow$ $x = -14, -15$

II $\Rightarrow$ $y^2 + 28y + 195 = 0$

$\Rightarrow$ $(y+13)(y+15) = 0$

$\Rightarrow$ $y = -13, -15$

Therefore, $x \leq y$