Reasoning Ability

Directions (Q. 1-5) In each question below are four statements followed by two conclusions numbered I and II. You have to take the four 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 four 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

1.	**Statements**	All pictures are paintings.
		All paintings are photographs.
		Some photographs are designs.
		Some designs are movies.
	Conclusions	I. Some paintings are designs.
		II. Some photographs are movies.

2.	**Statements**	Some tablets are capsules.
		All capsules are syrups.
		Some syrups are medicines.
		All medicines are powders.
	Conclusions	I. Some syrups are powders.
		II. Some syrups are tablets.

3.	**Statements**	All jungles are trees.
		All trees are roads.
		All roads are houses.
		All houses are buildings.
	Conclusions	I. All trees are houses.
		II. Some buildings are roads.

4.	**Statements**	All tablets are packets.
		No packet is bag.
		Some bags are toys.
		All toys are puppets.
	Conclusions	I. Some puppets are tablets.
		II. Some puppets are bags.

5.	**Statements**	Some desks are tables.
		Some tables are chairs.
		Some chairs are benches.
		Some benches are cots.
	Conclusions	I. Some chairs are desks.
		II. Some cots are tables.

Directions (Q. 6-10) Study the following information carefully and answer the questions given below:

Seven persons namely Paramjit, Tarun, Morya, Jeeva, Vaani, Ram and Waqar are good friends and are studying in M.Com, M.A. and M.Sc courses. Three are doing M.Com, two are in M.A.

and another two are in M.Sc. Each of them has a very distinct and favorite color choice ranging from blue, red, yellow, white, black, pink and brown but not necessarily in the same order. None doing M.Com like either red or black. Morya is doing M.A. and he likes blue. Ram is doing M.Sc and likes brown. Jeeva is doing M.Com and likes yellow. Paramjit who does not like red is in the same discipline of Ram. Tarun is in the same discipline of Morya. Vaani does not like pink.

6. Which among the following groups is doing M. Com?
   a) Jeeva, Vaani and Waqar
   b) Vaani, Waqar and Tarun
   c) Jeeva, Vaani and Tarun
   d) Jeeva, Paramjit and Ram
   e) None of these

7. What is the color combination choice of those who are in M.Sc discipline?
   a) Brown and Pink
   b) Black and White
   c) Black and Brown
   d) Yellow and Black
   e) None of these

8. Which color does Vaani like?
   a) Yellow
   b) Pink
   c) White
   d) Brown
   e) None of The Above

9. What is the color combination choice of those who are in M.A. discipline?
   a) Red and Black
   b) Blue and Red
   c) Blue and Black
   d) Data Inadequate
   e) None of The Above

10. Morya is related with which discipline?
    a) M.Sc.
    b) M.A.
    c) M.Com
    d) Data inadequate
    e) None of these

Directions (Q. 11-15) In each below, is given a statement followed by two assumptions numbered I and II. An assumption is something supposed or taken for granted. You have to consider the statements and the following assumptions and decide which of the assumption (s) is/are implicit in the statement.

Give Answer
   (a) Only Assumption I is implicit
   (b) Only Assumption II is implicit
   (c) Either Assumption I or II is implicit
   (d) Neither Assumption I nor II is implicit
   (e) Both Assumptions I and II are implicit

11. **Statement** – The driver of the huge truck pulled the emergency brakes to avoid hitting the auto rickshaw which suddenly came in front of the truck

Assumptions

I. The auto rickshaw driver may be able to steer his vehicle away from the oncoming truck.

II. The truck driver may be able to stop the truck before it hits the auto rickshaw

    a) Only Assumption I is implicit

    b) Only Assumption II is implicit

    c) Either Assumption I or II is implicit

    d) Neither Assumption I nor II is implicit

    e) Both Assumptions I and II are implicit

12. **Statement –** The doctor warned the patient against any further consumption of alcohol, if he desired to get cured from the ailment and live a longer life.

Assumptions

I. The patient may follow the doctor's advice and stop consuming alcohol.

II. The doctor may be able to cure the patient from the ailment, if the patient stops consuming alcohol.

    a) Only Assumption I is implicit

    b) Only Assumption II is implicit

    c) Either Assumption I or II is implicit

    d) Neither Assumption I nor II is implicit

    e) Both Assumptions I and II are implicit

13. **Statement –** The chairman of the company urged all the employees to refrain from making long personal calls during working hours in order to boost productivity.

Assumptions

I. Majority of the employees may respond positively to the chairman's appeal.

II. Most of the employees may continue to make long personal calls during working hours.

a) Only Assumption I is implicit

b) Only Assumption II is implicit

c) Either Assumption I or II is implicit

d) Neither Assumption I nor II is implicit

e) Both Assumptions I and II are implicit

14. If in a certain code language 'Sachin is great' is written as 'ga ma ra', 'is he poor' is written as 'ta saga', then find the code for 'is'?

a) ta   b) ma   c) ga

d) ra   e) None of these

15. If in a certain code language 'fruits are sweet' is written as 'pa ma la' and 'you are sweet' is written as 'pa ma ta', then find the code for 'fruits'?

a) ta   b) ma   c) pa

d) la   e) None of these

Directions (Q. 16-20) Study the following information to answer the given questions. A number arrangement machine when given an input line of numbers, rearranges them following a particular rule in each step. The following is an illustration of input and steps of arrangement.

Input	23 132 38 27 430 287
Step I	2 13 3 2 43 28
Step II	3 32 8 7 30 87
Step III	32 231 83 72 034 782
Step IV	3 2 4 3 5 3
Step V	34 233 49 38 531 388

16. What will be Step V for the following input?

    Input   135 88 24 215 16

a) 236, 99, 35, 316, 27
b) 136, 99, 25, 216, 17
c) 17, 216, 25, 99, 136
d) Can't be determined
e) None of these

17. If Step II is 16, 9, 22, 416, 25, 67, then find the input.
    a) 18, 11, 24, 418, 27, 69
    b) 11, 18, 24, 418, 27, 69
    c) 69, 27, 418, 24, 11, 18
    d) Can't be determined
    e) None of these

18. What will be the Step III for the following input?
    Input   777, 29, 435, 115, 61, 37
    a) 777, 92, 436, 116, 62, 37
    b) 777, 92, 534, 16, 511, 73
    c) 777, 92, 534, 511, 16, 73
    d) Can't be determined
    e) None of these

19. If Step I of an input is 4, 16, 121, 8, 17, then find the input.
    a) 45, 163, 1217, 87, 178
    b) 46, 163, 1213, 85, 172
    c) 41, 161, 1216, 82, 176
    d) Can't be determined
    e) None of these

20. What will be Step IV for the following input?
    220, 197, 15, 37, 89, 75
    a) 3 2 2 4 9 8
    b) 1 8 6 8 10 6
    c) 6 10 8 6 8 1
    d) 8 9 4 2 2 3
    e) None of these

Directions (Q. 21-25) In each question below, three statements I, II and III are given. You are required to find out which of the given statement(s) is/are sufficient to answer the question. Mark your answer accordingly.

21. How old was Deepak on 30th July 1996?
    I.   Deepak is 6 years older than his brother Prabir.
    II.   Prabir is 29 years younger than his mother.
    III. Deepak's mother celebrated her 50th birthday on 15th June 1996.
    a) I and II   b) All I, II and III   c) II and III
    d) Data inadequate   e) None of these

22. On which day of the last week did Mohan definitely meet Pramod in his office?
    I.   Pramod went to Mohan's office on Tuesday and Thursday.
    II.   Mohan was absent for three days in the week excluding Sunday.
    III. Mohan was not absent on any two consecutive days of the week.
    a) I and II   b) I and III   c) II and III
    d) Even with all I, II and III, the answer cannot be arrived at
    e) None of these

23. Which of the following represents 'come' in a code language?
    I.   'pitnaja od' means 'you may come here' in that language.
    II.   'ja ta ter' means 'come and go' in that code language.
    III.   'hana pit ter' means 'you may go home' in that code language.
    a) I and II or I and III
    b) I and II
    c) All I, II and III
    d) II and III
    e) None of these

24. Who among P, Q, R, S and T is the lightest?
    I.   Q is lighter than P and S and heavier than T.
    II.   P is heavier than Q and lighter than S.
    III.   R is heavier than Q.
    a) I and II
    b) I and III
    c) I, II and III
    d) II and III
    e) None of these

25. How is Q related to T?
    I.   M and R are brothers.
    II.   S has two sons and one daughter, R being one of the sons.
    III.   S is the mother of T and married to Q.
    a) I and III
    b) Only III
    c) I and II
    d) II and III
    e) None of these

Directions (Q. 26-30) Study the following information carefully to answer the questions given below.

        P, T, V, R, M, D, K and W are sitting around a circular table facing the centre. V is 2nd to the left of T. T is 4th to the right of M. D and P are not immediate neighbours of T. D is 3rd to the right of P. W is not an immediate neighbor of P. P is to the immediate left of K.

26. Who is 2nd to the left of K?
    a) P   b) R   c) M
    d) W   e) Data inadequate

27. Who is to the immediate left of V?
    a) D   b) M   c) W
    d) Data inadequate   e) None of these

28. Who is 3rd to the right of V?
    a) T   b) K   c) P
    d) M   e) None of these

29. What is R's position with respect to V?
    a) 3rd to the right   b) 5th to the right   c) 3rd to the left
    d) 2nd to the left   e) 4th to the left

30. Four of the following five are alike in a certain way based on their positions in the above sitting arrangement and so form a group. Which of the following does not belong to that group?
    a) DW   b) TP   c) VM
    d) RD   e) KR

31. Ram goes 15 m North, then turns right and walks 20 m, then again turns right and walks 10 m, then again turns right and walks 20 m. How far is he from his original position?
    a) 5   b) 10   c) 15
    d) 20   e) None of these

32. A house faces North. A man coming out of his house walked straight for 10 m, turned left and walked 25 m. he then turned right and walked 5 m and again turned right and walked 25 m. How far is he from his house?
    a) 15 m   b) 55 m   c) 60 m
    d) 65 m   e) None of these

33. Introducing Amrita, Raj said, 'Her mother is the only daughter of my mother-in-law'. How is Raj related to Amrita?
    a) Husband   b) Father   c) Wife
    d) Uncle   e) None of these

34. Meena correctly remembers that her father's birthday is after 18th May but before 22nd May. Her brother correctly remembers that their father's birthday is before 24th May but after 20th May. On which date in May was definitely their father's birthday?
    a) 20th   b) 19th   c) 18th
    d) Can't be determined   e) None of these

35. Mohan correctly remembers that his father's birthday is before 20th January but after 16th January whereas his sister correctly remembers that their father's birthday is after 18th January but before 23rd January. On which date in January is definitely their father's birthday?
    a) 18th   b) 19th   c) 20th
    d) Data inadequate   e) None of these

English Language

Directions (Q. 36-40) Read the following passage and answer the questions carefully

Known to the Albanians as Cobans (or shepherds), to the Slavs as Vlachs and to the Greeks as Koustchovlachis, they call themselves Aromanians or Rrumanians. Numbering over 80,000 members, in the opinion of the best – known Vlach scholar, Tom Winnifrith, one could find them throughout much of the southern part of the country, and as far north as Elbasan. Usually, they live intermingled with their Albanian neighbors and only a few areas could be claimed to be purely Aromanian, the most notable one being the one between Pogradec and Korce. Omnipresent to a knowledgeable eye, dispersed and hardly visible to a passing visitor, the Aromanian community in Albania remains today, much like it has in the past, one of the most elusive ethnic groups of the country.

While little is known of this community today, partly due to the isolation in which Albania was subdued for so long, even less is known of its past, its origin. In spite of the fact that so much has been written about Albania's Aromanians, especially in the first decades of the 1900s, few studies have paid a special attention to the early history of this community. Most have focused on the status of the community at the time and on the problems with which they were focused in relation to the state and the majority of interest toward Aromanian history is his absence of reliable sources of

information before and during the Turkish period, and partly to the unique style of living practiced by a large part of the Aromanian community as wondering shepherds.

To further complicate matters, some Balkan countries have often speculated this lack of pertinent information in order to foster their political interests in the region. Today, one can read about the Greek origin of the Aromanians, about the Illyrian origin of some Vlachs and even about the Aromanian origin of the Romanians and vice – versa. While some theories are based on more scientific observations and are worth taking a second look at.

Whatever little is known today of the origin of the Aromanians comes mainly through their language which stands as a clear proof of their link to the Latin culture which has existed in the area since the beginning of the millennium. As to their actual ethnic origin, that is a subject much debated and which may never be properly answered. Greeks and Albanian historians point to a Greek or Illyrian origin of the Aromanians which they say were Latinised during that time and somehow managed to maintain their newly adopted language. Others point to the fact that the area inhabited today by Aromanians corresponds roughly to via Egnatia, the road was heavily guarded by Roman troops, which in turn may help explain the presence of a Latin speaking population so far south in what is regarded by most historians as an area dominated by the Greek language. The truth may lie somewhere in the middle, since it is most likely that the Roman legionaries intermarried with the local, native population, Greek and Illyrian, giving birth to a new nation, the Aromanians.

By the fourth century, much of the Balkan peninsula had been Romanised and a distinct form of Vulgar Latin was developing in this area of the empire. However, it was not until the tenth century, after the fall of the Byzantine northern border along the Danube and the massive arrival of the migratory populations, that the Latin speaking population was split into two main groups: The Romanians in the north and the Aromanians in the south. This explains in fact the close similarity that exists to this day between Romanian and Aromanian; besides the classification made by most linguists of Aromanian as a dialect of Romanian, rather than a separate language. Due to these circumstances, it is unclear whether the first mention of spoken Latin in the Balkans made by Theopanes and Theophylact in 579 during a ride of the Byzantine army in present day Bulgaria, refers to Romanian or Aromanian. However, the next mention of Vlachs (the name used for Latin speaking population in general) – e.g. the Swiss – German word "Welschschweizer' for their French speaking compatriots) made in 976 by Cedrenuc, a Byzantine historian, clearly refers to Aromanians. In his writings, Cedrenuc talks about the assassination of David, the brother of Samuel, the Tsar of Bulgaria, by wandering Vlachs. From that point, there are numerous mentions of Aromanians particularly since they became an active presence on the political stage with the establishment of the Second Bulgarian Empire by two Aromanian brothers, Peter and Asan, in 1204. Later on, Aromanians come to play an increased role in the region as it can be assumed from the fact that two areas, one just south of present day Albania, in Epirus and another around Thessalonika, came to be known as Little Vlachia and respectively Vlachia. It could be easily observed that even during those times when there was a relative wealth of information about Aromanians, little is known abut those living in present day Albania. This may be due to the fact that most of the mentions were made by Byzantine historians and therefore were limited to the areas with which they had a more direct contact.

36. According to the passage, the Non – Albanian inhabitants of the region between Pogrdec and Karec are known to the locals as
   a) Corbans
   b) Aromanians or Rrumanians
   c) Vlachs
   d) Koustchovlachs
   e) Albanians

37. According to the passage, what reasons have been cited for lack of knowledge pertaining to the history of the Aromanians
   I. Absence of reliable source of information

II.   Unique style of living of the community
III.   Isolation of Albania
IV.   Most are concerned only with the present status of the community
V.   Speculation by Balkan countries about the history of the Aromanians
a)   I & II
b)   I, II & III
c)   All of The Above
d)   None of The Above
e)   Only I

38. Which of the following matches the definition of "Via Egnatia" as given in the passage
I.   A four km long bridge that connects two cities
II.   The stretch of highway between Delhi & Mumbai
III.   The Suez Canal
IV.   The navigable river between city I & city II
a)   I & III
b)   I & IV
c)   II only
d)   All of The Above
e)   None of The Above

39. In the light of the passage, what is the most likely native language of Winnifrith
a)   Latin
b)   German
c)   Illyrian
d)   Greek
e)   None of The Above

40. According to the passage, one is likely to be able to read about which of the following theories of the origin of the Aromanians?
a)   Their Greek Origin
b)   The Illyrian origin of some of them
c)   Their Romanian origin
d)   All of The Above
e)   Only (a) and (b)

Directions (Q. 41-45) In the sentence below a word is given as blank, below the sentence five words/group of words are suggested, one of which can replace the blank. Find the appropriate word/group of words in each case.

"The pace of economic and social _____**(41)** was accelerating. Popular discontent was spreading and the economy was deteriorating at a growing speed. Only fear of the unknown prevented a popular rebellion …..Whatever time Castro had left in power, his failure to change with the times seemed almost sure to condemn his once-_____**(42)** revolution to a lonely death."

Thus wrote Pulitzer prize – winning author Andres Oppenheimer in 1992 in Castro's Final Hour, a book marketed as a "historical account of the disintegration of Castro's Cuba." Oppenheimer was not alone in his assessment. To most observers and analysts, the collapse of the Soviet Union meant the imminent fall of Cuba. Few thought that the only remaining communist _____**(43)** in the Western Hemisphere could survive without subsidies, aid and preferential trade treatment from the Soviet bloc.

This conviction deepened with Cuba's failure to follow Russia down the path of market democracy. Intent on maintaining its socialist _____**(44)**, Cuba not only had to overcome the loss

of its Cold War economic partners without any outside help, but also to _____**(45)** with a tightening US embargo and its extraterritorial enforcement through new legislation.

41. a) Demise
    b) Construction
    c) Success
    d) Birth
    e) None of The Above

42. a) Acclaimed
    b) Cheer
    c) Rave
    d) Jeer
    e) None of The Above

43. a) Rock
    b) Prop
    c) Redoubt
    d) Stronghold
    e) None of The Above

44. a) Dynasty
    b) Regime
    c) Government
    d) Establishment
    e) None of The Above

45. a) Push
    b) Struggle
    c) Agree
    d) Contend
    e) None of The Above

Directions (Q. 46-48) Choose the option which is a synonym or closest in meaning to the word.

46. Syllabus
    a) Cutlass   b) Curriculum   c) Arboreal
    d) Sylvan   e) None of these

47. Sycophantic
    a) Circular   b) Symmetrical   c) Servile
    d) Fertile   e) None of these

48. Rapier
    a) Svelte   b) Sabre   c) Wood
    d) Wound   e) None of these

Directions (Q. 49-50) Choose the option which is the antonym of the word mentioned.

49. Defamation
    a) Apotheosis   b) Obloquy   c) Limpid
    d) Parochial   e) None of these

50. Conclusive
    a) Definitive   b) Wanting   c) Singular

d) Distinguished   e) None of these

Directions (Q. 51-55) Study the information carefully and rearrange it to make a meaningful paragraph.

51. (A) Beggar-my-neighbour, in economics, is a trade policy of competitive devaluation, where countries devalue their exchange rates in rapid succession in order to make export prices more competitive.

    (B) This was prevalent in the 1930s. It is harder to achieve under floating rates, though the Japanese are often accused of trying to keep the yen artificially low to encourage their exports.

    (C) Although beggar-my-neighbour policies work for a short time, to boost the domestic economy, there are several detrimental results – (1) the protected industry is inefficient, so consumers have to pay higher prices, (2) trading partners are forced to retaliate with their own protectionist policies, and (3) they earn less foreign exchange, so buy less of the first country's exports.

    (D) In effect, everyone is beggared.

    (E) This happened in the 1920s and 1930s, but was partly outlawed by GATT after 1947. The slow growing 1970s and 1980s and early 1990s have rekindled beggar-my-neighbour instincts.

    a) ABCDE   b) ADCBE   c) ACBDE
    d) ABECD   e) AEDCB

52. (A) My life is constantly thrown headlong into transcendent thing, and passes wholly outside me.

    (B) I am thinking of the Cartesian cogito, wanting to finish this work, feeling the coolness of the paper under my hand, and perceiving the trees of the boulevard through the window.

    (C) This book, once begun, is not a certain set of ideas, it constitutes for me an open situation, for which I could not possibly provide any complex formula, and in which I struggle blindly on until, miraculously, thoughts and words become organized by themselves.

    (D) The cogito is either this though which took shape three centuries ago in the mind of Descartes, or the meaning of the books he has left for us, or else an eternal truth which emerges from them, but in any case, is a cultural being of which it is to say that my thought strains towards it rather than that it embraces it, as my body, in a familiar surrounding, finds its orientation and makes its way among objets without my needing to have them expressly in mind.

    a) BADC   b) CBAD   c) BCAD
    d) ACDB   e) ADBC

53. (A) It is the same with the recent achievements of our material civilization, our western scientific knowledge and our technique for turning it to account are perilously esoteric.

    (B) All acts of social creation are the work either of individual creators or, at most, of creative minorities, at each successive advance, the great majority of the members of society are left behind.

    (C) If we glance at the great religious organisations extant in the World today, Christian, Islamic, and Hindu, we shall find that the great bulk of their nominal adherents, still live in a mental atmosphere which, so far as religion is concerned is not far removed from simple paganism.

    (D) The great new social forces of Democracy and Industrialism have been evoked by a tiny creative minority, and the great mass of humanity still remains substantially on the same intellectual and moral level in which it lay before the titanic new social forces began to emerge.

    a) CADB   b) DBAC   c) DACB
    d) BCAD   e) ABDC

54. (A) This tendency to over-stress the contribution of character, and to put it in an altogether misleading antithesis to intellect, is also probably characteristic of equalitarian societies.

(B) Differences in intellectual capacity are particularly distasteful to the equalitarian, who can with comfort fall back on a vague mystique of character as the principal attribute of such leadership as he will allow, and which he may delude himself is very widely diffused.

(C) Whereas a high intelligence is not usually a spectacular quality to the majority of people, courage, tenacity, and dominance are.

(D) The contribution of intelligence to leadership is underestimated, perhaps, because in the popular picture of the leader, attributes of character are far more obvious than those of intellect.

a) DCAB   b) BCAD   c) ACDB

d) CADB   e) ABCD

55. (A) What we mean by a work of art is, then, an entity which provides a more or less lasting possibility for a number of consumers to make such actualization or concretions on the basis of a material thing or a series of physical happenings which are the existential substrate of the work of art.

(B) Roman Ingarden, who discusses the same thing, uses the word 'concretion' in order to emphasise that the process of actualization is one of rendering the indeterminate determinate or concrete.

(C) Appreciation, then, consists in bringing an appropriate aesthetic object into awareness to the fullest possible degree on the basis of the material thing of 'happening' to which we are attending.

(D) In previous writing, as here, I have used the word 'actualisaion' – making actual what is latent or potential for this process.

a) CDBA   b) ADCB   c) DCBA

d) CBDA   e) BDAC

Directions (Q. 56-60) Choose the correct word to fill in the blank.

56. The only _____ with the proposal is that it is a little expensive.

a) glitch   b) blunder   c) hardship

d) dilemma   e) snag

57. To use a sporting _____ middle age is like half-time at a hockey match.

a) device   b) analogy   c) antonym

d) synonym   e) acronym

58. Jaya knew that to apologise would be _____ to admitting she had failed.

a) equate   b) assumed   c) tantamount

d) abrogate   e) about

59. Mr.Sharma's shop was _____ from all the others in the street.

a) indistinguishable   b) inalienable   c) akin

d) disreputable   e) impregnable

60. There are several _____ categories of nouns in the English Language.

a) various   b) disparate   c) discrete
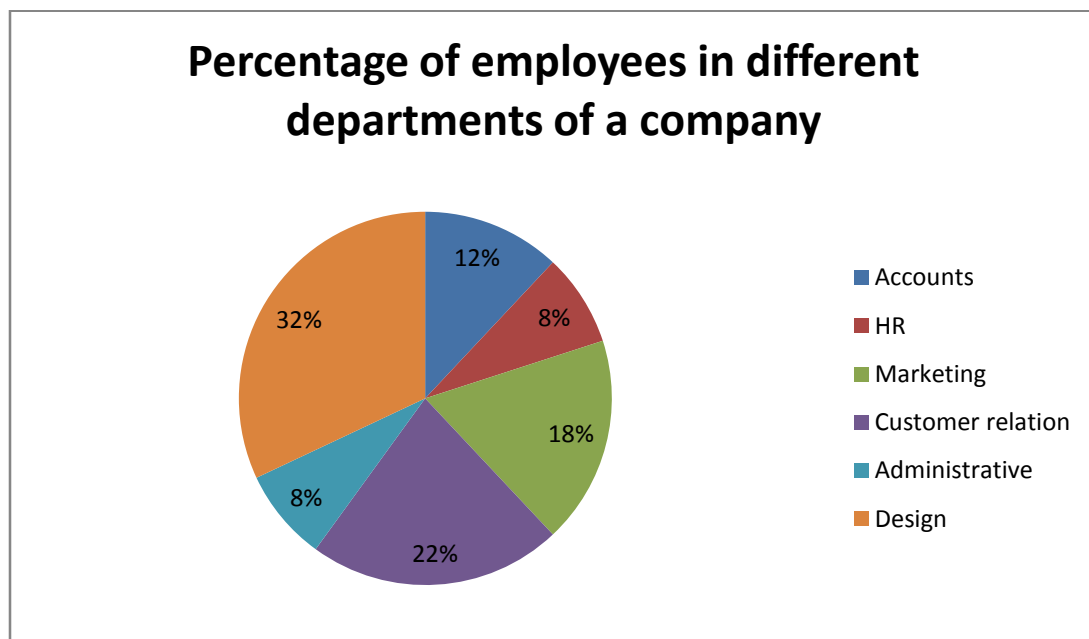
d)divergent   e) types

Directions (Q. 61-65) Read each sentence to find out whether there is any grammatical error or idiomatic error in it. The error, if any, will be in one part of the sentence. The number of that part is the answer. If there is no error, the answer is (5) (Ignore errors of punctuation, if any)

61. The angry boatsman threw (a) / the cracked oar (b) in the river (c) and returned home. (d) No error (e)

62. The Third World countries must adopt (a) / a radically different approach fort (b) / the dissemination of scientific information (c) / in view of the nature and magnitude of their problems. (d) No error (e)

63. Yet the writers (a) / have no qualms in (b) / depicting the gory (c) / details of the violence. (d) No error (e)

64. The boy attempted the questions (a) / so well (b) that his teacher was exceedingly (c) / pleased at him (d) No error (e)

65. The Trust plans (a) / to set on (b) / a special school for (c) / dumb and deaf children. (d) No error (e)

Quantitative Aptitude

Directions (Q. 66-70) Study the following graph carefully and answer the questions that follow:

Percentage of employees in different departments of a company

- Accounts
- HR
- Marketing
- Customer relation
- Administrative
- Design

Total Number of employees = 4500

Percentage of females in each department in the same company

- ■ Accounts
- ■ HR
- ■ Marketing
- ■ Customer relation
- ■ Administrative
- ■ Design

12%
16%
14%
20%
10%
28%
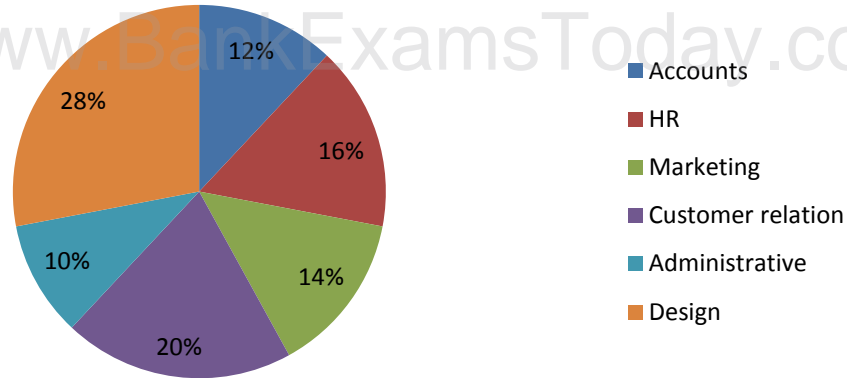
Total number of female in the organization = 2000

66. The number of females in the Marketing department are**approximately** what percent of the total employees in Marketing and Customer Relation Departments together?
   a) 26   b) 36   c) 6
   d) 46   e) 16

67. The total number of females are what percent of the total number of males in the organization?
   a) 90   b) 70   c) 80
   d) 60   e) None of these

68. What is the ratio of number of males in HR department to the number of males in Accounts department respectively?
   a) 3 : 7   b) 4 : 5   c) 2 : 15
   d) 2 : 3   e) None of these

69. What is the total number of males from Design, Customer Relation and HR departments together?
   a) 1550   b) 1510   c) 1540
   d) 1580   e) None of these

70. What is the respective ratio of number of employees in Administrative department to the number of males in the same department?
   a) 9 : 4   b) 8 : 3   c) 7 : 2
   d) 8 : 5   e) None of these

Directions (Q. 71-75) Study the following table carefully and answer the questions that follow:

Number of employees from six different banks located in different cities,
M = Males, F = Females

City	Agra		Delhi		Mumbai		Chennai		Patna		Kolkata	
Name of	M	F	M	F	M	F	M	F	M	F	M	F

Bank												
A	553	224	254	456	457	388	114	378	234	120	353	325
B	673	116	346	256	346	456	124	235	241	156	348	174
C	443	500	366	345	124	456	235	388	350	234	399	439
D	534	454	478	285	235	235	255	175	124	165	358	234
E	256	235	256	166	574	599	324	198	124	334	125	235
F	556	357	346	287	589	190	189	256	155	181	278	192

71. What is the ratio of number of males to the number of females respectively Bank D from all the cities together?
    a) 496 : 387   b) 487 : 356   c) 422 : 385
    d) 486 : 397   e) None of these

72. What is the ratio of the number of males to the number of females respectively in Patna from Bank A, Bank C and Bank E together?
    a) 175 : 173   b) 177 : 173   c) 177 : 172
    d) 175 : 172   e) None of these

73. What is the **approximate** average of the number of males working in all the banks together in Kolkata?
    a) 350   b) 310   c) 340
    d) 380   e) 360

74. The number of females in all the banks together in Delhi are **approximately** what percent of the number of males from all the banks together in the same city?
    a) 88   b) 98   c) 78
    d) 68   e) 58

75. The number of females in Bank B from Agra are what percent of the females in Bank C from the same city?
    a) 33.2   b) 23.2   c) 13.2
    d) 28.2   e) None of these

76. A and B can do a work in 8 days, B and C can do the same work in 12 days. A, B and C together can finish it in 6 days. A and C together will do it in:
    a) 4 days   b) 6 days   c) 8 days
    d) 12 days   e) None of these

77. A can finish a work in 24 days, B in 9 days and C in 12 days. B and C start the work but are forced to leave after 3 days. The remaining work was done by A in:
    a) 5 days   b) 6 days   c) 10 days
    d) $10\frac{1}{2}$ e) None of these

78. X can do a piece of work in 40 days. He works at it for 8 days and then Y finished it in 16 days. How long will they together take to complete the work?
    a) $13\frac{1}{3}$ b) 15 days   c) 20 days
    d) 26 days   e) None of these

79. A train M leaves Meerut at 5 a.m. and reaches Delhi at 9 a.m. Another train leaves Delhi at 7 a.m. and reaches Meerut at 10.30 a.m. At what time do the two trains cross each other?
    a) 7.36 a.m.   b) 7.56 a.m.   c) 8 a.m.
    d) 8.26 a.m.   e) None of these

80. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?
    a) 3.6   b) 7.2   c) 8.4
    d) 10   e) None of these

81. The difference of two numbers is 1365. On dividing the larger number by the smaller, we get 6 as quotient and the 15 as remainder. What is the smaller number?
    a) 240   b) 270   c) 295
    d) 360   e) None of these

82. The average of six numbers is X and the average of three of these is Y. If the average of the remaining three is z, then
    a) $x = y + z$ b) $2x = y + z$ c) $x = 2y + 2z$
    d) Data inadequate   e) None of these

83. The HCF and LCM of two numbers are 11 and 385 respectively. If one number lies between 75 and 125, then that number is :
    a) 77   b) 88   c) 99
    d) 110   e) None of these

84. Two numbers are in the ratio 3 : 5. If 9 is subtracted from each, the new numbers are in the ratio 12 : 23. The smaller number is :
    a) 27   b) 33   c) 49
    d) 55   e) None of these

85. A, B and C enter into a partnership. A initially invests Rs.25 lakhs and adds another Rs.10 lakhs after one year. B initially invests Rs.35 lakhs and withdraws Rs.10 lakhs after 2 years and C invests Rs.30 lakhs. In what ratio should the profits be divided at the end of 3 years?
    a) 10 : 10 : 9   b) 20 : 20 : 19   c) 20 : 19 : 18
    d) Data inadequate   e) None of these

86. The number of positive integral solutions of abc = 42 is :
    a) 17   b) 27   c) 21
    d) $3! \times 42$ e) None of these

87. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?
    a) 2 times   b) $2\frac{1}{2}$ times   c) $2\frac{3}{4}$ times
    d) 3 times   e) None of these

88. A dealer sold three-fourth of his articles at a gain of 20% and the remaining at cost price. Find the gain earned by him in the whole transaction.
    a) 18%   b) 22%   c) 15%
    d) 25%   e) None of these

89. If a boat goes 7 km upstream in 42 minutes and the speed of the stream is 3 kmph, then the speed of the boat in still water is :
    a) 4.2 km/hr   b) 9 km/hr   c) 13 km/hr
    d) 21 km/hr   e) None of these

90. In what proportion must water be mixed with milk to gain 20% by selling it at cost price?
    a) 4 : 1   b) 1 : 4   c) 5 : 4
   d) 4 : 5   e) None of these

91. A tap can fill a tank in 6 hours. After half the tank is filled then 3 more similar taps are opened. What will be total time taken to fill the tank completely.
a) 2 hours 30 mins.　　b) 2 hours 45 mins.　　c) 3 hours 30 mins
d) 3 hours 45 mins.　　e) None of these

92. The compound interest on a sum of money for 2 years is Rs.832 and the simple interest on the same sum for the same period is Rs.800. The difference between the compound Interest and the simple interest for 3 years will be;
a) Rs.48　　b) Rs.66.56　　c) Rs.98.56
d) Data inadequate　　e) None of these

93. On a sum of money, the simple interest for 2 years is Rs.660, while the compound interest is Rs.696.30, the rate of interest being the same in both the cases. The rate of interest is :
a) 10%　　b) 10.5%　　c) 12%
d) Data inadequate　　e) None of these

94. A student has to obtain 33% of the total marks to pass. He got 125 marks and failed by 40 marks. The maximum marks are:
a) 300　　b) 500　　c) 800
d) 1000　　e) None of these

95. A student multiplied a number by $\frac{3}{5}$ instead of $\frac{5}{3}$. What is the percentage error in the calculation?
a) 34%　　b) 44%　　c) 54%
d) 64%　　e) None of these

96. What is the ratio of the area of larger square shaped plot to the area of the smaller square shaped plot?
a) 17 : 1　　b) 25 : 9　　c) 16 : 1
d) Data inadequate　　e) None of these

97. In an A.P. consisting of 23 terms, the sum of the three terms in the middle is 114 and that of the last three is 204. Find the sum of first three terms :
a) 14　　b) 42　　c) 24
d) 69　　e) None of these

98. On what dates of April 2001 did Wednesday fall?
a) 1st, 2th, 15th, 22nd, 29th　　　　b) 2nd, 9th, 16th, 23rd, 30th
c) 3rd, 10th, 17th, 24th　　　　d) 4th, 11th, 18th, 25th
e) None of these

99. A watch which gains uniformly is 2 minutes low at noon on Monday and is 4 min. 48 Seconds fast at 2 p.m. on the following Monday. When was it correct?
a) 2 p.m. on Tuesday　　　　b) 2 p.m. on Wednesday
c) 3 p.m. on Thursday　　　　d) 1 p.m. on Friday
e) None of these

100.　　The probability that a card drawn from a pack of 52 cards will be a diamond or a king is :
a) 2/13　　b) 4/13　　c) 1/13
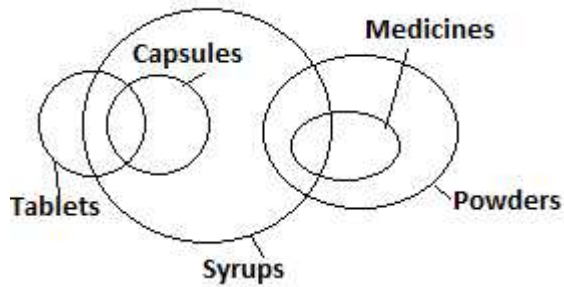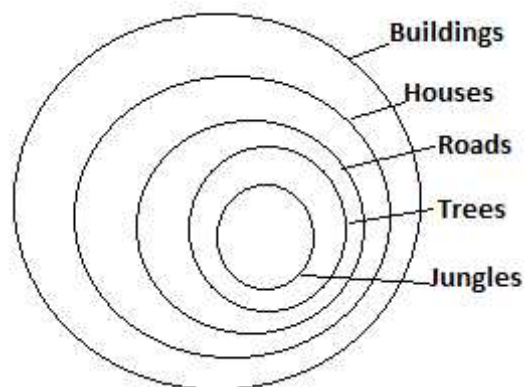d) 1/52　　e) None of these

Answers:

1. Option D
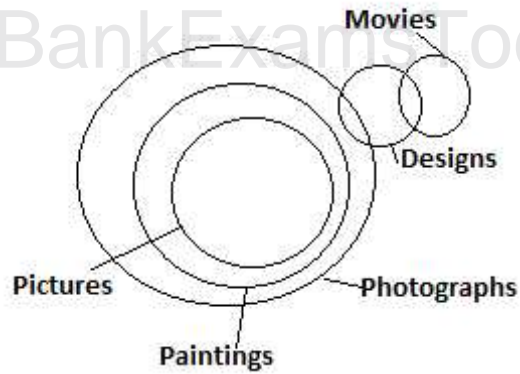
Conclusions: I. Some paintings are designs. (False)
II. Some photographs are movies. (False)

2. Option E

Conclusions: I. Some syrups are powders. (True)
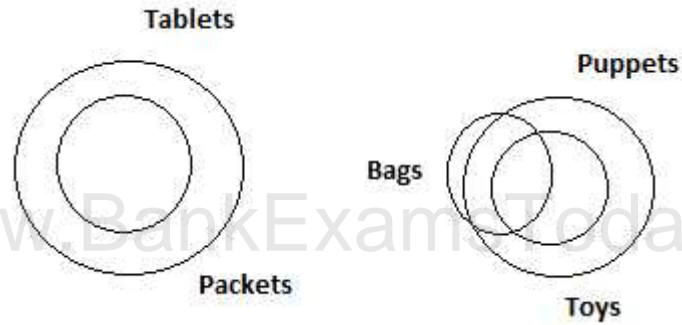II. Some syrups are tablets. (True)

3. Option E

Conclusions: I. All trees are houses. (True)
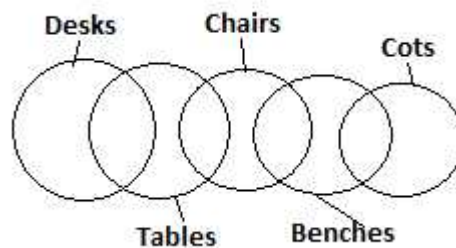II. Some buildings are roads. (True)

4. Option B

Conclusions:	I. Some puppets are tablets. (False)
	II. Some puppets are bags. (True)

5. Option D

Conclusions:	I. Some chairs are desks. (False)
	II. Some cots are tables. (False)

Solution		
Persons	**Courses**	**Colors**
Jeeva	M.Com	Yellow
Vaani	M.Com	White
Waqar	M.Com	Pink
Morya	M.A.	Blue
Tarun	M.A.	Red
Ram	M.Sc.	Brown
Paramjit	M.Sc.	Black

6. Option A
7. Option C
8. Option C
9. Option B
10. Option B
11. Option B

The driver does not have control on what the auto driver will do. Hence, Assumption I is invalid. But Assumption II is a valid assumption because if one takes an action he assumes its outcome.

12. Option E

I Assumption is implicit in the very giving of the advice. Assumption II is implicit in the condition attached.

13. Option A

When we urge someone to do something we assume a positive response. Hence, Assumption I is implicit while for the same reason Assumption II becomes invalid.

14. Option C

| Sachin is great | ga ma ra | (i) |
| Is he poor | ta sag a | (ii) |

From equations (i) and (ii), is = ga

15. Option D

| Fruits are sweet | pa ma la | (i) |
| You are sweet | pa ma ta | (ii) |

From equations (i) and (ii), 'are sweet = pa ma, 'fruits' = la

16. Option A

In Step V, leftmost and rightmost digits of each number of input increase by 1.

17. Option D

In Step II, rightmost digit of each number of input gets disappeared but it is impossible to get rightmost digits of the numbers of input from Step II.

18. Option C

In Step III, leftmost and rightmost digits of each number of input are interchanged.

19. Option D

In Step I, rightmost digit of each number of input gets disappeared but practically it is impossible to find out rightmost digit of input from Step I.

20. Option A

21. Option B

From statement III,

Deepak's mother's age as on 15th June, 1996 = 50 years

From statements II and III,

Prabir's age as on 15th June 1996 = 50 – 29 = 21 years

From statements I, II and III,

Deepak's ge as on 15th June, 1996=Prabir's age + 6 = 21 + 6 = 27 years

Deepak's age as on 30th July, 1996 = 27 years and 1.5 months

So, all statements I, II and III are required to answer the question.

22. Option D

All the statements taken together are insufficient to answer the question.

23. Option B

From statements I and II,

Pit naja od = you may come here

Ja ta ter = come and go

Come = ja

From statements II and III,

Ja ta ter = come and go

Odna pit ter = you may go home

Go = ter

Come = ja/ter

From statements I and III,

Pit naja od = you may come here

Ha na pit ter = you may go home

You may = na pit

Come = ja/od

Statements I and II are required to find the answer.

24. Option B

From statements I and II,

S > P > Q > T

But no information is given about R.

Hence, I and II are not sufficient.

From statements II and III,

S > P > Q

R > Q

But no comparison is given between P, S and R and information about T is missing.

From Statements I and III, S/P/R > Q > T

T is the lightest. So, statements I and III are sufficient to answer the question.

25. Option B

From statements I and II, it is not possible as no information is given about Q and T.

From statement III, it is obvious that Q is the father of T or as Statement III alone is sufficient.

As statement III alone is sufficient (I+II+III) is also not possible.

Only statement III is sufficient to answer the question.
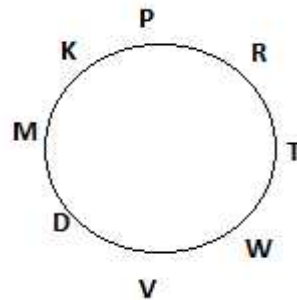
26. Option B
27. Option A
28. Option E
29. Option A
30. Option D
31. Option A
32. Option A
33. Option B
34. Option E

Days by Meena, 19th, 20th or 21st May

Days by her brother, 21st, 22nd or 23rd May

21st May is common in both the groups and hence it is the required day.

35. Option B

Days by Mohan, 17th, 18th or 19th January

Days by sister, 19th, 20th, 21st or 22nd January.

Required day is 19th January as it is common in both the groups.

36. Option B
37. Option C
38. Option C
39. Option A
40. Option D
41. Option A

42. Option A
43. Option D
44. Option B
45. Option D
46. Option B
47. Option C
48. Option B
49. Option A
50. Option B
51. Option A
52. Option A
53. Option D
54. Option A
55. Option A
56. Option A
57. Option B
58. Option C
59. Option A
60. Option C
61. Option C
62. Option B
63. Option B
64. Option D
65. Option B

Department	Male	Female	Total
Accounts	300	240	540
HR	40	320	360
Marketing	530	280	810
Customer relation	590	400	990
Administrative	160	200	360
Design	880	560	1440
Total	2500	2000	4500

66. Option E

   Aggregate % $= \frac{280 \times 100}{1800} = 15.5\% = 16\%$

67. Option C

   Required % $= \frac{2000 \times 100}{2500} = 80\%$

68. Option C

   Males in HR department = 40
   Males in Accounts department = 300
   Ratio $= \frac{40}{300} = \frac{2}{15} = 2 : 15$

69. Option B

   Total males in IBPS, Customer Relation and HR department = 880 + 590 + 40 = 1510

70. Option A

Employees in Administrative department = 360
Males in Administrative department = 160
Ratio = $\frac{360}{160} = \frac{9}{4}$ = 9 : 4

71. Option A

Males in Bank D = 534 + 478 + 235 + 255 + 124 + 358 = 1984
Females in Bank D = 454 + 285 + 235 + 175 + 165 + 234 = 1548
Respective ratio = 1984 : 1548 = 496 : 387

72. Option C

Males in Patna from Bank A, C and E = 234 + 350 + 124 = 708
Females in Patna from Bank A, C and E = 120 + 234 + 334 = 688
Respective ratio = 708 : 688 = 177 : 172

73. Option B

Average males in all banks in Kolkata = $\frac{353 + 348 + 399 + 358 + 125 + 278}{6}$
= $\frac{1861}{6}$ = 310.1 = 310

74. Option A

Females of all banks in Delhi = 456 + 256 + 345 + 285 + 166 + 287 = 1795
Males of all banks in Delhi = 254 + 346 + 366 + 478 + 256 + 346 = 2046
Approx % = $\frac{1795 \times 100}{2046}$ = 87.73 = 88%

75. Option B

Females in Bank B from Agra = 116
Females in Bank C from Agra = 500
Required percentage = $\frac{116 \times 100}{500}$ = 23.2%

76. Option C

(A + B + C)'s 1 day's work	$= \frac{1}{6}$
(A + B)'s 1 day's work	$= \frac{1}{8}$
(B + C)'s 1 day's work	$= \frac{1}{12}$
(A + C)'s 1 day's work	$= [2 \times \frac{1}{6}] \quad [\frac{1}{8} + \frac{1}{12}]$
	$= [\frac{1}{3} \quad \frac{5}{24}]$
	$= \frac{3}{24}$
	$= \frac{1}{8}$

So, A and C together will do the work in 8 days.

77. Option C

(B + C)'s 1 day's work	$= [\frac{1}{9} + \frac{1}{12}] = \frac{7}{36}$
Work done by B and C in 3 days	$= [\frac{7}{36} \times 3] = \frac{7}{12}$

Remaining work $= [1 - \frac{7}{12}] = \frac{5}{12}$

Now, $\frac{1}{24}$ work is done by A in 1 day.

So, $\frac{5}{12}$ work is done by A in $[24 \times \frac{5}{12}] = 10$ days.

78. Option A

Work done by X in 8 days $= [\frac{1}{40} \times 8] = \frac{1}{5}$

Remaining work $= [1 - \frac{1}{5}] = \frac{4}{5}$

Now, $\frac{4}{5}$ work is done by Y in 16 days.

Whole work will be done by Y in $[16 \times \frac{5}{4}] = 20$ days.

X's 1 day's work $= \frac{1}{40}$, Y's 1 day's work $= \frac{1}{20}$

(X + Y)'s 1 day's work $= [\frac{1}{40} + \frac{1}{20}] = \frac{3}{40}$

Hence, X and Y will together complete the work in $[\frac{40}{3}] = 13\frac{1}{3}$ days.

79. Option B

Let the distance between Meerut and Delhi be x km and let the trains meet y hours after 7 a.m.

Clearly, M covers x km in 4 hrs. and N covers x km in (7/2 hrs.)

So, Speed of M $= \frac{x}{4}$ kmph, Speed of N $= \frac{2x}{7}$ kmph

Distance covered by M in (y + 2) hrs. + Distance covered in y hrs. = x

So, $\frac{x}{4}$ (y + 2) $+ \frac{2x}{7} \times y = x$ $\qquad \frac{(y + 2)}{4} + \frac{2y}{7} = 1$

$y = \frac{14}{15}$ hrs. $= [\frac{14}{15} \times 60]$ min. = 56 min.

Hence, the trains meet at 7.56 a.m.

80. Option B

Speed $= [\frac{600}{5 \times 60}]$ m/sec = 2 m/sec $= [2 \times \frac{18}{5}]$ km/hr = 7.2 km/hr

81. Option B

Let the smaller number be x. Then larger number = (x + 1365)

So, x + 1365 = 6x + 15

5x = 1350

x = 270

So, smaller number = 270

82. Option B

Clearly, we have $\qquad\qquad X = [3y + \frac{3z}{6}]$

Or

2x = y + z

83. Option A

Product of numbers $= 11 \times 385 = 4235$

Let the numbers be 11a and 11b. Then, $11a \times 11b = 4235$ $\qquad\qquad$ ab = 35

Now, co-primes with product 35 are (1, 35) and (5, 7)

So, the numbers are $(11 \times 1, 11 \times 35)$ and $(11 \times 5, 11 \times 7)$

Since one number lies between 75 and 125, the suitable pair is (55, 77)

Hence, required number = 77

84. Option B

Let the numbers be 3x and 5x. Then, $\frac{3x-9}{5x-9} = \frac{12}{23}$

$23(3x-9) = 12(5x-9)$

$9x = 99$

$x = 11$

So, the smaller number = $(3 \times 11) = 33$

85. Option E

A : B : C = (25 lakhs × 1) + (35 lakhs × 2) : (35 lakhs × 2 + 25 lakhs × 1) : (30 lakhs × 3)

= 95 lakhs : 95 lakhs : 90 lakhs = 19 : 19 : 18

86. Option B

$42 = 2 \times 3 \times 7$

Here each of a, b and c can take 3 values.

Hence the required number of solutions = $3 \times 3 \times 3 = 27$

87. Option A

Let Ronit's present age be x years. Then, father's present age = $(x + 3x)$ years = $4x$ years

So, $(4x + 8) = \frac{5}{2}(x + 8)$

$8x + 16 = 5x + 40$

$3x = 24$

$x = 8$

Hence, required ratio = $\frac{4x + 16}{x + 16} = \frac{48}{24} = 2$

88. Option C

Let C.P. of whole be Rs. x

C.P. of $\frac{3}{4}$th = Rs. $\frac{3x}{4}$, C.P. of $\frac{1}{4}$th = Rs. $\frac{x}{4}$

Total S.P. = Rs. $[(120\% \text{ of } \frac{3x}{4}) + \frac{x}{4}]$ = Rs. $[\frac{9x}{10} + \frac{x}{4}]$ = Rs. $\frac{23x}{20}$

Gain = Rs. $[\frac{23x}{20} - x]$ = Rs. $\frac{3x}{20}$

So, gain% = $[\frac{3x}{20} \times \frac{1}{x} \times 100]$ % = 15%

89. Option C

Rate upstream $= [\frac{7}{42} \times 60]$ kmph = 10 kmph

Speed of stream = 3 kmph
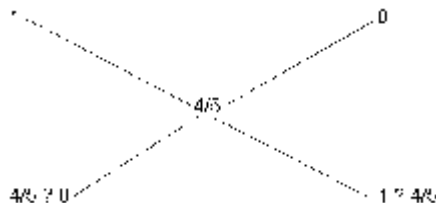
Let speed in still water be x km/hr. Then, speed upstream = $(x - 3)$ km/hr

So, $x - 3 = 10$ or $x = 13$ km/hr

90. Option B

Let cost price of milk be Rs.1 per litre, then S.P. of mixture is also Rs.1 per litre

Now CP of mixture be = $1 - (20\% \text{ of Rs.1}) = 1 - (20 \times \frac{1}{100}) = \frac{80}{100} = \frac{4}{5}$

$\frac{Quantity\ of\ water}{Quantity\ of\ milk} = \frac{1 - \frac{4}{5}}{\frac{4}{5} - 0} = \frac{1}{4}$

Required ratio = 1 : 4

91. Option D
   Half tank will be filled in 3 hours
   Lets calculate remaining half,
   Part filled by the four taps in 1 houir = $1 \times \frac{1}{6} = \frac{2}{3}$
   Remaining part after $\frac{1}{2}$ filled = $1 - \frac{1}{2} = \frac{1}{2}$
   $\frac{2}{3} : \frac{1}{2} :: 1 : x$
   $x = [\frac{1}{2} \times 1 \times 32]$
   $x = \frac{3}{4}$ hours = 45 mins.

Total time = 3 hours + 45 mins. = 3 hours 45 mins.

92. Option C
   Difference in C.I. and S.I. for 2 years = Rs.32
   S.I. for one year = Rs.400
   So, S.I. on Rs.400 for one year = Rs.32
   So, rate = $[\frac{100 \times 32}{400 \times 1}]\% = 8\%$
   Hence, difference in C.I. and S.I. for 3rd year = S.I. on Rs.832 = Rs.$[\frac{832 \times 8 \times 1}{100}]$ = Rs.66.56
   Total difference = Rs. (32 + 66.56) = Rs.98.56

93. Option E
   Difference in C.I. and S.I. for 2 years – Rs. (696.30 – 660) = Rs.36.30
   S.I. for one year = Rs.330
   So, S.I. on Rs.330 for 1 year = Rs.36.30
   So, rate = $[\frac{100 \times 36.30}{330 \times 1}]\% = 11\%$

94. Option B
   Let the maximum marks be x.
   Then, 33% of x = 125 + 40
   $\frac{33}{100} x = 165$
   $x = [\frac{165 \times 100}{33}] = 500$

95. Option D
   Let the number be x.
   Then, error = $\frac{5}{3} x - \frac{3}{5} x = \frac{16}{15} x$
   Error% = $[\frac{16x}{15} \times \frac{3}{5x} \times 100]\% = 64\%$

96. Option C
   $\frac{4x \times 4x}{x \times x} = \frac{16}{1} = 16 : 1$

97. Option C
   $T_{11} + T_{12} + T_{13} = 114$
   $T_{12} = \frac{114}{3} = 38$
   $a + 11d = 38$ …. (i)
   and $T_{21} + T_{22} + T_{23} = 204$

$T_{22} = 68$

$a + 21d = 68$ …. (ii)

from equations (i) and (ii)

$10d = 30$

$d = 3$

So, a = 5

$T_1 + T_2 + T_3 = 5 + 8 + 11 = 24$

98. Option D

We shall find the day on 01st April 2001.

1st April 2001 = (2000 years + period from 01.01.2001 to 01.04.2001)

Odd days in 1600 years = 0

Odd days in 400 years = 0

Jan.		Feb.		March		April		
(31	+	28	+	31	+	1)	= 91 days	= 0 odd days

Total number of odd days = (0 + 0 + 0) = 0

On 1st April 2001 it was Sunday.

In April 2001, Wednesday falls on 4th, 11th, 18th, 25th.

99. Option B

Time from 12 p.m. on Monday to 2 p.m. on the following Monday = 7 days 2 hours = 170 hours

So, the watch gains $[2 + 4\frac{4}{5}]$ min. or $\frac{34}{5}$ min. in 170 hours

Now, $\frac{34}{5}$ min. are gained in 170 hours.

So, 2 min. are gained in $[170 \times \frac{5}{34} \times 2]$ hours = 50 hours

So, watch is correct 2 days 2 hours after 12 p.m. on Monday i.e., it will be correct at 2 p.m. on Wednesday

100. Option B

Here, n(S) = 52

There are 13 cards of diamond (including one king) and there are 3 more kings.

Let E = event of getting a diamond or a king.

Then, n(E) = (13 + 3) = 16

$P (E) = \frac{16}{52} = \frac{4}{13}$