



NMAT Previous Paper 3

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Language Skills

1. Choose the option which is a SYNONYM for the given word: PARIAH

- A Outcast
- B Outsider
- C Impatient
- D Seer
- E Popular



2. The following statements when arranged in the correct order form a coherent paragraph. Find the correct ordering

- A) We seldom see a station which has about it the air of permanence
- B) It resembles it only in its dusty and haphazard setting
- C) Still, I know of no reason why so many stations should look as though they had been built hurriedly to serve the needs of a month, like a travelling show in a piece of waste ground
- D) There are, I believe good historical reasons why there are no Tudor stations or Queen Anne stations to be found in the country
- E) Not that the railway station has any of the gaudy detail of the travelling show

- A ADBCE
- B ADCEB
- C DABCE
- D DACEB
- E BCAED

3. The statements A-D when arranged in the correct order form a coherent passage starting with statement 1 and ending in statement 2. Find the correct ordering.

- 1) Whether in literature, history, or politics, the human animal is much given to pretending to knowledge that he does not possess
 - A) I remember how one evening two students concocted a poem beginning with the drivelling line, "I stood upon the rolling of the years," and foisted it on a noisy admirer of Keats as a work of the master
 - B) This is, of course, not amusing in itself
 - C) Similarly, in political arguments, one has known a man to invent sayings of Gladstone and Chamberlain without being challenged
 - D) There are some men whom one could inveigle quite easily into a discussion on plays of Shakespeare and Euripides which were never written
- 2) It becomes amusing only when the other disputants, instead of confessing their ignorance, make a pretence of being acquainted with the invented quotations
 - A) ACDB

- B BCAD
- C CABD
- D ABDC
- E DBCA

4. Which of the following is the most opposite in meaning to the word 'BOISTEROUS'?

- A animated
- B exuberant
- C equivocate
- D reticent
- E pompous



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Instructions [5 - 8]

Read the following passage carefully and answer the question given below it. Certain words or groups of each word are given bold type to help you locate them while answering some of the questions.

It is said there is a **dismal** fall of standards everywhere. The leaders who are not equal to the task misguide their followers. The remedy of the malady that affects our political economic and social practices lies in the human individual. What is needed is a change in his nature. For that we should read great classics. Literature brings about the change for the better. It improves the quality of human beings. Great books give great thoughts, broaden our outlook and awaken our souls. They also provide a moral base as the lack of discipline and ideals is **inimical** to civilization's value.

There are various kinds of books. Some arouse or instruct while others **elevate** our nature. The first kind of books destroy our ego and give us joy. Now joy is different from pleasure. The books which give joy contain emotions and thoughts recollected in tranquility. Only a seer can produce such books. They deserve not only to be read but also to be digested. Through them we establish contact with the mastermind of the past. They hand on to us our tradition. But maintaining a tradition does not mean peaking or doing as our forefathers did following the tradition blindly will **render** dead and useless. We must make **adaptations** and bring modifications. However, the individual contribution is largely determined by the pressure brought to bear upon him by the new problems of the new age.

There are three clearly marked features of the age in which we live. They are the scientific and technological revolution, the liberation of dependent countries in Asia and Africa and the growing unity of the world. We should read books which trace the history of the above mentioned three moments. The intellectual wealth of all mankind is at our disposal, we should break the barriers of language. Books build bridge between cultures, that is they bring them together. They promote understanding and love and remove suspicion, fear and hatred.

Great books come to our help when our values are at the discount many of us are mere shadows of human beings. We are the victims of contradictory impulses, we are a bundle of fear suspicion, greed, jealousy as well as kindness and goodwill. For creating normal harmonious human society the former instincts should be curbed and the latter kindled, we must guard against corrupting the minds of our people with **trivialities**. A general spiritual awakening is essential.

5. What are the three chief features of our age according to our passage ?

- A It is the age of scientific and technological revolution.
- B Many countries in Asia and Africa have not freedom from dependence.
- C A sense of unity is growing among the different countries of the world.
- D All of these
- E None of these

6. According to the passage, how can we keep our tradition alive ?

- A We can do so only by following our forefathers blindly.
- B It can be maintained only by making old traditions dead and useless.
- C It can be achieved through a deep faith in old traditions.
- D We can keep them alive by making critical and creative changes in them according to demands of the age.
- E None of these

7. What is the main argument of the passage ?

- A We should think in terms of the welfare of humanity as a whole.
- B One should read good books and do the work relevant to one's own welfare.
- C We should use scientific and technological know-how in terms of our welfare
- D All of these
- E None of these

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8. How can nature of the individual be changed according to the passage ?

- A If he reads great books his outlook will be broad, his psychological health will improve and he will have moral contentment and spiritual joy.
- B If he reads great books only his psychological health will improve
- C If he reads great books he will have only moral contentment and spiritual joy.
- D Not given in the passage
- E None of these

Instructions [9 - 12]

Read the passage carefully and answer the questions that follow:

In July, 1947 a UFO crashed in Roswell, New Mexico, and the government tried to cover it up by saying that it was not a flying saucer but an experimental high-altitude surveillance balloon belonging to a classified program named, "Mogul." However, many proponents of the UFO theory claim that a crashed alien aircraft and bodies

were recovered and that the military staged an elaborate cover-up because it was a threat to national security. Now, 64 years later, the debate is still going on and the government is no more cooperative about revealing the details than it was then.

Throughout the years, it has been shown time and again that information that was originally classified as confidential because it was a threat to national security, remained classified many decades later even though the crisis had long since passed and no threat remained. It has also been seen that anytime the government needed an excuse for anything, they only had to say that the information was classified.

In the United States we have run into this kind of obfuscation time and again so when President Obama announced to the world that we were going to have transparency in government, I was overjoyed. It meant that we were finally going to see what went on behind the scenes with Congress. It meant that we could turn on C-SPAN and be privy to the wheeling and dealing of our legislators as they bargained for earmarks.

This has had a so-so effect. Not much has changed. Enter WikiLeaks. At first I was thrilled at the prospect that what I've wanted for years was finally happening. Hundreds of thousands of confidential papers were being aired publicly. The bad guys were being excoriated in the press and the good guys were going to win the war of public opinion and maybe even bring about some good governments. But it isn't turning out that way. There are no clear-cut winners and losers and the head of WikiLeaks has had problems within his own ranks as well as being in trouble with the law of several countries, ours included.

Understandably, the guys who have committed the worst offenses want him out of the way and everyone is taking guesses as to how long he will remain alive before someone kills him. The people in OpenLeaks is doing this a little differently; they are leaking the information to the media in bits and pieces and letting them take the blame for the leaks, hence, presumably, no one's life is on the line while this classified information reaches the public in a safer form of whistle-blowing.

I'm one of the people who has been in favor of what WikiLeaks and OpenLeaks are trying to do. I'm tired of all this secrecy and I do want it to stop. And if that was all there was to it, I'd hitch my wagon to it and ride out the storm of controversy.

But now it has taken a much more sinister turn. It is no longer about public officials misusing and abusing power and corrupt and ruthless governments toppling; now it has come to the doorstep of the people; it has come into the lives of all of us.

Hackers, in their rallying cry for transparency and no more secrets, have taken to hacking into the files of banks and financial institutions. Millions of depositors have had their personal information, their identities, and their lives stolen out from under them. People who stood behind the precepts of WikiLeaks and OpenLeaks are now their victims. It's still not clearly understood whether these hackers are part of WikiLeaks and OpenLeaks or are just hanging onto their coattails and operating on their own. It doesn't matter at this point whether they are independent agents or working in unison with WikiLeaks or OpenLeaks. All that matters is that these people who have had their personal information hijacked, had nothing to do with the secrecy in government nor the corruption that ensued as a result.

These hackers have taken it a step too far and it's time for them to reassess their objectives and find a better way to attain them without causing the rest of the world to come toppling down around them . . . Unless, of course, that is their intent.

Connie H. Deutsch

9. Which of the following can be said to be the author's opinion about Wikileaks?

- A The author is fully appreciative of Wikileaks as well as the methods used by them
- B The author is dismissive of the work done by Wikileaks
- C The author is appreciative of the work done by Wikileaks but thinks it could have used better methods so that it could have avoided landing itself in trouble
- D The author is angry with Wikileaks for the way it has exposed the Government

- E The author is not bothered in anyway about Wikileaks
10. Which of the following words is similar in meaning to the word "clear-cut"?

- A precise
- B ambiguous
- C equivocal
- D indefinite
- E vague



11. What is the reason that hackers have given for their hacking into the files of banks and financial institutions?
- A To bring down the world
 - B To expose the secrecy and corruption of the Government
 - C To create havoc in the lives of the general public
 - D To mislead Wikileaks and Openleaks in their attempts to leak Government documents
 - E To help the world rid of anti-social elements
12. What does the author mean by the last sentence of the passage "Unless, of course, that is their intent"?

- A The hackers could be people who are not connected to Wikileaks or Openleaks in anyway and operating on their own agenda to cause havoc
- B Wikileaks wants to create havoc in the world and hence employed the hackers
- C Openleaks wants to expose the Government's corruption
- D Openleaks wants to create havoc in the world by hacking into the bank accounts of people
- E The employees of Wikileaks and Openleaks are being threatened by anti-social elements

Instructions [13]

In each of the following questions, one sentence is given followed by one blank. Find the most appropriate word that fits to make the sentence grammatically and contextually correct.

13. Scientists have been predicting the effects of burning coal and fossil fuels on the temperature of the planet for _____ 100 years.
- A above
 - B around
 - C across

D over

E before

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Instructions [14]

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

14. The move to allow dumping of mercury _____ an outcry from residents of the area who _____ that high levels of mercury will affect their health and destroy ecologically sensitive forest area.

A Resulted, Insist

B Provoked, fear

C incited, determined

D Activated, accept

E Angered, believe

15. America has become a confusing place for many people who are trying to decipher through the mess of politics that is inherent in a huge country that touts democracy. The Critical Review's (No. 1 Vol. 19) article Ignorance as a Starting Point: From Modest Epistemology to Realistic Political Theory states that a new elitist political paternalism may be necessary to counter the general ignorance of the population.

Which of the following summarizes the main point of the paragraph ?

by: Murad C Ali

A The politics in America has become so confusing that brighter minds need to make decisions for the common people.

B The democratic system in America is crumbling because of the ignorance of the people.

C The fact that candidates and parties have become confusing, the average person has become confused as to what the issues really are.

D Only the political elitist should make political decisions.

E The politics in America has become so confusing that average minds need to make decisions for the common people.

Instructions [16]

In each of the following questions a short passage is given with one of the lines in the passage missing and represented by a blank. Select the best out of the five answer choices given, to make the passage complete and coherent (coherent means logically complete and sound).

16. If we think of an emigrant who goes to a new country ignorant of its products, ignorant of its natural appearance and social order, entirely ignorant of its language,_____. No one will be able to do for him that work of adaptation. He himself must observe, understand, remember, form judgments, and learn the new language by laborious exercise and long experience.

A In this way he gradually comes to be acquainted with his environment and to develop his intelligence.

- B We realize that there is an immense work of adaptation which he must perform before he can associate himself with the active life of the unknown people.
- C Difficulty of gaining an intelligent understanding of names and of the syntactical composition of the language.
- D At the same time he is learning a language, and he is faced not only with the motor difficulties of articulation.
- E None of the above.

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17. Choose the grammatically correct option for the underlined portion of the sentence.

The members of the society, and not Amita, is responsible for the ruckus.

- A and not Amita, is responsible for the ruckus
- B and not Amita, are responsible for the ruckus
- C but not Amita, is responsible for the ruckus
- D except Amita, is responsible for the ruckus
- E but not Amita, are responsible for the ruckus

18. Anemia : Iron :: Scurvy: ?

- A Vitamin B
- B Vitamin C
- C Vitamin K
- D Vitamin A
- E Vitamin D

19. The cat jumped __ the table.

- A about
- B below
- C over
- D on
- E across

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20. Which of the following is a synonym for "ascribe"?

- A ascetic
- B anemic
- C austere
- D attribute
- E spartan

21. Read the following sentence and choose the best alternative which should replace the highlighted part of the sentence.

The tremendous insight of Einstein was that the passage of time does not appear to be the same **while standing still as it does to a person traveling** at a speed which is a significant fraction of the speed of light.

- A while standing still as it does to a person traveling
- B to a person standing still as to a person traveling
- C to a person who is standing still as a person who is traveling
- D While standing still as to traveling
- E to a person standing still as to a person who travels

Instructions [22 - 25]

Read the following passage carefully and answer the questions given below:

Globalisation is not a new phenomenon. It was there at the time of colonisation. In the nineteenth century when European traders came to India, at that time too, Indian spices were exported to different countries of the world and farmers of South India were encouraged to grow these crops. Till today, it is one of the important items of export from India.

During the British period, cotton belts of India attracted the British and ultimately cotton was exported to Britain as a raw material for their textile industries. Cotton textile industry in Manchester and Liverpool flourished due to the availability of good quality cotton from India. You have read about the Champaran movement that started in 1917 in Bihar. This was started because farmers of that region were forced to grow indigo on their land because it was necessary for the textile industries that were located in Britain. They were unable to grow foodgrains to **sustain** their families.

Under globalisation, particularly after 1990, the farmers in India have been exposed to new challenges. Despite being an important producer of rice, cotton, rubber, tea, coffee, jute and spices, our agricultural products are not able to compete with the developed countries because of the highly **subsidised** agriculture in those countries.

Today, Indian agriculture finds itself at the crossroads. To make agriculture successful and profitable, proper thrust should be given to the improvement of the condition of **marginal** and small farmers. The green revolution promised much. But today it's under controversies. It is being alleged that it has caused land degradation due to overuse of chemicals, drying aquifers and vanishing biodiversity. The keyword today is "gene revolution", which includes genetic engineering.

In fact, organic farming is much **in vogue** today because it is practised without factory-made chemicals such as fertilisers and pesticides. Hence, it does not affect the environment in a negative manner.

A few economists think that Indian farmers have a **bleak** future if they continue growing foodgrains on the holdings that grow smaller and smaller as the population rises. India's rural population is about 600 million which depends upon 250 million (approximate) hectares of agricultural land, an average of less than half a hectare per person.

Indian farmers should diversify their cropping pattern from cereals to high-value crops. This will increase incomes and reduce environmental degradation simultaneously. Because fruits, medicinal herbs, flowers, vegetables, bio-diesel crops like jatropha and jojoba need much less irrigation than rice or sugarcane. India's diverse climate can be harnessed to grow a wide range of high-value crops.

Source: NCERT Textbook / Class X / Geography- Contemporary India -II /pp no- 42,43,46,47.

22. Which of the following is not a challenge facing Indian farmers?

- A Agriculture in developed countries is heavily subsidized
- B Agricultural Land available for farming is too little to support a rising population
- C The Green Revolution has led to land degradation
- D Indian farmers do not have access to genetically modified seeds
- E None of the above



23. Which of the following is an example of globalisation?

- A Indian farmers failing to compete with foreign farmers because of subsidies
- B Indian farmers producing cotton and indigo to support textile industries located in Britain
- C Indian farmers farming high-value crops like jatropha and jojoba
- D Indian farmers protesting against the British government
- E None of the above

24. Which of the following is not a negative outcome of the green revolution?

- A land degradation
- B drying up of lakes
- C falling crop yields
- D reduction in biodiversity
- E pollution from overuse of chemicals

25. Choose the word/group of words which is most similar in meaning to, 'Marginal', printed in bold as used in the passage.

- A Minor
- B Near the coast
- C Prosperous
- D Impeded
- E Extremely poor

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Instructions [26]

In each of the following sentences there are two blank spaces. Below each sentence there are five pairs of words denoted by alphabets a,b,c,d and e. Find out which pair of words can be filled up in the blanks in the sentence in the same sequence to make the sentence grammatically correct and meaningfully complete.

26. He is so _____ in his approach that not a single point ever _____ his attention.

- A meticulous, escapes
- B casual , erodes
- C fanatic, brings
- D deliberate, attracts
- E nasty, coincides

27. Choose the grammatically correct option for the underlined portion:

A proposal has been made to reduce the duration of play that is staged in St. Martin's theatre. The question is whether the audience will continue to visit the theatre and watch the play after its duration is reduced.

- A whether the audience will continue to visit the theatre and watch the play after its duration is
 - B whether the audience will continue to visit the theatre to watch the play after the play's duration has been
 - C if the audience will continue to visit the theatre to watch the play after the play's duration is
 - D if the audience will continue to visit the theatre and watch the play after the play's duration has been
 - E if the audience will continue to visit the theatre and watch the play after the play's duration had been
- 28.** The statements A-D when arranged in the correct order form a coherent passage starting with statement 1 and ending in statement 2. Find the correct ordering.

1) A great poet, a really great poet, is the most unpoetical of all creatures

- A) The worse their rhymes are, the more picturesque they look
 - B) He lives the poetry that he cannot write
 - C) But inferior poets are absolutely fascinating
 - D) The mere fact of having published a book of second-rate sonnets makes a man quite irresistible
- 2) The others write the poetry that they dare not realise

- A BCAD
- B ACDB
- C DABC
- D CADB
- E DCBA

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Instructions [29]

Pick out the most effective pair of words from the given pair of words make the sentences meaningfully complete.

29. Today we have achieved a milestone by completing 60 years of independence. It's now the time for everyone or every Indian to undergo ____ of the achievements we already made and also those that are still to be ____.

- A self-introspection - achieve
- B self-examination - achieve
- C introspection - achieved
- D search - found
- E cross-inspection - made

30. Choose the grammatically correct option for the underlined portion of the sentence.

Weaving a web of words, a magical world has been created by J.K. Rowling.

- A a magical world has been created by J.K. Rowling
- B a magical world was created by J.K. Rowling
- C J.K. Rowling had created a magical world
- D J.K. Rowling's magical world was created
- E J.K. Rowling has created a magical world

31. Pradeep's boss interviewed Pradeep's son for a position and felt that he is a chip off the old block.

Which of the following options can replace the underlined part of the sentence without affecting its meaning?

- A very different from his father.
- B not as good as his father.
- C a bit old-fashioned.
- D just like his father.
- E not fit for the position.

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32. From the options given below, pick the one that best completes the sequence:

UMPIRE : MATCH :: ARBITRATOR : ?

- A Dispute
 - B Land
 - C Country
 - D Game
 - E Court
- 33.** The following statements when arranged in the correct order form a coherent paragraph. Find the correct ordering
- A) It confirmed every bald old scaramouch in all his hostilities to realism, tragedy, and every other form of literature that does not go about with its hat over its eye.
 - B) There has been an increasing demand lately for cheerful books.
 - C) It was a most unfortunate phrase to quote in public.
 - D) Mr Balfour began it - at least, he gave it a voice by quoting approvingly a phrase from one of Mr Bennett's novels about the books that cheer us all up.
 - E) It also confirmed a popular prejudice to the effect that it is the duty of men of letters to be cheerful in a way in which it is not the duty, say, of mathematicians to be cheerful.

- A BDAEC
- B BDCAE
- C DBCAE
- D BAEDC
- E CABED

Instructions [34]

Given below is a sentence having a blank. Identify the correct word that can be fit in the sentence to make the sentence grammatically and contextually correct.

- 34.** All the culprits of 26/11 case were _____ till death after the decision given by SC judges.

- A to be hanged
- B hung
- C hanged
- D hang
- E none of these.

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- 35.** Select the option that best summarizes the following paragraph:

I draw my idea of the form of government from a principle in nature, which no art can overturn, viz. that the more simple any thing is, the less liable it is to be disordered; and the easier repaired when disordered; and with this maxim in view, I offer a few remarks on the so much boasted constitution of England. That it was

noble for the dark and slavish times in which it was erected, is granted. When the world was over run with tyranny the least remove therefrom was a glorious rescue. But that it is imperfect, subject to convulsions, and incapable of producing what it seems to promise, is easily demonstrated.

- A The author feels that the constitution of England is very complicated and imperfect.
 - B The more simple a thing is, the less likely that it will be disordered. So, every government should follow this principle and reduce the complexity of its governance
 - C The constitution of England was prepared at a time when the world was over run with tyranny. However, that does not make it perfect and not subject to convulsions
 - D The author made some comments on the constitution of England because he believed that the more simple a thing is, the less liable it is to be disordered
- The author feels that the constitution of England, which was made at a time when the world was over run with tyranny is very complicated and hence imperfect. He believes that such a complicated constitution is more liable to be disordered.

36. Select the word which is the most opposite in meaning to the word given below.

LAMBASTE

- A Criticize
- B Castigate
- C Censure
- D Praise
- E Prolific



Logical Reasoning

37. Pointing to a man Patrick (male) said "He is the son of a lady, who calls my sister niece"
How is he related to Patrick?

- A Uncle
- B Brother-in-law
- C Brother
- D Cousin
- E none of these



38. Based on the statements given below, which of the following conclusions follow?

Statements:

- 1) All glass are solid.
- 2) All pins are white.
- 3) Some transparent are glass.
- 4) Some white are transparent.

Conclusions:

- 1) Some transparent are solid.
- 2) Some glass are white.
- 3) Some white are pins.
- 4) No pin is solid.

- A Only 1, 2 and 3 are true
- B Only 1, 2 and 4 are true
- C Only 1, 3 and 4 are true
- D All the conclusions are true
- E None of these

39. Raman is older than Prameet but younger than Vinod. Sumeet is older than Prameet but younger than Raman. Amit is the younger brother of Vinod and Sumeet. Who is the second eldest amongst all of them?

- A Raman
- B Vinod
- C Sumeet
- D Prameet
- E Can't be determined

40. The ranks of two students differ by 5. If the better rank from the top is 23, and the number of students in the class is 67, what are the ranks of the two students from the bottom?

- A 45, 39
- B 46, 40
- C 46, 41
- D 45, 40
- E 45, 41

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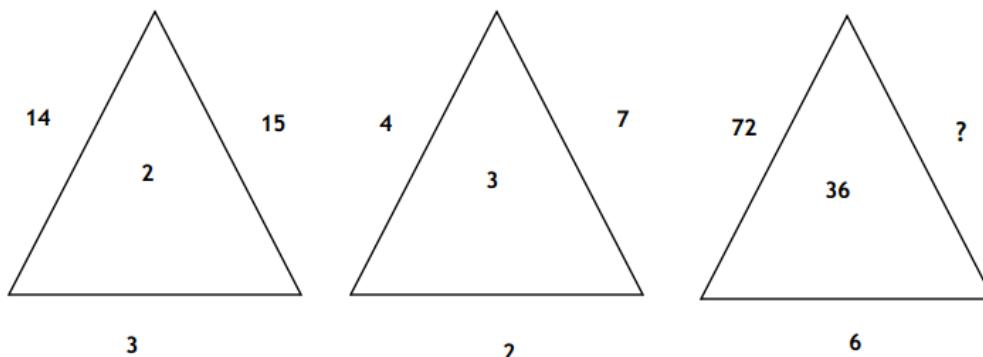


41. In certain code language "APRIL" is written as "CSVNR". Then what is the code for the word "OCTOBER"?

- A "QFXTHLZ"

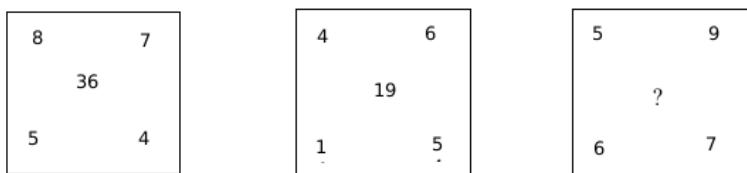
- B "QNXUHLZ"
- C "PCUPCFS"
- D "CSXWDTP"
- E None of these

42. Which number should replace the question mark?



- A 132
- B 140
- C 172
- D 165
- E 180

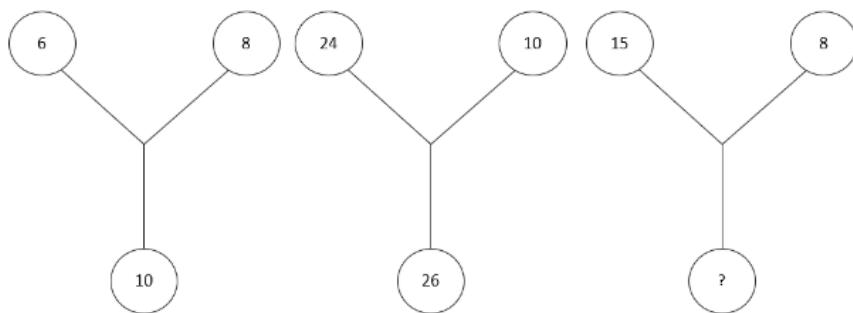
43. Find the missing value in the following figure



- A 6
- B 9
- C 34
- D 67
- E 3



44. In the figure below, which of the numbers should replace the question mark(?)



- A 32
- B 8
- C 14
- D 21
- E 17

Instructions [45 - 48]

A machine rearranges words and numbers in a particular fashion as shown in the steps below:

Input: picture furniture 26 71 whole jam 11 99
 Step 1: 99 picture furniture 26 71 whole jam 11
 Step 2: 99 furniture picture 26 71 whole jam 11
 Step 3: 99 furniture 71 picture 26 whole jam 11
 Step 4: 99 furniture 71 jam picture 26 whole 11
 Step 5: 99 furniture 71 jam 26 picture whole 11
 Step 6: 99 furniture 71 jam 26 picture 11 whole

Using the rules followed in the above steps answer the next 5 questions:

45. If the sentence "85 art queen thus 36 15 or 50" is the second step of the machine, which would be the input?

- A 85 art thus queen 36 15 or 50
- B 36 15 or 50 thus queen art 85
- C 36 or 50 15 thus queen art 85
- D 85 50 or 15 36 thus queen art
- E can't be determined.

46. 64 bath 56 nest got hold 44 22

How many steps will be required to arrange the above sentence?

- A 0
- B 1
- C 2
- D 3
- E 4

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47. original 44 tattoo 33 dust 99 31 hustle
Which will be the sentence at the sixth step?

- A 99 dust original 44 tattoo 33 31 hustle
- B 99 dust 44 original tattoo 33 31 hustle
- C 99 dust 44 hustle original tattoo 33 31
- D 99 dust 44 hustle 33 original tattoo 31
- E 99 dust 44 hustle 33 original 31 tattoo

48. 17 posture falling 60 55 never cure 28
How many steps will be required to arrange the above sentence?

- A 5
- B 6
- C 7
- D 8
- E None of the above

Instructions [49 - 52]

Study the following information carefully to answer the given questions.

A, B, C, D, E, F, G, and H are sitting in a straight line maintaining a similar gap between them.

*B sits third to the left of C, D sits next to the right of A

*H and G sit at the extreme ends of the line.

*If A, B exchange positions, B would be sitting third to the left of E.

*If F and G exchange their positions, F would be sitting third to the right of D.

49. What is the position of A with respect to H?

- A First to the right
- B Second to the right
- C Third to the right
- D Fourth to the right
- E None of these.

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50. What is the position of F with respect to D?

- A Second to the right

- B Immediate right
- C Third to the left.
- D Immediate left.
- E None of these

51. How many people are sitting to the left of B?

- A 0
- B 2
- C 1
- D 5
- E None of these

52. A, E exchange their positions, what would be the position of B with respect to A?

- A Second to the left
- B Second to the right
- C Third to the left
- D Fourth to the left
- E None of the these



53. 8 persons are standing in a line. Ram is standing fifth from the right end of the line. There are 3 persons standing in between Ram and Balu. What is the position of Balu from the left end of the line?

- A 1
- B 2
- C 7
- D 8
- E Cannot be determined

Instructions [54]

Read the following information carefully and answer the questions that follow.

Ramesh starts from his house and walks for 12m towards south and then he takes a left turn to travel for another 9 m and he again takes a left turn to travel for another 4 m and finally he takes a right turn and stops at a grocery stop after walking for another 6 m.

54. What is the distance between the grocery store and home?

- A 17 m
- B 18 m
- C 15 m
- D 12 m
- E None of these

Instructions [55]

Read the information carefully and answer the following questions:

- A + B means A is the son of B
- A - B means A is the daughter of B
- A @ B means A is the father of B
- A \$ B means A is the mother of B
- A # B means A is the wife of B
- A * B means A is the husband of B

55. What is the relation of L to P if L * M - N \$ O # P is true ?

- A mother in law
- B brother in law
- C sister in law
- D son in law
- E cannot be determined



56. Statements:

- Some benches are walls.
- All walls are houses.
- Some houses are jungles.
- All jungles are roads.

Conclusions:

- I. Some roads are benches.
- II. Some jungles are walls.
- III. Some houses are benches.
- IV. Some roads are houses.

- A Only I and II follow
- B Only I and III follow
- C Only III and IV follow
- D Only II, III and IV follow
- E None of these

57. Statements:

Some sticks are lamps.
Some flowers are lamps.
Some lamps are dresses.
All dresses are shirts.

Conclusions:

- I. Some shirts are sticks.
- II. Some shirts are flowers.
- III. Some flowers are sticks.
- IV. Some dresses are sticks.

A None follows

B Only I follows

C Only II follows

D Only III follows

E Only IV follows

58. Statements:

Some books are pens.
No book is a pencil.

Conclusions:

- 1. No pencil is a pen.
- 2. Some pens are definitely not books.

A only conclusion 1 follows

B only conclusion 2 follows

C either 1 or 2 follows

D neither 1 nor 2 follows

E both 1 and 2 follow

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Instructions [59]

In question given below is given a statement followed by two courses of action. You have to assume everything in the statement to be true, then decide which of the given suggested course of action logically follows for pursuing.

59. Statement: As the monsoon passes by many pot-holes and breakage of roads are seen which further leads to various road accidents.

Course of action:

- I)The municipal corporation and government must fill the potholes as soon as possible and improve the conditions on the roads
- II)Everyone must safely drive and be careful and attentive while driving, as to avoid accidents.

A Only I

- B Only II
- C Both I and II
- D Either I or II
- E None of the above

60. Statements: Only good batsmen can be a part of the team. No one who did not score a hundred till date is a good batsman.

Conclusions: 1) All the members of the team are good batsmen.
2) Batsmen who did not score a hundred till date were not a part of the team.

- A Only conclusion 1 follows
- B Only conclusion 2 follows
- C Either conclusion 1 or conclusion 2 follows
- D Neither conclusion 1 nor conclusion 2 follows
- E Both conclusion 1 and conclusion 2 follow

Instructions [61]

In each of the following questions a statement is given and it is followed by two conclusions. Identify the conclusions which logically follow from the given statement and accordingly choose the appropriate option.

61. Statement: Virat Kohli broke Sachin's record for the highest number of centuries while chasing a target in ODI.

Conclusion I: Virat is a better batsman than Sachin
Conclusion II: Virat has played more innings chasing the targets than Sachin

- A Only conclusion I follows
- B Only conclusion II follows
- C Either conclusion I or conclusion II follow
- D Both conclusion I and conclusion II follow
- E None of the conclusions follow

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62. Read the following information carefully and answer the question that follows.

The Minister said that the government had sought the Commission's permission to appoint the army chief as it wanted to strictly follow all the procedures.

Which of the following can be inferred from the above?

- A The Commission's permission is necessary for all the appointments made during the elections.
- B The Commission's permission was not sought in other appointments.

- C The Commission will give the permission for the appointment.
- D Appointment of army chief without the Commission's permission is irregular.
- E The Commission's permission is not required for other appointments.

63. Children who don't go to school are more likely to become criminals.

Which of the following can be inferred from this statement?

- A Children going to schools do not become criminals.
- B Schools teach children to become good citizens
- C Schools teach children values which are required to be successful in life
- D Children going to schools are less likely to become criminals.
- E None of these can be inferred

64. Statement: Any student who participate in sports performs poorly in academics.

Which of the following, if true, strengthens the above statement?

- A Students who participate in sports are poor in academics.
- B Most students participate in sports because they are poor in academics.
- C Students who are good in academics do not participate in sports.
- D Sports adversely affects one's academics.
- E None of these

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65. In a measure to boost diversity, the premier institutes are now providing additional marks to female candidates to make the selection process easier for the females.

Which of the following statements, if true, would most strengthen the step taken by the institutes?

- A Companies that hire from the institutes want to hire more female candidates.
- B Having more women at premier institutes is considered a sign of women empowerment.
- C Most of the women admitted through the process were from underprivileged backgrounds.
- D Having a diverse set of students helps to develop the thought process of the students.
- E Lack of women at institutes is usually seen as a tell-tale sign of a patriarchal society.

66. While the adoption rules in India have been simplified over the years, the In-Country adoption numbers have declined substantially in the country in the last 7 years. This is because, people have lost their faith in the system of adoption as the rules have become very simple.

Source : Rakesh Dubbudu, [Factly](#).

Which of the following, if true, would most weaken the conclusion of the argument above?

- A After the rules for adoption in Australia were made stringent, the adoption numbers of Australia went up.

- B The economic crisis that took place seven years ago still has an effect on the people.
- C Several instances were reported in the past seven years, where, the adopted children were mentally harassed by their peers in school.
- D The countries with simplified adoption rules have better adoption numbers.
- E Maharashtra leads in adoption numbers as its government publicizes the simplified adoption rules on television.
- 67.** Caps of water bottles manufactured by Binley Manufacturing do not use the usual chemicals that are found in conventional water-bottle caps. Instead, they use natural substances. Hence, when the entire water bottle industry moves to using caps made by Binley, the threat to landfills because of pollution from the chemicals in conventional water bottle caps will no be there.
- Which of the following, if true, most weakens the above argument?
- A Manufacture of the new type of water bottle caps releases poisonous fumes into the atmosphere
- B The water bottle industry will take a few months, if not a few years, to transition completely to the new caps
- C Even after the water bottle industry makes the transition to the new water bottle caps, a lot of water bottles with old caps will continue to be used
- D The new water bottle caps are more expensive to make than the old ones
- E All the bottle manufacturers are on board to transition to the new type of bottle caps.



Instructions [68]

In each of the next five questions, a statement is followed by two assumptions. An assumption is something supposed or taken for granted. You have to consider the statement to be true even though it may seem untrue in the real life and decide which of the assumptions is implied in the statement.

68. Statement: Keep change ready before your transaction at the counter.

- Assumption 1: The transaction can't be completed without change.
Assumption 2: Everybody has change available for the transaction.

- A Only assumption 1 is implicit
- B Only assumption 2 is implicit
- C Either assumption 1 or assumption 2 is implicit
- D Neither assumption 1 nor assumption 2 is implicit
- E Both assumptions 1 and 2 are implicit.

Instructions [69]

In each of the next five questions, a statement is followed by two assumptions. An assumption is something supposed or taken for granted. You have to consider the statement to be true even though it may seem untrue in the real life and decide which of the assumptions is implied in the statement.

69. Statement: You should open the door or Rahul can't come in.

Assumption 1: Only you can open the door.

2: Rahul wants to come in.

- A Only assumption 1 is implicit
- B Only assumption 2 is implicit
- C Either assumption 1 or assumption 2 is implicit
- D Neither assumption 1 nor assumption 2 is implicit
- E Both assumptions 1 and 2 are implicit.

70. Statements: The income tax authorities carried out raids at three different business houses in the city last week.

Which of the following can be a possible effect of the above statements?

- A The three business houses are regular defaulters in payment of their income tax.
- B The income tax department had received a tip off about the illegal activities going on in the three business houses.
- C the government decided to look into the matter of unpaid income tax dues and had appointed an inquiry committee
- D Other business houses took immediate action to clear off all their income tax dues in order to avoid a raid on their establishments
- E The authorities intend to conduct raids in several other business houses in the vicinity.



71. Should a company in India declare 1st January as a holiday for its employees?

Arguments:

- I. Yes, all over the world, people celebrate till late at night and will be difficult to work during the next day.
- II. No, it is not in the Indian culture to celebrate the new year.

- A If both I and II are strong.
- B If neither I nor II is strong.
- C If only II is strong.
- D If only argument I is strong.
- E If either I or II is strong.

Instructions [72]

Given is a statement followed by two arguments numbered I and II. Consider the statement and the arguments and decide which of the arguments is strong.

72. Statement : Due to the availability of good doctors at reasonable rates, medical tourism is booming in India. Should the government promote it ?

Arguments :

I : Yes, medical tourism will bring in valuable money from citizens of developed nations which can then be used for development of the nation.

II : No, if medical tourism is improved then the doctors would expect even the local people to pay as much as wealthy foreigners which is very unfair to the poor sections of the society.

- A Only argument I is strong
- B Only argument II is strong
- C Both I and II are strong
- D Neither I and II are strong
- E Either I or II is strong



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Quantitative Skills

73. How many 4-digit numbers greater than 6000 can be formed using the digits {0,1,2,3,4,5,6} if repetition is not allowed?

- A 240
- B 120
- C 60
- D 360
- E None of the above



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74. The average of three positive numbers is 24. Find their product?

Statement 1: The average of their squares is 582

Statement 2: The average of their cubes is 14256

- A The question can be answered using statement 1 alone but not statement 2.
- B The question can be answered using either of the statements alone.
- C The question can't be answered by either of the statements alone, but can be answered by using both
- D The question can't be answered by using both the statements together.
- E The question can be answered using statement 2 alone but not statement 1.

75. How long would one man, one woman and one child take to build a given building?

Statement 1: One man, 5 women and 9 children would take 52 days to build the same building

Statement 2: Four men, 8 women and 12 children would take 28 days to build the same building.

- A The question can be answered using statement 1 alone and not by using statement 2 alone.
- B The question can be answered using either of the statements alone.
- C The question can't be answered by either of the statements alone, but can be answered by using both
- D The question can't be answered by using both the statements together.
- E The question can be answered using statement 2 alone and not by using statement 1 alone.

76. Two goats are tied with different ropes to the mid-points of adjacent sides of a square field. The length of the ropes is such that they do not extend beyond the centre of the field. Find the total area which can be grazed by the two goats if the side of a square field is 10m.

- A 60.2
- B 63.9
- C 67.8
- D 71.3
- E 64.3

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77. The probability of a missile hitting a target is 0.8. Find the number of missiles that have to be fired such that the probability of the target getting hit is at least 99.8%.

- A 3
- B 4
- C 2
- D 5
- E 6

78. In 2009, a company was started with 20 employees whose average age was 50 years. 3 employees retired in 2011 at the age of 60. Two new employees were hired in 2012 whose total age was 73 . What is the average age of the company in 2013?

- A 50
- B 49
- C 51
- D 52

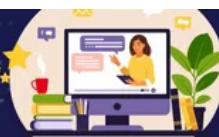
- E** None of these
- 79.** A marksman has an accuracy of 0.6, that is he can hit the target 6 out of 10 times. If he shoots at the target four times, what is the probability that he has hit the target at least once?
- A 0.9844
B 0.84
C 0.9744
D 0.744
E 0.7933
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- 80.** A group of 'n' friends have dinner, sitting in the same order every day, in a circular table. Every day one pair of friends, not sitting next to each other give a toast. If the total number of unique toasts given is 54, what is 'n'?
- A 12
B 9
C 6
D 15
E None of these
- 81.** Given that N is less than 1000, find N.
- Statement 1: The G.C.D of N and 147 is 7
Statement 2: The GCD of N and 800 is 5.
- A The question can be answered using statement 1 alone and not by using statement 2 alone.
B The question can be answered using either of the statements alone.
C The question can't be answered by either of the statements alone, but can be answered by using both statements together.
D The question can't be answered by using both the statements together.
E The question can be answered using statement 2 alone and not by using statement 1 alone.
- 82.** The sum of three prime numbers is more than 150. The sum of squares of these numbers is less than 8600. If the three numbers are in arithmetic progression, then what is the average of these numbers?
- A 51
B 52
C 53

D 57

E 59

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83. Ajay and Vijay race 2400 metres around a 400m circular track. Ajay is 50% faster than Vijay and gains a lap over him in 4 minutes. Find the time taken by Ajay to finish the race?

A 10 minutes

B 12 minutes

C 11 minutes

D 9 minutes

E 8 minutes

84. Consider the set $S = \{1, 5, 9, \dots, 69\}$. What is the cardinal number of the largest subset of S , such that the sum of any two elements of the subset doesn't equal 70?

A 7

B 8

C 9

D 10

E 11

85. A water tank has a volume of $4000m^3$ and has a tap at the top and a hole at the bottom. The tap fills in $20m^3$ more than the hole will empty every minute and it takes the tap 10 minutes less to fill the tank than the hole can empty it. How much water does the tap fill in every minute?

A $80m^3$

B $100m^3$

C $40m^3$

D $50m^3$

E $90m^3$

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86. At the start of 2010, Ajay invested Rs.10000 in compound interest at the rate of $X\%$.p.a ($X > 0$). At the end of every year, he withdrew $Y\%$ of the total amount accumulated. If at the start of 2014, Ajay had exactly Rs.10000 in his account, which of the following is necessarily true?

- A X>Y
- B X≤Y
- C X = Y
- D X < Y
- E None of these

87. A certain amount of sum given at simple interest amounts to Rs. 15840 after 4 years and amounts to Rs. 18720 after 7 years. Find the original principal?

- A Rs. 14400
- B Rs. 10800
- C Rs. 12600
- D Rs. 13200
- E Rs. 12000

88. The sum of the first 'n' terms of a series is $4n^2 + 8n + 4$. The series is a?

- A A.P
- B G.P
- C H.P
- D A.G.P
- E None of these



89. From a deck of 52 playing cards, 2 cards are drawn at random. What is the probability that they contain at least one king?

- A 188/221
- B 33/221
- C 45/221
- D 176/221
- E None of the above

90. $F(x) = ax^2 + bx + c$ is a quadratic equation one of the roots of which is 2 ($a > 0$). If $F(8) + 12*F(1) = 0$, find the other root?

- A -4

- B -2
- C -6
- D -8
- E Can't be determined

91. In the shooting contest, the probability of hitting a target is $1/2$. In a game of 5 hits, find the probability that at least 1 hit is successful.

- A $31/32$
- B $30/32$
- C $1/32$
- D $19/32$
- E $17/32$

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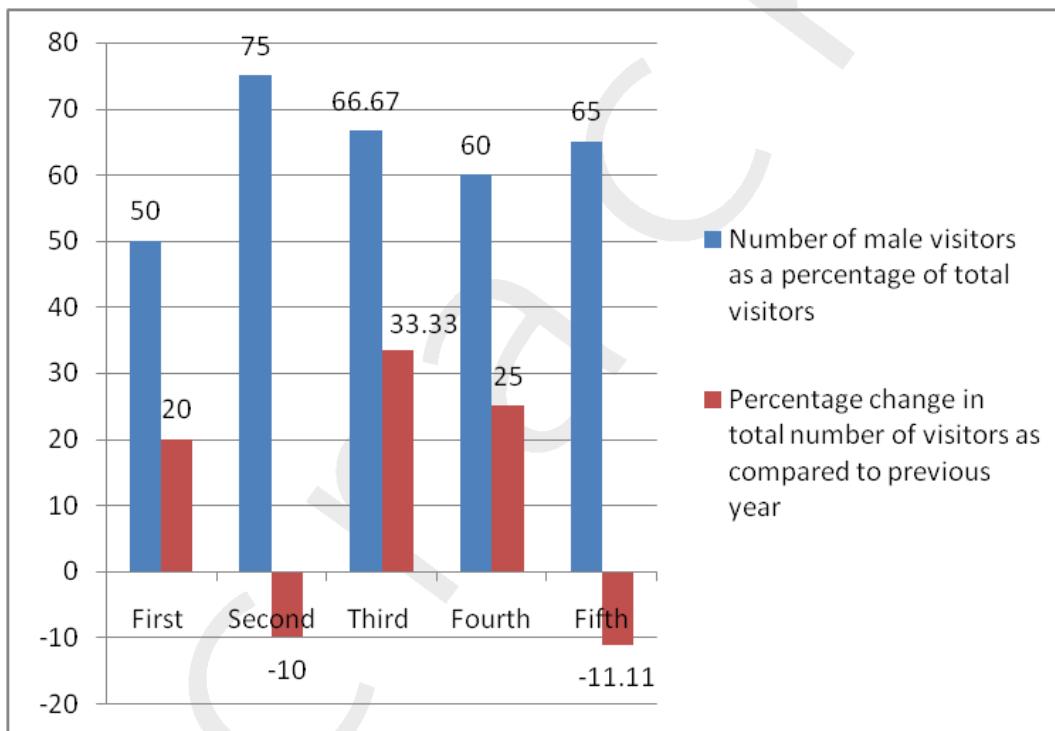
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Instructions [92 - 95]

The graph shown below give some stats about the number of visitors visiting the annual trade show during the five year period.



92. If the total number of visitors in the first year is 50,000, find the number of female visitors in the fifth year.

- A 21000
- B 23334

C 24652

D 28987

E 26884

93. If the number of people visiting this show is 50,000 in the first year, then find the approximate value of the ratio of total number of visitors in the second year to the number of male visitors in the fourth year.

A 1:1

B 1:3

C 7:9

D 11:13

E 5:7

94. Which two years have the same difference between the number of female visitors and male visitors?

A First and Second

B Second and Third

C Third and Fifth

D Fourth and Fifth

E Third and fourth



95. Find the growth rate of male visitors from second year to fourth year.

A 75%

B 66.67%

C 25%

D 50%

E 33.33%

96. If $\frac{\log x}{\log 10} - \frac{\log x^2}{3 \log 10} = \frac{3 \log 10}{\log x}$. The number of possible values of x is?

A 0

B 1

C 2

D 3

E None of these

97. 20 litres is removed from 100 litres of pure benzene and replaced with water. Then, 15 litres is removed from the solution and replaced with water. Then, 10 litres is removed from the solution and replaced with water. Finally, 5 litres is removed from the solution and replaced with water. Find the amount of benzene in the water.

- A** 58.14 litres
- B** 62.23 litres
- C** 64.67 litres
- D** 66.67 litres
- E** 56.63 litres

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98. Three friends A,B and C have some apples and some coins with them. A and B have apples but no coins while C has only coins. A and B decide to share the apples equally among all three, in return for all the coins of C. If A has 9 apples, B has 15 apples and C has 24 coins, determine the number of coins that B gets.

- A** 15
- B** 21
- C** 13
- D** 20
- E** 18

99. In how many ways can 4 men and 4 women sit alternately around a circular table?

- A** 5040 ways
- B** 36 ways
- C** 144 ways
- D** 576 ways
- E** None of the above

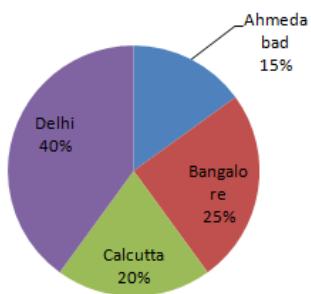
Instructions [100 - 103]

Read the following information carefully and answer the questions that follow.

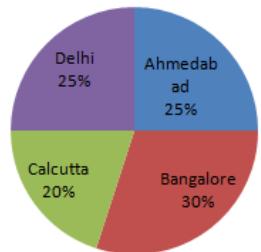
Ajay applied for jobs in four different cities Ahmedabad, Bangalore, Calcutta and Delhi. Some of them shortlisted him, and others rejected his application. The first pie chart represents the city wise % share of the total number of jobs that he applied. The second pie chart represents the city-wise % share of the number of shortlists.

Ajay received a total of 20 shortlists from all the cities combined.

% share applications



% share of Shortlists



100. If Ajay gets 14 rejects in Bangalore, how many companies did he apply in Delhi?

- A 20
- B 24
- C 28
- D 32
- E 36

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101. What is the minimum number of jobs that Ajay could have applied in all the cities combined? (Consider that all the % given are exact)

- A 35
- B 40
- C 45
- D 50
- E 25

102. If Ajay was rejected by 40% of the companies that he applied to in Bangalore, what is the total number of applications by him in all the cities?

- A 20
- B 40

C 60

D 80

E 90

103. If Ajay got rejections from 40 companies, how many companies from Calcutta rejected him?

A 6

B 7

C 8

D 9

E 10



104. There are 3 boxes contains apples, oranges and a mixture of apples and oranges. All three boxes are labeled incorrectly. By picking just 1 fruit from any of the 3 boxes, we have to label the boxes correctly. Which box should we pick?

A Apples

B Oranges

C Apples and Oranges

D Data is insufficient

E None of these

105. The ratio of milk and water in a solution is 5:3. The volume of the solution was increased by 25% by adding water. From the resulting solution, 100 litres were removed and replaced by water. The final ratio of milk to water is 3:7. What is the initial volume of the solution?

A 200 litres

B 160 litres

C 240 litres

D 320 litres

E 280 litres

106. What are the last three digits of 1999^{1999} ?

A 999

B 001

C 499

D 599

E None of these



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107. What was the overall profit percentage incurred by the shopkeeper on selling two bicycles P & Q.

Statement 1: The shopkeeper made the overall profit of 2000 on P and Q.

Statement 2: The profit percentage on selling P and Q is 20% and 12% respectively

- A The question can be answered using statement 1 alone and not by using statement 2 alone.
- B If the question can be answered using either of the statements above.
- C If the question can be answered using both the statements together.
- D If the question cannot be answered even by using both the statements together.
- E The question can be answered using statement 2 alone and not by using statement 1 alone.

108. After working for 1 year in a company X, Raghu's salary has hiked from Rs 45000 to Rs 63000. From here on, whenever his salary was increased, the percentage increase in his salary was 50% more than what it was in the previous hike. After a total of 5 hikes, what was his salary?

- A Rs 1256380.8
- B Rs 1276148.4
- C Rs 1301243.4
- D Rs 1361467.8
- E Rs 1351467.8



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Answers

Language Skills

1.A	2.B	3.A	4.D	5.D	6.D	7.A	8.A
9.C	10.A	11.B	12.A	13.D	14.B	15.A	16.B
17.B	18.B	19.C	20.D	21.B	22.D	23.B	24.C
25.A	26.A	27.B	28.D	29.C	30.E	31.D	32.A
33.B	34.C	35.E	36.D				

Logical Reasoning

37.D	38.E	39.A	40.D	41.A	42.E	43.E	44.E
45.E	46.E	47.E	48.B	49.C	50.C	51.B	52.D
53.D	54.A	55.B	56.C	57.A	58.D	59.C	60.E
61.E	62.D	63.D	64.D	65.D	66.D	67.C	68.A
69.E	70.D	71.D	72.A				

Quantitative Skills

73.B	74.C	75.C	76.E	77.B	78.C	79.C	80.A
81.D	82.C	83.E	84.C	85.B	86.A	87.E	88.E
89.B	90.C	91.A	92.B	93.A	94.C	95.E	96.C
97.A	98.B	99.C	100.D	101.B	102.B	103.C	104.C
105.A	106.A	107.D	108.D				

Explanations

Language Skills

1. A

Pariah means an outcast, someone who has been rejected by society. For example, After India conducted its first nuclear test in 1974 it became a pariah state. Or, The Guptas became social pariahs after Mr Gupta was caught accepting a bribe.

2. B

We see a link between C-E-B where train stations are compared to travelling shows, E states not in the gaudy detail and B continues that in the dusty and haphazard setting. Hence, CEB is one link. We also see a link between D-C where the author states there are good reasons why stations do not look Tudor or Queen Anne but wonders why they must look so temporary in C. Hence correct order is ADCEB.

3. A

Statement 1 introduces the topic stating that humans pretend to possess the knowledge that they do not, and it can be seen in various streams.

Statement A should follow 1 because it is citing a stance of statement 1.

Statement C, 'Similarly' in this statement draws a similarity between A. AC will be a pair.

Statement D furthers the author view that humans pretend to possess the knowledge which they do not possess.

Statement B should precede 2 as it starts with the point that "it is not amusing in itself" which is continued in 2 with "It becomes amusing". Hence, option A.

4. D

'Boisterous' means noisy and energetic. Hence, 'reticent', which means quiet, is the antonym.

5. D

"There are three clearly marked features of the age in which we live. They are the scientific and technological revolution, the liberation of dependent countries in Asia and Africa and the growing unity of the world: We should read books which trace the history of the above mentioned three moments."

According to the above lines of the passage, all three of the options will follow. Hence, answer will be D



6. D

"The books which give joy contain emotions and thoughts recollected in tranquility. Only a seer can produce such books. They deserve not only to be read but also to be digested. Through them we establish contact with the mastermind of the past. They hand on to us our tradition. But maintaining a tradition does not mean peaking or doing as our forefathers did following the tradition blindly will **render** dead and useless. We must make **adaptations** and bring modifications"

According to above lines of the passage, option D will be the most appropriate answer. Hence, answer will be D

7. A

"For creating normal harmonious human society the former instincts should be curbed and the latter kindled, we must guard against corrupting the minds of our people with **trivialities**. A general spiritual awakening is essential."

According to the last lines of the paragraph which come as the concluding statement of the passage, author argues that one should improve himself/herself to make a normal harmonious society for the welfare of humanity as a whole. Hence, answer will be A

8. A

"The remedy of the malady that affects our political economic and social practices lies in the human individual. What is needed is a change in his nature. For that we should read great classics. Literature brings about the change for the better. It improves the quality of human beings. Great books give great thoughts, broaden our outlook and awaken our souls. They also provide a moral base as the lack of discipline and ideals is **inimical** to civilization's value."

According to the above lines of the paragraph, among all the options, option A will be the most suitable answer of them all. Hence, answer will be A

9. C

In the passage, the author talks about both Wikileaks and Openleaks and he is appreciative of the work done by both. But, he feels that the methods used by Openleaks are better because they have not landed themselves in trouble like Wikileaks. So, option c) is the best answer.

10. A

The meaning of 'clear-cut' is 'explicit' or 'unambiguous'. From the options, the only suitable word is 'precise'. All the others are antonyms of the word.

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11. B

Refer to the penultimate paragraph. The author says "Hackers, in their rallying cry for transparency and no more secrets, have taken to hacking into the files of banks and financial institutions." So, option b) is the correct answer.

12. A

In the last two paragraphs, the author talks about how hackers are hacking into the bank accounts of people on the pretext of exposing the corruption and secret operations of the Government. But, he says that they might as well be independents who are operating on their own agenda. So, option a) is the best answer.

13. D

The correct word here will be 'over'.

14. B

Provoked and fear best fit the meaning of the sentence as a whole.

15. A

Option A is the correct choice. According to the paragraph the politics in America is in a mess and the people are not in a position to make correct political decision. Thus the political decisions should be made by the political elitist i.e the people who can navigate through the American politics. Option A covers both these points. Options B and E are irrelevant and option C and D have only partial summary.

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16. B

Here, the sentence that follows the blank talks about an adaptation. The sentence in the blank must be the one that describes this adaptation and give an introduction to this adaptation.

In option A, the statement starts with "In this way" and no way was described before it.

In option B, the author describes why this kind of adaptation is required.

Hence, option B is the correct answer.

Option C is out of context and is unrelated to the paragraph.

Hence, option B is the correct answer.

17. B

When two elements, one positive and one negative, are combined by a conjunction, the verb should agree with the number of the positive element. Hence, the verb should agree with the plural noun "members of the society". Thus the verb should be plural. Hence, option B.

18.B

Anemia is caused by the deficiency of Iron and Scurvy is caused by the deficiency of vitamin C. Hence option B is the correct answer.

19.C

When we are talking about motion - jumping, leaping etc., the preposition to be used is one among onto, into, over etc. The most suitable word from the given options is c) over.

20.D

Attribute has the same meaning as ascribe. Hence that's the synonym. Option (d) is the correct answer.



21.B

The structure of the sentence should be "to X as to Y", the structure of X and Y being the same. Hence, options a), c), d) and e) are incorrect. The correct option is b).

22.D

Option A is mentioned in the last line of the third paragraph. Option B is mentioned in the second last paragraph of the passage. Option C is mentioned in the fourth paragraph. The option D is stated nowhere in the passage, Hence, option D is the correct answer.

23.B

From the first paragraph, it can be inferred that globalisation means trade between different countries. Thus, the option that shows co-dependence or co-operation between different countries would be an example of globalisation. Only option B shows an example of trade between different countries. Hence B is the correct answer.

24.C

The author begins to talk about the green revolution in the fourth paragraph. He then goes on to talk about the controversies associated with the green revolution. In the same paragraph he says that it is being alleged that green revolution has lead to land degradation and loss of biodiversity. He refers to drying acquirers which means drying up of the water bodies. In the subsequent paragraph author says how all this is damaging the environment. Hence all A, B, D and E have been mentioned by the author as negative effect of green revolution. Thus, C is the correct answer.

25.A

The word in the passage refers to small farm owners. Hence, the most appropriate word is minor.



26.A

Meticulous means showing great attention to detail. Only the word "meticulous" fits in the first blank.

The other words for the first do not make the sentence meaningful.

27.B

In options A and D, it should be "to watch the play" instead of "and watch the play". In option C, it should be "has been" in place of "is". Hence option B is correct.

28.D

Statements B and 2 are linked and B should immediately precede 2. Hence, we can narrow our choice down to CADB or ACDB. Of these two C and not A should follow statement 1. As statement 1 talks about great poets, the next line cannot be about bad rhymes. Hence, the correct order is CADB.

29. **C**

Self-introspection is not a correct word. It should be self-examination or introspection. The second blank should be filled with "achieved". So, option (c) is the correct choice.

30. **E**

As the modifier is "Weaving a web of words", the subject on which this modifier can act on should follow the phrase. As a person can weave a web of words, the subject is J.K. Rowling and not the magical world. Hence, option E is the correct option. The remaining options have misplaced modifiers.

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31. **D**

'A chip off the old block' means that the person resembles his father in character. Therefore, option D is the correct answer.

32. **A**

An umpire referees a match. Similarly, arbitrators referee disputes and arguments. Hence the correct option is A.

33. **B**

We see a link between statement D and C where D states a phrase quoted by Mr Balfour and C states that it was an unfortunate phrase to quote. Also, there is a link between E and A where both of the statements are reasons why the quotation was unfortunate with A being the first reason and E being the second reason. Hence D-C-A-E should be the together and in that order. Hence option B.

34. **C**

The sentence is talking about the punishment given to the culprits in which the word hanged should come while using objects we use hung.

35. **E**

In the paragraph, the author criticizes England's constitution. This is because he believes that the simpler a thing is, the less liable it is to be disordered, and once disordered, the easier it is to fix it. However, England's constitution was created at a time when the world was overrun by tyranny and it was not a simple creation. So, even though it served its purpose at that time, it is imperfect and subject to convulsions. Option E best summarizes the paragraph.

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36. **D**

Lambaste means to criticize someone severely. Hence, among the given options 'praise' is the most opposite in meaning to Lambaste. Thus, option D is the correct answer.

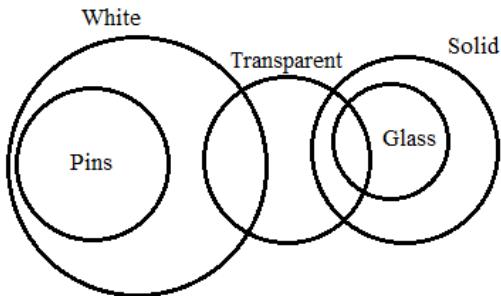
Logical Reasoning

37. **D**

The lady who calls my sister niece is my sister's aunt ==> my aunt ==> her son is a cousin to me.
So the correct option to choose is D - Cousin.

38. **E**

Draw the figure based on the given four statements.



We can see that the sets representing transparent and solid intersect. Hence, at least some transparent are solid => Conclusion 1 is true.

There is no restriction with respect to white and glass. So, some glass may or may not be white. As it is not true always, conclusion 2 cannot be made.

The set of pins is a subset of the set of white. Hence, at least some white are pins => Conclusion 3 is true.

There is no restriction between the set of pins and the set of solids. Hence, there may or may not be a pin that is solid => Conclusion 4 is not true.

=> Option E is the answer.

39. A

From the first statement, it is clear that V>R>P and from the second statement it is clear that R>S>P.

So, the order is V>R>S>P. The last statement is inconsequential as Amit is younger than Sumeet. Hence, the second eldest of them all is Raman.

40. D

The two ranks from the top are 23 and 28. So, the ranks from the bottom are $67 - 23 + 1$ and $67 - 28 + 1 = 45$ and 40 respectively.



41. A

A P R I L

+2 +3 +4 +5 +6

C S V N R

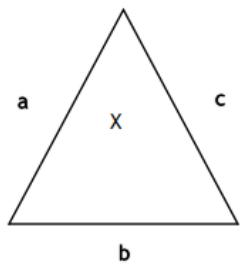
Similarly the code for the word "OCTOBER" would be "QFXTHLZ"

O C T O B E R

+2 +3 +4 +5 +6 +7 +8

Q F X T H L Z

42. E



For the above sample figure,

$$X = a + c - b^3$$

This can be validated from the figures in the question.

For fig (i),

$$14 + 15 - 3^3 = 2$$

For fig (ii),

$$7 + 4 - 2^3 = 3$$

Let the value of the unknown digit be Y.

$$\text{Thus, } 36 = 72 + Y - 6^3$$

$$Y = 216 + 36 - 72$$

$$Y = 180$$

Thus, the correct option is E.

43. E

$$36 = (8 \times 7) - (5 \times 4) = 56 - 20$$

$$19 = (4 \times 6) - (1 \times 5) = 24 - 5$$

$$? = (5 \times 9) - (6 \times 7) = 45 - 42 = 3$$

44. E

In the given figure, the three numbers form Pythagorean triplets.

$$10^2 = 6^2 + 8^2$$

$$26^2 = 24^2 + 10^2$$

Thus, in the third figure.

$$(?) = (15^2 + 8^2)^{\frac{1}{2}} = 17$$

Hence, the answer is option E.

45. E

The input can't be determined as input is based on the discretion of the user.

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46. E

It takes 4 steps to rearrange the above sentence.

47. E

original 44 tattoo 33 dust 99 31 hustle

step 1: 99 original 44 tattoo 33 dust 31 hustle

step 2: 99 dust original 44 tattoo 33 31 hustle

step 3: 99 dust 44 original tattoo 33 31 hustle

step 4: 99 dust 44 hustle original tattoo 33 31

step 5: 99 dust 44 hustle 33 original tattoo 31

step 6: 99 dust 44 hustle 33 original 31 tattoo

48. **B**

The sixth step would be:

60 cure 55 falling 28 never 17 posture

This will be the final step in the re- arrangement.

49. **C**

Let's number the positions as below.

1 2 3 4 5 6 7 8

"If F and G exchange their positions, F would be sitting third to the right of D." => G is sitting third to the right of D.

"H and G sit at the extreme ends of the line.", "G is sitting third to the right of D" => H, G, D occupy positions 1, 8, 5 respectively.

"D sits next to the right of A" => A occupy the position 4.

"If A, B exchange positions, B would be sitting third to the left of E." => A is sitting third to the left of E. => E occupy position 7.

"B sits third to the left of C" => the only possibility is B, C sitting on positions 3, 6 respectively.

Based on the given information the below arrangement could be derived.

H F B A D C E G

Based on the above derived arrangement, A is sitting third to the right of H.

So the correct option to choose is C - third to the right.

50. **C**

Let's number the positions as below.

1 2 3 4 5 6 7 8

"If F and G exchange their positions, F would be sitting third to the right of D." => G is sitting third to the right of D.

"H and G sit at the extreme ends of the line.", "G is sitting third to the right of D" => H, G, D occupy positions 1, 8, 5 respectively.

"D sits next to the right of A" => A occupy the position 4.

"If A, B exchange positions, B would be sitting third to the left of E." => A is sitting third to the left of E. => E occupy position 7.

"B sits third to the left of C" => the only possibility is B, C sitting on positions 3, 6 respectively.

Based on the given information the below arrangement could be derived.

H _____ F _____ B _____ A _____ D _____ C _____ E _____ G _____

Based on the above derived arrangement, F is sitting third to the left of D.
So the correct option to choose is C - third to the left.



51.B

Let's number the positions as below.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

"If F and G exchange their positions, F would be sitting third to the right of D." => G is sitting third to the right of D.

"H and G sit at the extreme ends of the line.", "G is sitting third to the right of D" => H, G, D occupy positions 1, 8, 5 respectively.

"D sits next to the right of A" => A occupy the position 4.

"If A, B exchange positions, B would be sitting third to the left of E." => A is sitting third to the left of E. => E occupy position 7.

"B sits third to the left of C" => the only possibility is B, C sitting on positions 3, 6 respectively.

Based on the given information the below arrangement could be derived.

H _____ F _____ B _____ A _____ D _____ C _____ E _____ G _____

Based on the above derived arrangement, only H, F sit to the left of B.

So the correct option to choose is B - 2.

52.D

Let's number the positions as below.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____ 8 _____

"If F and G exchange their positions, F would be sitting third to the right of D." => G is sitting third to the right of D.

"H and G sit at the extreme ends of the line.", "G is sitting third to the right of D" => H, G, D occupy positions 1, 8, 5 respectively.

"D sits next to the right of A" => A occupy the position 4.

"If A, B exchange positions, B would be sitting third to the left of E." => A is sitting third to the left of E. => E occupy position 7.

"B sits third to the left of C" => the only possibility is B, C sitting on positions 3, 6 respectively.

Based on the given information the below arrangement could be derived.



Based on the above derived arrangement, if A, E exchange their positions, B would be sitting fourth to the left of A.

So the correct option to choose is D - Fourth to the left.

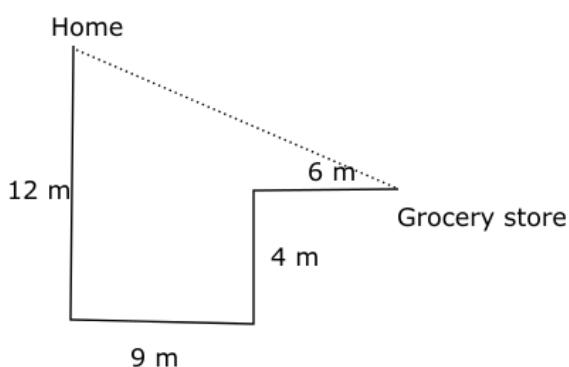
53. D

Ram is fifth from the right end of the line. There are 8 persons standing in the line. Therefore, Ram must be fourth from the left end. He must have 3 persons standing to his left.

3 persons are standing in between Ram and Balu. As only 3 persons are standing to Ram's left, Balu must be standing to the right of Ram. Therefore, Balu must be the last person standing in the line. The position of Balu from the left end is 8. Therefore, option D is the right answer.

54. A

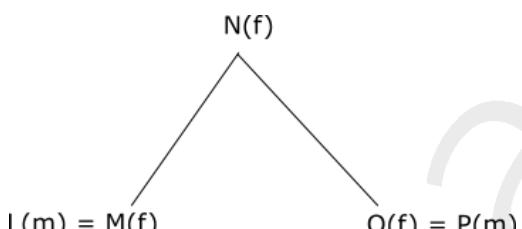
Based on the given information, the following diagram can be derived.



Distance between his home and office = $\sqrt{15^2 + 8^2} = 17$ m.

55. B

The blood relation diagram for the equation given is as follows:

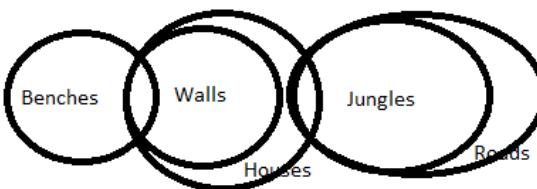


From the figure we can see that L is the brother in law of P.



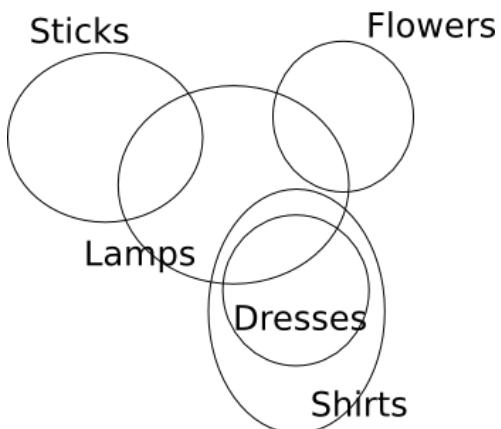
56. C

Based on the Venn diagram, Conclusions 3 and 4 follow while 1 and 2 are not implied.



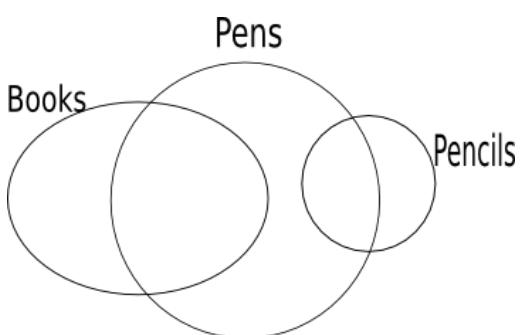
57.A

From the following diagram we can observe that no conclusion follows.



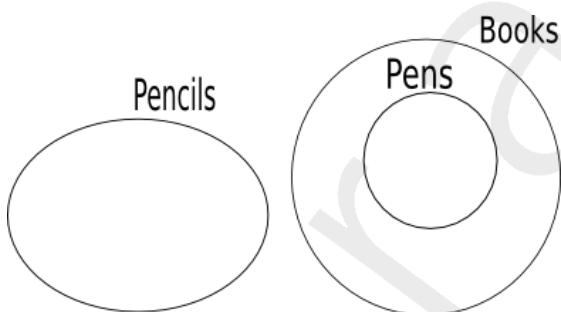
58.D

Consider the following case:



From this, we can observe that the conclusion "No pencil is a pen" need not follow.

Consider the following case:



From this we can observe that all pens are books. So, the conclusion "some pens are definitely not books" need not follow.

59.C

As according to the statement both the course of action is correct as conditions of the roads must be improved and even everyone must drive safely and attentively. Hence option c is correct.

60.E

From the given statements we can infer that all the members of the team should be good batsmen. Also the criterion for a good batsman is that he should have scored a hundred till date. From this we understand that both the conclusions follow.

Hence Option E.

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61.E

The statement is specific to ODI's but conclusion I makes a very general statement. Hence, I is not a valid conclusion.

II is very vague and there is no information regarding the same. Hence, II is also not a valid conclusion.

Thus, option E is the correct answer.

62.D

The statement did not make any reference to the elections. Hence, a cannot be inferred. The statement refers to the appointment of army chief only and not to any other appointment. Hence, neither b nor e can be inferred. The commission's response cannot be inferred from the information available. Hence, c cannot be inferred. It is stated that the permission of the Commission is sought because the government wants to strictly follow the procedure. This indicates that the Commission's permission is part of the procedure to be followed in case of this appointment. Hence, d can be inferred from the given statement. Choice d

63.D

The statement says that Children who don't go to schools are more likely to become criminals. Hence it implies that going to school reduces the chances of one becoming a criminal. Hence Option 4 is a valid inference. Option 1 is an exaggeration while 2 and 3 are unrelated to the given statement.

64.D

A is incorrect as it is the rephrased version of the original sentence.

B states that most students participate in sports because they are poor in academics. But, it doesn't imply that one who participates in sports perform poorly in academics. Thus, this is incorrect. C also suffers a similar flaw.

D, if true, suggests that sports adversely affects one's academics. Thus, if one participates in sports, his academics will be adversely affected leading to poor results. Thus, this strengthens the author's claim.

65.D

The primary purpose of an educational institution is to impart education. Therefore, the point that addresses this issue is the most likely to strengthen the cause.

Options B and E talk about symbolism. More women cannot be brought in just to represent an agenda. Option A reduces the institute to a placement agency in essence. Therefore, we can eliminate options A, B and E.

Among options C and D, option D is considered more appropriate. Option C states that women admitted were from an underprivileged background. However, uplifting the underprivileged is not the reason why the institute took the step. The institute wants to promote diversity and option D talks about the benefits of promoting diversity, thereby strengthening the cause. Therefore, option D is the right answer.

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66.D

Here, the conclusion is that "The decrease in the adoption numbers is because of the simplification of the adoption rules".

Option A is strengthening the given conclusion as it also says that the adoption numbers of Australia have gone up after the rules were made stringent.

Option B tells us that economic crisis can be a reason for the decrease in adoption numbers which contradicts our conclusion to an extent.

Option C is also irrelevant as there is no relation given between the cases reported and the decrease in number of adoptions.

Option E suggests us that the lack of publicity for the simplified rules can also be a reason for the decrease in

the number of adoptions. Hence, it also weakens the conclusion to an extent. Option D states that the countries with simplified rules for adoption have better adoption numbers. Hence this will most weaken our conclusion.

Hence, option D will most weaken the conclusion given in the statement.

67.C

If a lot of water bottles with old caps continue to be sold in the market, then the threat of pollution to landfills will still be there. So, if the statement in option C is true, it most weakens the above argument.

Option A mentions about the air pollution while the given paragraph is concerned about pollution related to landfills only. So, option A cannot be the answer.

Hence, option C is the correct answer.

68.A

- 1 - If change is not mandatory for the transaction, the direction to have change ready doesn't make any sense.
- Everybody is expected to have change but it is not implicit that everybody has change.

69.E

1- The use of the word "or" implies that if you don't open the door there is no way Rahul can come in. 2 - If Rahul doesn't want to come in the statement doesn't make any sense.

70.D

Option (d) is the right option. After the initial raids, the effect is that other businesses took precautionary measures.

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71.D

The argument I present the reason why 1st Jan should be a holiday.

Argument II isn't strong enough to deny a holiday.

Option D is correct.

72.A

Argument I is strong as any form of tourism brings in money, employment and development in a nation.

Argument II is weak as not every doctor would be involved in medical tourism and therefore the general fees demanded by professionals in the medical industry will not increase. Thus only argument I is strong.

Quantitative Skills

73.B

The first digit has to be 6. The next 3 digits can be selected in 6C_3 ways and can be arranged in 3! ways. Total number of ways = $6 \times 5 \times 4 = 120$ ways

74.C

Using both the statements together,

Let the three numbers be X, Y and Z.

$$\text{So, } X + Y + Z = 72$$

$$X^2 + Y^2 + Z^2 = 1746$$

$$\text{So, } XY + YZ + XZ = (72^2 - 1746)/2 = 1719$$

$$X^3 + Y^3 + Z^3 = 42768$$

$$\text{We know that } X^3 + Y^3 + Z^3 - 3XYZ = (X + Y + Z)(X^2 + Y^2 + Z^2 - XY - YZ - XZ)$$

$$\text{So, } 42768 - 3XYZ = 72 * (1746 - 1719) = 1944$$

$$\text{So, } XYZ = 13608$$

So, we can answer the question using both the Statements together, but not by using any of the two statements individually

75.C

Let the time taken in man hours to construct the building be X.

Let M, W and C be the working speeds of one man, one woman and one child.

Using Statement 1: $1M+5W+9C=X/52$.

Using Statement 2: $4M+8W+12C=X/28$.

Answer cannot be deduced from either equation alone.

Combining both the statements and subtracting 1 from 2, we get

$$3(1M+1W+1C)=X/28-X/52=3X/182.$$

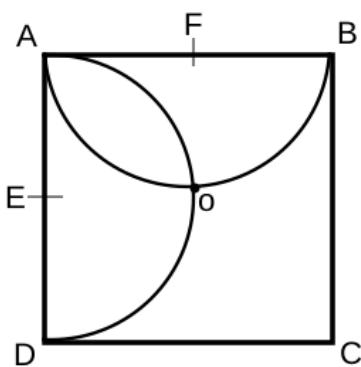
Hence, time taken is 182 days.

So, we can answer the question using both the Statements together, but not by using any of the two statements individually.



76.E

Let ABCD be the square.



Let E and F be the mid-points of AD and AB respectively. Let O be the centre of the square field.

Required area = Area of square AFOE + Area of quadrant OFB + Area of quadrant OED

$$\text{Required area} = (5 \times 5) + (2 \times 0.25 \times 3.14 \times 25) = 25 + (0.5 \times 3.14 \times 25) = 64.3$$

77.B

The probability of the missile hitting the target in the first attempt = 0.8.

If the first missile misses, the second missile is fired.

So, the probability that the second missile hits the target = $0.2 * 0.8$.

The probability that one of the first two missiles will hit the target is $0.8 + 0.2 * 0.8 = 0.96$.

Similarly, if a third missile is fired, the probability that one of the first three missiles will hit the target is $0.96 + 0.2 * 0.2 * 0.8 = 0.992$. When the fourth missile is fired, the probability becomes $0.992 + 0.2^3 * 0.8 = 99.84\%$

Therefore, a minimum of 4 missiles have to be fired so that the probability of the target being hit is > 99.8%.

78.C

Sum of the ages of the employees in 2009 is $50 \times 20 = 1000$

Sum of the ages of the employees in 2011 after the 3 employees retired is $1000 + (2011 - 2009) \times 20 - 180 = 860$

Sum of the ages of the employees after the new employees are hired is $860 + 17 + 73 = 950$

Sum of the ages of the employees in 2013 is $950 + 19 = 969$

So, average age is 51

79.C

The probability that he misses the target all four times is given by 0.4^4 . Hence, the probability that he has hit the target is $1 - 0.4^4 = 0.9744$.

80.A

Every member gives toast to every other person except him, and his two neighbours. Hence he gives toast to n-3 people.

Total number of toasts = $n(n-3)$. Now all the toasts will be repeated twice as the person who gives toast to, will also give him a toast in this case. Hence we must divide it by 2.

$$n*(n-3)/2 = 54. \text{ So, } n = 12$$



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81. D

Any of the numbers 35,385,455,595,665 and 805 satisfy the two statements. So, even after using both the statements, we can't find N.

82. C

As the numbers are in AP and the sum is more than 150, the middle number will be greater than 50.

The average of the three numbers will be the middle number.

The square of 50 is 2500.

So the middle number can be the prime just greater than 50.

53 is the next prime.

59 is the next prime, and three times the square of 59 is more than 8600.

So only 53 is the only possible middle number.

83. E

Let A be the speed of Ajay and V the speed of Vijay.

So, $A = 150\%V$.

So, the relative speed of Ajay with respect to Vijay is $V/2$.

Time taken to run 400m at $V/2 = 4$ minutes.

$$\text{Hence, } V = \frac{2*400}{(4*60)} = \frac{10}{3} \text{ m/s.}$$

Therefore $A=5$ m/s.

So, time taken by Ajay to run 2400m is $\frac{2400}{5} = 480s = 8$ mins.

84. C

For every n of the form $4k+1$, both n and $70-n$ are elements of S. So, if a number 'n' is an element of the subset, $70-n$, can't be a member of the subset. Total number of elements in S=18. So, maximum number of elements in the subset is $18/2 = 9$

85. B

$$\frac{4000}{X} - \frac{4000}{X+20} = 10.$$

$$\text{So, } X = 80m^3$$

Filling capacity of the tap per minute is $X + 20 = 100m^3$



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86. A

If the amount left at start of 2014 is 10000 then Amount withdrawn in 2013=Amount accumulated over 2013 = $100X$.

Hence, Amount withdrawn every year = $100X$. So, $Y = \frac{100X}{10000+100X} = \frac{X}{100+X} < X$

Alternate approach:

At the beginning of 2010, Ajay has 10,000. Let us take this as '10k' for ease of calculation.

Let $y = (Y/100)$ where Y is the %value withdrawn every time.

At the end of 2010, Ajay has $10k \left(1 + \frac{x}{100}\right)$

At the beginning of 2011, he has $10k \left(1 + \frac{x}{100}\right) - y \left(10k \left(1 + \frac{x}{100}\right)\right)$

This can be simplified as $10k \left(1 + \frac{x}{100}\right) (1 - y)$

At the end of 2011, he will have $10k \left(1 + \frac{x}{100}\right)^2 (1 - y)$

Similarly, at the start of 2012, he will take $10k \left(1 + \frac{x}{100}\right)^2 (1 - y)^2$ for his investment

and at the end, he will have $10k \left(1 + \frac{x}{100}\right)^3 (1 - y)^2$

In the same way, at the start of 2013, he will take $(1-y)$ times his previous value which means that by the end of 2013 $10k \left(1 + \frac{x}{100}\right)^4 (1 - y)^3$

This means that at the start of 2014 he will have $(1-y)$ times the previous value= $10k \left(1 + \frac{x}{100}\right)^4 (1 - y)^4$

It is mentioned in the question that this value is equal to 10k

On equating this, we get:

$$10k \left(1 + \frac{x}{100}\right)^4 (1 - y)^4 = 10k$$

We can further simplify this to: $\left(1 + \frac{x}{100}\right) (1 - y) = 1$

$$1 = \frac{1}{(1-y)} - \frac{x}{100}$$

On rearranging the terms, we get: $y = \frac{x}{x+100}$

This value of y is definitely lower than x.

Hence we can deduce that $x > y$.

87. E

$P(1+4R) = 15840$ and $P(1+7R) = 18720$

$$\text{So, } \frac{1+7R}{1+4R} = \frac{18720}{15840}$$

So, $R=8\%$ and $P=\text{Rs.}12000$

88. E

The nth term ($n > 1$) of the series is $S(n) - S(n-1) = 4n^2 + 8n + 4 - 4(n-1)^2 - 8(n-1) - 4 = 8n + 4$.

The first term of the series is $S(1) = 16$

Note that the series is an arithmetic progression from the second term onwards with ($a=20$ and $d=8$).

However, as the first term is 16, the entire series is not an AP (or GP or HP)

89. B

There are 4 kings in a set of 52 cards

$$\begin{aligned} P(\text{at least one king}) &= 1 - P(\text{no king}) = 1 - {}^{48}C_2 / {}^{52}C_2 \\ &= 1 - 188/221 = 33/221 \end{aligned}$$

90. C

$$64a + 8b + c + 12a + 12b + 12c = 0 \text{ or } 76a + 20b + 13c = 0 \quad \text{--- (1)}$$

$$F(2) = 0 \text{ or } 4a + 2b + c = 0 \quad \text{--- (2)}$$

$$(1) - 13 * (2) \Rightarrow 24a - 6b = 0 \Rightarrow b = 4a$$

$$(1) - 10 * (2) \Rightarrow 36a + 3c = 0 \Rightarrow c = -12a$$

$$\text{So, } F(x) = a(x^2 + 4x - 12).$$

Hence, the other root is -6

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91. A

Required Probability = $1 - P(x = 0) = 1 - (1/2^5) = 31/32$

92. B

Total number of visitors in the first year = 50,000

Total number of visitors in fifth year = $50000 \times 0.9 \times (4/3) \times 1.25 \times (8.9)$

Total number of female visitors = $50000 \times 0.9 \times (4/3) \times 1.25 \times (8.9) \times 0.35 = 23334$

93. A

Total number of visitors in second year = $50,000 \times 0.9 = 45,000$

Number of male visitors in fourth year = $0.6 \times (0.9) \times (4/3) \times 1.25 \times 50000 = 45000$

Ratio = 1:1

94. C

Let the total number of visitors in the third year be x.

Difference between Male and Female visitors in thirs year = $x/3$

Total number of visitors in fifth year = $x \times (5/4) \times (8/9) = 10x/9$

Difference between Male and Female visitors in thirs year = 30% of $(10x/9) = x/3$

95. E

Let the total number of visitors in second year be x

Total number of male visitors in the second year = $0.75x$

Total number of visitors in the fourth year = $(4/3)(5/4) = 5x/3$

Total number of male visitors in fourth year = $0.6 \times 5x/3 = x$

Growth rate = $(x - 0.75x)/0.75x = 33.33\%$



96. C

Assuming $\frac{\log x}{\log 10} = a$, the equation above states $a - 2a/3 = 3/a$. So, $a^2 = 9$. Hence, the equation has two solutions.

97. A

After every step the amount of benzene present is decreased by k percentage, where k is the percentage of solution removed.

$$\Rightarrow \text{Final volume} = 100 * (1 - \frac{20}{100}) * (1 - \frac{15}{100}) * (1 - \frac{10}{100}) * (1 - \frac{5}{100})$$

Final volume = 58.14 litres

98. B

Each of them eats 8 apples (divided equally). So A gives away $9 - 8 = 1$ apple from his lot.

Similarly, B gives away, $15 - 8 = 7$ apples from his lot.

So, A and B have to share the coins in the ratio 1:7, therefore, B gets $(7/8) \times 24 = 21$ coins.

99. C

Number of ways in which men can be arranged = $3! = 6$ ways (circular arrangement)

Number of ways in which women can then be arranged = $4! = 24$ ways (Once the men are seated, the arrangement of women becomes a linear arrangement)

Total number of ways of arrangement = $6 \times 24 = 144$ ways

100. D

The number of city wise shortlists can be tabulated as below

City	Number of Shortlists
Ahmedabad	5
Bangalore	6
Calcutta	4
Delhi	5

If Ajay gets 14 rejects, his total applications in Bangalore will be 20.

$$\text{Number of applications in Delhi} = \frac{(0.4)20}{0.25} = 32$$

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101. B

Let us assume that Ajay applied for only 5 jobs in A

Total number of job applications = $5/0.15 = 33.33$ (this cannot be possible as it is not an integer)

Let us assume that he applied only 6 in Bangalore

Total number of job applications = $6/0.25 = 24$

But the number of applications in Ahmedabad is not an Integer if the total is 24.

Let us assume that he applied only 4 in Calcutta

Total number of applications = $4 / 0.2 = 20$

But the number of shortlists will be greater than the number of applications in case of Ahmedabad in the case of 20.

Let us assume that he applied only 5 in Delhi

Total number of applications = $5/0.4 = 12.5$

The minimum number of applications should be a multiple of 20 or 24.

The minimum number of applications should be a multiple of the numbers 12.5, 20, 24, 33.33

Among them, 40 is the least number that satisfies all the conditions.

Alternate :

	Shortlisted	Total
Ahmedabad	5	$15x$
Bangalore	6	$25x$
Calcutta	4	$20x$
Delhi	5	$40x$
	20	$100x$

Total should be greater than or equal to shortlisted

$$15x \geq 5 \Rightarrow x \geq 0.33$$

$$25x \geq 6 \Rightarrow x \geq 0.24$$

$$20x \geq 4 \Rightarrow x \geq 0.2$$

$$40x \geq 5 \Rightarrow x \geq 0.125$$

Hence x should be greater than or equal to 0.33.

The nearest value of x such that $15x, 25x, 20x, 40x$ are integers is 0.4

Hence Minimum jobs applied = $100 \times 0.4 = 40$

102. B

Here, Ajay was shortlisted by 6 companies in Bangalore and that is 60% of his number of applications in Bangalore.

The number of companies that he applied in Bangalore is 10 and total applications from all the cities will be 40.

103. C

If he got rejections from 40 companies, the total number of applications by him is 60.

The number of applications in Calcutta is 12.

Number of rejections from companies in Calcutta = $12 - 4 = 8$

104. C

The box named apples is either the oranges box or the mixture box. Similarly, Orange box is either apple box or mixture box. Mixture box is either apples box or oranges box. Pick a fruit from the box named mixture. If the fruit we pick is an apple, name the box apple. Rename the orange box as the mixture and the apples box as oranges.

105.A

Let x be the initial volume of the solution. Hence, $5x/8$ is the amount of milk and $3x/8$ is the amount of water. 25% of $x=2x/8$ water is added.

Hence, the solution has $5x/8$ milk and $5x/8$ water now. Hence, the solution has equal parts of milk and water. Removing 100 liters of solution and adding water is the same as removing 50 liters of milk and adding 50 liters of water.

So,

$$(5x/8 - 50)/(5x/8 + 50) = 3/7. \text{ So, } x = 200$$



106.A

$1999^{1999} = (2000 - 1)^{1999}$. The last three digits of this will be the last three digits of $1999 C_1 * 2000 - 1$ which is 999

107.D

We cannot infer the answer to this question as we do not know the cost price or selling price of both the bicycles and hence cannot determine the overall percentage of profit.

108.D

From 45000 to 63000, the percentage increase is 40%.

From here on, percentage increase has increased by 50% everytime.

=> 2nd hike = 60%, 3rd hike = 90%, 4th hike = 135% and 5th hike = 202.5%

=> Final salary = $63000 * 1.6 * 1.9 * 2.35 * 3.025 = \text{Rs } 1361467.8$