NMAT Previous Paper 4

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Language Skills

1. Complete the following paragraph by choosing the most appropriate option. Obscurity and vagueness of expression are at all times and everywhere a very bad sign. In ninety-nine cases out of a hundred they arise from vagueness of thought, which, in its turn, is almost always fundamentally discordant, inconsistent, and therefore wrong. When a right thought springs up in the mind it strives after clearness of expression, and it soon attains it, for clear thought easily finds its appropriate expression. A man who is capable of thinking can express himself at all times in clear, comprehensible, and unambiguous words. Those writers who construct difficult, obscure, involved, and ambiguous phrases most certainly do not rightly know what it is they wish to say: they have only a dull consciousness of it, which is still struggling to put itself into thought; they also often wish to conceal from themselves and other people that in reality they have nothing to say. Like Fichte, Schelling, and Hegel, ____ .

- **A** all gifted thinkers with clarity of thought choose simple plain terms that unambiguously explain their ideas

- **B** they are vague on purpose to hide the complexity and intractability of their thoughts

- **C** they are not real thinkers and hence not real doers

- **D** they wish to appear to know what they do not know, to think what they do not think, and to say what they do not say

- **E** All great thinkers with a clarity of thought, use simple terms to explain their ideas.

2. Bacon believes that the medical profession should be permitted to ease and quicken death where the end would <u>otherwise only delay for a few days and</u> at the cost of great pain.

- **A** be delayed for a few days

- **B** be delayed for a few days and

- **C** be otherwise only delayed for a few days and

- **D** otherwise only delay for a few days and

- **E** is only delayed for a few days and

Instructions [3 - 6]

Read the following passage carefully and answer the questions given below it.

The Internet has made it possible to generate many more forms of passive online income. Passive income is one of three types of income, as categorized by the IRS. The most common source of passive income is through online advertisements.

Online advertisers offer a variety of advertising models where advertising affiliates are offered payment in exchange for clicks, impressions or for each commission. For example, an e-commerce website might offer a percentage of the revenue generated from sales after a user arrives from the **affiliate**'s link.

The size of the passive income generated by the advertising affiliates comes from the number of users who see the link and are compelled by the advertisement or context that the link is embedded in. In order to draw in traffic and maximize clicks, advertising affiliates need to create content that is interesting to the users and can also draw in traffic that is likely to click on the links and purchase the product on the other side.

For this reason, many websites that are advertising affiliates need content, which is most often text. However, the content can also include images, downloads, software, video and various other applications and forms of multimedia. Website owners earn a passive income through advertisements either by creating the content themselves or by subcontracting the creation of this content out to other content creators.

Compensation can be paid for either through passive or active payments. Some website owners choose to share a portion of the website earnings with the content creators, while other websites choose to pay content creators a flat fee, which represents an active form of income. Flat fees provide content creators with an **immediate gratification** for the content creator, but articles with a large amount of views can earn much more passive income.

Advertisements are only one way in which income is generated online. Another way to generate income is through the selling of products and services. Many products are sold on e-commerce websites and auction websites. E-commerce websites generally sell a select type of merchandise, with products sold usually at a set price. Auction websites allow buyers and sellers to meet online. Buyers can bid on products, with the highest bidders getting the item for sale.

The bidding concept is also used to sell services on a variety of bidding websites. In the private-contract model, clients can post projects and professionals can bid on the project. In this case, the bid represents the fee that the professional wishes to be paid for the project. The client can choose bidders based on the **suggested** fee, the professional's **credentials** and samples that are presented to the client.

However, this only represents one of many ways that clients and independent contractors can come together. Many clients will advertise the need for services on online classified websites, content mills and forums. For more high-profile projects, talent is usually found through word-of-mouth or by the independent contractor advertising his or her services on a personal website. While clients might pay a flat fee for services, some clients and independent contractors work out an hourly rate or a revenue share system.

- BY Johnathan Abbiss

3. Which of the following is considered a passive payment according to the passage?

    A   Ravi works for a company that pays him Rs 8000/- every month

    B   Rakesh earns a portion of the profits of the company that he works for

    C   Rama, who earns Rs 1.5 Lakh every month, is the highest paid employee in her company

    D   Rahul always charges a fixed amount for the work he does

    E   None of these

4. Which of the following is not true according to the passage?

    A   E-commerce websites can be used to sell products

    B   Compensation for content creators can be categorized into two types

    C   The content required by most advertising websites is often text

    D   Advertisements are the only way through which income can be generated online

    E   Among all the sources, online advertisement is the most common source for passive income

5. Which of the following ways that clients and private contractors can come together has not been mentioned in the passage?

A Auction websites

B Content mills

C Forums

D Word of mouth

E All of them are mentioned

6. Which of the following can be the source of the passage?

A An article from a website

B A school textbook

C Scientific journal

D An editorial

E A motivational book

7. If you are on a three-month software design project <u>and, in two weeks, you've put together a programme that solves part of the problem</u>, show it to your boss without delay.

A and, you've put together a programme that solves part of the problem in two weeks

B and, in two weeks, you've put together a programme that solves part of the problem

C and, you've put together a programme that has solved part of the problem in two weeks

D and, in two weeks you put together a programme that solved only part of the problem

E and, you've put together a programme that had solved part of the problem in two weeks

Instructions [8 - 11]

Read the passage carefully and answer the questions that follow:

Green technologies for more than a century today have been our greatest weapons towards saving planet earth. Comprehensive environmental awareness campaigns have been launched all over the world to inform people of the different ecological benefits of using green energy. But all efforts seem to be not enough because brown energy technologies that desecrate the sanctity of the environment are still reigning supreme in the energy industry. Oil and coal still supply most of the world's energy needs. Unfortunately, coal and oil are also the leading in the release of carbon gases into the atmosphere.

The primary reason why coal and oil are still the most widely used energy sources is because they have remained unrivaled in terms of efficiency for ages now. Efficiency has also been what held green technologies like solar power, wind power, biomass power, and hydropower back. Most green energies cannot even fully sustain a consumer's needs. They often need additional sources as **supplement** to suffice. And obviously, people prefer **efficient** forms of energy even if they harm the environment rather than green technologies that help preserve nature but are incapable of meeting their demands.

Finally, there is a green technology that has the potential to surpass even coal and oil when it comes to efficiency. This revolutionary process is called biosphere technology. Biosphere technology involves the use of biosphere machines to convert solid wastes into energy in the form of electricity. Biosphere technology qualified as a green technology because of the fact that a biosphere machine subjects the feedstock under the biosphere gasification process inside tightly closed, oxygen **limited** containers thus greatly limiting the release of carbon gases into the atmosphere. The Biosphere MKV brought into the Philippines by Ronald Shane Flynn has broken records and is now recognized as the most efficient and most environment friendly technology. Its efficiency is represented by the fact than it can convert a maximum of 97% of the weight of the wastes into energy and more than 90% of the remaining by-products can be further processed to become resalable in the market. Its ecological friendliness on the other hand, is proven by the fact that during the entire waste-to-energy conversion process, only around 2% greenhouse gas emissions are produced. Biosphere technology is so environment-friendly it can even be classified as a carbon offset solution.

Biosphere technology not only prevents future air pollution, it also eliminates current land pollution because of the fact that it uses solid wastes for fuel. A single biosphere facility can convert the trash found in entire landfills into commercial electricity. Governments and organizations therefore now have one more reason to **destroy** waste, and that is to gain electrical power.

Biosphere technology also entails a more stable economy due to oil independence. Biosphere energy is a stand-alone form of energy, meaning it does not need to be supplemented by other forms of energy to meet the demands of consumers. Thus, a country with **adequate** amounts of biosphere facilities and machines no longer needs to import oil to fuel their industries. The said countries then are no longer significantly affected by fluctuations in the price of oil in the global market.

8. What is the main difference between brown technology and green technology?

A Brown technologies have limited applications whereas green technologies have unlimited applications

B Brown technologies have high efficiency whereas green technologies have less efficiency

C Brown technologies release carbon gases into the atmosphere whereas green technologies don't

D Brown and green technologies are almost similar and there's not much difference between them

E None of the above

9. Which country was the first to adopt green technology for energy generation at a national level?

A Philippines

B India

C USA

D UK

E Cannot be inferred

10. What is the reason for the classification of biosphere technology as a green technology?

A Biosphere technology releases only negligible amounts of carbon gases

B Biosphere technology is a high efficiency technology

C Biosphere technology is a low efficiency technology

D Biosphere technology is similar to other green technologies

E None of the above

11. Which of the following is a drawback of biosphere technology?

- **A** High cost
- **B** Too many by products
- **C** High wastage
- **D** Low efficiency
- **E** None of the above

12. I prefer tea ___ coffee.

- **A** of
- **B** to
- **C** from
- **D** over
- **E** and

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

CONVICT : INCARCERATE :: ACQUIT : ?

- **A** liberate
- **B** impound
- **C** deliver
- **D** restrain
- **E** imprison

14. Choose the grammatically correct option for the underlined portion:
Despite he supported the land acquisition bill, the Prime Minister had the support of neither the country's citizens nor his cabinet, rather he only had the support of corporate houses.

- **A** Despite he supported the land acquisition bill, the Prime Minister had the support of neither the country's citizens nor his own cabinet, rather he only

- **B** Despite the fact that he supported the land acquisition bill, the Prime Minister had the support of neither the country's citizens nor the support of his own cabinet, rather he only

- **C** Although he supported the land acquisition bill, the Prime Minister had the support of neither the country's citizens nor his own cabinet, but rather he only

D Although supporting the land acquisition bill, the Prime Minister had the support of neither the country's citizens nor his own cabinet, but rather he only

E Although he supported the land acquisition bill, the Prime Minister has the support of neither the country's citizens nor his own cabinet, but rather he only

Instructions [15]

For each of the questions given below, fill in the blanks with the most suitable idiom or phrase.

15. After the inappropriate comment from the party head, all the other members _____ and walked away.

A Took with a grain of salt

B Voted with their feet

C Saw eye to eye

D Cried over spilt milk

E None of the above

16. Choose the option which is a SYNONYM for the given word: RAMSHACKLE

A Dilapidated

B Restraint

C Fetters

D Uprooted

E chained

Instructions [17]

Choose the option that would fit both the given blanks.

17. It should be a criminal offense to _____ someone's drink.
The country was struggling to import oil due to the sudden _____ in the commodity's price.

A affect

B increase

C offer

D spike

E alter

18. Choose the grammatically correct option for the underlined part.
<u>As internet reaches a greater number of people in India</u>, the disenchantment with the functioning of the government has risen over the years.

A As internet reaches a greater number of people in India

B As internet reached a greater number of people in India

C As internet has reached a greater number of people in India

D As internet has been reaching a greater number of people in India

E As internet had reached a greater number of people in India

19. Bull : Cow :: Buck : ?

A Doe

B Sow

C Pen

D Mare

E Jenny

20. **Five sentences are given below. Four of these when arranged in correct order, form a logical and meaningful paragraph. One of the sentences does not belong to this paragraph. Rearrange the 4 sentences that belong to the paragraph and choose the option that contains the order in which the 4 sentences should be put together:**

A: His purpose was to gather green leaves to sell to florists in N. Y. city.
B: He hurried away to inform the police.
C: While they were there the woman talked almost incessantly.
D: He had followed eastward toward the river about 100 feet and had turned aside to the right about twenty feet when he was appalled by almost stepping upon the dead body of a woman.
E: On Friday morning a German entered the path leading from Bergen Avenue.

A EDBA

B EADB

C ECAD

D EDBC

E EACB

Instructions [21 - 22]

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).

21. In October of 1856, readers of the New York Daily Times were eager for news from Siam. In the 1850s, most Americans would only be familiar with the Southeast Asian nation now known as Thailand through its most famous citizens, Chang and Eng Bunker, the original "Siamese twins", who had been living in the United States since 1830. _____

A   The points of comparison between Siam and the United States were harder to ignore.

B   The kingdom was in a state of unrest which may have ended in a civil war.

C   But the Kingdom of Siam itself — its geography, its government, its culture — was a total mystery.

D   A new treaty between Siam and the United States, kindled a public interest in all things Siamese.

E   A Siamese prince, who adopted the name of the United States' first president, was too odd a figure to ignore.

22. University of Arkansas professor Kyle Quinn received death threats and demands that he be fired after he was mistakenly identified as one of the "white nationalist" marchers in Charlottesville. He's still dealing with the fallout. Presumably others are in the same boat. _____. They're just magnified by it. And the tools which create that magnification can also be used to correct the errors and falsehoods. This is just a matter of scale, not a new or insoluble problem.

A   They are crestfallen by the false accusations, which have tarnished their reputation.

B   But the problems of mistaken identity is not something new.

C   But mistaken identities and false accusations are not unique to social media.

D   The problems of mistaken identities and false accusations are not just common to people.

E   Such problems are way too many.

23. Five sentences are given below. Four of these when arranged in correct order, form a logical and meaningful paragraph. One of the sentences does not belong to this paragraph. Rearrange the 4 sentences that belong to the paragraph and choose the option that contains the order in which the 4 sentences should be put together:

A: The great stretch of territory vaguely called the "Northwest" filled his mind with interesting visions of possible adventures.
B: They were well fitted for the dangerous enterprise ahead.
C: Another name given to it by his elders, and by the books, was the "Great American Desert,".
D: Little William pored over his big geography in the firelight of his Pennsylvania home.
E: The boy could never hear enough of the tales that came out of it.

A   DEAC

B   DECA

C   DECB

D   DCAE

E   DACE

Instructions [24 - 27]

Read the passage carefully and answer the questions that follow:

In any business, one of the best ways to market is to create anticipation from your target clients. This means that your products and services make your clients and prospects so excited that they can't wait for you to launch in the market. This is what anticipation marketing is all about. It's a way of building the reputation of your product to your public and getting them so curious that they would want to have them right away.

The bottom line of marketing with anticipation is to start flashing ideas to your target clients and ensuring that you **pique** their interest slowly but surely. One of the ways to do it is to distribute marketing **collaterals** such as flyers or even cheap postcards to announce your new product. The key is to give them a **glimpse** of what to expect without having to give away all the information. This way, you keep them so interested little by little that they tune in every time so they get hooked on your ad.

Marketing with anticipation not only introduces your new offer but it also keeps the excitement going as early as the pre-launch stage. Until you finally unveil your new product or service, you can have your target clients interested with your collaterals such as your postcard printing or cheap postcards that they already wait in **anticipation**.

When you decide to go this route, a few pointers can help you launch a successful marketing campaign:

It's not a one-time deal. In any marketing effort, you need to market not just once if you want to be successful. More so, if you're using anticipation because you're building the interest of your target audience. The key is to keep them coming back for more until you finally launch your new offer to the public.

Provide mystery and **intrigue**. Don't be a tell-all when marketing your product or service. You're trying to build anticipation. You wouldn't want your target clients to know everything right away even before you launch your new offer. It is very important that you give them the details in trickles, slowly but surely. The more they would want to know about your product or service, the more they would be excited to learn when you are actually going to introduce your product.

Don't keep them waiting for too long. It's good that you're not giving away everything in one blow. But it is also to your advantage not to drag your marketing strategy in your postcard printing or cheap postcards for far too long that your target audience gets frustrated while waiting for it. Worse case scenario: your target audience gets tired waiting for it because it's taking you forever to finally launch your new offer that they would want to move on to the next product from your competition.

Finally, don't use stock phrases such as 'coming soon' in your collaterals such as your postcard printing because it's so passive. For once do something creative. Get them excited with unusual and unique phrases so they would feel suspense when they read your ad.

Kaitlyn Miller

24. What is the author trying to convey when he says "It is very important that you give them the details in trickles"?

   A It is very important to convey all the information about the product upfront

   B It is important to keep your audience hooked and not give away all the information at once

   C It is important to keep the audience engaged

   D It is important to give slightly misleading information about your product

   E None of the above

25. The author would agree with which of the following statements?

   A Anticipation marketing arouses the interest of the audience

   B Mystery and intrigue are not very important for marketing

   C Anticipation marketing is the only kind of marketing

   D It is good to use phrases such as 'coming soon' etc. in your ads

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E The author would not agree with any of the above statements

26. According to the passage, which of the following is a good way to announce a new product?

A Giving a detailed interview about the new product for a magazine

B Publishing a bulletin on the new product

C Giving a hint of the new product's features at a media event

D Putting up complete details about the new product by creating a new page on your website

E None of the above

27. Which of the following is one of the advantages of marketing with anticipation?

A It introduces your new offer

B It keeps the excitement going

C It doesn't keep the customers waiting for long

D More than one of the above

E None of the above

28. _____ the Congress had done reasonably well during its tenure, its failure to address issues related to corruption _____ in it losing to the BJP in the general elections.

A Despite, resulted

B Although, resulted

C Despite, resulting

D Although, resulting

E Despite, result

Instructions [29]

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.

29. Even as the _____ elsewhere in the world are struggling to come out of recession, Indian consumers are splurging on consumer goods and to _____ this growth, companies are investing heavily in various sectors.

A Economies, Meet

B   Countries, Inhibit

C   Governments, Measure

D   Nations, Inflict

E   Companies, Counter

Instructions [30]

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

30. A person who is clean and tidy in how he dresses up commands better _____ from those around him than those who have a _____ and unkempt appearance.

   A   respectful - slovenly

   B   respect - slovenly

   C   respected - untidy

   D   respect - tidy

   E   respect - careful

31. Five sentences are given below. Four of these when arranged in correct order, form a logical and meaningful paragraph. One of the sentences does not belong to this paragraph. Rearrange the 4 sentences that belong to the paragraph and choose the option that contains the order in which the 4 sentences should be put together:

   A: The settlement, therefore, formed a new centre for the church, and Brother Van came to this district, not as a missionary at large, but as a presiding elder of all of that part of Montana east of the Rocky Mountains and north of the Musselshell River.
   B: The West was still, however, the easy prey for evil.
   C: The section around Great Falls became a prosperous farming country.
   D: It was known as the North Montana Mission and was about five-twelfths of the total area of the state.
   E: The building of railroads through the state of Montana brought a rapid development.

   A   EDAC

   B   ECAD

   C   ECDA

   D   EBDA

   E   EABC

Instructions [32]

Select the option which best expresses the meaning of the idiom/phrase.

32. Chickens come home to roost

A   To constantly worry

B   To wander aimlessly

C   To dream big

D   One's actions will have consequences

E   Catching up to the current times

33. Choose the option which is a SYNONYM for the given word: WRANGLE

A   Artificial

B   Bind

C   Dispute
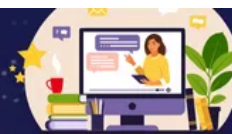
D   Complicated

E   Tangled

Instructions [34 - 35]

Choose the word which is most opposite in meaning.

34. Concern

A   Reassurance

B   Comfort

C   Anxiety

D   Indifference

E   Neglect

35. Sustain

A   Prolong

B   Uphold

C   Protract

D   Diminish

E   Quit

36. Five sentences are given below. Four of these when arranged in correct order, form a logical and meaningful paragraph. One of the sentences does not belong to this paragraph. Rearrange the 4 sentences that belong to the paragraph and choose the option that contains the order in which the 4 sentences should be put together:

A: In this way young Scotsmen were taught to take things seriously.
B: He is cradled in the storm; he has to fight for life in a rough climate, in a huddle of grey houses.
C: In the first place, the Scotsman is a son of the rock.
D: The amenities of life are by no means plentiful.
E: The circumstances of his birth and upbringing are as a rule very stern.

A CEDA

B CBAD

C CEBA

D CEBD

E CABD

Logical Reasoning

37. Pointing to a woman Smitha said -" This girl is the wife of the grandson of my father". If Smitha's father had only one daughter, then what is the relation of Smitha to the girl ?

   A mother-in-law

   B sister

   C mother

   D daughter-in-law

   E Can't be determined

Instructions [38]

In each question given below, there are three statements followed by two conclusions numbered I and II. You have to take the three statements given to be true and then decide which of the conclusions logically follow from the three statements.

38. Statements:Some mobiles are smart phones. Some smart phones are smart watches. All smart watches are referigerators.
Conclusions:1)There may be some mobiles which are both smart phones and smart watches.2)There may be some mobiles which are both smart phones and referigerators.

   A Only conclusion 1 follows

   B Only conclusion 2 follows

   C Both conclusion 1 and conclusion 2 follow

D   Either conclusion 1 or conclusion 2 follows

E   Neither conclusion 1 nor conclusion 2 follow

39. Ajay is ranked sixteenth in a Maths test in his class from the top. His brother Alay was ranked fourteenth in the same test from bottom. If Ajay's rank is five better than Alay's from the top, how many students are there in the class?

A   35

B   27

C   34

D   39

E   None of these

Instructions [40]

What will come in place of question mark '?' in the following number series?

40. 164, 245, 181, 230, 194, ?

A   216

B   225

C   206

D   228

E   219

Instructions [41]

In certain code language
" ki ka ni" means "She is beautiful"
"ni ko po" means "Butterflies are beautiful"
"ti di" means "World wonder"
"pa ku ti ka" means "Tajmahal is a wonder"

41. Which of the following would be a possible code for the sentence "She likes tajmahal"?

A   "pa ti ki"

B   "pa ku hi"
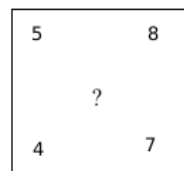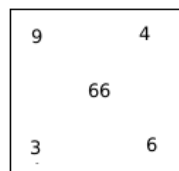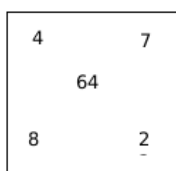
C   "ki pa ta"

D   "ki pa ti"

E   "ki pa ku"

42. Which number should replace the question mark?
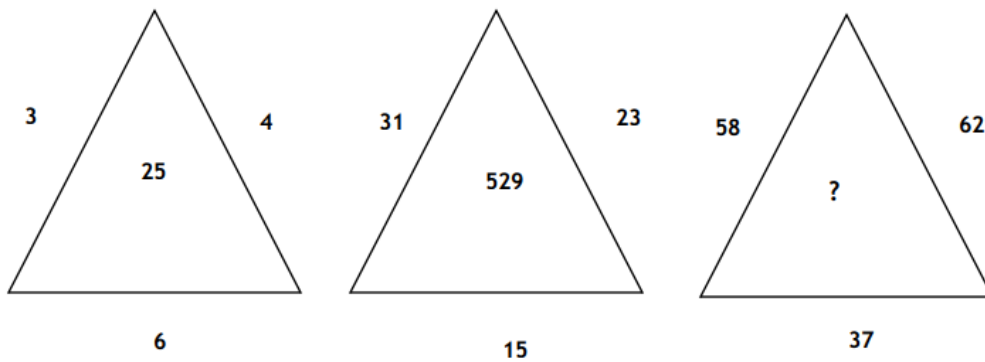
A 1089

B 900

C 961

D 1225

E 625

43. Find the missing value in the following figure

A 83

B 79

C 61

D 67

E 73

44. In the figure below, which of the following options should replace the question mark (?). The relation can be horizontal or vertical.

AB	DP	AL
1	4	7
BC	HT	?

A LQ

B HS

C MN

D ZQ

E LA

Instructions [45 - 48]

Study the following information carefully and answer the given questions.
A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.
Input day case 20 13 now for 49 56
Step I 13 day case 20 now for 49 56
Step II 13 now day case 20 for 49 56
Step III 13 now 20 days case for 49 56
Step IV 13 now 20 for days case 49 56
Step V 13 now 20 for 49 day case 56
Step VI 13 now 20 for 49 day 56 case
And Step VI is the last step.
As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

45. input yes 21 far 32 17 12 wide goal
Which of the following will be step V of the above input?

A 12 yes 21 wide 32 far 17 goal

B 12 yes 21 wide far 32 17 goal

C 12 yes 21 far 32 17 wide goal

D there will be no such step

E None of the above

46. step IV of an input is "17 hotel 29 father 83 76 door eye"
Which of the following will be step VII?

A 17 hotel 29 father 76 door 83 eye
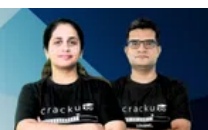
B 17 hotel 29 father 76 eye 83 door

C 17 hotel 29 father 76 83 door eye

D there will be no such step

E None of the above

47. Step II of an input is "39 sure 72 63 height over 42 lamp" which of the following is definitely the input?

A Height 39 sure 72 63 over 42 lamp

B 72 63 39 sure height over 42 lamp

C 63 39 sure 72 height over 42 lamp

D Can't be determined

E None of the above

48. Step III of an input is "37 yellow 42 61 53 violet green red" how many more steps will be required to complete the rearrangement?

A 3

B 4

C 5

D 6

E None of these

Instructions [49 - 52]

Study the following information carefully and answer the questions given below:
Eight friends – R, S, T, U, V, W, X and Y – are sitting around a circular table facing the center, but not necessarily in the same order. Each of them studies in the different Standards viz, Standard I to Standard VIII, but not necessarily in the same order. T is second to the right of the person who studies in Standard VII. Only one person sits between T and the person who studies in Standard V. X is sitting third to the left of the person who studies in standard VIII. The person studying in Standard VIII is not an immediate neighbor of the person studying in Standard VII. T does not study in Standard VIII. The person studying in Standard VI is to the left of U. U does not study in Standard V or Standard VIII. The person studying in Standard VI and VII are immediate neighbors of each other. One of the immediate neighbors of the person studying in standard VIII, studies in Standard II. S and Y are immediate neighbors of each other. There is one person between S and R. V does not study in Standard I. R studies in Standard V. Y does not study in Standard II. W is sitting between the persons who study in Standard VII and Standard IV. X is second to the right of the person studying in Standard I.

49. Who among the following is sitting third to the right of 'T'.

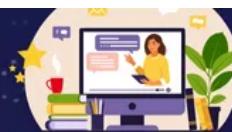**A** S

B The person studying in Standard II

C The person studying in Standard V

D Y

E The person studying in Standard I

50. Who among the following is sitting just opposite to 'R'?

A The person studying in Standard VI

B W

C The person studying in Standard V

D S

E The person studying in Standard VII

51. Which of the following pairs represents the immediate neighbors of 'V' ?

A R and the person studying in Standard VIII

B S and the person studying in Standard III

C The person studying in Standard V and Y

D Cannot be determined

E None of these

52. What is the position of 'W' with respect to 'S'?

A Fourth to the right

B Fourth to the left

C Third to the right

D Fifth to the right

E Sixth to the left

53. Rajiv is fifth from the front in a line of students while his brother Sanjay is sixteenth from the back. Praveeen is exactly in the middle of Rajiv and Sanjay. If the total number of students in the row is 52, what is the position of Praveen from the front?

A 26

B 21

C 18

D 25

E 20

Instructions [54]

Praveen started from his home to a temple which is quite far from his home, He first travelled 12km in the North direction. Then he turned right and travelled 8 km more. He then took a left and travelled 4 km more to reach his destination

54. On Praveen's return journey he decided to take another route. He started from his destination and travelled 5 km to first reach the stretch of road he travelled 8km earlier. From this point what is the shortest distance to his home?

A 10km

B 20km

C 13km

D 18km

E 15 km

55. Looking at a photograph a man said, ' His father's wife is the only daughter of my sister's mother'. How is the person in the photograph related to the man?

A Uncle

B Aunt

C Cousin

D Nephew

E Niece

56. Based on the statements given below, which of the following conclusions follow?
Statements:
1) Some pens are papers.
2) Some erasers are pencils.
3) All books are erasers.
4) All papers are books.

Conclusions:
1) Some pencils are books.
2) Some pencils are papers.
3) All books are papers.
4) Some pencils are pens.

A None of the conclusions is true

B Only conclusion 1 and 3 are true

C Only conclusion 2, 3 and 4 are true

D Only conclusion 1, 3 and 4 are true

E None of these

57. Which of the following conclusions can be made from the given statements.
Statements:
All desks are benches.
Some benches are boards.
Some boards are chalks.

Conclusions:
I) Some chalks are benches
II) Some benches are desks
III) Some boards are desks

A None

B Only I

C Only II

D Only III

E Both I and III

58. Which of the following conclusions can be made from the given statements.
Statements:
No paper is a novel.
All novels are books.
Some books are fiction.

Conclusions:
I) Some fiction are papers
II) Some novels are fiction
III) No paper is a book

A None

B Only I

C Only II

D Only III

E Both I and III

59. In each question below is given statement followed by two courses of action numbered I ,II and III. A course of action is a step or administrative decision to be taken for improvement, follow-up or further action in regard to the problems, policy, etc.. on the basis of the information given in the statement. You have to assume everything in the statement to be true, then decide which of the given suggested courses of action logically follows pursuing.

Statement A:The cost of petrol increased by 10% in the last 5 years.
Statement B:The cost of diesel increased by 20% in the last 2 years.

A Statement A is the cause and statement B is the effect

B Statement B is the cause and statement A is the effect

C Both are independent causes.

D Both are effects of independent causes.

E Both are effects of some common cause.

Instructions [60]

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

60. Statement: People are blaming BMC for the losses due to the floods.
Conclusion I: BMC is responsible for looking after the basic city infrastructure
Conclusion II: BMC is highly corrupt

- **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

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: The real estate prices in India are expected to increase.
Conclusion I: More people are looking to buy homes.
Conclusion II: More people are moving to the cities.

- **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

62. Only if people are intelligent and vigilant, will the elected government function well.

Which of the following statements can be inferred from the above statement?

- **A** If people are not intelligent and vigilant, then the elected government will not function well

- **B** If people are intelligent and vigilant, then the elected government will function well

- **C** Either the elected government will not function well or the people of the country are not intelligent and vigilant

- **D** The people of a country being intelligent and vigilant and the elected government not functioning well cannot both be true at the same time

- **E** If people are not intelligent but vigilant, the elected government will not function well.

63. A minister has to spend close to Rs 1 crore of tax payers' money in order to fire a civil servant. Civil servants know this and hence they tend to be negligent in their work. This explains a large part of why the government is so inefficient.

Which of the following can be inferred to be the author's beliefs from the above passage?

1. Too much job security can have a negative influence on the employees
2. Most of the government employees should be fired
3. Civil servants make up a majority of the government employees

- **A** Only 1
- **B** Only 1 and 2
- **C** 1, 2 and 3
- **D** Only 2 and 3
- **E** None of these

64. **Read the paragraph carefully and answer the following question:**

Most reportage on Greece's exit from EU has described it as a catastrophe for Greece. This is entirely untrue. It would be a catastrophe - for the bankers in Germany, Britain and France. Greece declaring bankruptcy and exiting the EU is in its best interests. Its debt is unsustainable and no amount of bailout money can change that. It is in the bankers' interest that Greece continues to pay interest on a debt it can never repay. It is in the bankers' interest that Greece's debt remains on their books and Greece remains a debtor forever. Declaring bankruptcy is any nation's basic right - and Greece should be allowed to exercise this right. Only then can they begin to rebuild their economy. Without a default, the current situation in Greece will only get worse.

Which of the following statements, if true, would do most to strengthen the author's main point?

- **A** Greek politicians, and not the general public, were responsible for the profligate spending that caused the financial crisis.
- **B** 50% of Greek youths have been unemployed for more than 2 years and could potentially become unemployable forever if Greece does not default.
- **C** There is popular support in Greece for defaulting on the debt and exiting the EU.
- **D** Greece's default is likely to be closely followed by default by Spain and Italy leading to major turmoil in the global financial markets.
- **E** Other countries in the EU, which did not declare bankruptcy when facing a precarious situation, faced serious repercussions.
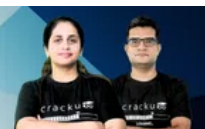
65. Oil reserves are decreasing. To maintain the reserves, Saudi Arabia should increase the price of Crude oil. Which of the following statements, if true, would strengthen the argument above?

- **A** Oil is considered a cheap product by the people using motor vehicles.
- **B** Saudi Arabia was actively involved in protecting the world oil reserves.
- **C** The decrease in crude oil prices by Russia raised the oil consumption levels throughout the world.
- **D** A lot of countries have already started to work on preserving the oil reserves.

E   Economically backward countries need crude oil for the development in it's infrastructure.

66. Read the paragraph carefully and answer the following question:

The first female nominee to the Afghan Supreme Court failed to win her seat as she received only 88 votes, 9 less than the minimum cutoff of 97 votes. Anisa Rassouli, who has been a judge for the past 24 years, was nominated by the President in an effort to bring in more women in all the branches of the Government. Her failure to garner enough votes shows that the country still has a long way to go to in terms of ending gender discrimination.

Which of the following statements, if true, would do most to weaken the author's main argument?

A   Ms. Rassouli's nomination had been opposed by conservatives and clerics as they believe that a woman cannot become a Supreme Court judge

B   Had Ms. Rassouli won her nomination, she would have become the youngest member on the Supreme Court panel

C   Ms. Rassouli has been a vocal supporter of women's rights and is the head of the Afghan Female Judges Association which has fought for three years to get female representation on the Supreme Court panel

D   Ms. Rassouli has spent all of her 24 years in the juvenile court and hence does not have any experience adjudicating on serious criminal offences

E   None of the above statements weakens the author's argument.

67. The Affordable Care Act, also known as Obamacare, aims to provide affordable health insurance to everyone irrespective of age and pre-existing conditions. However, older patients and those with pre-existing conditions tend to have higher medical bills making them unprofitable customers for insurance companies. The insurance premiums from these customers would not cover the associated costs of providing them medical cover. By mandating insurance companies to cover these people, the government is forcing these companies to incur losses. The profits earned by insurance companies will be significantly impacted by the passing of the Affordable Care Act.

Which of the following statements does most to weaken the main argument of the paragraph?

A   It is immoral to deny health care to the old and infirm

B   Insurance companies are more concerned about making money than they are about helping people

C   Providing regular health care to the old and infirm will improve the average health level of the population and this, in the long run, would reduce the total medical expenditure of the country

D   Ninety percent of the people who will be insured for the first time after the passing of this act are young and healthy

E   The overall profit margin from insurance premiums has grown consistently at a rate of 11% in the past 5 years.
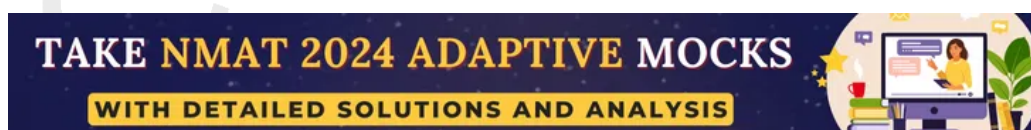
Instructions [68]

Study the following information carefully and answer the questions give below :
The Government has decided to continue providing subsidy to consumers for cooking gas for three more years. This is not good news from the point of view of reining in the fiscal deficit. Mounting subvention for subsidies

means diversion of savings by the government from investment to consumption, raising the cost of capital in the process. The Government must cut expenditure on subsides to create more fiscal space for investment in both physical and social in fracture. It should outline a plan for comprehensive reform major subsidies including petroleum, food and fertilizers and set a final deadline.

68. Which of the following is an assumption which is implicit in the facts stated in the above paragraph?

A It is not possible to create more infrastructural facilities if the present level of subsidy continue even for short duration

B The Government should sought assistance from international financial organizations for developing infrastructural projects

C The people of India may not be able to pay more for cooking gas

D India is no longer a developing country and many people in the country are rich enough to buy petroleum products at market cost

E None of these

69. Given below is 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.

Statement:Contact us in case you have any questions.
Assumption 1:We have answers to all your questions.
2:You are expected to have questions.

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. Effect: As a step to regulate private hospitals, the state health department is framing rules to ensure all such hospitals are registered with it.
Which of the following can be possible cause of the above statements?

A The department realized the private hospitals charge much less for treatment as compared to government hospitals.

B Government run hospitals do not maintain the same standards as private hospitals.

C The department realized that several hospitals were rejecting cases stating lack of infrastructure.

D Apart from the number of doctors, nurses and beds, the kind of procedure a hospital can carry out based on its infrastructure will also be registered and detailed

E Private hospitals not registered with the department shall be forced to do so and will have to pay hefty penalties.

Instructions [71]

Instructions:

Directions for questions : Read the following information carefully and answer the given question: The convenience of online shopping is what I like best about it. Where else can you shop even at midnight wearing your night suit? You do not have to wait in a line or wait till the shop assistant is ready to help you with your purchases. It is a much better experience as compared to going to a retail store. A consumer's view.

71. Which of the following can be a strong argument in favour of retail stores owners?

A Online shopping portals offer a great deal of discounts which retail stores offer only during the sale season

B One can compare a variety of products online which cannot be done at retail stores

C Many online shopping portals offer the 'cash on delivery' feature which is for those who are sceptical about online payments

D Many consumers prefer shopping at retail stores which are nearer to their houses

E In online shopping the customer may be deceived as he cannot touch the product he is paying for.

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 : Given the exorbitant amount of money earned by cricket compared to other sports in the country, should the money earned from cricket be used to improve the infrastructure of other sports in the country ?
Arguments :
I : No, since the cricketers face astronomically low odds to become successful. Thus, any money that they earn should be spent only on their sport.
II : Yes, money earned from one sport should be used for improvement of infrastructure of all the sports as the money earned by the government from all the sports combined belongs to the country and should be used keeping the whole nation in mind.

A Only argument I is strong

B Only argument II is strong

C Both I and II are strong

D Neither I nor II is strong

E Either I or II is strong

Quantitative Skills

73. Given that 'a' is a natural number less than 25, and the roots of the equation $ax^2 + (2a + 1)x + (a - 3) = 0$ are rational. How many possible values of 'a' are there?

A 3

B 4

C 5

D 6

E 7

Instructions [74 - 77]

A, B, C and D are four sectors that company X operates in. In the below table the distribution of percentages of costs and revenue for each of these four sectors is given.

Further, it is known that total revenue is equal to 128600, total land costs are 33600, total marketing costs are 28400 and total salaries are 21600.

	A	B	C	D
Land Costs	20%	30%	25%	25%
Marketing Costs	22%	26%	28%	24%
Salaries	30%	18%	23%	29%
Total Revenue	22%	26%	24%	28%

Profit percentage = $\frac{Profit}{Revenue} * 100$

74. Which of the following has the highest profit percentage?

A A

B B

C C

D D

E Cannot be determined

75. Which of the following sectors has the least profit percentage?

A A

B B

C C

D D

E Two of them have equal profit percentage

76. Which of the following is the highest?

A Marketing costs of sector B

B Land costs of sector D

C Profit of sector A

D Salaries of sector C

E Salaries of sector B

77. If the number of employees in each of the sectors A, B, C and D are 17, 23, 19 and 21, which of the sectors has second least total cost per employee.(Total cost of an employee only includes the total salary of the employee)

A A

B B

C C

D D

E cannot be determined

78. A certain amount of money is invested at a simple interest of 10% every year. The interest earned is again invested back at the same interest rate. In how many years will the amount double itself?

A 7

B 8

C 9

D 10

E None of these

79. If there are a total of 24 marbles with Ravi, Rathod, Rahul and Ramu, then what is the probability that Ravi has exactly 8 marbles?

A $\frac{13}{325}$

B $\frac{17}{325}$

C $\frac{19}{325}$

D $\frac{21}{325}$

E $\frac{23}{325}$

80. Using all the letters of the word PASTE all possible words are formed and arranged in alphabetical order. What would be the rank of the word SEPAT?

A   57

B   83

C   78

D   80

E   81

81. How many natural numbers less than 20000 have exactly two 7s?

A   600

B   972

C   459

D   480

E   585

82. In an assembly, the students of a school are arranged in a square formation and 5 boys are left out. In a rectangular formation with 9 rows more than columns, all the students fit in perfectly. The number of students in the school is

A   Greater than 200 and less than 300

B   Greater than 600 and less than 700

C   Greater than 500 and less than 600

D   Greater than 300 and less than 400

E   None of these

83. In an ultimate team there are 7 players. 50 teams $X_1, X_2 \ldots X_{50}$ take part in a tournament with every X_i and X_{i+1} having a common player for all i<50 (Only teams satisfying the given condition have player common). What is the total number of players playing in the tournament?

A   329

B   343

C   252

D   336

E   301

84. The average age of four siblings A,B,C and D is 21. What is the age of the youngest kid if

A. The ratio of the ages of youngest two kids is 2:3
B. The ratio of the ages of the oldest two kids is 4:5.

A   Question can be answered by A alone but not B alone

B   Question can be answered by B alone but not A alone

C   Question can be answered with A & B but not with either alone

D   Question cannot be answered with both A & B

E   Each statement alone is sufficient

85. Two vessels A and B contain 100 litres each of milk and water respectively. 40 litres is removed from A and inserted into B and 40 litres of the resulting solution is removed from B and inserted into A. This process is repeated indefinitely. What is final% of milk in A?

   A   40%

   B   50%

   C   60%

   D   70%

   E   None of these

86. Each student in a class opts for one of the two subjects - Computers or Physical education. 12 boys opt for computers while 7 girls opt for physical education. What can be the maximum number of students opting for physical education?
A)The total number of students in the class is 40
B)The students who opt for Physical Education is more than the number of students who opt for computers.

   A   If the question can be answered with the help of A but not with the help of B

   B   If the question can be answered with the help of B but not with the help of A

   C   If the question can be answered using both the statements together.

   D   If the question cannot be answered even with the help of both the statements.

   E   If the question can be answered by A or B alone.

87. In a birthday party Neel, Nitin, Mukesh and Alia were present. There they all took different number of chocolates such that the number of chocolates with Nitin is $\frac{1}{3}$rd less than that with Alia. The number of chocolates with Mukesh is $\frac{1}{7}$th less than the number of chocolates with Neel. The number of chocolates with Mukesh is 20% more than that with Alia. What is the minimum number of chocolates with all of them?

   A   16

   B   32

   C   128

   D   64

E 144

88. Eight persons are sitting in a row, from which three are selected at random. Find the probability that no two selected persons are together.

A 3/14

B 2/7

C 5/14

D 3/7

E 1/2

89. Ramesh is a giving a multiple choice test with 3 questions each which gives +3 for a correct answer and -1 for an incorrect answer. If his accuracy at answering any question is 0.3, what is the expected score? He attempts all the questions.

A -0.3

B 0.6

C 0.162

D 0.33

E 0.53

90. Priya went to a candy shop to buy some caramel pops, toffee bites and mango pops. What is the total price of one caramel pop, one mango pop and one toffee bite?
Statement 1: The cost of three caramel pops, five toffee bites and seven mango pops is Rs 68
Statement 2: The cost of two caramel pops, three toffee bites and four mango pops is Rs 41

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.

91. A man has n gold coins with him. He gives 6 coins + 20% of the remaining to his eldest son. To the second son, he gives 9 coins + 20% of the remaining coins. To the third, he gives 8 + 20% of the remaining coins. To the fourth, he gives 16 coins and he himself is left with none after that. What is the total number of coins he had initially?

A 48

B 81

C 73

D 96

E 61

92. Find the number of distinct real solutions to the following equations, $2Y = 9 - \log_2 X$ and $X^Y = 512$

A 0

B 1

C 2

D 3

E 4

93. A milkman removes 'n' percent of a solution of milk and water which is in the ratio 5:3 (milk : water) and replaces it with water. The concentration of milk in the resulting solution is between 25% and 40%. What is the range of 'n'?

A 20 < n < 50

B 36 < n < 60

C 25 < n <48

D 36 < n < 52

E 24 < n < 42

94. If January 31st 1977 was a Monday, what is the probability that February 1972 has 5 Tuesdays?

A 1/7

B 2/7

C 0

D 1

E 3/7

95. In an exam taken by 10 students the average marks out of 50 was 30. If the 5 toppers, who scored distinct marks, are not included, the average decreases by 5. The passing score was 30 and all the 5 toppers passed. What is the maximum possible score of the topper?

A 46

B 48

C 50

D 52

E None of these

96. Sharmila brings some identical chocolates to distribute among her friends on her birthday. What is the number of friends?
Statement 1: Number of ways in which she can distribute chocolates among her friends is 84 ways.
Statement 2: Number of ways in which she can distribute chocolates among her friends so that each friend receives at least one chocolate is 10 ways.

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.

97. Find the number of ways in which 3 couples can sit around a circular table in such a way that no husband sits next to his wife.

A 64

B 48

C 32

D 24

E 36
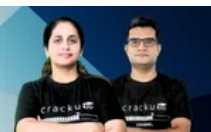
98. In a Fibonacci series, from the third term onwards, each term equals the sum of its preceding two terms. In a Fibonacci series consisting of natural numbers, the difference in the squares of the fourth and third terms is 559, what is the seventh term?

A 71

B 114

C 185

D 134

E None of these

99. The value of a diamond if directly proportional to its surface area. If a diamond cube is broken into 8 identical diamond cubes, find the ratio of the new value to the original value of the diamond?

A 1:2

B 2:1

C 1:1

D 4:1

E 1:4

100. Ami and Sarah start running around a circular track at the same time. What is the length of the track?
Statement 1: Sarah finishes her fourth lap of the circular track at the same moment as Ami finishes her third lap
Statement 2: Had Sarah given Ami a 200m head start they would have finished the second lap at the same time

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.

101. What is the average of the first 79 terms of the sequence
3, 7, 13, 21, 31 . . . . . ?

A 2973

B 2161

C 2371

D 2767

E 2561

102. Ajay and Vijay are running towards each other at the same speed from A and B respectively. After running for some time, Ajay sprains his ankle at point C and walks at half his earlier speed. They finally meet at point D such that AD = $\frac{4}{10}$ AB. Find the ratio of $\frac{AC}{AD}$

A 1:2

B 2:3

C 2:5

D 3:5

E 3:4

103. Three pipes A, B and C can fill an empty tank in 4 hours, 5 hours and 6 hours respectively. There is a hole in the tank, which can empty a full tank in 8 hours. Initially, the tank is empty. A and B are opened. They are closed after half an hour. C is now opened and allowed to run for the next 1 hour. Find the total time required to fill the tank if all three taps are opened simultaneously after the first one and a half hours.

- **A** 4.11 hours
- **B** 3.6 hours
- **C** 3.11 hours
- **D** 4.6 hours
- **E** 5.11 hours

104. The marked price of an article is increased by 10%, 15% and 20% in three consecutive years. The discounts offered on the product are also increased by 5%, 10% and 15% in the three years. If the cost price and the initial marked price of the article is Rs 100, what is the profit percentage on the article in the third year, if the initial discount was Rs 10?

- **A** 30.5%
- **B** 34.5%
- **C** 36%
- **D** 38.5%
- **E** 40%

Instructions [105 - 108]

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

Realona is a famous football club in Hyderabad. It plays 8 matches every season in its home ground Bernacamp. The matches are viewed either in the stadium or on television. The pie-charts given below represents the revenue generated by viewership and the total number of viewers.

Total number of viewers (in '000)

Revenue(million rupees)

Pie chart showing revenue in million rupees: Match 1: 18.9, Match 2: 31.5, Match 3: 21.7, Match 4: 23.1, Match 5: 20.3, Match 6: 22.4, Match 7: 29.4, Match 8: 17.5
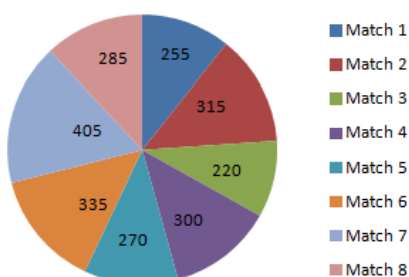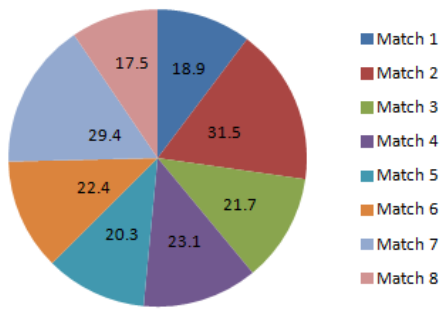
The cost of the ticket per person to watch the match in the stadium is Rs.140/-
The cost of watching it on TV is Rs.0/-

105. If the cost of watching match 8 on TV is increased to Rs.10/-, what is the % increase in the match 8 revenue? (Round it off to the nearest integer)

A   7%

B   8%

C   9%

D   10%

E   11%

106. How many people watched the home matches of Realona on Television?(in '000)

A   1105

B   1315

C   1098

D   1225

E   1065

107. What percent of the people watched match 6 on TV?

A   51.56%

B   53.54%

C   50.45%

D   52.23%

E   54.35%

108. In how many matches is the number of people who watched the match on TV is greater than 50%?

A 0

B 1

C 2

D 3

E 4

Answers

Language Skills

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

Logical Reasoning

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

Quantitative Skills

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

Explanations

Language Skills

1. **D**
We can rule out option C as the paragraph does not say anything about doers and doing. We can rule out option B as the reason why poor thinkers are vague is because their ideas are ill-conceived ones. Hence, statement B is contrary to what is stated in the para and hence can be eliminated as an option. Both statement A and D follow from the paragraph. However, only option D completes the chain of thought of the paragraph. The para introduces why some authors use obscure expressions to explain their ideas. Statement D logically concludes the idea introduced in the penultimate statement that many authors use vague terms on purpose to conceal the weakness of their matter.

2. **C**
"The end" would not delay. Rather, it will be delayed. Hence, option D is wrong.

The remaining part of the sentence does not have any error.

So, instead of "would delay", "would be delayed" must be used.

Hence, option C is the correct answer.

3. **B**
According to the passage, passive payment is to share a portion of the website earnings with the content creators.
Among the given options, options A, C and D talk about a fixed salary. Only option B talks about sharing the profits of the company.
Hence, option B is the answer.

4. **D**
"Many products are sold on e-commerce websites and auction websites." => option A is true.
"Compensation can be paid for either through passive or active payments." => option B is true.
"Many websites that are advertising affiliates need content, which is most often text" => option C is true.
"The most common source of passive income is through online advertisements." => option E is true.
"Advertisements are ONLY ONE WAY in which income is generated online." => option D is not true.

5. **A**
Options B, C and D are mentioned in the last paragraph of the passage, which descibes about the ways that clients and private contractors can come together.
Though auction websites are mentioned in the passage, it is not a way through which clients and private contractors can come together.
Hence, option A is the answer.

6. **A**
In a school textbook, the information is more descriptive. This passage just states the facts. Hence, the source is not a school textbook.
A passage that is from a scientific journal will contain details in depth, which is not the case in this passage. Hence, a scientific journal is not the source.
Editorial states an opinion of a person. This passage just states the facts. Hence, an editoriial is not a source.
The passage is definitely not motivative.
The source is an article from a website.

7. **B**

Developing the programmer took 2 weeks. But, options A and C changes the meaning of the sentence. Hence, option A is wrong.

The word put must be used in the present perfect form here.

The present perfect tense of put is "have put".

Therefore, option B is the answer.

8. **C**

The main difference between brown technologies and green technologies is that brown technologies release carbon gases into the atmosphere whereas there is no release of carbon gases in green technologies. So, option c) is the correct answer.

9. **E**

Though it is mentioned in the passage that the biosphere MKV was brought into the Philippines by Ronald Shane Flynn, it cannot be inferred whether it was the first country to adopt green technology at a national level. So, option e) is the correct answer.

10. **A**

It is mentioned in the passage that the reason for the classification of biosphere technology as a green technology is because of the negligible amounts of carbon gases that it releases. Option a) is the correct answer.
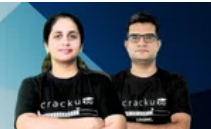
11. **E**

In the passage, only the advantages of biosphere technology are listed. So, there is no information about the drawbacks of biosphere technology. Option e) is the correct answer.

12. **B**

The word 'prefer' takes the preposition 'to'. So, the correct usage is: "I prefer tea to coffee".

13. **A**

Let's use the first two words in a sentence: A convicted person is incarcerated whereas an acquitted person is freed. Thus we are looking for synonyms of freed. The words 'impound', 'restrain' and 'imprison' are opposite in meaning, while deliver does not capture the essence of the analogy.

14. **C**

'Despite' is a preposition and needs to be followed by a noun or a noun phrase, while although is a conjunction and should be followed by a finite clause. Hence, "Despite he supported . . ." in option A is incorrect.
Option B has a parallelism error.
In option D, 'Although' is followed by a participle and hence is wrong.

15. **B**

Here 'Vote with one's feet' fits the best.
Vote with one's feet means 'To show one's approval or disapproval of something through one's presence or absence, especially disapproval through leaving a place by walking out.'

16. **A**
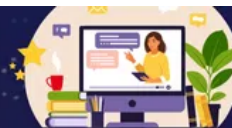
According to Oxford Dictionary (http://www.oxforddictionaries.com/) RAMSHACKLE means (especially of a house or vehicle) in a state of severe disrepair.
""a ramshackle cottage""

synonyms: tumbledown, dilapidated, derelict, ruinous, falling to pieces, decrepit, neglected, gone to rack and ruin, run down, crumbling, decaying, disintegrating, rickety, shaky, unsteady, broken down, unsound, unsafe;

17. **D**

From the first sentence, we can infer that the missing word means to "tamper" or "contaminate". Hence, options D and E fit the first blank. From the second sentence, we can infer that the missing word means increase. Hence, options b and d fit the second blank. Hence, only option D first both blanks.

18. **C**

The tense of the main clause is present perfect and the context implies an on-going cause-effect relationship between internet penetration and disenchantment with the government. Hence, the subordinate clause should occur in the past and should be an ongoing event. Hence the tense of the subordinate clause should be present perfect. Thus, the correct option is option C.

19. **A**

Bull - Male and Cow - female. Similarly, the male and female versions of a rabbit are buck and doe respectively. Hence option A.

20. **B**

Closely reading the sentences, we see that the topic of discussion is about a German who was gathering green leaves and had a dead body of a woman while on his path. Hence, sentence E which introduces the German must be the starting sentence. Sentence A gives what his purpose was to start on the path leading from Bergen Avenue. Hence, sentence A must follow sentence E. Sentence D elaborates further by stating how he finds a dead body of a woman on his path. Hence, sentence D must follow sentence A. Sentence B logically follows sentence D, as after finding a dead body he must've gone to inform the police. Sentence C does not connect logically with any of the other sentences as it is not clear 'they' in sentence C is referring to whom. The correct order of the sentences is EADB.
Hence, option B is the right choice.

21. **C**

On reading the sentence preceding the blank we understand that the Southeast Asian nation was only known by the 'Siamese' twins. The lines 'most Americans would only be familiar' indicate that the Americans did not have much knowledge about the nation. Hence, option C which expresses this lack of information should be the concluding sentence.

22. **C**

The sentence immediately succeeding the blank is 'They're just magnified by it'. Hence, the the blank should contain both the words which 'they' and 'it' refer to. The only option which satisfies this is option C - 'But mistaken identities and false accusations are not unique to social media.'. 'They' refers to 'mistaken identities' and 'it' refers to the 'social media'. Hence, option is the correct answer.

23. **E**

Closely reading the sentences, we see that the topic of discussion is about the big geographical book which William is going through in his house. Hence, sentence D which introduces the topic must be the starting sentence. Sentence A further describes the big territory which is part of the geography book. Hence, sentence A logically follows sentence D. 'It' in sentence C refers to the 'great stretch of territory'. Hence, sentence C logically follows sentence A. 'The tales out of it' refers to the tales coming from 'the book' which is described in sentence C. Hence, sentence C follows sentence E. Thus, DACE is the correct order. Sentence B which is not at logically connected to any other sentences must not be part of the paragraph.
Hence, option E is the right answer.

24. **B**

The above line has been mentioned by the author in the third last paragraph of the passage. When the author says "Give the details in trickles", he is trying to convey that the information about the new product should be given in bits and pieces and not all at once so as to keep the audience interested in the product. The statement

in option b) brings out this point. Option b) is the correct answer.

25. **A**

According to the passage, the bottom line of anticipation marketing is to pique the interest of the audience. So, statement a) is correct. Option b) is wrong because mystery is important for marketing. Option c) is wrong because anticipation marketing is not the only kind of marketing. It is mentioned in the passage that it is not good to use phrases like 'coming soon'. So, option d) is wrong. The correct answer is option a).

26. **C**

According to the passage, one should not divulge too much information about a new product. Giving an interview about the product, publishing a bulletin and putting up complete details about the product on the website all lead to giving away a good number of details about the product. On the other hand, giving a hint about the new product at a media event gives only a few details and piques the interest of the audience. So, option c) is the correct answer.

27. **D**

Refer to the third paragraph of the passage where the author mentions the advantages of anticipation marketing. These benefits are that it introduces a new offer as well as keeps the excitement going. These are mentioned in options a) and b). So, option d) is the correct answer.

28. **B**

The correct combination of words is although and resulted. Because of the use of 'had done' after 'the Congress', the usage of the word 'despite' in the first blank is incorrect. In the second part, the correct usage is 'resulted' because it is talking about a past event. Option b) is the correct answer.

29. **A**

Economies and meet best fit the meaning of the sentence as a whole

30. **B**

The first blank needs to be filled with "respect". Commands better respectful or commands better respected are grammatically incorrect. The second blank needs to be filled with a negative word like untidy, slovenly, etc to make a meaningful sentence.

31. **B**

Closely reading the sentences, we see that the topic of discussion is about how the building of railroads brought prosperity to Montana state, where a new centre for the church was formed. Thus, sentence E which introduces the state of Montana must be the starting sentence. Sentence C which points out exactly which part became prosperous, logically follows sentence E. 'That part' in sentence A refers to the 'section around Great Falls' in sentence C. Hence, sentence A follows sentence C. 'It' in sentence D refers to the 'center for the church' in sentence A. Hence, sentence D logically follows sentence A. Thus correct order is ECAD. Sentence B talks about something which is unrelated to other sentences. Hence, sentence B is out of context.
Hence, option B is the right answer.

32. **D**

'Chickens come home to roost' means all your past deeds will one day or the other come back to haunt you. Hence, option D is the correct answer.

33. **C**

According to Oxford Dictionary (http://www.oxforddictionaries.com/) WRANGLE means a dispute or argument, typically one that is long and complicated.
""an insurance wrangle is holding up compensation payments""

synonyms: argument, dispute, disagreement, quarrel, row, fight, squabble, difference of opinion, altercation, angry exchange, war of words, shouting match, tiff

34. **D**

Concern means to feel anxious or worried.

Indifference means lack of interest.

Hence, indifference is the correct antonym of concern.

35. **D**

Sustain means "strengthening or supporting physically or mentally" whereas diminish means "make or become less".

Hence, diminish is the correct antonym of sustain.

36. **D**

Closely reading the sentences, we see that the topic of discussion is about the life and upbringing of the Scotsman. Thus, sentence C which introduces the Scotsman must be the starting sentence. Further sentences E, B and D elaborates on the upbringing of the Scotsman. Hence they must be the part of the paragraph. 'In this way' in sentence A would require an antecedent. Hence, sentence A is out of context with respect to other sentences. CEBD is the correct order.

Hence, option D is the right choice.

Logical Reasoning

37. **A**

Smitha is the only daughter of her father. Thus, the grandson of her father will be her son. Her son's wife is her daughter-in-law. Thus, Smitha is the mother in law of the girl.

father

|

Smitha

|

son = girl

38. **C**

The following venn diagram proves both the points.

REFERIGERATOR

SMART WATCH

MOBILES

SMART PHONES
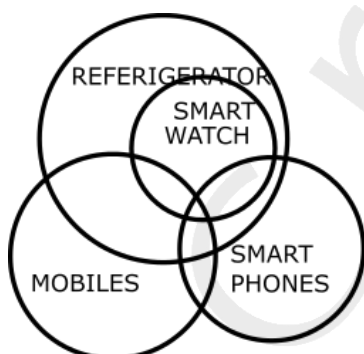
39. **C**

Alay's rank from the top is 16+5 = 21

Alay's rank from the bottom is 14

Hence, the number of students in the classroom is 21+14-1 = 34

40. E

164 + 81 = 245

245 - 64 = 181

181 + 49 = 230

230 - 36 = 194

194 + 25 = 219

Hence, option E is the correct choice.

41. C

Code for she is "ki"

And code for tajmahal is either "pa" or "ku"

Since "likes" is new word which is not used in any of the given sentences, the code of the word "likes" should not match with any of the given codes.

So by verifying the options, the possible code would be "ki pa ta"

42. A
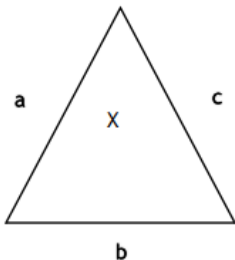
For the above sample figure,

$$X = (a + b - c)^2$$

This can be validated from the figures in the question.

For fig (i),

$$(3 + 6 - 4)^2 = 25$$

For fig (ii),

$$(31 + 15 - 23)^2 = 529$$

Let the value of the unknown digit be Y.

Thus, $Y = (58 + 37 - 62)^2$

$Y = 33^2$

$Y = 1089$

Thus, the correct option is A.

43. D

$64 = (4 \times 2) + (7 \times 8)$

$66 = (9 \times 6) + (4 \times 3)$

$? = (5 \times 7) + (8 \times 4) = 35 + 32 = 67$

44. B

In the given figure, the alphabets advance by the number given in the second column.

$AB + 1 = (A + 1)(B + 1) = BC$

$$DP + 4 = (D + 4)(P + 4) = HT$$

Thus, in the third figure.

$$AL + 7 = (A + 7)(L + 7) = HS$$

Hence, the answer is option B.

45. **E**

Input Yes 21 far 32 17 12 wide goal
Step I 12 yes 21 far 32 17 wide goal
Step II 12 yes 17 21 far 32 wide goal
Step III 12 yes 17 wide 21 far 32 goal
Step IV 12 yes 17 wide 21 goal far 32
Step V 12 yes 17 wide 21 goal 32 far

46. **D**

Step IV 17 hotel 29 father 83 76 door eye
Step V 17 hotel 29 father 76 83 door eye
Step VI 17 hotel 29 father 76 eye 83 door

47. **D**

Input can't be determined given a step as there are too many possibilities.

48. **A**

Step III 37 yellow 42 61 53 violet green red
Step IV 37 yellow 42 violet 61 53 green red
Step V 37 yellow 42 violet 53 61 green red
Step VI 37 yellow 42 violet 53 red 61 green
Hence to complete the rearrangement 3 more steps will be required

Explanation [49 - 52]:

T is second to the right of the person who studies in 7th. It is also given that only 1 person sits between T and the person who is 5th standard. Hence 5th class student must be second to the right of T. X is third to the left of the person studying in 8th but the person studying in 8th is not an immediate neighbor of VII. This is only possible when VIII student is opposite to T and X is to the immediate right of T. X is second to the right of the person studying in 1st standard. W is sitting between the person who study in 7th and 4th. This is only possible if T studies in 4th.The person who studies in VIth standard is second to the immediate left of 7th standard.One neighbour of 8th studies in IInd. Hence X must be a third grade student. R studies in standard 5. There is one person between S and R so S must be in 8th. Since Y is not in II so Y must be in VI. The person studying in 6th is to the left of U. Hence U must be in VII and V in II.Thus, our final arrangement looks like the one below.
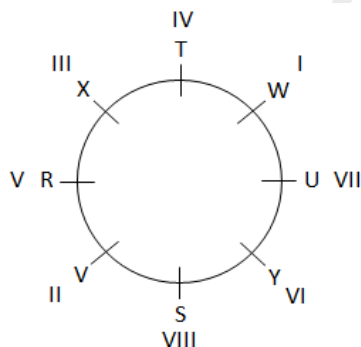
49. **B**
>

50. **E**
>

51. **A**

>

52. **C**
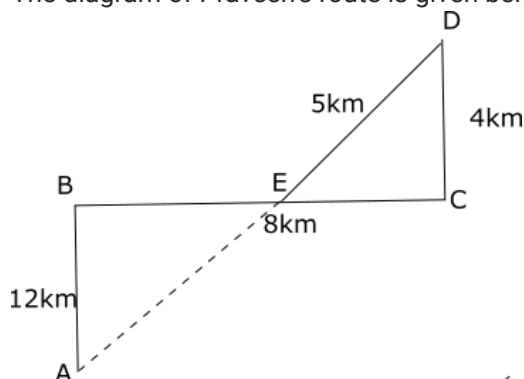
>

53. **B**

The position of Sanjay from the front is 52-16+1 = 37. Hence, the position of Praveen is (5+37)/2 = 21

54. **C**

The diagram of Praveen's route is given below:

By using Pythagoras theorem, we get $ED^2 = EC^2 + DC^2$

$EC^2 = 5^2 - 4^2$

On solving we get EC = 3km Thus, BE = BC - EC = 8 - 3 = 5 km

The required shortest distance = AE

By using Pythagoras theorem we get, $AE^2 = AB^2 + BE^2 = 12^2 + 5^2$.

On solving we get AE = 13km

55. **D**

Father's wife is the person's mother.

Sister's mother is also the mother of the man in question.

Hence the person in the photograph is the son (since pronoun 'his' is used) of the man's sister. Thus the person in the photograph is the nephew of the man.

56. **A**

Draw the figure based on the given four statements.

Consider those statements first that have the least number of possibilities.

All papers are books => The set of papers is a subset of the set of books => The circle representing the set of papers must be totally inside the circle representing the set of books.

All books are erasers => The set of books is a subset of the set of erasers => The circle representing the set of books must be totally inside the circle representing the set of erasers.

Some erasers are pencils. There is no condition that says some papers or some books are pencils. Hence, the circle representing pencils need not intersect those sets. It only intersects the set of erasers.

Some pens are papers. In order to intersect the set of papers, the set of
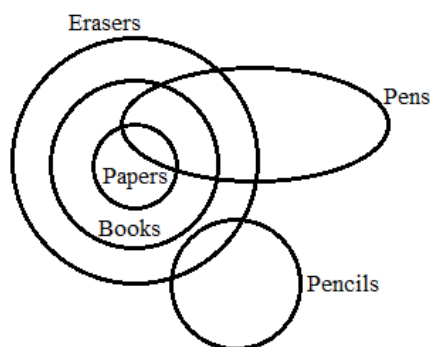
From the figure, we can see that the set of pencils and the set of books do not intersect => No pencil being a book is a possibility. Hence, conclusion 1 is not true.

From the figure, we can see that the set of pencils and the set of papers do not intersect => No pencil being a paper is a possibility. Hence, conclusion 2 is not true.

Statement 4 says that all papers are books. Hence, the set of papers can be a subset of the set of books or the set of papers can be equal to the set of books.

As there is a possibility that 1st case is true, we cannot say that all books are papers. Hence, conclusion 3 is not true.

From the figure, we can see that the set of pencils and the set of pens do not intersect => No pencil being a pen is a possibility. Hence, conclusion 4 is not true.

=> None of the conclusions is true.

57. **C**
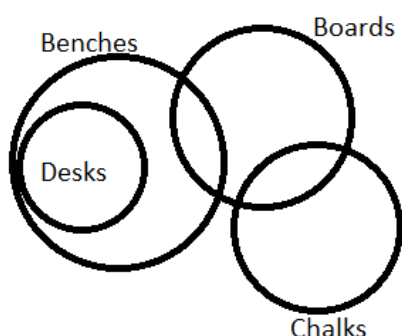
From the diagram, we can see that only conclusion II is true.

58. **A**
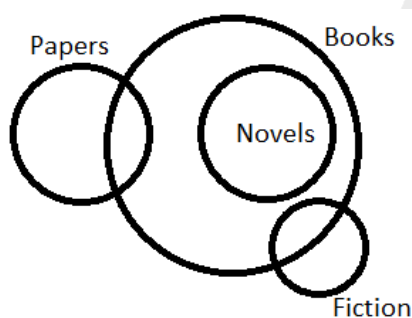
From the diagram, we can see that none of the conclusions can be made.

59. **E**

Petrol and Diesel are similar items. If both their prices go up, it is very likely because of a common cause like govt decreasing subsidy or increasing taxes, etc.

60. **A**

Only conclusion I logically follows from the given statement. People blaming BMC suggests that BMC is responsible for ensuring that the city is well prepared for such calamities.
II does not follow as the statement does not mention anything about the corruption.

Hence, option A is the correct answer.

61. **A**

Conclusion I logically follows from the given statement as the prices are expected to increase when the demand is expected to increase. Conclusion II does not follow from the given statement. People moving to cities may not necessarily result in increase in the real estate prizes.

62. **A**

Only if people are intelligent and vigilant, the government will function well. So, if people are not intelligent and vigilant, then the government will not function well. Option a) is the correct answer.

63. **A**

The crux of the argument is that civil servants are lax because of too much job security. Statement 1 can be inferred. However, statements 2 and 3 cannot be inferred. There is nothing in the paragraph to suggest that all the government employees should be fired or that civil servants make up a majority of the government employees. Option a) is the correct answer.

64. **B**

The main point of the paragraph is that the default is in Greece's best interest and hence any information that points out the advantages of exiting or disadvantages of not exiting will strengthen the author's main point. Hence, option B highlights a potential risk if Greece does not default and hence strengthens the author's main point.

Option A shifts the blame from the government to the people. This does not make a case against declaring bankruptcy, as it does not matter who takes the blame, the only thing that matters is resolving the situation.

Popular support for the cause is unlikely to strengthen the argument, as only a logical addition to the argument will be useful. Hence, C can be eliminated.

Option D weakens the argument, by implying that the declaration would have serious negative consequences.

Option E comes close but cites an example of countries that were in a precarious situation but did not declare bankruptcy. This cannot be extended to the example of Greece as it has not been mentioned that Greece is in a similar position as them. They might have been worse off than Greece is. Thus, Option E can be eliminated.

65. **C**

Option C gives the correlation between the price and the consumption level.
When Russia decreased the price of the oil there was an increase in the consumption levels.
Hence, we can infer that an increase in the price will decrease the consumption. Which in turn helps in maintaining the reserves.
Hence, option C strengthens the given argument.

66. **D**

The author's contention is that the incident shows that women do not enjoy equal rights in Afghanistan. If, however, Ms. Rassouli failed to win the seat for other reasons, like lack of relevant experience, the conclusion would be seriously undermined. Hence, option D.

67. **D**

The main argument of the paragraph is that profits of insurance companies will decline after the passing of the Affordable care act. The implicit assumption is that the act would add mostly old and unhealthy customers to the pool of insured people. Option D contradicts this assumption and hence does most to weaken the main argument of the paragraph.

68. **A**

Option B is out of context. Author doesn't show any inclination towards the idea that Government should sought assistance from international financial organizations for developing infrastructural projects.
Options C and D are also incorrect. The author doesn't imply either of them. He implies that if funds are used for subsidies, there will be less fund available for other investments.
Option A is the correct option as it correctly encompasses the above reasoning.

69. **A**

1- We have answers to all your questions, only then are we asking you to contact us if you have any question. The word "any" in the statement makes this assumption implicit. 2 - You may have questions, not expected. So, 2 is not implicit.

70. **C**

Option (3) is the cause. When looking for the cause, it's important to identify shortcomings at private hospitals that can cause the govt to get them registered.

71. **E**

In case of retail stores, we can see & touch the product. In case of online, we can't touch the product & we don't know about the quality of product until receive that product.

72. **B**

Argument I is weak as the money being talked about here is the money earned from the sport and not by any individual. Argument II is strong as the government should always try to improve the infrastructure of all the sports to make sure that everyone progresses equally. Thus, only argument II is strong.

Quantitative Skills

73. **B**

The roots are rational is $(2a + 1)^2 - 4 * a * (a - 3)$ is a perfect square.
This is true if 16a + 1 is a perfect square.
This is true for a = 3, 5, 14 and 18

Explanation [74 - 77]:
Revenue of A = 28292
Revenue of B = 33436
Revenue of C = 30864
Revenue of D = 36008
Total costs of A = 6720 + 6248 + 6480 = 19448
Total costs of B = 10080 + 7384 + 3888 = 21352
Total costs of C = 8400 + 7952 + 4968 = 21320
Total costs of D = 8400 + 6816 + 6264 = 21480
Profit of A = 8844
Profit of B = 12084
Profit of C = 9544
Profit of D = 14528

74. **D**

Clearly, D has the highest profit percentage.

75. **C**

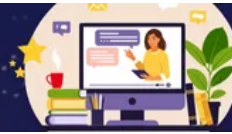Profit percentage of A = 31.3%
Profit percentage of B = 36.14%

Profit percentage of C = 30.92%
Profit percentage of D = 40.34%

Hence, C has the least profit percentage.

76. **C**
Marketing costs of B = 7384
Salaries of C = 4968
Salaries of B = 6480
Land costs of D = 8400
Profit of A = 8844
Hence, profit of A is the highest.

77. **C**
Total costs of A = 6480
Total costs of B = 3888
Total costs of C = 4968
Total costs of D = 6264

Total cost per employee of A = 6480/17 = 381.17
Total cost per employee of B = 3888/23 = 169.04
Total cost per employee of C = 4968/19 = 261.4
Total cost per employee of D = 6264/21 = 298.28
=> C has the second least cost per employee

78. **B**
As interest is invested back at the same rate, it is equivalent to compound interest. Assuming time is x years, $(1 + 10\%)^x$ > 2. So x = 8

79. **B**
Let the number of marbles with Ravi, Rathod, Rahul and Ramu be a, b, c and d respectively.
a + b + c + d = 24
a = 8
=> b + c + d = 16
=> Number of ways possible = $^{16+3-1}C_{3-1}$ = $^{18}C_2$ = 153
Total number of ways 24 marbles can be diistributed is $^{24+4-1}C_{4-1}$ = $^{27}C_3$ = 2925
Probability = $\frac{153}{2925}$ = $\frac{17}{325}$

80. **E**
The words which come before SEPAT when arranged alphabetically are,
A _ _ _ _ -> 4!
E _ _ _ _ -> 4!
P _ _ _ _ -> 4!
S A _ _ _ -> 3!
S E A _ _ -> 2!
Then comes SEPAT.
Thus the rank of the word SEPAT is 24+24+24+6+2+1 = 81.

81. **B**
Let the number be _ _ _ _ _

The first digit can be filled by either 1 or 0. So 2 ways.

Out of the remaining 4 digits, exactly 2 have to be 7s. These two can be selected in $4C_2$ ways

The remaining 2 digits can be filled by any of the remaining 9 digits.

Hence the number of possible numbers = $2 *^4 C_2 * 9 * 9 = 972$

82. **B**

We need to find 2 positive integers x and p such that $(x + 9) * x = (x + p)^2 + 5$.
Or $x = (p^2 + 5)/(9 - 2p)$.
For positive integer values of p, this is an integer only if p = 4.
So, x = 21 and p = 4. and the number of students is $x * (x + 9) = 630$

83. **E**

Number of players without overlap is 7*50=350.

According to the information given in the question X_1 and X_2 will have a common player. Similarly (X_2, X_3), (X_3, X_4),....(X_49, X_50) will have a common player.
Thus, total number of overlaps i = 49.
So, total is 350 - 49 = 301

84. **C**

The two statements alone do not have enough information to find the youngest child. However, combined together
let x be the common multiplier in first ratio and y in the second.
=> 2x+3x+4y+5y=21*4 => 5x+9y=84.
=> values of (x,y) are (15,1), (6,6).
As the second ratio is of older kids, 3x<4y.
Only (6,6) satisfies this condition.
Hence youngest is 12 years old.

85. **B**

Suppose final % of milk in A and B is a% and b%. So, a+b = 100
After one more mixing, the % of milk in A will be the same.
So,0.6*a + 40/140*(b+0.4*a) = a.
Or, a=b=50%,
Alternately
The process of mixing the two solutions infinitely is same as mixing both of them together. So when 100 litres of water and 100 litres of milk is mixed, the concentration would be 50%.

86. **A**

Let the number of girls who opt for computers be x.
Let the number of boys who opt for Physical Education be y.
Using Statement A
12+x+y+7 = 40
x+y = 21
Since there are no conditions,
Maximum value of y = 21
Using statement B nothing can be concluded

87. **D**

Let the number of chocolates with Nitin be x.
Let the number of chocolates with Alia be A.
So, A - A/3 = x or 2A/3 = x.
So, A = 3x/2

Let the number of chocolates with Mukesh be M.
So, M = 1.2*A = 1.2*1.5x = 1.8x
Let the number of chocolates with Neel be N.
So, N-N/7 = M = 1.8x or 6N/7 = 1.8x
So, N = 2.1x
The minimum value of x such that all of x, 1.5x, 1.8x and 2.1x is an integer is 10.
Thus, the number of chocolates with them will be x+1.5x+1.8x+2.1x = 6.4x = 64
Hence, option D is the correct answer.

88. **C**

Let the selected persons be represented by 1 and the unselected persons be represented by 0.
_0_0_0_0_0_
We have to select three places from the 6 available, to place the selected candidates.
Number of ways = $^6C_3$
Number of ways of selecting any 3 from a group of 8 = $^8C_3$
So, the required probability is $^6C_3/^8C_3$ = 20/56 = 5/14

89. **B**

Expected value is the probability weighted average of all expected outputs.
Let's list out the expected outputs and their probabilites
1) All questions wrong:. score = -3 , probability = 0.7^3
2) 1 Question right: score = +3 -2 = 1. Probability = $^3C_1 * 0.7^2 * 0.3$
3) 2 Questions right: score = +6 -1 = 5. Probability = $^3C_2 * 0.7 * 0.3^2$
4) All Question right: score = +9. Probability = $^3C_1 * 0.3^3$

The expected value is given by $-3 * 0.7^3 + 1 *^3 C_1 * 0.7^2 * 0.3 + 5 *^3 C_2 * 0.7 * 0.3^2 + 9 *^3 C_3 * 0.3^3 = 0.6$

90. **C**

Let the cost of caramel, toffee and mango be x, y and z.
Using Statement 1: 3x+5y+7z=68.
Uding Statement 2: 2x+3y+4z=41.
We cannot determine answer from either of the two statements alone.
Using both the statements and multiplying the second equation by 2 and subtracting the first equation from it, we get
(4x+6y+8z)-(3x+5y+7z)=2*41-68=14.
or x+y+z=14
So, we can answer the question using both the Statements together, but not by using any of the two statements individually.

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91. **E**

Let us try to implement reverse engineering here.
Let the number of coins with the man before he gave to the third son be N.
The number of coins he gave to the third son = 8+$\frac{1}{5}$(N-8)
Now he is left with $\frac{4}{5}$(N-8).
The number of coins he gave to the fourth son = 16.
It is stated that the man is left with no coins after giving to the fourth son.
So $\frac{4}{5}$(N-8) = 16
N = 28
The number of coins the man had with him after giving coins to the second son = 28.
Let the number of coins the man had after giving coins to the first son be P
The number of coins the man gave to the second son = 9+$\frac{1}{5}$(P-9)

The number of coins left with the man after giving coins to the second son = $\frac{4}{5}$(P-9) = 28

P = 44

The number of coins with the man after giving it to the first son = 44.

Given the number of coins, the man had = n

The number of coins the man gave to the first son = $6+\frac{1}{5}$(n-6)

The number of coins left with the man after giving coins to the first son = $\frac{4}{5}$(n-6) = 44

n =61

92. **C**

Assuming $\log_2 X = a$,

$X^Y = 512$

So, $Y log_2 X = 9$

Or, $Y = \frac{9}{a}$

So, $a^2 - 9a + 18 = 0$ or a=3 or 6.

Hence, X = 8 or 64 and the equation has two distinct solutions.

93. **B**

Let the quantity of the solution be 800 units.

It will have 500 units of milk and 300 units of water.

Now, 8n units of solution is removed and replaced with water.

Therefore, quantity of milk and water removed is 5n and 3n respectively.

Final Concentration of milk = $\frac{500-5n}{800}$

Given,

$\frac{1}{4} < \frac{500-5n}{800} < \frac{2}{5}$

Therefore, $36 < n < 60$. Option b

94. **D**

The number of days between 31st January 1972 and 31st January 1977 is 366+365+365+365+366 = 1827

1827 mod 7 = 0

So, 1st February 1972 is a Tuesday and February 1972 has 5 Tuesdays

95. **E**

Overall sum of marks of the class = 10*30 = 300.

When top 5 students are not included the average becomes 25. So sum = 125.

Sum of marks of 5 toppers = 300 - 125 = 175.

Also all of the 5 toppers passed.

The scores of 4 of them have to be minimized to find the max possible score.

The possible values of marks are 30, 31, 32, and 33.

The sum = 126.

Hence the score of the topper = 175 - 126 = 49.

96. **C**

Using statement 1: n identical objects among r distinct slots = $^{(n+r-1)}C_{(r-1)} = 84 =^9 C_3$ or $^9 C_6$.

Hence n+r-1=9 and r-1=3 or 6

So, r=4 or 7 and n=3 or 6.

Using Statement 2: n identical objects in r distinct slots each getting at least one = $^{(n-1)}C_{(r-1)} = 10 =^5 C_3$ or $^5C_2$.

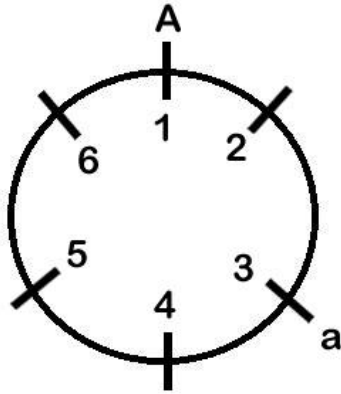Hence n=6, r=3 or 4. Combining both r=4 and n=6.

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

97. **C**

Let the husbands be A, B and C and their wives be a, b and c respectively.
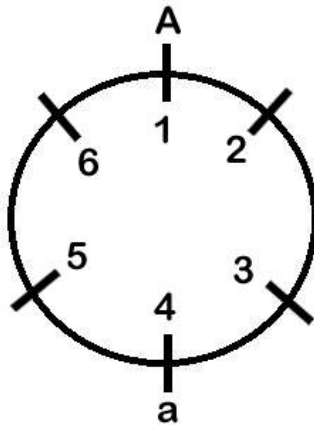A and a can sit with 1 person in between them or with 2 persons between them.
With 1 person between them,

B and b can sit in 4 ways and C and c can sit in 4 ways => 8 ways for 1 person between A and a.
But A can have a on his left side on right side => 2 * 8 = 16 ways.

Now, if A and a have 2 places between them,

B and b can sit in 4 ways and C and c can sit in 4 ways => 4*4 = 16

Total is 16 + 16 = 32 ways.

98. **B**

Let y be the third term and x be the fourth term. We have,

(x+y)(x-y) = 559 = 43*13

x - y = 13 and x + y = 43. So, x = 28 and y = 15. Hence the seventh term is 114

99. **B**

If the original side of the cube is 2s, the side of the new cube is s.
New surface area is $8 * 6 * s^2 = 48s^2$
Old surface area is $6 * 4 * s^2 = 24s^2$
So, ratio is 2:1

100. **C**

Let the speeds of Ami and Sarah be S1 and S2 and length of the track be L.
Using Statement 1, 4L/S2=3L/S1 => S2/S1=4/3.
Using Statement 2, (2L-200)/S1=2L/S2 => S2/S1=2L/(2L-200).
Using both the statements, 2L/(2L-200)=4/3 => L=400.
So, we can answer the question using both the Statements together, but not by using any of the two statements individually

101. **B**

The second level difference of the terms is constant. Hence the general term of the equation will be $an^2 + bn + c = 0$

=> Putting the value of n = 1, we get a + b + c = 3

Similarly, Putting n = 2, we get 4a + 2b + c = 7 and 9a + 3b + c = 13.

Solving these three equations, we get a = 1, b = 1 and c = 1. So the general term is

$n^2 + n + 1$

So the sum of first n terms of the sequence can be obtained by

$\Sigma(n^2 + n + 1)$

=> We know that average of n terms is given by

$\dfrac{\text{sum of all terms}}{n}$

=> $\dfrac{n*(n+1)*(2n+1)}{6n} + \dfrac{n*(n+1)}{2n} + \dfrac{n}{n}$

=> Average = (n+1)*(2n+1)/6 + (n+1)/2 + 1

= $\dfrac{n+1}{2}\left(\dfrac{2n+1}{3} + 1\right) + 1$

= Putting n = 79 gives

=> $\dfrac{80}{2}\left(\dfrac{162}{3}\right) + 1$

=> 40*54 + 1 = 2161

102. **A**

Suppose by the time Ajay reaches C, Vijay reaches E.

Let the length of AB be 100 metres and let AC=X , thus BE also is equal to x as speed of Ajay and Vijay is same during that interval.

Let, CD=Y metres. Thus, ED = 2y as the speed of Vijay from E to D is twice that of Ajay's from C to D.

Hence, Total distance = AC + BE + CD + ED = 2X+3Y=100 and AD = AC + CD = X+Y=40

So, X=20 and Y=20. Hence the ratio is 1:2

103. **C**

Let the amount of work to be done to either fill an empty tank or empty a full tank be LCM(4,5,6,8) = 5*8*3 = 120 units

Work done by pipe A in one hour = 120/4 = 30 units

Work done by pipe B in one hour = 120/5 = 24 units

Work done by pipe C in one hour = 120/6 = 20 units

Work done by the hole in one hour = 120/8 = 15 units

Work done in the first one and a half hours = 15 + 12 + 20 - (3/2)*15 = 47 - 22.5 = 24.5 units

Work remaining = 120 - 24.5 = 95.5 units

Work done by all the taps together in 1 hour when they are opened simultaneously = 30 + 24 + 20 - 15 = 59 units

So, time required to fill the remaining tank = 95.5/59 hours = 1.61 hours

So, total time required to fill the empty tank = 1.5 + 1.61 = 3.11 hours

104. **D**

Price of the article in the first year = Rs 110

Price of the article in the second year = Rs (115/100)*110 = Rs 126.5

Price of the article in the third year = Rs (120/100)*126.5 = Rs 151.8

Discount in the first year = Rs 10.5

Discount in the second year = Rs 11.55

Discount in the third year = Rs 13.28

So, selling price of the article in the third year = Rs 151.8 - Rs 13.28 = Rs 138.52

So, profit percentage in the third year = 38.52%

105. **C**

Here, the Revenue generated in match 8 = Rs.17.5 mn/-

Number of viewers in stadium = $\frac{17500000}{140}$ = 125000

Total number of viewers = 285000

Number of viewers on TV = 160000

Revenue generated through TV = Rs.1.6mn/-

Required % increase = $\frac{1.6*100}{17.5}$ = 9.14%

106. **E**

Total revenue generated in all the matches together = sum of the revenues in each match = Rs.184.8 mn

Number viewers in stadium = $\frac{184800000}{140}$ = 1320000

Number of viewers on TV = Total number of viewers in all the matches - Total number of viewers in the stadium
=2385000-1320000 = 1065000

107. **D**

Revenue generated in match 6 = 22.4 mn

Number of people who watched it in the stadium = $\frac{22400000}{140}$ = 160000

Total number of viewers of match 6 = 335000

Number of people who watched it in the stadium =335000-160000 = 175000

Required % = $\frac{175000*100}{335000}$

=52.23%

108. **C**

In Match 1, number viewers in the stadium = $\frac{18900000}{140}$ = 135000

Number of viewers on TV = 255000-135000 = 120000

Similarly, data can be tabulated for all the matches as shown

Match	Number of people watched in Stadium(in '000)	Number of people watched on telivision(in '000)
Match 1	135	120
Match 2	225	90
Match 3	155	65
Match 4	165	135
Match 5	145	125
Match 6	160	175
Match 7	210	195
Match 8	125	160
Total	1320	1065