

**Directions of Test**

<b>Test Name</b>	2016 Bull CAT 10	<b>Total Questions</b>	100	<b>Total Time</b>	180 Mins
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Section Name	No. of Questions	Time limit	Marks per Question	Negative Marking
Verbal Ability	34	1:0(h:m)	3	1/3
DI & Reasoning	32	1:0(h:m)	3	1/3
Quantitative Ability	34	1:0(h:m)	3	1/3

**Section : Verbal Ability**

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 1**

There's no emotion we ought to think harder and more clearly about than anger. Anger greets most of us every day – in our personal relationships, in the workplace, on the highway, on airline trips – and, often, in our political lives as well. Anger is both poisonous and popular. Even when people acknowledge its destructive tendencies, they still so often cling to it, seeing it as a strong emotion, connected to self-respect and manliness (or, for women, to the vindication of equality). If you react to insults and wrongs without anger, you'll be seen as spineless and downtrodden. When people wrong you, says conventional wisdom, you should use justified rage to put them in their place, exact a penalty. We could call this football politics, but we'd have to acknowledge right away that athletes, whatever their rhetoric, have to be disciplined people who know how to transcend anger in pursuit of a team goal.

If we think closely about anger, we can begin to see why it is a stupid way to run one's life. A good place to begin is Aristotle's definition: not perfect, but useful, and a starting point for a long Western tradition of reflection. Aristotle says that anger is a response to a significant damage to something or someone one cares about, and a damage that the angry person believes to have been wrongfully inflicted. He adds that although anger is painful, it also contains within itself a hope for payback. So: significant damage, pertaining to one's own values or circle of cares, and wrongfulness. All this seems both true and uncontroversial. More controversial, perhaps, is his idea (in which, however, all Western philosophers who write about anger concur) that the angry person wants some type of payback, and that this is a conceptual part of what anger is. In other words, if you don't want some type of payback, your emotion is something else (grief, perhaps), but not really anger.

Is this really right? I think so. We should understand that the wish for payback can be a very subtle wish: the angry person doesn't need to wish to take revenge herself. She may simply want the law to do so; or even some type of divine justice. Or, she may more subtly simply want the wrongdoer's life to go badly in future, hoping, for example, that the second marriage of her betraying spouse turns out really badly. I think if we understand the wish in this broad way, Aristotle is right: anger does contain a sort of strike-back tendency. Contemporary psychologists who study anger empirically agree with Aristotle in seeing this double movement in it, from pain to hope.

The central puzzle is this: the payback idea does not make sense. Whatever the wrongful act was – a murder, a rape, a betrayal – inflicting pain on the wrongdoer does not help restore the thing that was lost. We think about payback all the time, and it is a deeply human tendency to think that proportionality between punishment and offence somehow makes good the offence. Only it doesn't.

As per the information given in the passage, identify the correct statement:

- I. Anger almost possesses a dichotomous nature.
- II. In popular convention, not to react to insult with anger is seen as a sign of weakness.
- III. Many Western philosophers highlight a connect between anger and payback.

A) I & II   B) II & III   C) I & III   D) All of the above

**Question No. : 2**

It can be inferred from the passage that the term 'football politics':

- A) has an implied reference to penalising someone   B) has an implied reference to equality  
C) has an implied reference to divine retribution for sins   D) both (1) and (2)
- 

**Question No. : 3**

A suitable title for the passage is:

- A) In place of anger   B) Anger and justice   C) Even-handed anger   D) Beyond anger

**Question No. : 4**

The book, 'The Man Who Invented Fiction by William Egginton' will be sold under which category in a book-store:

- A) fiction   B) biographies   C) anthologies   D) memoirs
- 

**Question No. : 5**

It can be deduced from the passage that:

- A) war-time experiences of Cervantes had a significant impact on how he built characters in his work.  
B) it is not necessary that one's ideals hold up against the harsh reality of life.   C) Both (1) and (2)   D) Neither (1) nor (2)

**Question No. : 6**

As per the information given in the passage, identify the statements that are incorrect.

- I. Most of the times, Cervantes was not broke.  
II. Cervantes was feted by those in power.  
III. Cervantes did abide by a sense of duty during his army days.  
IV. Post his stint in the army, Cervantes did not allow cynicism to poison his point of view.

- A) I & II   B) II & IV   C) I & III   D) II & IV
- 

**Question No. : 7**

It can be inferred from the passage that:

- A) masterful writers know how to use fiction in order to deceive readers.  
B) reading is something that allows us to use our imagination to believe anything to be true, even though it may be false.  
C) reading fiction involves conspiring in believing something as true when in actuality, it is not.  
D) writing fiction is in itself primarily an act of deception.

**Question No. : 8**

According to the information given in the passage,

- A) Cervantes' Don Quixote was the first novel ever written.  
B) Cervantes' Don Quixote was the first time someone wrote any fictional text.  
C) Cervantes' Don Quixote can be regarded as the true starting point of fiction.  
D) Cervantes' Don Quixote is a deep reflection of the influences of other novels on it.
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**Question No. : 9**

The given passage is most likely to appear as a:

- A) an article in a newspaper editorial   B) a piece published in the book review section   C) a front-page article in a tabloid  
D) none of the above

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 10**

Imagine you're the manager of a café. It stays open late and the neighbourhood has gone quiet by the time you lock the doors. You put the evening's earnings into a bank bag, tuck that into your backpack, and head home. It's a short walk through a poorly lit park. And there, next to the pond, you realise you've been hearing footsteps behind you. Before you can turn around, a man sprints up and stabs you in the stomach. When you fall to the ground, he kicks you, grabs your backpack, and runs off. Fortunately, a bystander calls an ambulance which takes you, bleeding and shaken, to the nearest hospital.

The emergency room physician stitches you up and tells you that, aside from the pain and a bit of blood loss, you're in good shape. Then she sits down and looks you in the eye. She tells you that people who live through a traumatic event like yours often develop post-traumatic stress disorder (PTSD). The condition can be debilitating, resulting in flashbacks that prompt you to relive the trauma over and over. It can cause irritation, anxiety, angry outbursts and a magnified fear response. But she has a pill you can take right now that will decrease your recall of the night's events – and thus the fear and other emotions associated with it – and guard against the potential effects of PTSD without completely erasing the memory itself.

Would you like to try it?

When Elizabeth Loftus, a psychologist at the University of California, Irvine, asked nearly 1,000 people a similar question, more than 80 per cent said: 'No.' They would rather retain all memory and emotion of that day, even if it came with a price. More striking was the fact that 46 per cent of them didn't believe people should be allowed to have such a choice in the first place.

Every day, science is ushering us closer to the kind of memory erasure that, until recently, was more the province of Philip K Dick. Studies now show that some medications, including a blood-pressure drug called propranolol, might have the ability to do just what the ER doctor described – not just for new traumas, but past ones too.

Granted, that future is not yet here. Most of the time, we're still better at subconsciously editing our own recollections than any new technology is. But with researchers working on techniques that can chisel, reconstruct and purge life's memories, it becomes crucial to ask: do we need our real memories? What makes us believe that memory is so sacrosanct? And do memories really make us who we are?

Our memories aren't fixed. We already edit them: sometimes intentionally, sometimes not. Sometimes by ourselves, and sometimes when other people's recollections filter into our own. We forget. We 'remember' incorrectly. We can even train our brains to remember facts and moments with greater acumen.

Think about your first kiss. No, go back further, to the first time you rode a bike. How clear is that memory? Is it picture-perfect or has it acquired a sepia tint and become a bit tattered around the edges?

For decades, most memory researchers compared memories to photographs, and our brains to albums or filing cabinets stuffed full of them. They believed that each photo required an initial development period – much the way that pictures are processed in a darkroom – and then was filed away for future reference. But in the past few decades, scientists have discovered that memory is far more plastic than that. It doesn't just fade like a photograph tucked away in an album. The details subtly morph and shift. It's malleable. And some research suggests it might be erasable.

Many would argue that humans are driven by their stories. We create our own narratives based on the memories we retain and those we choose to discard. We use memories to build an understanding of self. We lean on them to make decisions and direct our lives.

But what happens to our sense of self if we purge the most distasteful memories and cherry-pick the good ones? When some things are hard to think about, or so injurious to our self-image, are we better off creating a history in which they no longer exist? And if we do, are we doomed to repeat our mistakes without learning from them, doomed to fight the same wars? By finding ways to erase our memories, are we erasing ourselves?

The first two paragraphs of the passage perform the function of:

- A) using an analogy to explain a concept
- B) highlighting a practical scenario to deliver a point of view
- C) explaining practically the repercussions of a certain course of action
- D) providing a brief practical insight into the thinking of normal individuals

**Question No. : 11**

A suitable title for the passage is:

- A) My spotless mind    B) My tainted memories    C) Morph my mind    D) Mind magic

**Question No. : 12**

The central question raised by the author of the passage is:

- A) If you could change your bad memories, will you become a stronger person?  
B) If painful memories could be erased, will you become more successful?  
C) If bad memories could be purged, will it help you be happier?  
D) If you could alter or mute your worst memories would you still remain yourself?
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**Question No. : 13**

According to the author of the passage:

- I. our memories are unreliable.  
II. our memories are stoic.  
III. our memories are pliable.  
IV. our memories are cagey.

- A) I & IV    B) II & IV    C) I & III    D) III & IV

**Question No. : 14**

According to some, it can be said:

- A) removal of our bad memories, though appealing as an idea, is not practically possible.  
B) removal of our memories would not have a significant impact on our lives.  
C) purging of our memories would ebb away at certain portions of our self.    D) both (1) and (2)
- 

**Question No. : 15**

The author of the passage ends the passage on a note of:

- A) self-inquiry    B) uneasiness    C) inquisitiveness    D) perplexity

**DIRECTIONS for the question:** Read the passage and answer the question based on it.

**Question No. : 16**

So far, the fastest growing economy in the world has managed to avoid the kind of crisis that has periodically blown up other emerging markets. Having already devalued the renminbi in 1994, and having retained capital controls throughout the period of economic reform, China suffered no currency crisis in 1997-8. When the Chinese wanted to attract foreign capital, they insisted that it take the form of direct investment. That meant that instead of borrowing from Western banks to finance their industrial development, as many other emerging markets did, they got foreigners to build factories in Chinese enterprise zones – large, lumpy assets that could not easily be withdrawn in a crisis. The crucial point, though, is that the bulk of Chinese investment has been financed from China's own savings.

Cautious after years of instability and unused to the panoply of credit facilities we have in the West, Chinese households save an unusually high proportion of their rising incomes, in marked contrast to Americans, who in recent years have saved almost none at all. And a remarkably large proportion of that surplus has ended up being lent to the United States.

At first sight, it may seem bizarre. Today the average American earns more than \$ 34,000 a year, the average Chinese lives on less than \$ 2,000. Why would the latter want, in effect, to lend money to the former, who is twenty-two times richer? The answer is that, until recently, the best way for China to employ its vast population was through exporting manufactures to the insatiably spendthrift US consumer. To ensure that those exports were irresistibly cheap, China had to fight the tendency for the Chinese currency to strengthen against the dollar by buying literally billions of dollars on world markets. From America's point of view,

meanwhile, the best way of keeping the good times rolling in recent years has been to import cheap Chinese goods. Moreover, by out-sourcing manufacturing to China, US corporations have been able to reap the benefits of cheap labor too. And, crucially, by selling billions of dollars of bonds to the People's Bank of China, the United States has been able to enjoy significantly lower interest rates than would otherwise have been the case.

Perhaps, on reflection, we have been here before. A hundred years ago, in the first age of globalization, many investors thought there was a similarly symbiotic relationship between the world's financial centre Britain, and continental Europe's most dynamic industrial economy. That economy was Germany's. Then, as today, there was a fine line between symbiosis and rivalry.

One important lesson of history is that major wars can arise even when economic globalization is very far advanced and the hegemonic position of an English-speaking empire seems fairly secure. A second important lesson is that the longer the world goes without a major conflict, the harder one becomes to imagine. A third and final lesson is that when a crisis strikes complacent investors it causes much more disruption than when it strikes battle-scarred ones.

*Excerpted from 'The Ascent of Money' by Niall Ferguson.*

Fill in the blanks in the paragraph below, based on your reading of the passage:

Welcome to the wonderful dual country of 'Chimerica' — China plus America — which accounts for just over a tenth of the world's land surface, a quarter of its population, a third of its economic output and more than half of global economic growth in the past eight years. For a time it seemed like a marriage made in heaven. The East Chimericans did the \_\_\_\_\_. The West Chimericans did the \_\_\_\_\_

A) borrowing, lending    B) selling, manufacturing    C) making, financing    D) saving, spending

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**Question No. : 17**

If one more paragraph could be inserted between the last and the second last paragraph, which of these would be it?

- A) Could anything trigger another breakdown of globalization like the one that happened in 1914? The obvious answer is a deterioration of political relations between the United States and China, whether over trade, Taiwan, Tibet or some other as yet subliminal issue. The scenario may seem implausible. Yet it is easy to see how future historians could retrospectively construct plausible chains of causation to explain such a turn of events.
- B) Rising commodity prices can intensify inflationary pressures in China, necessitating the imposition of price controls and export prohibitions, and encouraging an extraordinary scramble for natural resources in Africa and elsewhere which, to Western eyes, had an unnervingly imperial undertone. Indeed, the US repeated the charge of 'currency manipulation' even as China's exports to America fell off a cliff in 2008.
- C) For a time it seemed as if the sovereign-wealth funds might orchestrate a global bail-out of Western finance; the ultimate role reversal in financial history. For the proponents of what George Soros has disparaged as 'market fundamentalism', here was a painful anomaly: among the biggest winners of the latest crisis were state-owned entities.'
- D) The subprime mortgage crisis of 2007 was not so difficult to predict. What was much harder to predict was the way a tremor caused by a spate of mortgage defaults in America's very own, home-grown emerging market would cause a financial earthquake right across the Western financial system. Not many people understood that defaults on subprime mortgages would destroy the value of exotic new asset-backed instruments like collateralized debt obligations.

**Question No. : 18**

What is the point that the author is making in the last paragraph of the passage?

- A) Conflicts are inevitable in the world and it is a pipe dream to imagine sustainable peace.
  - B) Natural resources have always been the cause of most conflicts.    C) The study of financial history is justified.
  - D) Most big financial crises come just seldom enough to be beyond the living memory of today's bankers.
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**DIRECTIONS for the question:** Read the passage and answer the question based on it.

**Question No. : 19**

Although we tried to keep a thoroughly neutral attitude in the Widows' Home regarding the question of widow marriage, people did not believe in our statements. This was probably why the growth of the institution was very very slow. In a way it was good

that the growth of the institution was slow. It gave time to the workers, tried their patience and as the demand for current expenditure was not high; subscriptions collected could be utilized in laying by a decent amount.

When numbers began to grow and everything was going on smoothly there arose a storm, not from the orthodox side but from the side of the reformers. Several reformers of the extreme wing were dissatisfied with my methods of working along the line of least resistance. Some of them had also criticized the principles on which the Widow Marriage Association was working, and did not like the complete neutrality maintained in the Widows' Home on the question of widow marriage. The connection of Parvatibai Athavale as Head of the Widows' Home accentuated the feeling of the reformers. Mrs. Athavale was, as has been mentioned before, a tonsured widow, and had stuck to her orthodoxy. The climax was reached when she made a fiery speech at the Provincial Social Conference held in Bombay at the end of 1904, criticizing the reformers for some of their actions and especially the women of Bombay for their love of finery. Several reformers wrote to me and also made suggestions in newspapers that Parvatibai should be sent away from the Home. I warned her and left the matter there without giving much heed to all this effervescence.

The cause of widow marriage was dear to me and I could never be an enemy of it. As far as the inmates of the Widows' Home were concerned, I was, neutral, and I would not even be present at a marriage-Ceremony of any one of them, if the same was brought about against the wishes of the guardian. In the case of widows, not belonging to the Home I would exert myself to bring about a marriage. I thought that it would be in the interest of the widow marriage movement if the Home was run on neutral lines. And it did actually prove to be so, as I wrote in my Marathi autobiography in 1915, that since the starting of the Home 25 widows belonging to it had got married till that time while the total number of widow marriages from 1870 among Maharashtrians was only, about 35. The reform movement was so weak and the persons prepared to educate their wards were so few, that it would be suicidal to condemn the humble efforts of those who were doing things in their own way and were advancing some distance at least in the desired direction. Those who, wanted to go faster were welcome to do so. But it would be well for those whom they thought to be weaker, to go slowly.

*Excerpted from the autobiography of Maharishi Karve*

Which of the following behaviors would be in keeping with Mrs. Athavale's character, as described in the second paragraph?

- A) She never partook of food or drink touched by a widow who had remarried.
- B) Ensure that all women who are orthodox get their heads tonsured.
- C) She continued staying at her husband's home after she got widowed as a minor.
- D) She would continue dressing up in all her finery when she went to meetings.

**Question No. : 20**

As used in the last line of the second paragraph, which of the following words could replace 'effervescence'?

- A) Strident criticism
- B) Bubbly joy
- C) Frivolous agitation
- D) Light hearted banter

**Question No. : 21**

What was the reason for the neutrality that the Widow's home had on Widow remarriage?

- A) The terms of reference for the Home strictly restricted its activities only to the educational domain.
- B) To make haste slowly as far as reforms on widow remarriage was concerned.
- C) In order to ensure that the donors to the home did not get ostracized by society.
- D) Society at that time found it much easier to accept widow education than their remarriage.

**Question No. : 22**

Referring to the last line of the passage, who does the author refer to when he mentions 'the weaker'?

- A) The widows who resided in the Widow's Home.
- B) The reformers who pushed for the Widow's Home to actively promote widow remarriage.
- C) The guardians of the widows who got them admitted to the Widow's home.
- D) The orthodox who fervently opposed widow remarriage.

**Question No. : 23**

The tone adopted by the author of the passage is:

- A) factually insightful    B) narratively fanciful    C) figuratively subjective    D) hypothetical objective

**Question No. : 24**

The statistic, about the number of widow remarriages from the Widow home, used in the last paragraph of the passage performs which one of the following functions?

- A) It illustrates how dismal the situation was in the rest of Maharashtra.  
B) It showcases the efficacy of the Widow Home in the context of widow remarriages.  
C) Both (1) and (2)    D) Neither (1) nor (2)

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**DIRECTIONS for the question:** Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

**Question No. : 25**

1. In 1899, 17-year-old Emma Rauschenbach, one of Switzerland's wealthiest heiresses, fell in love with Carl Jung, a penniless Irrenarzt, or doctor of the insane, then the least respected of all medical disciplines.
  2. None of them could have foreseen just how far this young doctor's ambition would take him: from his beginnings as a "lowly assistant physician" to one of the leading lights in the newly fashionable field of psychoanalysis
  3. Emma's parents encouraged the love match.
  4. She would bring more than enough money to the marriage, and despite Carl's peasant background and inauspicious career, he was keenly intelligent and hard-working.
  5. They wanted their daughter to be happy.
- (write the answer key)

- A) 2    B)    C)    D)

**DIRECTIONS for the question:** Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

**Question No. : 26**

1. He also decided that they should get drunk, and so they mixed rum and cocoa and drank it 'as if we were mainlining heroin'.
  2. In love as in friendship Lowell was controlling and vulnerable, caring and neglectful, destructive and helpless to fix the damage.
  3. Lowell decided that Clark should quit smoking and, when Clark resisted, chased him around and knocked him down.
  4. Under Lowell's direction, they studied the Bible (with special attention to the Book of Job) and ate cereal with raw honey and 'badly' cooked eels.
  5. In the summer of 1935, when he was 18, Robert Lowell and two friends from St Mark's School – Blair Clark and Frank Parker – rented a house in Nantucket.
- (write the answer key)

- A) 2    B)    C)    D)

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**DIRECTIONS for the question:** Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

**Question No. : 27**

1. In the latest issue of American Funeral Director, it is salutary to learn, for instance, that "ninety-three percent of modern cremation families prefer non-traditionally shaped urns", or that there is "an uptick of interest in new techniques of deep freezing".
  2. A few years ago, I entered a morbid phase, and started subscribing to the in-house trade journals of the American funeral industry.
  3. Forty-five per cent of the country cremates, and the pace of innovation is reassuring.
  4. As Thomas Laqueur remarks towards the end of his sprawling meditation on mortal remains, it is possible to cremate someone in the United States today "without ever speaking to, much less seeing a human being".
  5. The sangfroid that insiders bring to the business can be soothing.
- (write the answer key)

A) 4 B) C) D)

**DIRECTIONS for the question:** Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out. Choose its number as your answer and key it in.

**Question No. : 28**

1. That public parks should exist at all was a radical idea.
2. The processions of tombstones interfered with athletic activity, the gloom with carefree frolicking.
3. A century and a half ago, city dwellers in search of fresh air and rural pastures visited graveyards.
4. Nor did mourners relish having to contend with the crowds of pleasure-seekers.
5. It was a bad arrangement.

(write the answer key)

A) 1 B) C) D)

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**DIRECTIONS for the question:** The four sentences (labelled 1,2,3 and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentence and key in this sequence of four numbers as your answer.

**Question No. : 29**

1. In 1945, the last year of the war, more than 60 percent of German POWs professed their faith in Hitler, the man who had led their nation to ruin.
2. The idea that the worst evildoers (in this case, the top Nazis) have abnormal psyches might just be a way of defending ourselves against the immoral darkness that inhabits us all.
3. Even when it should have been clear that World War II was lost, Germans still lined up behind their leader.
4. Such desperate clinging to charismatic authority has occurred in other times and places, and it raises a hard question: To what degree were the German people as a whole—not just their leaders—responsible for the evil of Nazism?

(write the answer key)

A) 3142 B) C) D)

**DIRECTIONS for the question:** The five sentences (labelled 1,2,3,4, and 5) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentence and key in this sequence of five numbers as your answer.

**Question No. : 30**

1. The five hundredth anniversary of his death in 1516 has inspired two comprehensive exhibitions, at the Noordbrabants Museum in his hometown of 's-Hertogenbosch and at Madrid's Museo Nacional del Prado, as well as an ambitious project to analyze all of his surviving work, drawn, painted, and printed, according to the latest scientific techniques (the Bosch Research and Conservation Project).
2. His imagination ranged from a place beyond the spheres of Heaven to the uttermost depths of Hell, but for many of his earliest admirers the most striking aspect of his art was what they described as its "truth to nature."
3. How could he be otherwise with so strange and masterful an artist?
4. Yet despite all we have learned through these undertakings—and it is a great deal—the man his neighbors knew as "Joan the painter" remains as mysterious as ever.
5. There has never been a painter quite like Jheronimus van Aken, the Flemish master who signed his works as Jheronimus Bosch.

(write the answer key)

A) 52143 B) C) D)

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**DIRECTIONS for the question:** The five sentences (labelled 1,2,3,4, and 5) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentence and key in this sequence of five numbers as your answer.

**Question No. : 31**

1. The only problem is what being happy consists in, an issue that moral thinkers have never been able to agree on and probably never will.



2. Is happiness a purely subjective feeling, or can it be somehow measured?
  3. There is no doubt that what everybody wants is happiness.
  4. Can you be happy without knowing it? Can you only be happy without knowing it?
  5. In our own time, the concept of happiness has moved from the private sphere to the public one.
- (write the answer key)

A) 31245 B) C) D)

**DIRECTIONS for the question:** Identify the most appropriate summary for the paragraph and write the key for most appropriate option.

**Question No. : 32**

Imagine scanning your Grandma's brain in sufficient detail to build a mental duplicate. When she passes away, the duplicate is turned on and lives in a simulated video-game universe, a digital Elysium complete with Bingo, TV soaps, and knitting needles to keep the simulacrum happy. You could talk to her by phone just like always. She could join Christmas dinner by Skype. E-Granny would think of herself as the same person that she always was, with the same memories and personality—the same consciousness—transferred to a well regulated nursing home and able to offer her wisdom to her offspring forever after. And why stop with Granny? You could have the same afterlife for yourself in any simulated environment you like. But even if that kind of technology is possible, and even if that digital entity thought of itself as existing in continuity with your previous self, would you really be the same person? As a neuroscientist, my interest lies mainly in a more practical question: is it even technically possible to duplicate yourself in a computer program? The short answer is: probably, but not for a while.

1. The charm of duplicating one's brains through technology outshines the possible technological challenges.
2. The concept of duplicating human brains, though alluring and possible, is something that is not going to happen in the immediate future.
3. The possibility of duplicating human brains is fairly imminent and is something that is desired by plenty of people.
4. The chances of duplicating humans are remote and even if possible, one might never get the same physical feelings in the duplicates.

(write the answer key)

A) 2 B) C) D)

**DIRECTIONS for the question:** Identify the most appropriate summary for the paragraph and write the key for most appropriate option.

**Question No. : 33**

It takes some effort to remind ourselves that the way we see other animals is rarely the way they see themselves. Indeed, it is not clear how, or even if, they see themselves at all. Experiments to detect signs of self-awareness, such as the mirror recognition test, suggest it is the exception rather than the rule in the animal kingdom. This gulf of incomprehension makes thinking about what, if any, moral obligations we have towards our fellow creatures extremely difficult. But we must think about it because we know enough to be sure that billions of them are conscious, form bonds, feel physical and psychological pleasures and pains. To give their welfare no more thought than we do that of rocks would be shamefully callous.

1. The fact that animals can also feel pain means that we should be more concerned about their welfare and not be as callous as we are.
2. Our heartless approach towards animals does nothing to alleviate the pain they feel in their lives and reflects poorly on us as a self-aware specie of the planet.
3. Basing our approach towards animals on the fact that most of them lack self-awareness reeks of indifference and is something that disregards other aspects of their beings.
4. Being as indifference and heartless as we are, we can no longer expect animals to reciprocate our feelings and we can clearly see that the conscious pain they suffer because of our actions.

(write the answer key)

A) 3 B) C) D)

**DIRECTIONS for the question:** Identify the most appropriate summary for the paragraph and write the key for most appropriate option.

**Question No. : 34**

Exhaustion is a vague and forgiving concept. Celebrities say they're suffering from it when they go to rehab and don't want to admit to depression or addiction. You can attribute your low mood or your short temper to exhaustion, and it can mean anything from "had a couple of bad nights' sleep" to "about to have a nervous breakdown." It also seems like a peculiarly modern affliction. Relentless email, chattering social media, never-ending images of violence and suffering in the news, the lingering effects of the financial crisis, and looming environmental catastrophe: Who's going to blame you if you confess to having had enough of it all? Anna Katharina Schaffner's *Exhaustion: A History* opens with the resignation of Pope Benedict XVI in 2013. He cited deteriorating physical and mental strength as a major factor in his decision to step down, and Schaffner teasingly holds him up as an emblem of our age, exhausted by the demands placed upon him.

1. Exhaustion has been used as a cover for ages by those who wish to hide their inadequacies behind this innocuous term.
2. The term exhaustion has not been done justice and has been used in ways in which it was never intended to be used.
3. The wide variety of contexts in which the term exhaustion has been used does not necessarily mean that it is valid argument to cover for other human inadequacies.
4. The term exhaustion has been used in multiple contexts and in modern times, the term has been used a cover for other conditions.

(write the answer key)

- A) 4   B)   C)   D)

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**Section : DI & Reasoning**

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 35**

10000 students were divided into 2 groups of 5000 students each. These students were given tests in exactly one area, Math, Science and English, where the students scored from 0 to 20, both inclusive. An experiment was conducted after the tests. The students in the first group were shown Hindi songs with English subtitles for two hours twice a week for a year while the students in the second group were not exposed to these songs at all. At the end of the year, the same students were tested on Math, Science and English. It was found that the students in the first group had increased their average scores on Math, Science and English by 5, 3 and 0 points respectively while the students in the second group had increased their average scores by 3, 1 and 0 points respectively. The table below shows the number of students in each group tested on Math, Science and English and their average scores before the experiment.

Subject	Average Scores	Group I		Group II	
		Boys	Girls	Boys	Girls
Math	10	1800	1900	1700	1500
Science	15	800	100	500	500
English	20	200	200	300	500

Before the experiment, what is the difference between the average score of all students in Group I across the three areas and the average scores of all students in Group II across the three areas?

- A) 0.3   B) 0.9   C) 1.2   D) 1.6

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 36**

10000 students were divided into 2 groups of 5000 students each. These students were given tests in exactly one area, Math, Science and English, where the students scored from 0 to 20, both inclusive. An experiment was conducted after the tests. The students in the first group were shown Hindi songs with English subtitles for two hours twice a week for a year while the students in the second group were not exposed to these songs at all. At the end of the year, the same students were tested on Math, Science and English. It was found that the students in the first group had increased their average scores on Math, Science and English by 5, 3 and 0 points respectively while the students in the second group had increased their average scores by 3, 1 and 0 points

respectively. The table below shows the number of students in each group tested on Math, Science and English and their average scores before the experiment.

Subject	Average Scores	Group I		Group II	
		Boys	Girls	Boys	Girls
Math	10	1800	1900	1700	1500
Science	15	800	100	500	500
English	20	200	200	300	500

After the experiment, what is the difference between the average score of all students in Group I across the three areas and the average scores of all students in Group II across the three areas?

- A) 0.68 B) 0.84 C) 1.22 D) 1.36

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 37**

10000 students were divided into 2 groups of 5000 students each. These students were given tests in exactly one area, Math, Science and English, where the students scored from 0 to 20, both inclusive. An experiment was conducted after the tests. The students in the first group were shown Hindi songs with English subtitles for two hours twice a week for a year while the students in the second group were not exposed to these songs at all. At the end of the year, the same students were tested on Math, Science and English. It was found that the students in the first group had increased their average scores on Math, Science and English by 5, 3 and 0 points respectively while the students in the second group had increased their average scores by 3, 1 and 0 points respectively. The table below shows the number of students in each group tested on Math, Science and English and their average scores before the experiment.

Subject	Average Scores	Group I		Group II	
		Boys	Girls	Boys	Girls
Math	10	1800	1900	1700	1500
Science	15	800	100	500	500
English	20	200	200	300	500

What is the difference between the average scores of all the boys across the three areas before and after the experiment?

- A) 0.43 B) 2.86 C) 3.2 D) 3.67

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 38**

10000 students were divided into 2 groups of 5000 students each. These students were given tests in exactly one area, Math, Science and English, where the students scored from 0 to 20, both inclusive. An experiment was conducted after the tests. The students in the first group were shown Hindi songs with English subtitles for two hours twice a week for a year while the students in the second group were not exposed to these songs at all. At the end of the year, the same students were tested on Math, Science and English. It was found that the students in the first group had increased their average scores on Math, Science and English by 5, 3 and 0 points respectively while the students in the second group had increased their average scores by 3, 1 and 0 points respectively. The table below shows the number of students in each group tested on Math, Science and English and their average scores before the experiment.

Subject	Average Scores	Group I		Group II	
		Boys	Girls	Boys	Girls
Math	10	1800	1900	1700	1500
Science	15	800	100	500	500

What is the difference between the average scores of all the girls across the three areas before and after the experiment?

- A) 0.72   B) 2.38   C) 2.72   D) 3.14
- 

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 39**

Six party workers – Amol, Bipin, Chetan, Divya, Gayatri and Hema – of the National People’s Party must visit three cities – Mumbai, Nagpur and Pune – for campaigning before the elections. Each party worker campaigns in one of the cities with either one or three of the other party workers. No two cities have the same number of party workers campaigning before the elections. Gayatri and Hema campaign in two different cities. Bipin and Divya campaign in the same city. Amol campaigns in either Mumbai or Nagpur. If Hema campaigns in Pune, then Bipin campaigns in Pune with her.

Which of the following could be true about the campaigning?

- A) Chetan and Gayatri campaign in Nagpur while Amol, Bipin, Divya and Hema campaign in Pune  
B) Bipin, Chetan, Divya and Hema campaign in Mumbai while Amol and Gayatri campaign in Nagpur  
C) Bipin, Divya and Hema campaign in Mumbai while Amol, Chetan and Gayatri campaign in Nagpur  
D) Amol and Chetan campaign in Mumbai while Bipin, Divya, Gayatri and Hema campaign in Nagpur

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 40**

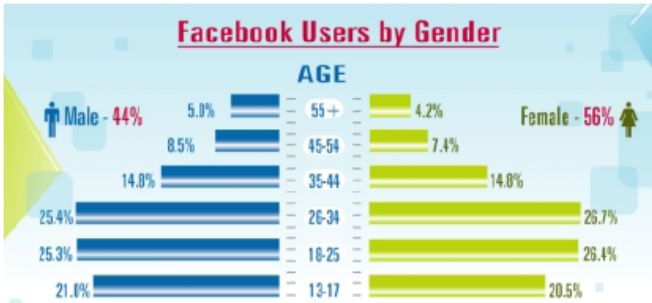
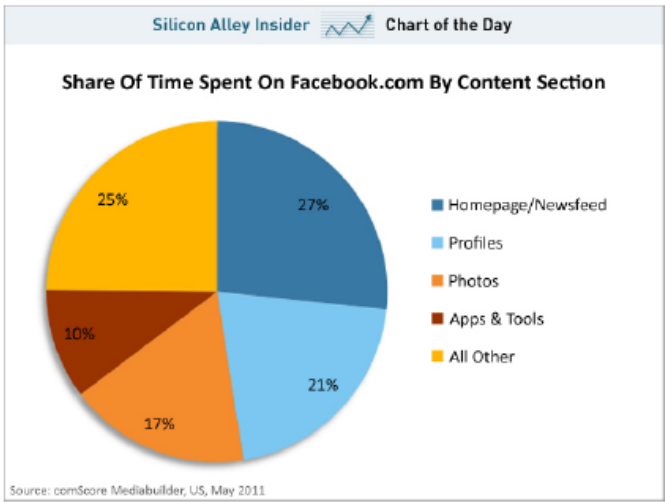
Six party workers – Amol, Bipin, Chetan, Divya, Gayatri and Hema – of the National People’s Party must visit three cities – Mumbai, Nagpur and Pune – for campaigning before the elections. Each party worker campaigns in one of the cities with either one or three of the other party workers. No two cities have the same number of party workers campaigning before the elections. Gayatri and Hema campaign in two different cities. Bipin and Divya campaign in the same city. Amol campaigns in either Mumbai or Nagpur. If Hema campaigns in Pune, then Bipin campaigns in Pune with her.

If Gayatri campaigns in Pune, which of the following must be true about the campaign?

- A) Hema campaigns in Nagpur   B) Bipin campaigns in Pune   C) Divya campaigns in Mumbai  
D) Chetan campaigns in Pune
- 

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**Question No. : 41**

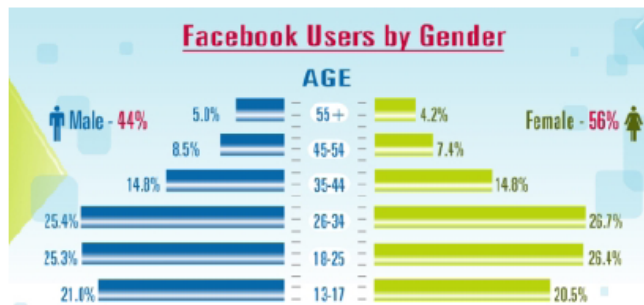
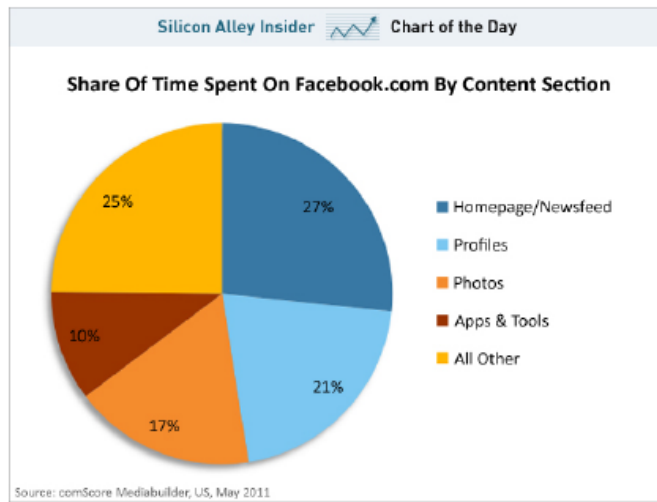


A random representative sample group of 200 Facebook users needs to be created. How many females in the age range of 18 to 25 need to be in this group?

- A) 20    B) 30    C) 40    D) 50

**DIRECTIONS for the question:** Analyse the graphs given below and answer the question that follows.

**Question No. : 42**



A recent academic paper has hypothesised that Facebook usage is associated with loneliness or unhappiness. If this report were to be true, then at what age group are women almost at the same level of unhappiness or loneliness as compared to men?

- A) 45 – 54    B) 55 +    C) 26 - 34    D) 18 - 25

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 43**

The table below shows the number of students specialising in different streams of management – Human Resources, Marketing, Finance, Operations and Systems – at five different B-schools – AIM, NUS, LBS, ISB and IMD. Some of the data,  $a$  to  $k$ , has intentionally been omitted.

Paper	AIM	IMD	ISB	LBS	NUS	Total
HR	$a$	$b$	800	4200	4900	15000
Marketing	5000	$c$	3900	$d$	$e$	26000
Finance	1700	1150	$f$	6300	5150	15500
Operations	875	725	$g$	1000	$h$	13500
Systems	$i$	225	$j$	700	$k$	7000
Total	10000	12000	17000	18000	20000	77000

Knowing the values of which of the variables,  $a$  to  $k$ , will not help in calculating the exact number of students in each stream from each B-school?

- A)  $a$  and  $e$     B)  $h$  and  $k$     C)  $i$  and  $j$     D)  $j$  and  $k$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 44**

The table below shows the number of students specialising in different streams of management – Human Resources, Marketing,

Finance, Operations and Systems – at five different B-schools – AIM, NUS, LBS, ISB and IMD. Some of the data,  $a$  to  $k$ , has intentionally been omitted.

Paper	AIM	IMD	ISB	LBS	NUS	Total
HR	$a$	$b$	800	4200	4900	15000
Marketing	5000	$c$	3900	$d$	$e$	26000
Finance	1700	1150	$f$	6300	5150	15500
Operations	875	725	$g$	1000	$h$	13500
Systems	$i$	225	$j$	700	$k$	7000
Total	10000	12000	17000	18000	20000	77000

Knowing the value of which of the variables,  $a$  to  $k$ , will help in calculating the exact number of students in each stream from each B-school?

- A)  $a$  and  $e$    B)  $a$  and  $g$    C)  $f$  and  $d$    D)  $i$  and  $c$

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 45**

The table below shows the number of students specialising in different streams of management – Human Resources, Marketing, Finance, Operations and Systems – at five different B-schools – AIM, NUS, LBS, ISB and IMD. Some of the data,  $a$  to  $k$ , has intentionally been omitted.

Paper	AIM	IMD	ISB	LBS	NUS	Total
HR	$a$	$b$	800	4200	4900	15000
Marketing	5000	$c$	3900	$d$	$e$	26000
Finance	1700	1150	$f$	6300	5150	15500
Operations	875	725	$g$	1000	$h$	13500
Systems	$i$	225	$j$	700	$k$	7000
Total	10000	12000	17000	18000	20000	77000

What is the maximum value of  $k$ ? (in numerical value)

- A) 5875   B)   C)   D)

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 46**

The table below shows the number of students specialising in different streams of management – Human Resources, Marketing, Finance, Operations and Systems – at five different B-schools – AIM, NUS, LBS, ISB and IMD. Some of the data,  $a$  to  $k$ , has intentionally been omitted.

Paper	AIM	IMD	ISB	LBS	NUS	Total
HR	$a$	$b$	800	4200	4900	15000
Marketing	5000	$c$	3900	$d$	$e$	26000
Finance	1700	1150	$f$	6300	5150	15500
Operations	875	725	$g$	1000	$h$	13500
Systems	$i$	225	$j$	700	$k$	7000
Total	10000	12000	17000	18000	20000	77000

Which of the following must be true?

- A)  $b = a + 1000$    B)  $e = i + 4000$    C)  $j = h + 200$    D)  $j = k + 1500$
- 

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 47**

Seven up-coming actresses – Anushka, Deepika, Kangana, Mrinmayee, Parineeti, Shraddha and Vidya – are auditioning for the lead role in the latest Salman Khan thriller. Each audition is scheduled for an hour, with four auditions scheduled from 9 a.m. to 12 noon and three auditions scheduled from 2 p.m. to 4 p.m. The “Audition Schedule” with the security guard at the movie set revealed the following:

- Vidya will be either the first or the last actress to be auditioned.
- Mrinmayee will be auditioned after Kangana.
- Mrinmayee’s audition is scheduled for 3 p.m. if Deepika’s audition is scheduled for 12 noon.
- Parineeti’s audition is scheduled exactly an hour after Mrinmayee’s audition.

Which of the following could be the schedule of auditions from 9 a.m. to 4 p.m.?

- A) Vidya, Anushka, Deepika, Mrinmayee, Parineeti, Kangana, Shraddha  
B) Anushka, Kangana, Shraddha, Deepika, Vidya, Mrinmayee, Parineeti  
C) Deepika, Anushka, Kangana, Shraddha, Mrinmayee, Parineeti, Vidya  
D) Vidya, Mrinmayee, Parineeti, Shraddha, Kangana, Deepika, Anushka

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 48**

Seven up-coming actresses – Anushka, Deepika, Kangana, Mrinmayee, Parineeti, Shraddha and Vidya – are auditioning for the lead role in the latest Salman Khan thriller. Each audition is scheduled for an hour, with four auditions scheduled from 9 a.m. to 12 noon and three auditions scheduled from 2 p.m. to 4 p.m. The “Audition Schedule” with the security guard at the movie set revealed the following:

- Vidya will be either the first or the last actress to be auditioned.
- Mrinmayee will be auditioned after Kangana.
- Mrinmayee’s audition is scheduled for 3 p.m. if Deepika’s audition is scheduled for 12 noon.
- Parineeti’s audition is scheduled exactly an hour after Mrinmayee’s audition.

If Deepika’s audition is scheduled for 12 noon, which of the following must be true?

- A) Vidya’s audition is scheduled for 9 a.m.   B) Anushka’s audition is scheduled for 11 a.m.  
C) Kangana’s audition is scheduled for 2 p.m.   D) Parineeti’s audition is scheduled for 3 p.m.
- 

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 49**

Seven up-coming actresses – Anushka, Deepika, Kangana, Mrinmayee, Parineeti, Shraddha and Vidya – are auditioning for the lead role in the latest Salman Khan thriller. Each audition is scheduled for an hour, with four auditions scheduled from 9 a.m. to 12 noon and three auditions scheduled from 2 p.m. to 4 p.m. The “Audition Schedule” with the security guard at the movie set revealed the following:

- Vidya will be either the first or the last actress to be auditioned.
- Mrinmayee will be auditioned after Kangana.
- Mrinmayee’s audition is scheduled for 3 p.m. if Deepika’s audition is scheduled for 12 noon.
- Parineeti’s audition is scheduled exactly an hour after Mrinmayee’s audition.

Who amongst the following actresses cannot be scheduled for an audition at 2 p.m.?



A) Deepika B) Kangana C) Mrinmayee D) Parineeti

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 50**

Seven up-coming actresses – Anushka, Deepika, Kangana, Mrinmayee, Parineeti, Shraddha and Vidya – are auditioning for the lead role in the latest Salman Khan thriller. Each audition is scheduled for an hour, with four auditions scheduled from 9 a.m. to 12 noon and three auditions scheduled from 2 p.m. to 4 p.m. The “Audition Schedule” with the security guard at the movie set revealed the following:

- Vidya will be either the first or the last actress to be auditioned.
- Mrinmayee will be auditioned after Kangana.
- Mrinmayee’s audition is scheduled for 3 p.m. if Deepika’s audition is scheduled for 12 noon.
- Parineeti’s audition is scheduled exactly an hour after Mrinmayee’s audition.

Which of the following statements must be false?

- A) Kangana is scheduled for an audition at 9 a.m. B) Parineeti is scheduled for an audition at 10 a.m.  
C) Anushka is scheduled for an audition at 2 p.m. D) Deepika is scheduled for an audition at 4 p.m.

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 51**

The 300 students in an Engineering College study at least one of the streams from amongst Civil Engineering, Electrical Engineering and Mechanical Engineering. 60% of the students are males and the rest are females. Of the male students, 120 studied Mechanical Engineering and 80 studied Electrical Engineering. Of the female students, 45 studied Mechanical Engineering and 90 studied Civil Engineering. A campus survey revealed the following additional information:

- The ratio of the number of male students studying Civil Engineering only to the number of female students studying Civil Engineering only was 2 : 1.
- Half as many female students studied Mechanical Engineering and Electrical Engineering only as the number of female students studying Mechanical Engineering and Civil Engineering only.
- As many female students studied Electrical Engineering only as the total number of female students studying Mechanical Engineering only and Civil Engineering only.
- Twice as many female students studied Civil Engineering and Electrical Engineering only as the number of male students studying Civil Engineering and Electrical Engineering only.
- Thrice as many male students studied all three streams in Engineering as the number of female students studying all three streams in Engineering.
- Twice as many male students studied all three streams in engineering as the number of male students studying Electrical Engineering only.
- Of the male students studying Mechanical Engineering, a third studied Mechanical Engineering only and a third studied Mechanical Engineering and Civil Engineering only.
- Of the male students, 105 studied more than one stream in engineering and of the female students, 90 studied more than one stream in engineering.

How many more male students than female students are studying Mechanical Engineering and Civil Engineering only? (in numerical value)

- A) 20 B) C) D)

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 52**

The 300 students in an Engineering College study at least one of the streams from amongst Civil Engineering, Electrical Engineering and Mechanical Engineering. 60% of the students are males and the rest are females. Of the male students, 120 studied Mechanical Engineering and 80 studied Electrical Engineering. Of the female students, 45 studied Mechanical Engineering

and 90 studied Civil Engineering. A campus survey revealed the following additional information:

- The ratio of the number of male students studying Civil Engineering only to the number of female students studying Civil Engineering only was 2 : 1.
- Half as many female students studied Mechanical Engineering and Electrical Engineering only as the number of female students studying Mechanical Engineering and Civil Engineering only.
- As many female students studied Electrical Engineering only as the total number of female students studying Mechanical Engineering only and Civil Engineering only.
- Twice as many female students studied Civil Engineering and Electrical Engineering only as the number of male students studying Civil Engineering and Electrical Engineering only.
- Thrice as many male students studied all three streams in Engineering as the number of female students studying all three streams in Engineering.
- Twice as many male students studied all three streams in engineering as the number of male students studying Electrical Engineering only.
- Of the male students studying Mechanical Engineering, a third studied Mechanical Engineering only and a third studied Mechanical Engineering and Civil Engineering only.
- Of the male students, 105 studied more than one stream in engineering and of the female students, 90 studied more than one stream in engineering.

How many more male students than female students are studying exactly one stream in Engineering? (in numerical value)

A) 45   B)   C)   D)

---

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 53**

The 300 students in an Engineering College study at least one of the streams from amongst Civil Engineering, Electrical Engineering and Mechanical Engineering. 60% of the students are males and the rest are females. Of the male students, 120 studied Mechanical Engineering and 80 studied Electrical Engineering. Of the female students, 45 studied Mechanical Engineering and 90 studied Civil Engineering. A campus survey revealed the following additional information:

- The ratio of the number of male students studying Civil Engineering only to the number of female students studying Civil Engineering only was 2 : 1.
- Half as many female students studied Mechanical Engineering and Electrical Engineering only as the number of female students studying Mechanical Engineering and Civil Engineering only.
- As many female students studied Electrical Engineering only as the total number of female students studying Mechanical Engineering only and Civil Engineering only.
- Twice as many female students studied Civil Engineering and Electrical Engineering only as the number of male students studying Civil Engineering and Electrical Engineering only.
- Thrice as many male students studied all three streams in Engineering as the number of female students studying all three streams in Engineering.
- Twice as many male students studied all three streams in engineering as the number of male students studying Electrical Engineering only.
- Of the male students studying Mechanical Engineering, a third studied Mechanical Engineering only and a third studied Mechanical Engineering and Civil Engineering only.
- Of the male students, 105 studied more than one stream in engineering and of the female students, 90 studied more than one stream in engineering.

How many more female students than male students are studying exactly two streams in Engineering? (in numerical value)

A) 5   B)   C)   D)

**DIRECTIONS for the question:** Go through the graph and the information given below and answer the question that follows.

**Question No. : 54**

The 300 students in an Engineering College study at least one of the streams from amongst Civil Engineering, Electrical Engineering and Mechanical Engineering. 60% of the students are males and the rest are females. Of the male students, 120 studied Mechanical Engineering and 80 studied Electrical Engineering. Of the female students, 45 studied Mechanical Engineering

and 90 studied Civil Engineering. A campus survey revealed the following additional information:

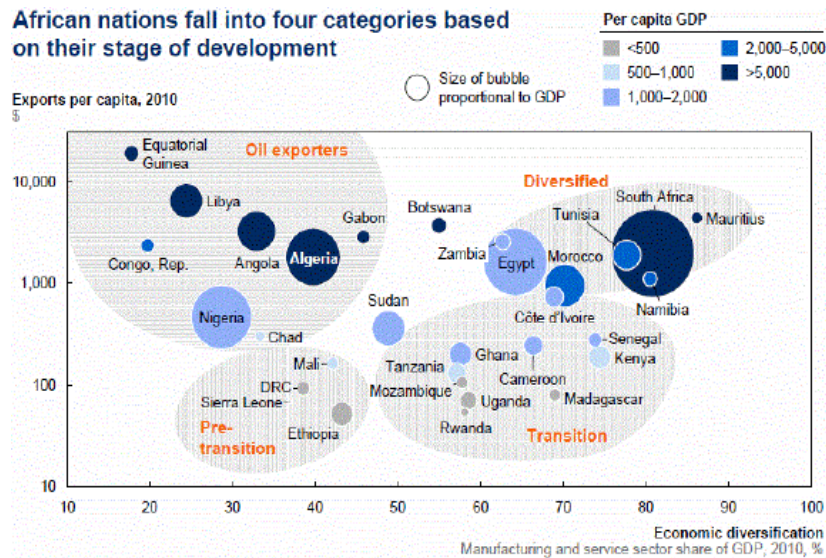
- The ratio of the number of male students studying Civil Engineering only to the number of female students studying Civil Engineering only was 2 : 1.
- Half as many female students studied Mechanical Engineering and Electrical Engineering only as the number of female students studying Mechanical Engineering and Civil Engineering only.
- As many female students studied Electrical Engineering only as the total number of female students studying Mechanical Engineering only and Civil Engineering only.
- Twice as many female students studied Civil Engineering and Electrical Engineering only as the number of male students studying Civil Engineering and Electrical Engineering only.
- Thrice as many male students studied all three streams in Engineering as the number of female students studying all three streams in Engineering.
- Twice as many male students studied all three streams in engineering as the number of male students studying Electrical Engineering only.
- Of the male students studying Mechanical Engineering, a third studied Mechanical Engineering only and a third studied Mechanical Engineering and Civil Engineering only.
- Of the male students, 105 studied more than one stream in engineering and of the female students, 90 studied more than one stream in engineering.

How many more male students are studying Civil Engineering than the number of female students studying Electrical Engineering? (in numerical value)

- A) 30   B)   C)   D)

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**Question No. : 55**



**NOTE:** We include countries whose 2010 GDP is approximately \$10 billion or greater, or whose real GDP growth rate exceeds 7 percent in 2000-08. We exclude 22 countries that account for 4 percent of African GDP in 2010.

**Source:** Organisation for Economic Co-operation and Development; World Development Indicators, World Bank; Mckinsey Global Institute analysis

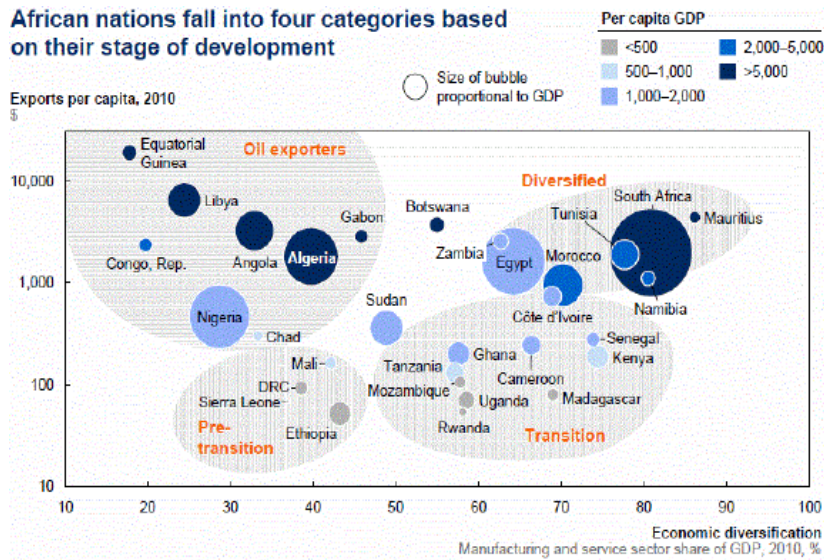
Which of the following questions CANNOT be answered by the above graph?

- A) Ranked by GDP, which is the smallest country in Africa?   B) Ranked by GDP, which is the largest country in Africa?  
 C) How many countries in Africa have a per capita GDP of more than \$ 5,000?  
 D) Which country has the highest share of its GDP coming from agriculture?

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**Question No. : 56**

**African nations fall into four categories based on their stage of development**



**NOTE:** We include countries whose 2010 GDP is approximately \$10 billion or greater, or whose real GDP growth rate exceeds 7 percent in 2000-08. We exclude 22 countries that account for 4 percent of African GDP in 2010.

**Source:** Organisation for Economic Co-operation and Development; World Development Indicators, World Bank; Mckinsey Global Institute analysis

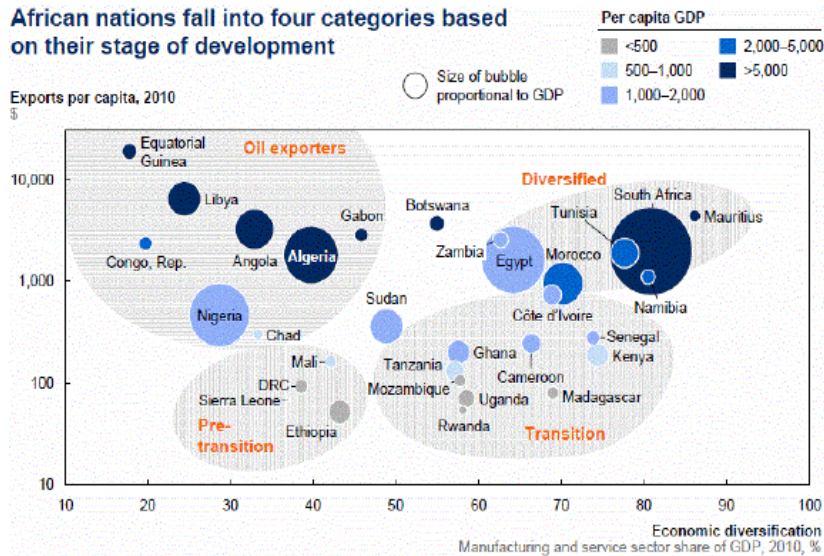
If the Nigerian population in 2010 was 170 million, then what was the value of Nigerian exports in 2010?

- A) \$ 8 billion    B) \$ 880 million    C) \$ 88 billion    D) \$84 million

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**Question No. : 57**

**African nations fall into four categories based on their stage of development**



**NOTE:** We include countries whose 2010 GDP is approximately \$10 billion or greater, or whose real GDP growth rate exceeds 7 percent in 2000-08. We exclude 22 countries that account for 4 percent of African GDP in 2010.

**Source:** Organisation for Economic Co-operation and Development; World Development Indicators, World Bank; Mckinsey Global Institute analysis

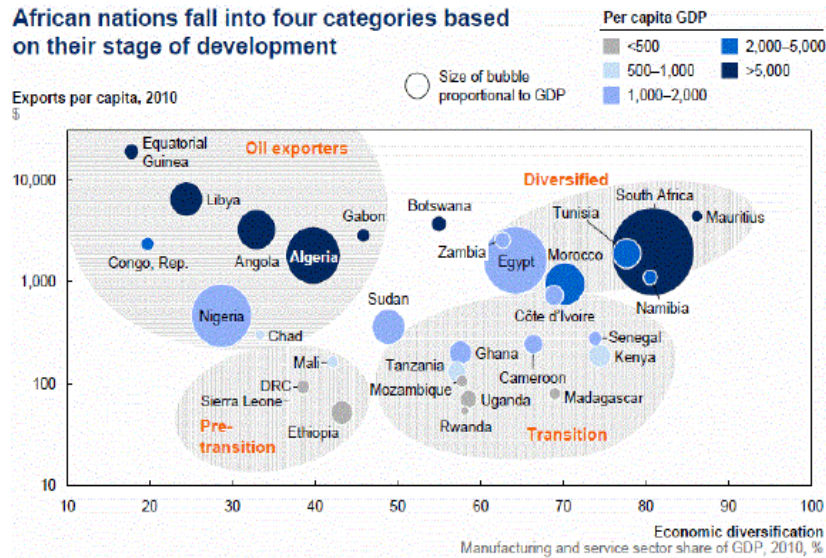
In the grouping shown, which country which is shown as transitioning away from agriculture has the highest GDP?

- A) Ghana    B) Algeria    C) Tanzania    D) Sudan

**DIRECTIONS for the question:** Analyse the graph/s given below and answer the question that follows.

**DIRECTIONS for the question:** Analyse the graphs given below and answer the question that follows.

**Question No. : 58**



**NOTE:** We include countries whose 2010 GDP is approximately \$10 billion or greater, or whose real GDP growth rate exceeds 7 percent in 2000-08. We exclude 22 countries that account for 4 percent of African GDP in 2010.

**Source:** Organisation for Economic Co-operation and Development; World Development Indicators, World Bank; Mckinsey Global Institute analysis

If Tunisia's GDP in 2010 was \$44 b, and South African manufacturing accounted for 15% of GDP, then what was the value of the services which was the \$ contribution of GDP to the South African economy in 2010?

- A) \$26 billion    B) \$2650 million    C) \$2.6 trillion    D) \$265 billion

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 59**

A circular railway track going through a city has eight stations, A, B, C, D, E, F, G and H, at equal distances arranged in the clockwise direction in that order. Four trains – a red train, a blue train, a green train and an orange train – ply this track at one-hour intervals, leaving their starting points between 6:00 a.m. and 5:00 p.m., both inclusive. Starting at 6:00 a.m., the red train plies from A in the clockwise direction and takes 40 minutes to complete the track. Starting at 6:15 a.m., the blue train plies from E in the anti-clockwise direction and takes one hour to complete the track. Starting at 6:30 a.m., the green train plies from D in the anti-clockwise direction and takes 40 minutes to complete the track. Starting at 6:45 a.m., the orange train plies from G in the clockwise direction and takes one hour to complete the track.

How many times during the day will the green train cross the blue train? (in numerical value)

- A) 11    B)    C)    D)

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 60**

A circular railway track going through a city has eight stations, A, B, C, D, E, F, G and H, at equal distances arranged in the clockwise direction in that order. Four trains – a red train, a blue train, a green train and an orange train – ply this track at one-hour intervals, leaving their starting points between 6:00 a.m. and 5:00 p.m., both inclusive. Starting at 6:00 a.m., the red train plies from A in the clockwise direction and takes 40 minutes to complete the track. Starting at 6:15 a.m., the blue train plies from E in the anti-clockwise direction and takes one hour to complete the track. Starting at 6:30 a.m., the green train plies from D in the anti-clockwise direction and takes 40 minutes to complete the track. Starting at 6:45 a.m., the orange train plies from G in the clockwise direction and takes one hour to complete the track.

How many times during the day will the orange train meet the red train? (in numerical value)

A) 11 B) C) D)

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 61**

A circular railway track going through a city has eight stations, A, B, C, D, E, F, G and H, at equal distances arranged in the clockwise direction in that order. Four trains – a red train, a blue train, a green train and an orange train – ply this track at one-hour intervals, leaving their starting points between 6:00 a.m. and 5:00 p.m., both inclusive. Starting at 6:00 a.m., the red train plies from A in the clockwise direction and takes 40 minutes to complete the track. Starting at 6:15 a.m., the blue train plies from E in the anti-clockwise direction and takes one hour to complete the track. Starting at 6:30 a.m., the green train plies from D in the anti-clockwise direction and takes 40 minutes to complete the track. Starting at 6:45 a.m., the orange train plies from G in the clockwise direction and takes one hour to complete the track.

How many times will the red train and the green train meet? (in numerical value)

A) 23 B) C) D)

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 62**

A circular railway track going through a city has eight stations, A, B, C, D, E, F, G and H, at equal distances arranged in the clockwise direction in that order. Four trains – a red train, a blue train, a green train and an orange train – ply this track at one-hour intervals, leaving their starting points between 6:00 a.m. and 5:00 p.m., both inclusive. Starting at 6:00 a.m., the red train plies from A in the clockwise direction and takes 40 minutes to complete the track. Starting at 6:15 a.m., the blue train plies from E in the anti-clockwise direction and takes one hour to complete the track. Starting at 6:30 a.m., the green train plies from D in the anti-clockwise direction and takes 40 minutes to complete the track. Starting at 6:45 a.m., the orange train plies from G in the clockwise direction and takes one hour to complete the track.

At which stations will the blue train and the orange train meet?

A) D and H B) C and G C) B and F D) A and E

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 63**

Seven teachers at a B-school – Anand, Lalit, Prashant, Rajanikant, Shridhar, Vishal, Yogesh – have enrolled in a Faculty Development Programme on *Teaching Case Studies*. At the end of the programme, the teachers must analyse and discuss a case before the trainers and the directors of their institute. Each teacher must discuss a case in exactly one field – Financial Management, Operations Management or Marketing Management.

- Lalit discussed a case on Marketing Management.
- Anand and Rajanikant discussed cases in the same field of management.
- Yogesh discussed a case on either Financial Management or Operations Management.
- Shridhar and Yogesh discussed cases in different fields of management.
- Anand and Vishal discussed cases in different fields of management.
- Half as many teachers discussed cases on Financial Management as discussed cases on Marketing Management.

Which of the following group of teachers cannot have discussed cases in the same field of management?

A) Anand, Lalit, Rajanikant B) Lalit, Prashant, Vishal C) Lalit, Vishal, Yogesh D) Prashant, Rajanikant, Anand

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 64**

Seven teachers at a B-school – Anand, Lalit, Prashant, Rajanikant, Shridhar, Vishal, Yogesh – have enrolled in a Faculty Development Programme on *Teaching Case Studies*. At the end of the programme, the teachers must analyse and discuss a case before the trainers and the directors of their institute. Each teacher must discuss a case in exactly one field – Financial Management, Operations Management or Marketing Management.

- Lalit discussed a case on Marketing Management.
- Anand and Rajanikant discussed cases in the same field of management.
- Yogesh discussed a case on either Financial Management or Operations Management.
- Shridhar and Yogesh discussed cases in different fields of management.
- Anand and Vishal discussed cases in different fields of management.
- Half as many teachers discussed cases on Financial Management as discussed cases on Marketing Management.

Which of the following cannot be true?

- A) Only Prashant discussed a case on Financial Management    B) Rajanikant discussed a case on Operations Management  
C) Shridhar discussed a case on Operations Management    D) Vishal discussed a case on Financial Management

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**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 65**

Seven teachers at a B-school – Anand, Lalit, Prashant, Rajanikant, Shridhar, Vishal, Yogesh – have enrolled in a Faculty Development Programme on *Teaching Case Studies*. At the end of the programme, the teachers must analyse and discuss a case before the trainers and the directors of their institute. Each teacher must discuss a case in exactly one field – Financial Management, Operations Management or Marketing Management.

- Lalit discussed a case on Marketing Management.
- Anand and Rajanikant discussed cases in the same field of management.
- Yogesh discussed a case on either Financial Management or Operations Management.
- Shridhar and Yogesh discussed cases in different fields of management.
- Anand and Vishal discussed cases in different fields of management.
- Half as many teachers discussed cases on Financial Management as discussed cases on Marketing Management.

Which of the following is true?

- A) Rajanikant and Yogesh each discussed cases on Financial Management while Vishal discussed a case on Operations Management  
B) Prashant, Shridhar and Vishal discussed cases on Financial Management, Operations Management and Marketing Management respectively  
C) Vishal, Rajanikant and Shridhar discussed cases on Financial Management, Marketing Management and Operations Management respectively  
D) Lalit discussed a case on Operations Management while Prashant and Vishal each discussed cases on Marketing Management

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 66**

Seven teachers at a B-school – Anand, Lalit, Prashant, Rajanikant, Shridhar, Vishal, Yogesh – have enrolled in a Faculty Development Programme on *Teaching Case Studies*. At the end of the programme, the teachers must analyse and discuss a case before the trainers and the directors of their institute. Each teacher must discuss a case in exactly one field – Financial Management, Operations Management or Marketing Management.

- Lalit discussed a case on Marketing Management.
- Anand and Rajanikant discussed cases in the same field of management.
- Yogesh discussed a case on either Financial Management or Operations Management.
- Shridhar and Yogesh discussed cases in different fields of management.
- Anand and Vishal discussed cases in different fields of management.
- Half as many teachers discussed cases on Financial Management as discussed cases on Marketing Management.

If exactly one teacher discussed a case on Operations Management, which of the following must be true?

- A) Prashant discussed a case on Financial Management    B) Rajanikant discussed a case on Marketing Management  
C) Vishal discussed a case on Operations Management    D) Yogesh discussed a case on Financial Management
- 

**Section : Quantitative Ability**

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**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 67**

If  $x + y = 4$  and  $xy = 3$ , what is the value of  $x^3 + y^3$ ? (in numerical value)

- A) 28    B)    C)    D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 68**

If  $x - p = p - y$  and  $5(x - p) = p + y$ , what is the ratio  $x / y$ ?

- A)  $3/2$     B) 2    C)  $5/2$     D) 3
- 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 69**

What is the approximate sum of the series?  $\frac{1}{1} + \frac{1}{1+2} + \frac{1}{1+2+3} + \frac{1}{1+2+3+4} + \dots + \frac{1}{1+2+3+4+\dots+100}$ ?

- A) 1    B) 2    C)  $1/2$     D) infinite

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 70**

What is the sum of the series  $2014^2 - 2013^2 + 2012^2 - \dots + 2^2 - 1^2$ ?

- A)  $1007 \times 2015$     B)  $1007 \times 2014$     C)  $1008 \times 2015$     D)  $1008 \times 2014$
- 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 71**

What is the area of a quadrilateral formed by joining the lines  $x + 2y = 8$ ;  $2x - y = 8$ ; X-axis and Y-axis?

- A) 24.4    B) 16    C) 13.2    D) 12.8

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 72**

Two concentric circles have radii 10 cm and 17 cm respectively. A chord AD is drawn on the bigger circle such that the length of the chord BC cut by it on the smaller circle is of 12 cm. What is AB?

- A) 9    B) 6.5    C) 7.5    D) 8
-



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 73**

In a right angled  $\triangle ABC$ , the height  $h$  drawn from the right angle A to the opposite side is given as:

A)  $h = AB + AC$    B)  $\frac{1}{h} = \frac{1}{AB} + \frac{1}{AC}$    C)  $h^2 = AB^2 + AC^2$    D)  $\frac{1}{h^2} = \frac{1}{AB^2} + \frac{1}{AC^2}$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 74**

$r$  is a positive integer such that  $f(r) = 1 + 2 + 3 + \dots + r$ . If  $m$  and  $n$  are two positive integers, what is the value of  $f(m + n) - f(m) - f(n)$ ?

A)  $mn$    B)  $(m + 1)(n + 1)$    C)  $m^2 - mn + n^2$    D)  $m^2 + n^2 + 1$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 75**

If  $p^2qr^2 = 75$ ,  $pq^2r^2 = 45$  and  $p^2q^2r = 225$ , then what is the value of  $p^2 + q^2 + r^2$ ? (in numerical value)

A) 35   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 76**

What is the remainder when  $3^{3333}$  is divided by 10? (in numerical value)

A) 3   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 77**

$3^{(4n-2)} + 2^{(6n-3)} + 1$  when divided by 17 will (write the ans key)

1. always leave remainder 1
2. will always leave remainder 1 for  $n < 20$
3. will always have remainder 1 for  $n > 20$
4. will never have remainder 1

A) 1   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 78**

$m$  is an integer such that the  $x$ -coordinate of the point of intersection of lines  $y = mx + 1$  and  $2x + 4y = 5$  is an integer. How many different values can  $m$  take? (in numerical value)

A) 0   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 79**

X travels from A to B in 1 hr and Y travels the same distance in  $1\frac{1}{2}$  hrs. If X starts from A and Y starts from B at 12.00 noon, when will they cross each other?

- A) 12:36 p.m. B) 12:45 p.m. C) 12:30 p.m. D) 12:54 p.m.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 80**

An ant started walking eastwards at a speed of 2 metres per minute. If after every 4 minutes the ant reverses direction and halves its speed, how far would the ant be from the starting point after 5 hours?

- A)  $\frac{1}{3}m$  B)  $\frac{4}{3}m$  C)  $\frac{8}{3}m$  D)  $\frac{16}{3}m$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 81**

In  $\triangle ABC$ , the median on to the side opposite the right angle B is 10 cm. What is the value of  $AB^2 + BC^2$ ? (in numerical value)

- A) 400 B) C) D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 82**

The ratio of the curved surface areas of two right circular cylinders is 1:2, while their volumes are in the ratio 2:3. What is the ratio of their heights?

- A) 4 : 3 B) 1 : 3 C) 3 : 8 D) 2 : 3

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 83**

For a rectangle with length  $a$  and breadth  $b$ , the ratio of its area to the product of its diagonals is 3:10. What is the ratio  $(a + b) : (a - b)$ ?

- A)  $1/2$  B)  $3/2$  C) 2 D)  $5/2$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 84**

The premiums for two insurance plans, A and B, are Rs. 250 and Rs. 150 respectively. If both the plans are bought, there is a discount of Rs. 50 on each. There are 20 people in an office and all of them have bought at least one of the insurance plans. What would be the total premium if 14 people have opted for plan A and 8 people have opted for plan B?

- A) Rs. 4600 B) Rs. 4500 C) Rs. 4400 D) Rs. 4200

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 85**

There are 3 identical cups of coffee, 2 identical cups of tea and 3 identical cans of juice. How many arrangements are possible if all coffee cups have to be together and no tea cups should be together? (in numerical value)

A) 40 B) C) D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 86**

A takes 10 days to lift  $m$  bricks while B takes 9 days to lift  $m$  bricks. If they lift the bricks together, they lift 10 bricks per day less than what they would actually have lifted together. If together they lift  $m$  bricks in 5 days, what is the value of  $m$ ? (in numerical value)

A) 900 B) C) D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 87**

In a basket containing 20 kg of apples, the seeds form 4% of the total weight. After drying the apples, the seeds form 5% of the total weight. What is the weight of the basket of dried apples?

A) 18 kg B) 19.2 kg C) 16 kg D) 17.5 kg

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 88**

If  $\left(x + \left(\frac{1}{x}\right)\right)^2 = 3$ , what is the value of  $x^{30} + x^{24} + x^{18} + x^{12} + x^6 + 3$ ? (in numerical value)

A) 2 B) C) D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 89**

50 natural numbers are written such that the sum of any two consecutive numbers is 50. If the 30<sup>th</sup> term is 30, what is the 5<sup>th</sup> term? (in numerical value)

A) 20 B) C) D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 90**

$(a_1 + a_2 + \dots + a_n)$  such that all the terms are either +1 or -1 and  $(b_1 + b_2 + \dots + b_{n+1})$  such that all the terms are either +3 or -3. The product  $(a_1 + a_2 + \dots + a_n)(b_1 + b_2 + \dots + b_{n+1})$  is divisible by

A) 1 B) 3 C) 4 D) 6

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 91**

A copied the constant term wrong and got the roots of a quadratic equation as  $-2 + \sqrt{3}$  and  $-2 - \sqrt{3}$ .

B copied the first degree term wrong and got the roots of the quadratic equation as  $3 + \frac{\sqrt{57}}{3}$  and  $3 - \frac{\sqrt{57}}{3}$ . What are the correct roots of the equation?

- A)  $5 \pm 4\sqrt{3}$    B)  $10 \pm \sqrt{19}$    C)  $-3 \pm \frac{\sqrt{13}}{3}$    D)  $-2 \pm \frac{2\sqrt{3}}{3}$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 92**

3 different papers are to be distributed among 6 students sitting in a row. In how many ways can this be done so that no adjacent students get the same paper? (in numerical value)

- A) 96   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 93**

Among 105 students, the ratio of girls to boys is  $r : 1$ , where  $r$  is a perfect square. How many more girls are there than boys? (in numerical value)

- A) 63   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

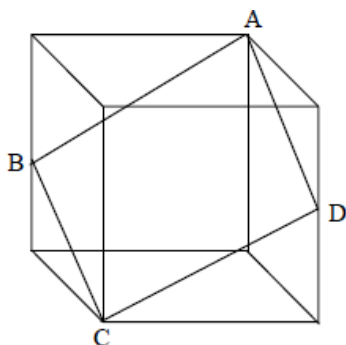
**Question No. : 94**

Of the 245,952 people from Pune and 163,968 people from Pimpri-Chinchwad, who participated in a recent poll on the BRTS, a total of 307,440 people responded in favour of the BRTS. If the percentage of people in favour of the BRTS from Pune is the same as the percentage of people in favour of the BRTS from Pimpri-Chinchwad, how many people from Pune favoured the BRTS?

- A) 81,984   B) 122,976   C) 143,472   D) 184,464

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 95**



The figure shows a cube of side 10 cm. If A and C are vertices of the cube and B and D are mid-points of the sides shown, what is the area of  $\square ABCD$ ?

- A)  $20\sqrt{5}$  cm<sup>2</sup>   B)  $50\sqrt{6}$  cm<sup>2</sup>   C)  $100\sqrt{3}$  cm<sup>2</sup>   D)  $125\sqrt{2}$  cm<sup>2</sup>

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 96**

What is the smallest positive value of  $n$  so that  $20! \div 6^n$  is not an integer? (in numerical value)

- A) 9   B)   C)   D)
- 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 97**

Consider two positive integers  $x$  and  $y$  such that  $x^x y^y$  is divisible by 2000. What is the minimum value of the product  $xy$ ? (in numerical value)

- A) 10   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 98**

If  $S = |a^2(b - c) + b^2(c - a) + c^2(a - b)|$ , where  $a, b$  and  $c$  are the sides of a triangle, which of the following is true about  $S$ ?

- A)  $S < abc$    B)  $S = abc$    C)  $S > abc$    D)  $S \geq abc$
- 

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 99**

Abel, Mabel, and Caleb went bird watching. Each of them saw one bird that none of the others did. Each pair saw one bird that the third did not. And one bird was seen by all three. Of the birds Abel saw, two were yellow. Of the birds Mabel saw, three were yellow. Of the birds Caleb saw, four were yellow. How many yellow birds were seen in all? (in numerical value)

- A) 5   B)   C)   D)

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 100**

A company producing brass alloy buys copper and zinc from another firm, the price of copper being twice that of zinc. The company sells the brass at Rs. 196 per kg, thereby making a profit of 40 %. If the ratio of copper to zinc in brass is 2 : 3 and brass contains only these two metals, find the cost price per kg of each metal.

- A) Rs.200, Rs.100   B) Rs.140, Rs.70   C) Rs.196, Rs.98   D) Rs.100, Rs.50
-