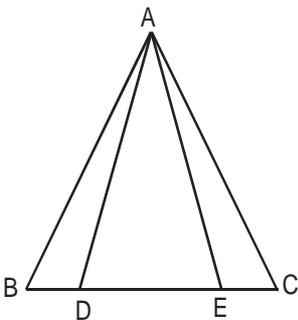


# Mock CAT

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## Section – I

1. What is the remainder when  $1! + 2 \times 2! + 3 \times 3! + 4 \times 4! + \dots + 12 \times 12!$  is divided by 13?  
(a) 1 (b) 12 (c) 11 (d) 0
2. The average of five natural numbers is 150. A particular number among the five exceeds another by 100. The rest three numbers lie between these two numbers and they are equal. How many different values can the largest number among the five take?  
(a) 59 (b) 19 (c) 21 (d) 42
3. The question given below is followed by two statements, A and B. Mark the answer using the following instructions:  
Mark (a) if the question can be answered by using one of the statements alone, but cannot be answered by using the other statement alone.  
Mark (b) if the question can be answered by using either statement alone.  
Mark (c) if the question can be answered by using both the statements together, but cannot be answered by using either statement alone.  
Mark (d) if the question cannot be answered even by using both the statements together.
- Q.** What is the total number of students in the class?  
A. The number of boys is 5 more than twice the number of girls in the class.  
B. If 60% boys leave the class, the number of boys would become equal to the number of girls in the class.
4. In the figure given below,  $AD = AE = 4$  cm and  $BD = CE = 2$  cm. If BC is a straight line and  $\angle ADE = 60^\circ$ , find the length of AB.

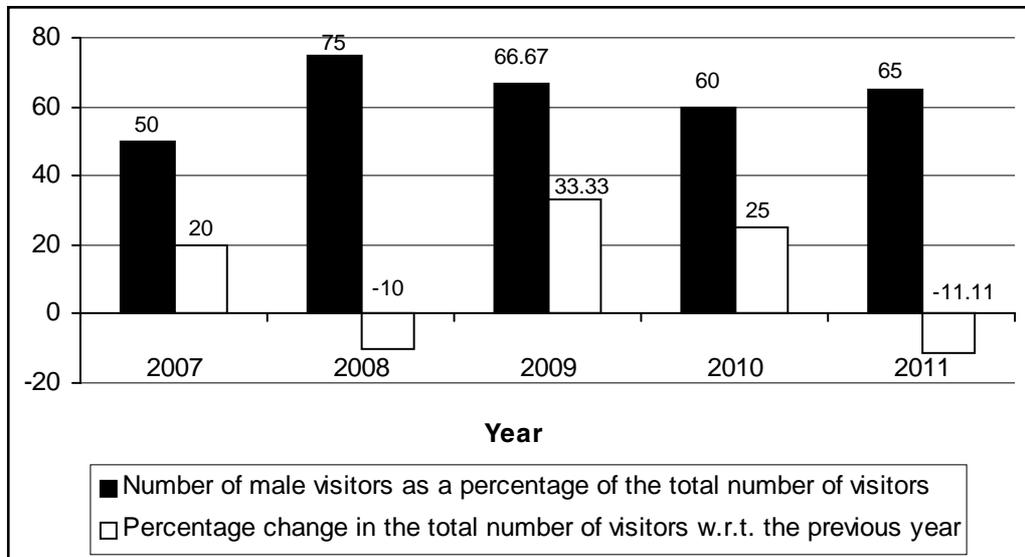


- (a)  $2\sqrt{7}$  cm (b) 5 cm (c)  $2\sqrt{5}$  cm (d) None of these

5. If 'a' and 'b' are the roots of the equation  $x^2 + 7x + 4 = 0$ , where  $a > b$ , then find the value of  $\left(\frac{3}{2a+7}\right)^2 + \left(\frac{4}{2b+7}\right)^2$ .
- (a)  $\frac{25}{33}$                       (b)  $\frac{25}{49}$                       (c)  $\frac{49}{25}$                       (d)  $\frac{169}{225}$
6. A contractor agreed to finish a piece of work in 150 days. He employed 75 men and made them work for 8 hours per day. However, after 90 days, he realized that only  $\frac{2}{7}$ th of the work was completed. How many more men would he need to employ to complete the work on time if he intended to make everybody work for 10 hours per day henceforth?
- (a) 75                      (b) 100                      (c) 150                      (d) 225
7. A cube is painted with red colour and then cut into 64 small identical cubes. If two cubes are picked randomly from the heap of 64 cubes, what is the probability that both of them have exactly two faces painted red?
- (a)  $\frac{23}{168}$                       (b)  $\frac{47}{84}$                       (c)  $\frac{1}{4}$                       (d)  $\frac{31}{63}$

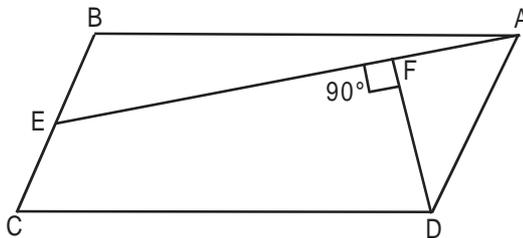
**Directions for questions 8 to 10:** Answer the questions on the basis of the information given below.

The bar graph given below shows the data related to the number of people visiting the famous 'Ancient Wax Museum' in Putlabad from the year 2007 to the year 2011.



8. If the total number of visitors in the year 2006 was 46850, what was the number of female visitors in the year 2011?
- (a) 28110                      (b) 26236                      (c) 37480                      (d) None of these

9. Which of the following statements is true?  
 (a) The only year in the given period when the number of female visitors decreased as compared to the previous year was 2008.  
 (b) There was a growth of 40% in the number of male visitors from 2008 to 2009.  
 (c) There was a growth of 50% in the number of female visitors from 2009 to 2010.  
 (d) The year 2008 onwards, there was an increase each year in the number of male visitors as compared to the previous year.
10. The difference between the number of male visitors and the number of female visitors in a year is called "Gender Gap". For which of the following pairs of years is Gender Gap equal?  
 (a) 2008 and 2011      (b) 2009 and 2010      (c) 2008 and 2010      (d) 2009 and 2011
11. What is the highest possible value of 'n' for which  $3^{1024} - 1$  is divisible by  $2^n$ ?  
 (a) 13      (b) 10      (c) 11      (d) 12
12. Two friends – Prakash and Arpit – started running simultaneously from a point P in the same direction along a straight running track. The ratio of the speeds of Prakash and Arpit was 2 : 5 respectively. Two hours later, Arpit turned back and started running backwards at one-fifth of his original speed. He met Prakash at a distance of 10 km from the point P. What was Prakash's running speed?  
 (a) 1.25 km/hr      (b) 2.5 km/hr      (c) 3.75 km/hr      (d) 6.25 km/hr
13. A quadrilateral is formed by the lines  $x = 0$ ,  $y = 0$ ,  $x + y = 1$  and  $6x + y = 3$ . What is the equation of the diagonal of the quadrilateral that passes through the origin?  
 (a)  $3x + 2y = 0$       (b)  $2x - 3y = 0$       (c)  $3x - 2y = 0$       (d)  $2x + 3y = 0$
14. In the figure given below, ABCD is a parallelogram. E is the midpoint of the side BC. DF is drawn perpendicular to AE. If  $AB = 5.6$  cm and  $BC = 2.8$  cm, find the length of CF.



- (a) 4.2 cm      (b) 5.6 cm      (c) 4.8 cm      (d) 5.4 cm
15. A function  $f(x)$  is defined as  $(x + 1) \times f(x + 1) + x \times f(x) + (x - 1) \times f(x - 1) = 0$  for  $x \geq 2$ . If  $f(1) = 40$  and  $f(6) = 180$ , find the value of  $f(14)$ .  
 (a) -80      (b) -160      (c) -1120      (d) Cannot be determined
16. A 100 ml flask contains 30% acid solution. What quantity of the solution should be replaced with 12% acid solution so that the resultant solution contains 21% acid?  
 (a) 50 ml      (b) 44.44 ml      (c) 33.33 ml      (d) 64 ml

17. A school having 270 students provides facilities for playing four games – Cricket, Football, Tennis and Badminton. There are a few students in the school who do not play any of the four games. It is known that for every student in the school who plays at least  $N$  games, there are two students who play at least  $(N - 1)$  games, for  $N = 2, 3$  and  $4$ . If the number of students who play all the four games is equal to the number of students who play none, then how many students in the school play exactly two of the four games?
- (a) 30                                      (b) 60                                      (c) 90                                      (d) 120

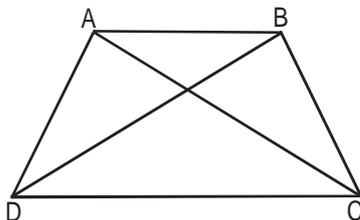
**Directions for questions 18 to 20:** Answer the questions on the basis of the information given below.

The table given below shows the values (in lakh units) of Production, Exports, Total Sales and Inventory, and the Average Selling Price in domestic market of different products manufactured by ABC Tech. Pvt. Ltd. in the year 2010.

Product	Production	Exports	Total Sales	Inventory (at the beginning of 2010)	Average Selling Price (in ₹/unit)
LCD	16232	1340	7650	2296	19,500
Desktop	12556	4282	11922	5484	16,400
Laptop	21004	3998	9798	4212	21,300
Tablet	10536	5001	8833	3668	23,500
Netbook	11472	3126	7356	6620	18,750
Smartphone	12488	2420	10540	6846	15,000
Digital Diary	19996	4953	9960	3244	16,500
MP3 Player	18564	10345	14245	2342	12,200

- Note:** (i) Inventory (at the end of a year) = Inventory (at the beginning of the year) + Production during the year – Total Sales during the year  
(ii) Total Sales = Exports + Domestic Sales
18. For how many of the given products is the Inventory at the end of the year 2010 less than half the Production in the year 2010?
- (a) 4                                      (b) 5                                      (c) 2                                      (d) 3
19. For which of the following products is the Revenue generated by Domestic Sales in the year 2010 the highest?
- (a) Laptop                                      (b) LCD                                      (c) Smartphone                                      (d) Desktop
20. ABC Tech. Pvt. Ltd. reduces the Production by 75% for each of the given products in the year 2011 as compared to the year 2010. The Total Sales for which of the following products in the year 2011 can register a growth of more than 100% over the year 2010?
- (a) Netbook                                      (b) Laptop                                      (c) Digital Diary                                      (d) None of these
21. Some numbers can be expressed as the sum of three of their factors. E.g. 12 can be expressed as the sum of 2, 4 and 6. How many other such numbers are there which are less than 100?
- (a) 16                                      (b) 15                                      (c) 7                                      (d) 2

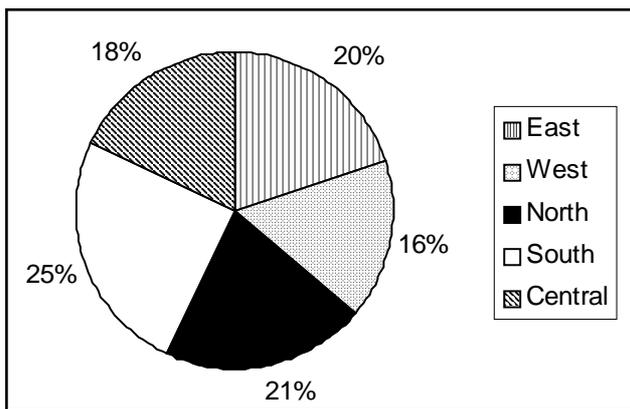
22. There are three watches – W1, W2 and W3. Once an alarm goes off in W1, it rings continuously for 20 seconds, then pauses, then starts ringing again after 2 minutes, and so on. The respective values for W2 are 50 seconds and 5 minutes, and for W3 are 1 minute and 6 minutes. An alarm is set in each of the three watches for 06:00 am. At what time after 06:00 am will the three alarms go off simultaneously for the first time?  
 (a) 06:35 am                      (b) 06:42 am                      (c) 06:30 am                      (d) None of these
23. If  $\log_c a = \frac{1}{2}$ ,  $\log_d b = \frac{1}{3}$ , where a, b, c and d are distinct natural numbers and  $a < b < c < d$ , what is the minimum possible value of  $a + b + c + d$ ?  
 (a) 10                                  (b) 22                                  (c) 34                                  (d) 36
24. In the figure given below,  $AD = BC$  and  $BD = AC$ . Which of the following is not true?



- (a)  $\angle ADB = \angle ACB$       (b)  $\angle ABD = \angle ACD$       (c)  $\angle ACD = \angle BAC$       (d)  $\angle ADB = \angle CAD$
25. Anu and Prem started running simultaneously from diametrically opposite points on a circular track. They ran in opposite directions and met after 12 minutes for the first time. If the distance between them exactly 't' minutes after they start is equal to a quarter of the length of the track, which of the following is not a possible value of 't'?  
 (a) 42                                  (b) 78                                  (c) 90                                  (d) 144

**Directions for questions 26 and 27:** Answer the questions on the basis of the information given below.

The pie chart given below shows the percentage break-up of students who participated from five different regions in the Sports Week organized by Dharma Public Association in the year 2011.



The partially filled-in table given below shows the number of students who participated from the five regions in the six events conducted during the Sports Week.

Activity	East	West	North	South	Central
Swimming	23		42	64	19
Lawn Tennis	45	27		46	31
Cycling	39		41	18	45
Badminton	52	49	23	38	
Hockey	21	24	37		25
Football		16	32	34	30

**Note:**

- (i) Each student who came to the Sports Week participated in exactly one of the six events.
- (ii) At least one student from each region participated in each of the six events.
- (iii) Six cells in the table are left blank. The sum of the six missing values is 279.

26. Which of the following is not a possible ratio of the number of students who participated from the West region in Swimming and Cycling respectively?  
 (a) 7 : 8                      (b) 3 : 5                      (c) 5 : 7                      (d) 1 : 9
27. Which of the six events witnessed the highest participation from the students of the five regions put together?  
 (a) Swimming                      (b) Cycling                      (c) Badminton                      (d) Cannot be determined
28. For how many values of 'a' are  $x \log a$ ,  $y \log 2a$  and  $z \log 3a$  in arithmetic progression? ( $x$ ,  $y$ ,  $z$  and  $a$  are natural numbers.)  
 (a) 0                      (b) 1                      (c) 2                      (d) More than 2
29. Rohan sold a table at a profit of 15%. Had he bought it at 10% less and sold it for ₹21 less, he would have gained 25%. At what price (in ₹) had he bought the table?  
 (a) 800                      (b) 840                      (c) 420                      (d) 640
30. An unsharpened cylindrical pencil consists of a layer of wood surrounding a solid cylinder of graphite. The radius of a pencil is 7 mm, the radius of the graphite cylinder is 1 mm and the length of the pencil is 10 cm. Find the cost of the material used in a pencil, if the cost of wood is ₹0.70/cm<sup>3</sup> and that of graphite is ₹2.10/cm<sup>3</sup>.  
 (a) ₹8.76                      (b) ₹10.02                      (c) ₹11.22                      (d) ₹13.74

## Section – II

**Directions for questions 31 to 33:** The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

That there is an irrelevant representative or descriptive element in many great works of art is not in the least surprising. Representation is not of necessity baneful, and highly realistic forms may be extremely significant. Very often, however, representation is a sign of weakness in an artist. A painter too feeble to create forms that provoke more than a little aesthetic emotion will try to eke that little out by suggesting the emotions of life. To evoke the emotions of life he must use representation. Thus a man will paint an execution, and, fearing to miss with his first barrel of significant form, will try to hit with his second by raising an emotion of fear or pity. But if in the artist an inclination to play upon the emotions of life is often the sign of a flickering inspiration, in the spectator a tendency to seek, behind form, the emotions of life is a sign of defective sensibility always. It means that his aesthetic emotions are weak or, at any rate, imperfect.

Before a work of art people who feel little or no emotion for pure form find themselves at a loss. They are deaf men at a concert. They know that they are in the presence of something great, but they lack the power of apprehending it. They know that they ought to feel for it a tremendous emotion, but it happens that the particular kind of emotion it can raise is one that they can feel hardly or not at all. And so they read into the forms of the work those facts and ideas for which they are capable of feeling emotion, and feel for them the emotions that they can feel—the ordinary emotions of life. When confronted by a picture, instinctively they refer back its forms to the world from which they came.

They treat created form as though it were imitated form, a picture as though it were a photograph. Instead of going out on the stream of art into a new world of aesthetic experience, they turn a sharp corner and come straight home to the world of human interests. For them the significance of a work of art depends on what they bring to it; no new thing is added to their lives, only the old material is stirred. A good work of visual art carries a person who is capable of appreciating it out of life into ecstasy: to use art as a means to the emotions of life is to use a telescope for reading the news. You will notice that people who cannot feel pure aesthetic emotions remember pictures by their subjects; whereas people who can, as often as not, have no idea what the subject of a picture is. They have never noticed the representative element, and so when they discuss pictures they talk about the shapes of forms and the relations and quantities of colours. Often they can tell by the quality of a single line whether or not a man is a good artist. They are concerned only with lines and colours, their relations and quantities and qualities; but from these they win an emotion more profound and far more sublime than any that can be given by the description of facts and ideas.

31. According to the passage, an artist whose painting of an event looks like a photograph is likely to be
- (a) a great artist.
  - (b) a flawed artist.
  - (c) a plagiarist.
  - (d) someone who cannot be called an artist.

32. "Deaf men at a concert" suggests that the author
- (a) believes that some people cannot appreciate art because they try too hard.
  - (b) believes that some people do not understand art and aesthetics.
  - (c) believes that concerts can be appreciated only by experts.
  - (d) believes that the common man cannot understand or appreciate art.
33. According to the passage, a person who cannot remember the subject of a picture is likely to be
- (a) capable of really appreciating art and feeling pure aesthetic emotions.
  - (b) not capable of really appreciating art and feeling pure aesthetic emotions.
  - (c) a deaf man at a concert.
  - (d) a person who uses a telescope to read the news.

**Directions for questions 34 to 36:** Answer the questions on the basis of the information given below.

Each of the five friends – Aakash, Balram, Chhaya, Darpan and Ekansh – has some gold coins with him/her. The total number of gold coins with the five of them is 225. It is also known that:

- (i) Each of them has at least 15 coins.
  - (ii) The number of coins with Aakash is the square of a natural number.
  - (iii) The ratio of the number of coins with Darpan and Ekansh is 3 : 5 respectively.
  - (iv) The number of coins with Chhaya is 4 more than the square of a natural number.
  - (v) The sum of the number of coins with Darpan and Ekansh is equal to the number of coins with Aakash.
  - (vi) Balram has an even number of coins.
34. Who among the five friends has the highest number of coins?
- (a) Aakash                      (b) Balram                      (c) Chhaya                      (d) Cannot be determined
35. What can be the difference between the number of coins with Balram and Chhaya?
- (a) 17                              (b) 39                              (c) 57                              (d) None of these
36. The sum of the number of coins with Aakash and Darpan is
- (a) 104                              (b) 66                              (c) 88                              (d) 80

**Directions for questions 37 to 39:** The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

The idea of dead scientists engaging in an experiment in eugenics is incredible enough. Yet the most striking feature in this episode is the power that is ascribed to science itself. While spiritualism evolved into a popular religion, complete with a heavenly "Summerland" where the dead lived free from care and sorrow, the intellectual elite of psychical researchers thought of their quest as a rigorously scientific inquiry. But if these Victorian seekers turned to science, it was to look for an exit from the world that science had revealed. Darwinism had disclosed a purposeless universe without human meaning; but purpose and meaning could be restored, if only science could show that the human mind carried on evolving after the death of the body. All of these seekers had abandoned any belief in traditional religion. Still, the human need for a meaning in life that religion once satisfied could not be denied, and fuelled the faith that scientific investigation would show that the human story continues after death. In effect, science was used against science, and became a channel for belief in magic.

Much of what the psychical researchers viewed as science we would now call pseudo-science. But the boundaries of scientific knowledge are smudged and shifting, and seem clear only in hindsight. There is no pristine science untouched by the vagaries of faith. The psychical researchers used science not only to deal with private anguish but also to bolster their weakening belief in progress. Especially after the catastrophe of the First World War, the gradual improvement that most people expected would continue indefinitely appeared to be faltering. If the scripts were to be believed, however, there was no cause for anxiety or despair. The world might be sliding into anarchy, but progress continued on the other side. Many of the psychical researchers believed they were doing no more than show that evolution continues in a post-mortem world. Like many others, then and now, they confused two wholly different things. Progress assumes some goal or direction. But evolution has neither of these attributes, and if natural selection continued in another world it would feature the same random death and wasted lives we find here below.

Darwinism is impossible to reconcile with the notion that humans have any special exemption from mortality. In Darwin's scheme of things species are not fixed or everlasting. How then could only humans go on to a life beyond the grave? Surely, in terms of the prospect of immortality, all sentient beings stand or fall together. Then again, how could anyone imagine all the legions of the dead – not only the human generations that have come and gone but the countless animal species that are now extinct – living on in the ether, forever?

Science could not give these seekers what they were looking for. Yet at the same time that sections of the English elite were looking for a scientific version of immortality, a similar quest was under way in Russia among the "God-builders" – a section of the Bolshevik intelligentsia that believed science could someday, perhaps quite soon, be used to defeat death.

37. How was "science used against science" according to the author?
- (a) People sought science to seek an exit from the world created by science.
  - (b) Science was used to spread the belief of life after death or eternal life.
  - (c) Science was used to destroy the very essence of science.
  - (d) Scientists used the scientific techniques to spread unscientific ideas.
38. What is the confusion of past and present day psychical researchers?
- (a) They confuse progress with immortality.
  - (b) They confuse evolution with progress.
  - (c) They think progress in evolution leads to development.
  - (d) They confuse evolution with progress in life in another world.
39. Which of the following is the most appropriate title for the passage?
- (a) Science and immortality
  - (b) The limits of science
  - (c) Attempts to deny man's mortality
  - (d) Incredible science

**Directions for questions 40 to 42:** The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

Many Americans have a vague sense that their lives have been distorted by a giant cultural bias. They live in a society that prizes the development of career skills but is inarticulate when it comes to the things that matter most. The young achievers are tutored in every soccer technique and calculus problem, but when it comes to their most important decisions—whom to marry and whom to befriend, what to love and what to despise—they are on their own. Nor, for all their striving, do they understand the qualities that lead to the highest achievement. Intelligence, academic performance, and prestigious schools don't correlate well with fulfillment, or even with outstanding accomplishment. The traits that do make a difference are poorly understood, and can't be taught in a classroom, no matter what the tuition: the ability to understand and inspire people; to read situations and discern the underlying patterns; to build trusting relationships; to recognize and correct one's shortcomings; to imagine alternate futures. In short, these achievers have a sense that they are shallower than they need to be.

Help comes from the strangest places. We are living in the middle of a revolution in consciousness. Over the past few decades, geneticists, neuroscientists, psychologists, sociologists, economists, and others have made great strides in understanding the inner working of the human mind. They are giving us a better grasp of emotions, intuitions, biases, longings, predispositions, character traits, and social bonding, precisely those things about which our culture has least to say. Brain science helps fill the hole left by the atrophy of theology and philosophy.

A core finding of this work is that we are not primarily the products of our conscious thinking. The conscious mind gives us one way of making sense of our environment. But the unconscious mind gives us other, more supple ways. The cognitive revolution of the past thirty years provides a different perspective on our lives, one that emphasizes the relative importance of emotion over pure reason, social connections over individual choice, moral intuition over abstract logic, and perceptiveness over I.Q. It allows us to tell a different sort of success story, an inner story to go along with the conventional surface one.

Deciding whom to love is not an alien form of decision-making, a romantic interlude in the midst of normal life. Instead, decisions about whom to love are more intense versions of the sorts of decisions we make throughout the course of our existence, from what kind of gelato to order to what career to pursue. Living is an inherently emotional business.

40. The primary purpose of the author is to
- (a) analyze the process of decision making in the human mind.
  - (b) argue that the process of making a decision, whether about a gelato or a career, remains the same.
  - (c) discuss how the advances in brain science help in understanding the human mind.
  - (d) critique research studies on the human mind.
41. Which of the following is true according to the passage?
- (a) The author believes that success in one's career does not lead to happiness.
  - (b) The author believes that the achievers in America are shallower than they need to be.
  - (c) The author believes that American society gives undue importance to certain unimportant traits.
  - (d) The author believes that developments in brain science help in understanding traits needed for personal fulfillment.



46. A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

Policy failures come in many shapes and sizes. But they are almost invariably accentuated by the choices that have to be made in periods of financial shortage. Yesterday the coalition government found itself confronted by two of them, one in policing policy and the other in higher education. The failures are radically different in many details. But they have this in common: they are both serious failures, and they were both foreseeable. They could both have been mitigated by clearer policymaking at an earlier stage. \_\_\_\_\_

- (a) On the policing cuts, it is the opinion that Britain has more police officers than it needs.
- (b) Instead each has been allowed to fester and become more difficult to solve politically.
- (c) Downing Street must be thanking Prince Andrew for providing some distraction.
- (d) Police numbers have increased without proper regard to social need.

47. A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

It seems Prime Minister Manmohan Singh's top scientific adviser CNR Rao and his band of merry men - three reputed scientists from top scientific institutions of the country - have been cherry picking some interesting material from the work of other scientists and passing them off as their own. This is not the first time, people - reputed (and talented) people that is - have been caught doing such things. Often people - the kind-hearted ones - say imitation is actually the sincerest form of flattery. \_\_\_\_\_

- (a) But the truth is, not many people find it amusing when they find that their work has been picked up by someone else without giving them any credit.
- (b) To cut a long and not-a-plagiarized-story short, the Indian scientists have apologized to Advanced Materials, a prestigious journal, for "reproduction of text from an article" that appeared in another journal, Applied Physics Letters, in 2010.
- (c) In other words, the scientists forgot to issue a 'footnote' that the four contentious lines were picked up from another source.
- (d) But the thing about plagiarism is that it is considered so if the offenders are caught.

48. Five sentences are given below, labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate one.

- A. It is demanding that any party it backs should establish a working group on violence against women and children in the assembly.
- B. In the run-up to the January 28 polls, for instance, members of Women Action for Development (WAD) are organising camps in all constituencies.
- C. Ironically, Manipur has many activist groups led by women.
- D. True empowerment will only happen when women enter the assembly in good numbers.
- E. Conflict Widows' Forum is a group made up of women who have lost their husbands to civil violence in the state.

(a) DBCEA

(b) CBADE

(c) BDCEA

(d) CBEAD

49. Five sentences are given below, labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate one.

- A. This made me think again about my own cynicism about Web activism.
- B. Dodd said that he believes that some sort of compromise on the content of the film will be reached so that young people can see the film without seeking their parent’s permission.
- C. I called Christopher Dodd, the former senator who now runs the motion picture association.
- D. Sure hash tags come and go but they probably make the world, the one beyond the keyboard, a better place.
- E. I expected him to suggest that all the online petitioners have failed to grasp the nuance and importance of the rating system.

- (a) DCBEA                      (b) ADCEB                      (c) DCEBA                      (d) CEBAD

50. Five sentences are given below, labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate one.

- A. These are not art galleries or the studio of an art lover, but restaurants that believe that a dash of artwork can do-up their interiors, simultaneously promoting the works of an artist.
- B. For over two years now, Tangerine restaurant has been promoting works of artists who are looking for a platform or budding artists who needs to add to their collection.
- C. Restaurants in the city are converting their walls into an exhibition space, displaying the works of different budding artists periodically.
- D. The once plain walls here have a new aura as frames holding different colours, themes and mediums adorn them.
- E. The works are exhibited on a no-cost basis, but the select works do go through “some amount of objective judging”, by Illango’s Artspace.

- (a) DACBE                      (b) BCEDA                      (c) ABCDE                      (d) ADCBE

51. There are exactly three distinct pairs of siblings and four other children in a group comprising ten children – Sam, Joe, Tim, Ron, Ken, May, Bob, Ian, Den and Emy. No two children in the group, apart from the three pairs of siblings, are related to each other. Mr. Max selects one pair from the three pairs of siblings and two children from the four other children in the group to make a team of four children. He repeats the exercise several times. Some of the teams selected by him are shown in the table given below.

<b>Teams</b>	<b>I</b>	Sam	Tim	Den	May
	<b>II</b>	Ken	Ron	Joe	Bob
	<b>III</b>	Tim	Ian	Bob	Emy
	<b>IV</b>	May	Bob	Den	Sam

Which among the following is definitely a pair of siblings?

- (a) Den and Sam                      (b) Ian and Emy                      (c) Tim and Bob                      (d) None of these

52. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.

Desertification, the creation of desert-like conditions where none had existed before, is the result of the \_\_\_\_\_ of weather and climate or the mismanagement of the land or, in most cases, some \_\_\_\_\_ of both.

- (a) vagaries, combination  
(c) predictability, olio
- (b) caprice, notion  
(d) omination, synthesis

53. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.

Recent years have brought minority-owned businesses in the United States \_\_\_\_\_ opportunities - as well as new and \_\_\_\_\_ risks.

- (a) unprecedented, significant  
(c) unparalleled, conventional
- (b) preternatural, vast  
(d) idiosyncratic, sententious

54. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.

Unemployment does not have the same \_\_\_\_\_ consequences today as it did in the 1930's when most of the unemployed were primary breadwinners, when income and earnings were usually much closer to the margin of subsistence, and when there were no \_\_\_\_\_ social programs for those failing in the labor market.

- (a) dire, countervailing  
(c) cornucopian, balancing
- (b) calamitous, offset  
(d) ominous, invalidated

**Directions for questions 55 to 57:** Answer the questions on the basis of the information given below.

H1, H2, H3 and H4 are four horses that participated in each of the four different races – Race-I, Race-II, Race-III and Race-IV – during an annual horse-racing event in Goa. Each horse is owned by a different owner among Rahul, Dharma, Dablu and Ritesh, in no particular order. None of the four horses finished at the same position in more than two of the four races. In each race the four horses were given ranks 1, 2, 3 and 4 according to the positions at which they finished in the race. It is also known that:

- (i) In Race-I, H2 finished third and Ritesh's horse finished first. Interestingly, in Race-II, H2 finished first and Ritesh's horse finished third.
- (ii) In Race-IV, H2 finished third and H3 finished fourth.
- (iii) Dablu's horse finished at the same position in Race-I and Race-II, and also in Race-III and Race-IV.
- (iv) In Race-IV, H1 and H3 interchanged the positions at which they had finished in Race-II.
- (v) In Race-III, H3 finished fourth and H4 finished second.
- (vi) Rahul's horse did not finish first in any of the four races.

55. Who are the owners of H3 and H4 respectively?  
(a) Ritesh and Rahul (b) Dablu and Ritesh (c) Rahul and Dablu (d) Cannot be determined

56. Whose horse finished third in Race-III?  
(a) Rahul (b) Ritesh (c) Dharma (d) Either Rahul or Dablu
57. If the horse with the lowest sum of ranks in the four races won a Jackpot of ₹1 crore, which horse won the Jackpot?  
(a) H1 (b) H2 (c) H3 (d) H4
58. The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is *incorrect or inappropriate*.

SHOW

- (a) The latest computers will be on show at the exhibition.  
(b) She had shown herself unable to deal with money.  
(c) It just goes to show what you can do when you really try.  
(d) He showed me away by snoring during the concert.
59. The word given below has been used in sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is *incorrect or inappropriate*.

JOB

- (a) There was a job of work waiting for him that he was not looking forward to.  
(b) That cup of tea was just the job.  
(c) Sorting these papers out is going to be a tall job.  
(d) He got six months for that last job he did.
60. Four statements are given below, labeled a, b, c and d. Of these, three statements need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the option that does not fit the sequence.
- (a) The exceptions allowed are few and clearly specified.  
(b) They extend to regional trade agreements, preferential treatment for developing countries, and the invocation of a non-application clause by an existing member against a newly acceding country.  
(c) The *Most-Favoured-Nation* rule applies to all issues included within the mandate of the World Trade Organisation.  
(d) This same principle of reciprocity, however, has been a sore point in the relations of developed and developing countries in the World Trade Organisation.