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Master series Mock CAT - 4 2018

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VRC

DILR

QA

Sec 1

Direction for questions 1 and 2: Identify the grammatically correct sentence(s) and type in the option number in the space provided below the question.

Q.1

I. Although she doesn't like to play basketball, she is forced to participate in a lot many competitions.
II. CRV is one of those cars for five people; there's plenty of room in it.
III. George is going out with his wife this evening; therefore, he is searching for a babysitter.
IV. Hiten Pawar a percussionist would like to perform at Flying Saucer this Sunday but he can't.

1. I and II
2. II and III
3. III and IV
4. I and IV

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Answer key/Solution

Direction for questions 1 and 2: Identify the grammatically correct sentence(s) and type in the option number in the space provided below the question.

Q.2

I. Since the acts of the thief were growing wicked day by day, the fear in the hearts of the men was also increasing.
II. The concept of ghosts is unfathomable to many due to the sheer invisibility that the former practice.
III. Because of Eve's narcissism, both Adam and Eve were throwed out of Eden.
IV. The vanity of celebrity's is nothing as compared to that of sportsmen.

1. Only I
2. II and III
3. I and II
4. II and IV

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Answer key/Solution

Directions for questions 3-5: The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.

It is a melancholy object to those who walk through this great town or travel in the country, when they see the streets, the roads, and cabin doors, crowded with beggars of the female sex, followed by three, four, or six children, all in rags and importuning every passenger for alms. These mothers, instead of being able to work for their honest livelihood, are forced to employ all their time in strolling to beg sustenance for their helpless infants, who, as they grow up, either turn thieves for want of work, or leave their dear native country to fight for the Pretender in Spain, or sell themselves to the Barbadoes.

I think it is agreed by all parties that this prodigious number of children in the arms, or on the backs, or at the heels of their mothers, and frequently of their fathers, is in the present deplorable state of the kingdom a very great additional grievance.

But my intention is very far from being confined to provide only for the children of professed beggars; it is of a much greater extent, and shall take in the whole number of infants at a certain age who are born of parents in effect as little able to support them as those who demand our charity in the streets.

As to my own part, having turned my thoughts for many years upon this important subject, and maturely weighed the several schemes of other projectors, I have always found them grossly mistaken in their computation. It is true, a child just dropped from its dam may be supported by her milk for a solar year, with little other nourishment; at most not above the value of two shillings, which the mother may certainly get, or the value in scraps, by her lawful occupation of begging; and it is exactly at one year old that I propose to provide for them in such a manner as instead of being a charge upon their parents or the parish, or wanting food and raiment for the rest of their lives, they shall on the contrary contribute to the feeding, and partly to the clothing, of many thousands.

Q.3

Which of the following has not been discussed in the given passage?

1 **The underprivileged children in the country turning into thieves**

2 **The number of children born in the country and what needs to be done with them**

3 **The children in the country should be taught to earn money with honesty.**

4 **The problem of unemployment and lack of resource in the country**

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Q.4

Why do you think did the author write this piece?
i. The author is hunting for a solution only for the children of the poor in the country.
ii. The author is concerned about the impoverished state of people in the country.
iii. The author feels helpless as he cannot do anything about the adults who are ill, starving and disabled.

1 **Only i**

2 **Only ii**

3 **Only iii**

4 **None of the above**

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Answer key/Solution

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Q.5

What is the author's final proposal in the passage?

1 **The author proposes a vague solution to the problem and doesn't discuss it in detail.**

2 **The author proposes a nonchalant solution to the problem and is flippant about it.**

3 **The author proposes a vague solution to the problem of poverty in the country which is in the midst of an economic recession.**

4 **The author proposes a definite solution to the problem of poverty in the country by suggesting that the children should become part of the labour force.**

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Answer key/Solution

Directions for questions 6 and 7: Read the following paragraphs and answer the questions that follow. Type in the correct option number in the space provided below the question.

Q.6

The amount of electricity generated in the power-starving metropolitan area this year is 40% higher than that generated in the previous year. Nevertheless, the city's power shortage has become more severe than ever. The government officials have proposed drastic measures like frequent and prolonged power cuts to control the situation.

Which one of the following, if true, helps to explain why the city's power shortage has not alleviated despite the increase in the production of electricity?

1. Because of the increase in electricity supply, people in the city used much less air conditioning this year than they usually do during the season.
2. People in the city, who had been very prudent in using electricity earlier, used a lot more electricity when they came to know of the increase in production.
3. The city officials have been successful in making the residents aware of the methods to conserve electricity by reducing their consumption and curbing the wastage of the resource.
4. Due to the heat wave, many residents of the city ended up buying air conditioners and this led to a 50% increase in the sale of air conditioners in the city this year.

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Answer key/Solution

Directions for questions 6 and 7: Read the following paragraphs and answer the questions that follow. Type in the correct option number in the space provided below the question.

Q.7

The state government's proposed 10% cut in funding to the local university will create a difficult situation for the institute's governing body. However, from their response to last year's cut, it is clear that the university shall survive. Last year too there was a 10% cut. The university managed through private fund-raising. Nevertheless, in the current global economic crisis, it is an enormous task for the university to raise private funds.

Which of the following highlights a flaw in the reasoning of the above argument?

1. The argument doesn't give a clear amount as its basis of contention. We don't know the actual amount that will be cut from the university's state-funding.
2. The argument mistakenly assumes that the economic situation of the university will improve.
3. The author overlooks the possibility that the cumulative effects of the cuts will result in a catastrophic situation for the university.
4. The author wrongly equates the survival of the university last year with its flourishing performance in the year after.

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Answer key/Solution

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Q.8

Which of the following best describes the structure of the passage?

1 **The author makes an assumption and goes on to prove it by citing facts that counter it.**

2 **The author implicitly states his premise and then provides a strong case for defending his stance.**

3 **The author asks some poignant questions and then goes on to answer them.**

4 **The author uses a narrative technique to give details of a finding by citing some anecdotes.**

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Answer key/Solution

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Q.9

Why does the author say that astronomy is made possible, in part, by the shadows that span the stars?

1 **He wants to highlight the insignificance of the human race due to its limited vantage point.**

2 **He wants to highlight the limitation of the human vantage point and the significance of being able to overcome it by using the power of observation.**

3 **He wants to point out the significance of the ingenious way of measuring the size of the moon by creative estimation.**

4 **He wants to prove that the human race has the ability to overcome any physical barrier by virtue of its cerebral prowess.**

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Q.10

With which of the following would the author least likely agree?

1 **Anaxagora used his resilience to overcome his human inadequacy.**

2 **Anaxagora used his creative thinking ability to answer a complicated phenomenon.**

3 **Anaxagora used his power of perception to overcome a physical limitation.**

4 **Anaxagora used his inventive genius to solve an unfathomable problem.**

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Answer key/Solution

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Q.11

Which of the following can be the title of the passage?

1 **The story of the Sun and the moon**

2 **A treatise on the Physical World**

3 **A quandary resolved**

4 **Comprehending eclipses**

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Answer key/Solution

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While we do not have Anaxagoras’s own words as to what he concluded, we do have the writings of those who came after. Five hundred years later, the Roman historian Plutarch wrote, “Anaxagoras [says that the Moon] is as large as the Peloponnesus.” Hippolytus of Rome, a third-century father of the Christian church, wrote in his *Refutation of All Heresies* that, according to Anaxagoras, “the sun exceeds the Peloponnesus in size.” The story of Anaxagoras standing on the beach measuring the size of the moon is the story of astronomy. We are a species confined to our own world (or at best, our own solar system). Yet from this one vantage spot we have had to survey the universe on whose shores we stand. Astronomy is made possible, in part, by the shadows that span the stars.

Q.12

All of the following are part of the main focus of the author in the passage except:

1 **the power of human persistence in solving riddles.**

2 **the triumph of the human brain over the human limitations.**

3 **the significance of moving from mysticism to scientific study in philosophy.**

4 **the improbable feat achieved by Anaxagora.**

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Answer key/Solution

Directions for questions 8-13: The passage given below is followed by a set of six questions. Choose the most appropriate answer to each question.

“How wide is the ocean, and what is there beyond the horizon?” “How far away are the stars, and are there other planets there?” Even though very few of us have ever circumnavigated the globe, and no human being has ever ventured into space beyond the moon, we do know some of the answers to these questions. Immensity isn’t immeasurable. While these vast numbers may make little sense in our daily lives, we at least know they are known.

Consider what it must have been like to live in a world where this was not true; where the sense of immeasurability, the certainty of the unfathomable, was commonplace, and the thought that the world could be known was a novel idea. The philosopher Anaxagoras was born in about 500 B.C. in the eastern Mediterranean on what is now the coast of Turkey. It was a time when philosophy had only recently turned its attention to the natural world. Less than a hundred years before, Thales of Miletus supposedly predicted the solar eclipse that ended a war, thus implying that our world was predictable and events were not just the random whims of the gods.

In such a world of physical phenomena, Anaxagoras was the first, as far as we know, to understand that eclipses occur when one heavenly body blocks the light from another. This rejection of gods and dragons as the causes of eclipses was a revolutionary thought by itself, but Anaxagoras took it further. If solar eclipses happened only because the Earth had moved into the shadow of the moon, he reasoned, then the size of the shadow must tell us something about the size of the moon. Additionally, since the moon covered the sun, the sun must be farther away. Yet to appear nearly the same size, the sun must be larger than the moon. Herein lies the power of scientific thought! Measure the extent of the shadow sweeping across the Earth, and you know the moon must be at least as big as the shadow and the sun larger still. Mysticism provided no such opportunity. If eclipses occur when a demon devours the sun, there is no reason to believe that any measurement we make here on Earth should reveal the demon’s size.

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Q.13

What can be inferred about the author’s reference to gods and dragons?

1 The author wants to highlight the triumph of Science over Theology through this example.

2 The author wants to mitigate the contribution of religion in spreading superstitious beliefs in the minds of the primitive men.

3 The author wants to highlight the significance of moving away from religious explanations to scientific findings in the progress of the human knowledge.

4 The author wants to downplay the power and scope of mysticism.

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Answer key/Solution

Direction for question 14: In the following question there are two blanks. Fill in the blanks with the most appropriate option and type in the option number in the space provided below the question.

Q.14

Being Human in a Buddhist World **ultimately finds that Tibetan medical scholars _____ ethical and epistemological categories from Buddhism yet shied away from ideal systems and absolutes, instead they ended up _____ the imperfections of the human condition.**

1. absolved, embracing
2. exuded, rejecting
3. absorbed, embracing
4. exploded, espousing

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Answer key/Solution

Direction for question 15: Identify the grammatically incorrect sentence(s) and type in the option number in the space provided below the question.

Q.15

I. When young students are taught the essential things about sentence structure they are told that verbs usually take the second place within a sentence.
II. They children decided to leave home, reach school on time, and perform there best in the competition.
III. The rug did not complement the interior of the room; so, it had to be put in the drawing room.
IV. As a child, I had to beg my parents for even a single packet of chips.

1. I and III
2. I and II
3. Only IV
4. III and IV

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Answer key/Solution

Direction for questions 16 and 17: In the following question there are two blanks. Fill in the blanks with the most appropriate option and type in the option number in the space provided below the question.

Q.16

The _____ nature of rural India's health systems and the _____ patient load on a few referral hospitals have become even more evident from the crisis at the Baba Raghav Das Medical College in Gorakhpur.

1. pathetic, trifling
2. covert, significance
3. burly, exorbitant
4. frail, extraordinary

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Answer key/Solution

Direction for questions 16 and 17: In the following question there are two blanks. Fill in the blanks with the most appropriate option and type in the option number in the space provided below the question.

Q.17

Judgements of aesthetic value _____on our ability to discriminate at a _____ level, but they usually go beyond that.

1. represent, sensual
2. rely, sensory
3. depend, curiosity
4. descend, deep

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Answer key/Solution

Directions for questions 18-20: The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.

One of the prime essentials of enthusiasm lies in that quality called happiness. A happy disposition develops a radiant personality. To develop a permanently radiant personality one must form the habit of being permanently happy. Can one form such a habit? Let us consider this.

A habit is something that becomes automatic if repeated often enough. New thinking is a great effort but that effort gradually ceases as oft repeated, automatic thinking converts it into a habit.Your first effort in reading music and finding corresponding notes upon the piano is very much of an effort. You are so engrossed in the effort that you have no place in your brain for the harmony, or the theme that you are playing. Your one effort is to get those notes pressed down in temp or out of it, with expression or without. After twenty years of automatic repetition all effort disappears. You have learned to conceal all effort in automatic habit and devote your whole genius to interpreting the inspired soul of your composer.

Enthusiastic, radiant people are those who are always happy because they have formed the habit of always being so. They have learned the art by looking always on the bright side of every event instead of the dark side. At first it was very hard for it was so difficult to see the good side, and so easy to see the bad side of those early events which we call "misfortunes." For example, young and inexperienced salesmen make calamities out of their failures instead of stepping stones. They allow themselves to be discouraged by lost sales instead of inspired to seek greater understanding of their cause.

The more often one practices seeing the good in every failure, the harder it is to see the bad. Happy people have learned to be happy because their own philosophy has made them believe that is the best way to live. Happy people are always optimists. Grouchy people have formed the habit of being grouchy by always looking at the worst side of all events, until it is ingrained in them. They cannot look upon life in any other way. Grouchy people always are pessimists. Happy people find life interesting and have hosts of friends. Grouches find life dull and tiresome and their associates, not friends, are mostly those who receive some benefit by that association. The happy man is loved for himself alone and the grouch for his patronage.

The late Chauncey Depew said that he made up his mind to be happy early in life because his father and grandfather died of the blues. They were so low-spirited from worry that, to them, life was not worth living. "I think life is worth living," he said, "because I decided long ago to think that way." As to the preferable philosophy, one might find a good answer in the fact that the whole wide world loved Chauncey.

Q.18

Who among the following is least likely to be identified as a "happy person" by the author of the passage?

1 **A war veteran, who lost his left leg in the line of duty, acting as a mentor to injured soldiers**

2 **A fortune 500 company CEO, who overcame initial poverty, acting as a mentor to young entrepreneurs**

3 **A youngster, who is a recovering drug addict, doing mandatory community service in his neighbourhood**

4 **A superstar singer, who overcame stammering in his childhood, acting as a motivational speaker for youngsters with speech defects**

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Q.19

Which of the following is true according to the passage?

1 **Repeated behaviour always results in the formation of a fruitful habit.**

2 **Pessimism is a factor behind the unhappiness of grouchy people.**

3 **If one practices the art of seeing the good in every human being, one loses one's ability to identify bad people.**

4 **Chauncey Depew became a happy person because of being loved by the whole wide world.**

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Answer key/Solution

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Q.20

Which of the following can be inferred regarding the style of the author in the passage?

1 **Conversationally instructing**

2 **Clearly argumentative**

3 **Dogmatically assertive**

4 **Unequivocally patronizing**

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Answer key/Solution

Direction for question 21: Identify the grammatically incorrect sentence(s) and type in the option number in the space provided below the question.

Q.21

I. He requested his wife to lent him some money, as he was in a serious debt.
II. His wife, earlier a bit reluctant, agreed to provide him with the entire amount.
III. Being a dutiful wife, she didn't want to let her husband down.
IV. However she knew that she shouldn't have helped him as the later needed money for gambling.

1. II and IV
2. Only I
3. I and IV
4. III and IV

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Answer key/Solution

Directions for questions 22-27: The passage given below is followed by a set of six questions. Choose the most appropriate answer to each question.

In 1848, a strange skull was discovered on the military outpost of Gibraltar. It was undoubtedly human, but also had some of the heavy features of an ape. As more remains were discovered one thing became clear; this creature had once lived right across Europe. The remains were named Homoneanderthalensis (Neanderthal man), an ancient and primitive form of human. But was Neanderthal really the brutish ape-man of legend, or an effective rival to our own species? To begin the investigation a skeleton was needed, and no complete Neanderthal had ever been found. However a reconstruction expert, Gary Sawyer, at The American Museum of Natural History in New York, combined and-rebuilt broken parts to create the most

complete Neanderthal ever seen. This Neanderthal stood no more than 1.65m (5' 4") tall, but he had a robust and powerful build-perfect for his Ice Age environment. But would he have stood up to the cold better than modern humans?

Professor Trenton Holliday is a body plan expert from Tulane University, New Orleans. After seeing the skeleton, he believed it had comparatively short limbs and a deep, wide ribcage. To see if this would have helped him to survive, anthropology professor Leslie Aiello from UCL, teamed up with Dr George Havenith, who runs a laboratory studying the way modern humans retain heat at Loughborough University. They subjected two modern humans with very different body shapes to cooling in an ice bath. One had the long limbed, athletic shape of a runner; the other had a stockier, heavily-muscled body plan closer to that of a Neanderthal. The heavily muscled person lasted longer in the ice bath, so it seems that Neanderthal would have had an advantage. His muscle would have acted as an insulator, and his deep chest did help to keep organs warm. Even so, the advantage doesn't mean that Neanderthal could have survived the icy extremes. This was a polar wasteland and his heavily muscled body plan needed a lot of feeding - about twice as much as we need today.

By studying Neanderthal stone spear points, Professor John Shea, from Stony Brook University, New York, has found that the shafts of Neanderthal spears would have been thick and heavy. And if they hunted in woodland as the archaeological record suggests, then trying to throw these spears at animals would have been useless. So just how did Neanderthals hunt? Professor Holliday has identified a clue in the Neanderthal skeleton: he was much stronger on the right side than on the left, and his right forearm was particularly powerful, demonstrating a very powerful grip. To see how this muscle development might have related to hunting, Professor Steve Churchill, from Duke University, carried out another experiment. The results of this and Holliday's work suggest Neanderthal was an ambush hunter.

But the brutality of his hunting methods didn't mean he was simple minded. Professor Ralph Holloway an expert on ancient brains from Columbia University, New York found that it was 20% larger than the average size of a modern human's brain, and anatomically identical. He could tell that this Neanderthal was right-handed and that the areas of brain responsible for complex thought were just as advanced as ours. But one of the ways we use our brains is very particular. We talk. So was it possible to tell if Neanderthal could have spoken? A tiny bone in the throat, called the hyoid, supports the soft tissue of the throat, and Professor Bob Franciscus, from Iowa University, is part of a multi-national group attempting to model that soft tissue from the bones and discover what he might have sounded like.

It was found that the Neanderthal vocal tract seems to have been shorter and wider than a modern male human's, closer to that found today in modern human females. It's possible, then, that Neanderthal males had higher pitched voices than we might have expected. Together with a big chest, mouth, and huge nasal cavity, a big, harsh, high, sound might have resulted. But, crucially, the anatomy of the vocal tract is close enough to that of modern humans to indicate that anatomically there was no reason why Neanderthal could not have produced the complex range of sounds needed for speech.

Powerful, better adapted to the cold, and perhaps just as intelligent. Neanderthal should have been invincible. Why, then, are we here and Neanderthal is extinct? About 45,000 years ago, the climate of Europe went through a burst of very sudden switches between warm and cold conditions that would have transformed the Neanderthals' environment. The forests on which they depended began to recede, giving way to open plains. On these plains, Professor Shea believes, the Neanderthal thrusting spear and ambush strategy wouldn't have worked. So Neanderthals retreated with the forests, their population falling as their hunting grounds shrank. Neanderthals have smaller canals than both modern humans and even earlier ancestors. This suggests they were less agile. Returning to the skeleton, Professor Holliday found an explanation for this - that the short limbs and wide pelvis of Neanderthals would have resulted in less efficient locomotion than modern humans. The energy costs in travelling would have been higher, and this would have been a serious evolutionary disadvantage. For Neanderthal, it was an ironic end. The very body

plan that had made Neanderthal so well adapted to the Ice Age, had locked him into an evolutionary cul-de-sac.

Q.22

Regarding the hunting habits of the Neanderthal man, we can say that:

1 **his smaller canals made him less agile.**

2 **instead of going after his prey, he waited for his prey to wander closer to him.**

3 **he would have lived closer to forests.**

4 **all of the above are true.**

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Answer key/Solution

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Q.23

The Neanderthal man seems to be superior to modern man in which of the following aspects?

1 **Hunting capability**

2 **Adaptability to cold**

3 **Level of intelligence**

4 **Extent of vocabulary**

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Answer key/Solution

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Q.24

How would the Neanderthal's speech and the necessary body parts compare to those of the modern man?

1 **The size of the Neanderthal's brain did not have any bearing on his vocabulary.**

2 **The primitive form of man was not capable of talking.**

3 **The anatomy of the Neanderthals brain and vocal tract support the possibility of complex thoughts and speech.**

4 **The bigger size of the Neanderthal's vocal tract made his voice harsh.**

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Answer key/Solution

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Q.25
The author in the passage mainly:

---

1 ○ **highlights the superiority of the modern man over his Neanderthal counterpart.**

---

2 analyses the factors that could have contributed to the extinction of Neanderthal.

3 shows how the modem man was able to dominate the Neanderthals.

4 talks about the archaeological evidence that traces the life of the Neanderthals.

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Answer key/Solution

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Q.26

The content of the passage does not support which of the following statements?

1 **Gary Sawyer is of the opinion that Neanderthal had short limbs and deep, wide rib cage.**

2 **Professor Holliday's work contributed to our understanding of the Neanderthal's hunting habit.**

3 **John Shea discovered at least one feature of the Neandethal's hunting habit.**

4 **Professor Bob Franciscus and others are trying to find if Neanderthal had the capacity to produce sounds.**

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Q.27

What is the appropriate meaning of the phrase "cul-de-sac" as used in the passage?

1 **A struggle for survival**

2 **The end of a process**

3 **Evolutionary mutation leading to next generation beings**

4 **A new beginning as a result of purgation**

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Answer key/Solution

Direction for question 28: In the following question there are two blanks. Fill in the blanks with the most appropriate option and type in the option number in the space provided below the question.

Q.28

The fool who thinks he can generate power by generating himself _____ his failure with _____.

1. attributes, success
2. camouflages, arrogance
3. renounces, grandstanding
4. hides, supercilious

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Answer key/Solution

Directions for questions 29-34: The passage given below is followed by a set of six questions. Choose the most appropriate answer to each question.

Almost two decades after Venezuela's late president, Hugo Chávez, came to power in an electoral landslide, his country's transformation seems to be taking an ominous new turn. A country that was once one of Latin America's wealthiest is seeing its democratic institutions collapse, leading to levels of

disease, hunger and dysfunction more often seen in war-torn nations than oil-rich ones.

Mr. Chávez's successor, President Nicolás Maduro, has called for a National Constitutional Assembly to be elected on July 30 to draft a new constitution, in which ill-defined communal councils will take the place of Venezuela's traditional governing institutions, such as state governments and the opposition-dominated Congress. The new assembly appears to be rigged to heavily represent groups that back the government.

Inflation was estimated by the International Monetary Fund at 720% this year; it is expected to surpass 2,000% next year. Shortages are so acute that three out of four Venezuelans lost an average of 18 pounds last year, according to a survey by Venezuelan universities. Diseases not seen there in decades, such as malaria, are back.

Amid the economic crisis and protests, the government has headed down an increasingly authoritarian path. It has raised the number of political prisoners over the past year to 391, according to the Venezuelan human-rights group Foro Penal—nearly four times the total from a year ago. Most are being tried in military courts. And the government is seeking to remove its rebellious attorney general through a case in the Supreme Court. The government didn't answer requests for comment.

Corruption helps the government maintain political control. And no tool has been more effective than exchange controls, initially adopted by Mr. Chávez in 2002 during a national strike to control capital flight. Fifteen years later, they have reshaped Venezuela's economy and given the government enormous power to pick who gets dollars from the country's oil wealth—often at absurdly low rates.

For instance, firms and others who import food get dollars at the official rate of 10 bolivars. But they can turn around and sell those dollars on the black market for 8,300 bolivars.

Venezuela's army recently got the rights to set up its own mining and oil companies, and the armed forces are in charge of most critical imports. In 2016, 18 generals and admirals were tasked with importing key foods and sanitary items. One brigadier general was put in command of acquiring black beans; another was charged with acquiring toilet paper, feminine napkins and diapers. Logically, an admiral was placed in charge of acquiring fish.

No one knows how much money has been lost. Mr. Giordani estimated that a third of the $59 billion that the government handed out to companies to bring imports into the country in 2012 might have ended up in fraudulent schemes.

"It's a terrible economic model, but it's great for politics and power," says Asdrúbal Oliveros, a prominent Venezuelan economist.

The opposition and the regional governments don't know how to turn the tide. An Organization of American States resolution this week urging Venezuela to return to democracy was supported by every major country in the hemisphere but blocked by Venezuelan allies like Nicaragua and a handful of statelets like St. Kitts and Nevis.

Many in Venezuela hope that parts of the army haven't been tempted by money and will want to honor the country's democratic past. Ibsen Martínez, who helped write some of the country's most beloved soap operas, says that hope is likely in vain.

Q.29
Which of the following is the most likely source of the passage?

---

1 ○ **A thesis on Latin America's politics**

2 A newspaper article

3 A text book on Civics

4 An article on international affairs

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Q.30

It can be inferred from the first paragraph that:

1 **war-torn nations are more likely to experience socio-economic problems than oil-rich ones do.**

2 **Hugo Chavez was an influential figure in the modernization of Venezuela.**

3 **Hugo Chavez remains a popular figure in the imagination of the common man of Venezuela.**

4 **Venezuela was once the wealthiest nation of Latin America.**

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Q.31

Which of the following has not been mentioned as a cause of Venezuela's problem in recent times?

---

1 ○ **Authoritarian tendencies of the present government**

---

2 ○ **Suppression of artistic freedom**

---

3 ○ **The possible collapse of democratic institutions**

---

4 ○ **Inflation and a resulting economic crisis**

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No one knows how much money has been lost. Mr. Giordani estimated that a third of the $59 billion that the government handed out to companies to bring imports into the country in 2012 might have ended up in fraudulent schemes.

"It's a terrible economic model, but it's great for politics and power," says Asdrúbal Oliveros, a prominent

Venezuelan economist.

The opposition and the regional governments don't know how to turn the tide. An Organization of American States resolution this week urging Venezuela to return to democracy was supported by every major country in the hemisphere but blocked by Venezuelan allies like Nicaragua and a handful of statelets like St. Kitts and Nevis.

Many in Venezuela hope that parts of the army haven't been tempted by money and will want to honor the country's democratic past. Ibsen Martínez, who helped write some of the country's most beloved soap operas, says that hope is likely in vain.

Q.32

Which of the following can be inferred about the problems in Venezuela according to the passage?

1 **A multitude of factors have resulted in a socio-humanitarian crisis in Venezuela.**

2 **The entire army of the country has been plagued by charges of corruption.**

3 **The current government of the country has bowed down to international pressure to return to democracy.**

4 **Corruption is the root cause of all problems in the country.**

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Answer key/Solution

Directions for questions 29-34: The passage given below is followed by a set of six questions. Choose the most appropriate answer to each question.

Almost two decades after Venezuela's late president, Hugo Chávez, came to power in an electoral landslide, his country's transformation seems to be taking an ominous new turn. A country that was once one of Latin America's wealthiest is seeing its democratic institutions collapse, leading to levels of disease, hunger and dysfunction more often seen in war-torn nations than oil-rich ones.

Mr. Chávez's successor, President Nicolás Maduro, has called for a National Constitutional Assembly to be elected on July 30 to draft a new constitution, in which ill-defined communal councils will take the place of Venezuela's traditional governing institutions, such as state governments and the opposition-dominated Congress. The new assembly appears to be rigged to heavily represent groups that back the government.

Inflation was estimated by the International Monetary Fund at 720% this year; it is expected to surpass 2,000% next year. Shortages are so acute that three out of four Venezuelans lost an average of 18 pounds last year, according to a survey by Venezuelan universities. Diseases not seen there in decades, such as malaria, are back.

Amid the economic crisis and protests, the government has headed down an increasingly authoritarian path. It has raised the number of political prisoners over the past year to 391, according to the Venezuelan human-rights group Foro Penal—nearly four times the total from a year ago. Most are being tried in

military courts. And the government is seeking to remove its rebellious attorney general through a case in the Supreme Court. The government didn't answer requests for comment.

Corruption helps the government maintain political control. And no tool has been more effective than exchange controls, initially adopted by Mr. Chávez in 2002 during a national strike to control capital flight. Fifteen years later, they have reshaped Venezuela's economy and given the government enormous power to pick who gets dollars from the country's oil wealth—often at absurdly low rates.

For instance, firms and others who import food get dollars at the official rate of 10 bolivars. But they can turn around and sell those dollars on the black market for 8,300 bolivars.

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Many in Venezuela hope that parts of the army haven't been tempted by money and will want to honor the country's democratic past. Ibsen Martínez, who helped write some of the country's most beloved soap operas, says that hope is likely in vain.

Q.33

Which of the following steps will be definitely supported by President Nicolás Maduro?

1 **Legalizing divorce**

2 **Legalizing euthanasia**

3 **Legalizing prosecution of reporters**

4 **Legalizing underage drinking**

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Answer key/Solution

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Many in Venezuela hope that parts of the army haven't been tempted by money and will want to honor the

country's democratic past. Ibsen Martínez, who helped write some of the country's most beloved soap operas, says that hope is likely in vain.

Q.34

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

1 **The immediate future of Venezuela looks bleak due to an inefficient government.**

2 **The suppression of democratic values has been a problem for Venezuela in recent years.**

3 **Venezuela has an ineffective healthcare system right now.**

4 **The Chavez government has raised the number of political prisoners over the past year to 391.**

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Answer key/Solution

Sec 2

Directions for questions 35 to 38: Answer the questions on the basis of the information given below.

In an inter-school cricket competition, top seven run scorers were A, B, C, D, E, F and G not necessarily in same order. 7 groups – G1, G2, G3, G4, G5, G6 and G7 - were formed such that each group had 6 of the above mentioned batsmen and there were no two groups having the same 6 batsmen. Following table gives the aggregate number of runs scored by batsmen in each group:

Group	Aggregate
G1	4470
G2	4406
G3	4604
G4	4658
G5	4422
G6	4550
G7	4510

Q.35

Find the number of runs scored by the batsman who scored maximum run in the tournament.

1 **832**

2 **864**

3 **806**

4 **800**

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Answer key/Solution

Directions for questions 35 to 38: Answer the questions on the basis of the information given below.

In an inter-school cricket competition, top seven run scorers were A, B, C, D, E, F and G not necessarily in same order. 7 groups – G1, G2, G3, G4, G5, G6 and G7 - were formed such that each group had 6 of the above mentioned batsmen and there were no two groups having the same 6 batsmen. Following table gives the aggregate number of runs scored by batsmen in each group:

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G1	4470
G2	4406
G3	4604
G4	4658
G5	4422
G6	4550
G7	4510

Q.36

The number of runs scored by 'D' is the average of the number of runs scored by C and G and the number of runs scored by A is the average of the number of runs scored by C and F. Find the number of runs scored by C.

1 **612**

2 **666**

3 **760**

4 **720**

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Answer key/Solution

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In an inter-school cricket competition, top seven run scorers were A, B, C, D, E, F and G not necessarily in same order. 7 groups – G1, G2, G3, G4, G5, G6 and G7 - were formed such that each group had 6 of the above mentioned batsmen and there were no two groups having the same 6 batsmen. Following table gives the aggregate number of runs scored by batsmen in each group:

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G1	4470
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G7	4510

Q.37

In the above question, if G did not score the minimum number of runs, then the number of runs scored by A is

1 **848**

2 **666**

3 **760**

4 **612**

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Answer key/Solution

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In an inter-school cricket competition, top seven run scorers were A, B, C, D, E, F and G not necessarily in same order. 7 groups – G1, G2, G3, G4, G5, G6 and G7 - were formed such that each group had 6 of the above mentioned batsmen and there were no two groups having the same 6 batsmen. Following table gives the aggregate number of runs scored by batsmen in each group:

Group	Aggregate
G1	4470
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G3	4604
G4	4658
G5	4422
G6	4550
G7	4510

Q.38

How many batsmen scored more than the average of runs scored by all the 7 batsmen?

1 **4**

2 **2**

3 **3**

4 **1**

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Answer key/Solution

Directions for questions 39 to 42 : Answer the questions on the basis of the table given below.

In a small town called GULLI, a survey was done on viewership of a few popular Kid's channels in 2015 and 2016. The table below shows the data obtained from the survey:

Publication	2015		2016	
	Rank	Viewership	Rank	Viewership
Pogo		14982		
BabyTV	1			17379
Cartoon Network		9458	3	
Discovery Kids	7			10557
Nick Jr				10469
Disney		10094	6	9445
JimJam	8			8820
CBebees	10	7353		
Magic Kids	9	7419	9	8092
Cartoonito				7985

Apart from the data provided in the table, the following information is also known (All the changes in 2016 are with respect to the corresponding values in 2015).

(i) The viewership of Discovery Kids increased by 2658 in 2016.
(ii) The viewership of CBebees increased by about 18% in 2016.
(iii) In 2015, the viewership of Cartoonito was 899 more than that of Discovery Kids.
(iv) The viewership of JimJam increased by 953 in 2016.
(v) In 2015, the viewership of Nick Jr was less than that of Cartoonito by 158.
(vi) The viewership of Pogo increased by 42% in 2016.
(vii) The viewership of Cartoon Network increased by 1982 in 2016.
(viii) The channels are ranked according to their viewership – the channel with highest viewership was given rank 1, the channel with second highest viewership was given rank 2 and so on.
(ix) No two channels had the same viewership in any of the two years.

Q.39

In 2015, if the number of viewership of Pogo and BabyTV were such that one of them was about 110% of the other, find the number of viewership (approximately) of BabyTV.

1 **14269**

2 **15312**

3 **15731**

4 **16480**

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Answer key/Solution

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(ix) No two channels had the same viewership in any of the two years.

Q.40

What could have been the maximum possible percentage increase (approximately) in viewership for BabyTV from 2015 to 2016?

1 **16%**

2 **24%**

3 **28%**

4 **Cannot be determined**

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Answer key/Solution

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(ix) No two channels had the same viewership in any of the two years.

Q.41

How many channels showed a growth of greater than 20% in their viewership from 2015 to 2016?

1 **2**

2 **4**

3 **6**

4 Cannot be determined

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Answer key/Solution

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(ix) No two channels had the same viewership in any of the two years.

Q.42
Had Pogo and BabyTV ranked 1 and 2 respectively in 2015, then which of the following would have been the possible growth rate in viewership for Baby TV from 2015 to 2016?

1 **15%**

2 **50%**

3 **73%**

4 **None of these**

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Answer key/Solution

Directions for questions 43 to 46 : Answer the questions on the basis of the information given below.

All the students of XYZ college are given an option to choose any combination of the subjects from among History, Polity, Geography and Public Administration (PA). It is also known that:

• A student who wants to choose History can also choose Polity or Geography.
• Out of the possible six combinations of exactly two subjects, the combination having History and PA, PA and Geography cannot be chosen by any student. Each of the remaining combinations of two subjects is chosen by the same number of students.
• No student can pick a combination having History, Polity and PA.
• A student who wants to choose PA and Geography, must have to choose History.
• It is known that each of the subjects is chosen by exactly 200 students out of which 12.5% choose only that subject.

Q.43
What is the number of students who choose all the four subjects?

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Answer key/Solution

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• No student can pick a combination having History, Polity and PA.
• A student who wants to choose PA and Geography, must have to choose History.
• It is known that each of the subjects is chosen by exactly 200 students out of which 12.5% choose only that subject.

Q.44

If ‘x’ students choose only Geography and ‘y’ students choose exactly 2 other subjects with Geography, then find the value of x + y.

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Answer key/Solution

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• No student can pick a combination having History, Polity and PA.
• A student who wants to choose PA and Geography, must have to choose History.
• It is known that each of the subjects is chosen by exactly 200 students out of which 12.5% choose only that subject.

Q.45

What is the number of students who choose either History or Geography?

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Answer key/Solution

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• A student who wants to choose PA and Geography, must have to choose History.
• It is known that each of the subjects is chosen by exactly 200 students out of which 12.5% choose only that subject.

Q.46

The number of ways in which a student can choose subject(s) out of the four subjects?

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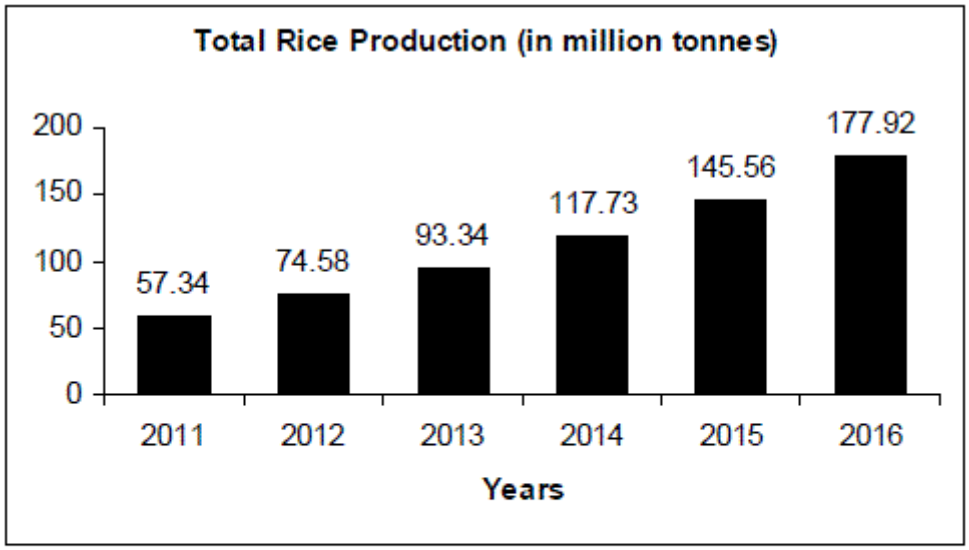
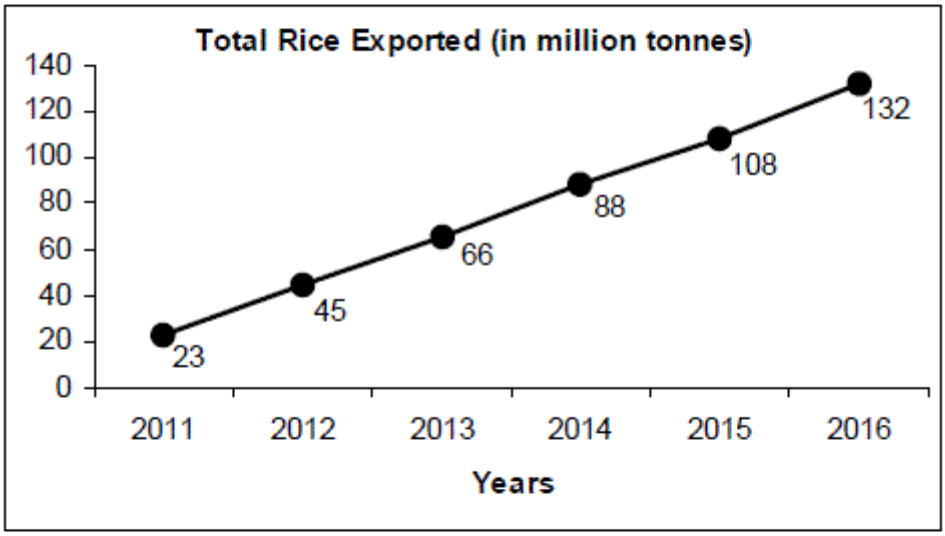
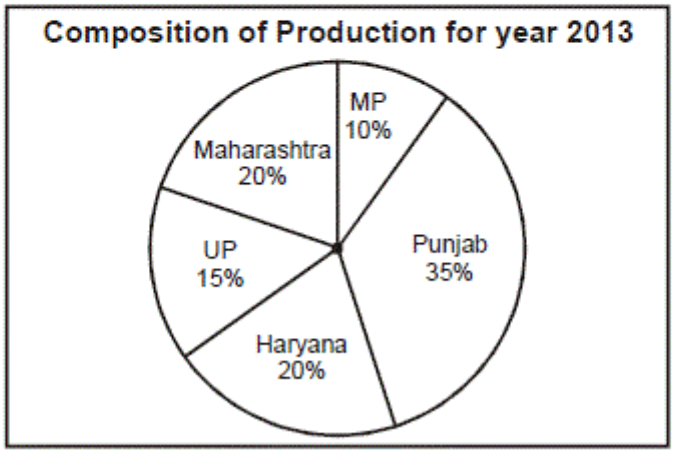
Answer key/Solution

Directions for questions 47 to 50: Answer the following questions based on the information given below.

The bar graph represents the total rice production in India produced by five states – Maharashtra, MP, UP, Haryana and Punjab – for the period of 2011 to 2016, the line graph represents the total rice exported from India for the same period and the pie-chart represents the state wise breakup of the production for the year 2013.







Q.47

In how many years during the period 2012 to 2016 was there greater than 25% increase in the rice exported as compared to the previous year?

1 **4**

2 **1**

3 **3**

4 5

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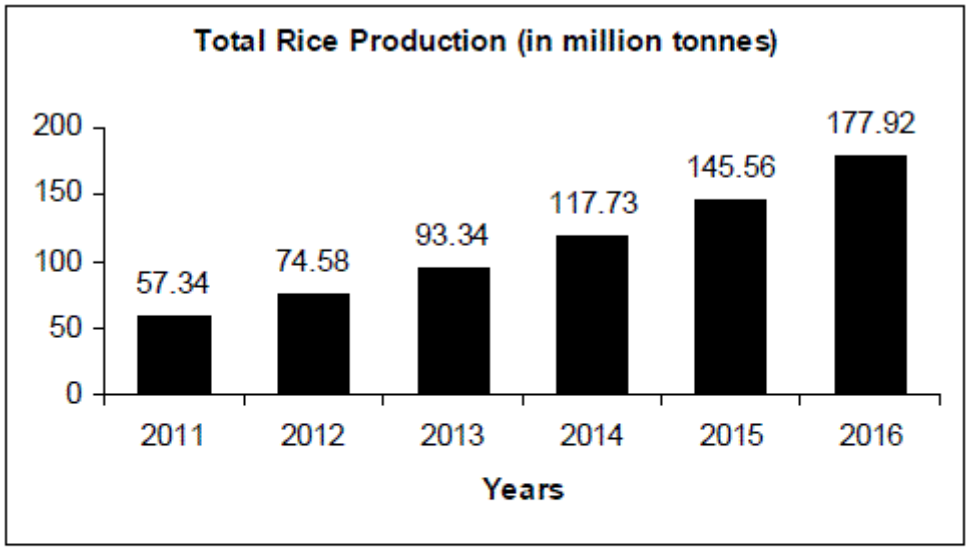
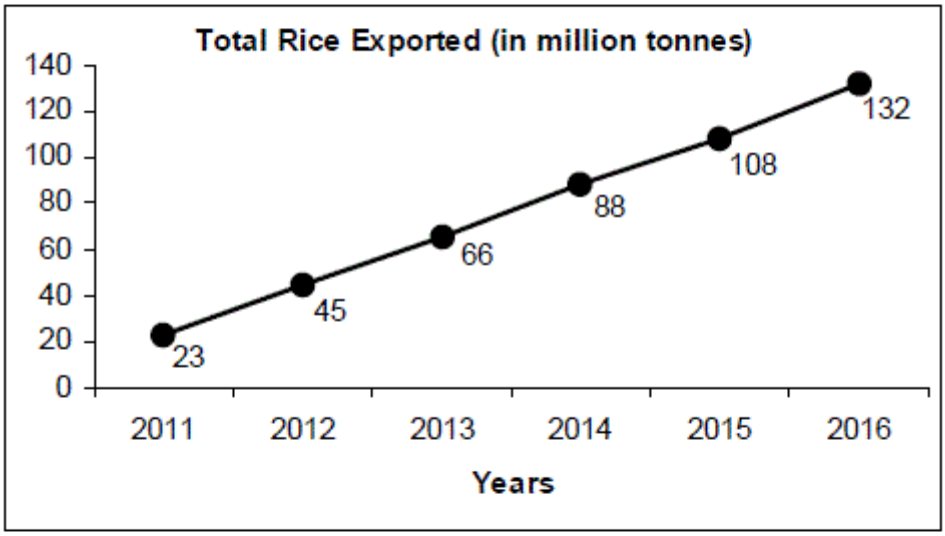
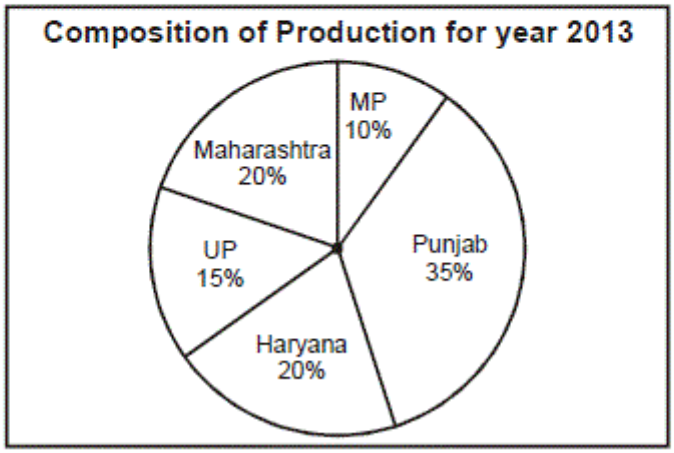
Answer key/Solution

Directions for questions 47 to 50: Answer the following questions based on the information given below.

The bar graph represents the total rice production in India produced by five states – Maharashtra, MP, UP, Haryana and Punjab – for the period of 2011 to 2016, the line graph represents the total rice exported from India for the same period and the pie-chart represents the state wise breakup of the production for the year 2013.







Q.48

If the state-wise composition of production remained the same for all 6 years then for how many years rice was produced by three major states, Punjab, Maharashtra and Haryana put together, sufficient to meet the export requirements of that year?

1 **4**

2 **1**

3 **3**

4 **6**

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Answer key/Solution

Directions for questions 47 to 50: Answer the following questions based on the information given below.

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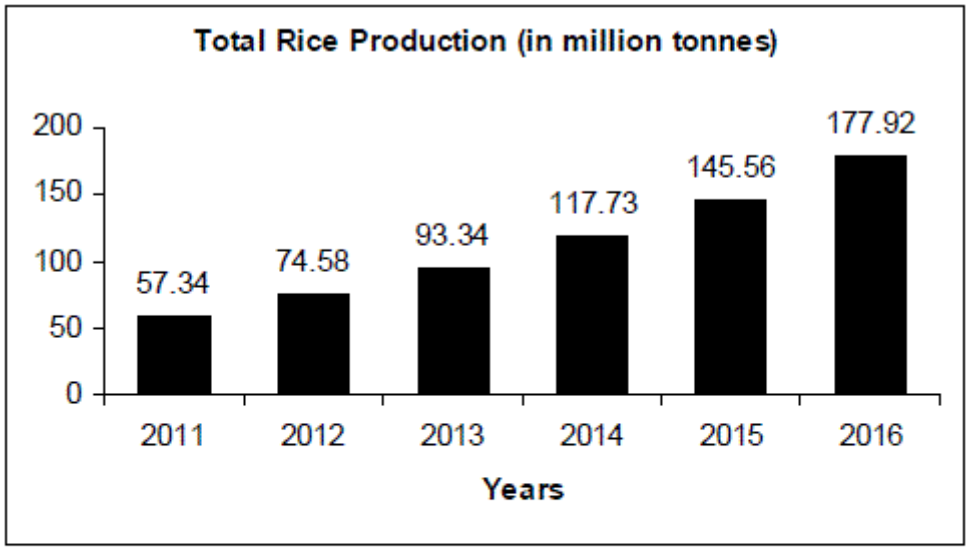

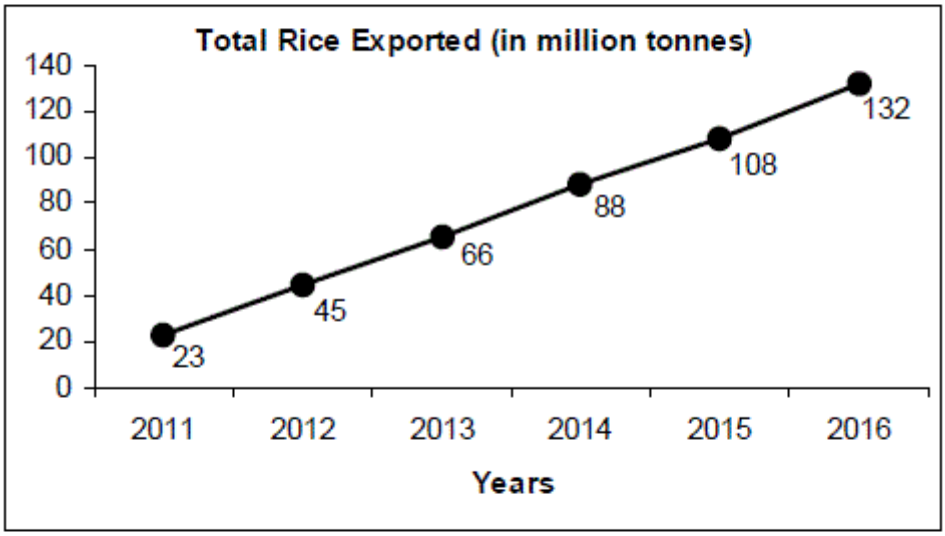

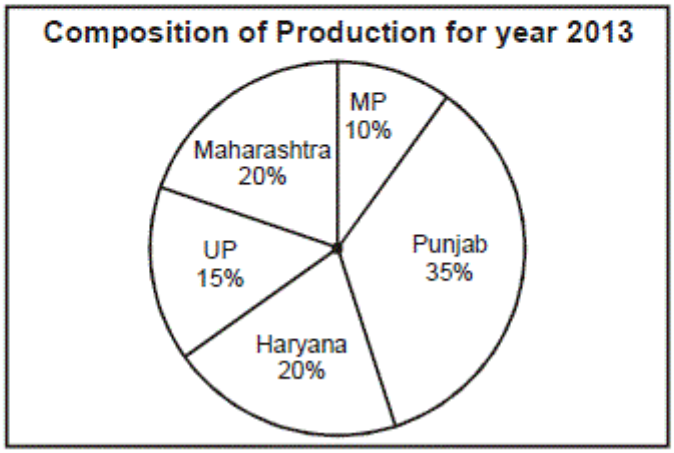

Q.49

If in the previous question,had the percentage share of Punjab kept continuously decreasing by 5 percentage points since 2011 and correspondingly the percentage share of UP has continuously kept increasing by 5 percentage points, while the percentage share of other three states remained constant for the entire period, then for how many years would rice produced by three states, Punjab, Maharashtra and Haryana put together, have been sufficient to meet the export requirements of that year?

1 **4**

2 **1**

3 **3**

4 **2**

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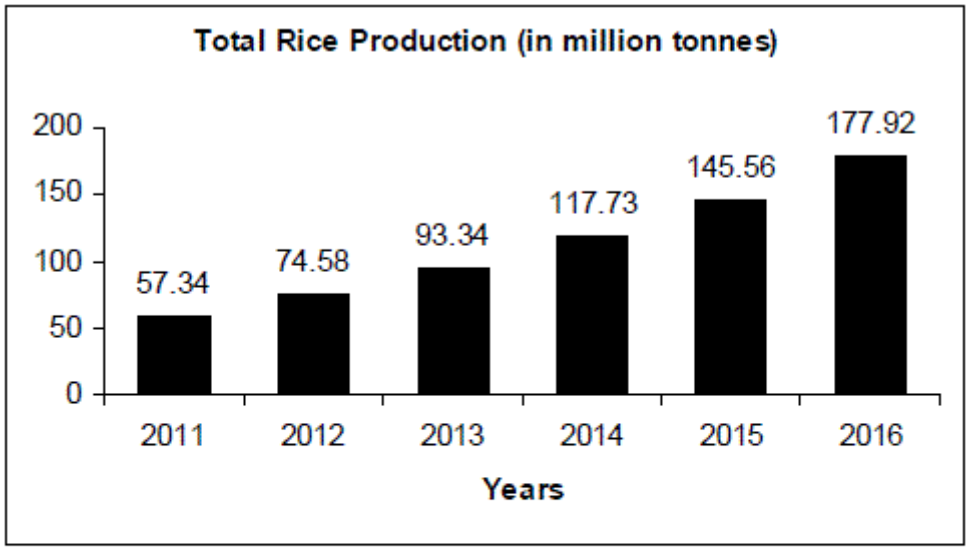
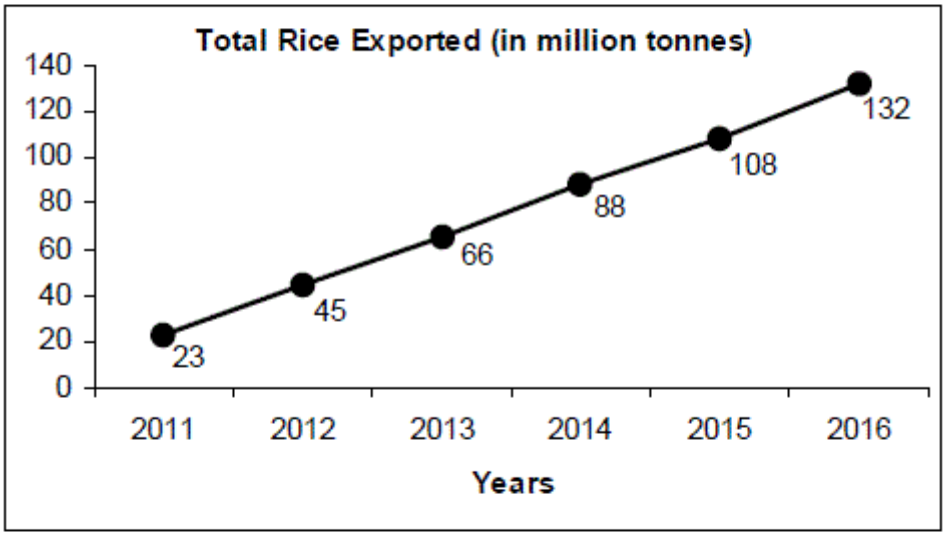
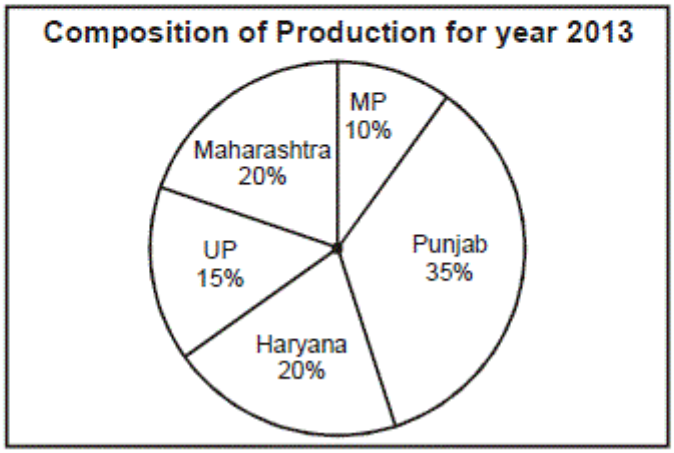
Answer key/Solution

Directions for questions 47 to 50: Answer the following questions based on the information given below.

The bar graph represents the total rice production in India produced by five states – Maharashtra, MP, UP, Haryana and Punjab – for the period of 2011 to 2016, the line graph represents the total rice exported from India for the same period and the pie-chart represents the state wise breakup of the production for the year 2013.







Q.50

For how many years during the period 2012 to 2016, was there a decrease in the percentage of rice exported as compared to the previous year?

1 **2**

2 **4**

3 **1**

4 **3**

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Answer key/Solution

Directions for questions 51 to 54: Answer the questions on the basis of the information given below.

Twelve machines, labeled A to L , are arranged in a row from left to right in the same order with place number 1 to 12 in the same order in a straight line. Each of the machine makes a product of different weight from among 500g, 1000g, 1500g, 2000g, ..., 6000gm, not necessarily in the same order. Following facts are also known about the machines:

(i) Weight of the product made by machine 'E' is a multiple of 2500.
(ii) The machine that produces the product with weight 2500 is 2nd to the left of the machine that produces product with weight 3500.
(iii) Weight of the product made by machine F is more than the weight of the product made by machine H. The absolute difference between the weights of machine produced by G and H is 500gm.
(iv) A machine with an odd numbered position produces the product with minimum weight.
(v) The products with weight 1500 gm, 4000 gm & 5500 gm are made by 3 successive machines in the same order from left to right.
(vi) The weight of the product made by the rightmost machine is half of the weight of the product produced by the machine D.
(vii) Machine 'B' produces the 2000 gm product.
(viii) None of the machines makes a product with weight 500 times the machine's place number.

Q.51
Which of the following is the weight of the product produced by machine 'D' ?

1 **2000 g**

2 **6000 g**

3 **5000 g**

4 **4000 g**

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Answer key/Solution

Directions for questions 51 to 54: Answer the questions on the basis of the information given below.

Twelve machines, labeled A to L , are arranged in a row from left to right in the same order with place number 1 to 12 in the same order in a straight line. Each of the machine makes a product of different weight from among 500g, 1000g, 1500g, 2000g, ..., 6000gm, not necessarily in the same order. Following facts are also known about the machines:

(i) Weight of the product made by machine 'E' is a multiple of 2500.
(ii) The machine that produces the product with weight 2500 is 2nd to the left of the machine that produces product with weight 3500.
(iii) Weight of the product made by machine F is more than the weight of the product made by machine H. The absolute difference between the weights of machine produced by G and H is 500gm.
(iv) A machine with an odd numbered position produces the product with minimum weight.
(v) The products with weight 1500 gm, 4000 gm & 5500 gm are made by 3 successive machines in the same order from left to right.
(vi) The weight of the product made by the rightmost machine is half of the weight of the product produced by the machine D.
(vii) Machine 'B' produces the 2000 gm product.
(viii) None of the machines makes a product with weight 500 times the machine's place number.

Q.52
Find the absolute difference between the weight of product produced by machine A and that by L.

1 **1000 g**

2 **2000 g**

3 **500 g**

4 **4000 g**

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Answer key/Solution

Directions for questions 51 to 54: Answer the questions on the basis of the information given below.

Twelve machines, labeled A to L , are arranged in a row from left to right in the same order with place number 1 to 12 in the same order in a straight line. Each of the machine makes a product of different weight from among 500g, 1000g, 1500g, 2000g, ..., 6000gm, not necessarily in the same order. Following facts are also known about the machines:

(i) Weight of the product made by machine 'E' is a multiple of 2500.
(ii) The machine that produces the product with weight 2500 is 2nd to the left of the machine that produces product with weight 3500.
(iii) Weight of the product made by machine F is more than the weight of the product made by machine H. The absolute difference between the weights of machine produced by G and H is 500gm.
(iv) A machine with an odd numbered position produces the product with minimum weight.
(v) The products with weight 1500 gm, 4000 gm & 5500 gm are made by 3 successive machines in the same order from left to right.
(vi) The weight of the product made by the rightmost machine is half of the weight of the product produced by the machine D.
(vii) Machine 'B' produces the 2000 gm product.
(viii) None of the machines makes a product with weight 500 times the machine's place number.

Q.53
Which of the following is true?

1 **For three of the machines, weight of the product manufactured by them is 1000 times the respective machine place number.**

2 **There are 4 machines such that the weight of the products manufactured by them is at least 1000 times the machine place number.**

3 **There are 3 pairs of consecutively numbered machines such that the weights of the products manufactured by the 2 machines in each pairs are consecutive multiples of 500.**

4 **None of these.**

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Answer key/Solution

Directions for questions 51 to 54: Answer the questions on the basis of the information given below.

Twelve machines, labeled A to L , are arranged in a row from left to right in the same order with place number 1 to 12 in the same order in a straight line. Each of the machine makes a product of different weight from among 500g, 1000g, 1500g, 2000g, ..., 6000gm, not necessarily in the same order. Following facts are also known about the machines:

(i) Weight of the product made by machine 'E' is a multiple of 2500.
(ii) The machine that produces the product with weight 2500 is 2nd to the left of the machine that produces product with weight 3500.
(iii) Weight of the product made by machine F is more than the weight of the product made by machine H. The absolute difference between the weights of machine produced by G and H is 500gm.
(iv) A machine with an odd numbered position produces the product with minimum weight.
(v) The products with weight 1500 gm, 4000 gm & 5500 gm are made by 3 successive machines in the same order from left to right.
(vi) The weight of the product made by the rightmost machine is half of the weight of the product produced by the machine D.
(vii) Machine 'B' produces the 2000 gm product.
(viii) None of the machines makes a product with weight 500 times the machine's place number.

Q.54
Which of the following machines produces the product with the least weight?

1 **K**

2 **C**

3 **G**

4 **I**

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Answer key/Solution

Directions for questions 55 to 58 : Answer the questions on the basis of the information given below.

A water supplier supplies water in 5 societies namely Panchsheel, Supertech, Amrapali, Gaur and Infinity. The following information is also known with regard to water supplied to the five societies in 2016:

- **Panchsheel, which received water on every 5th day, received water on 5th January.**
- **Supertech, which received water on every 6th day, received water on 6th January.**
- **Amrapali, which received water on every 10th day, received water on 10th January.**
- **Gaur, which received water on every 16th day, received water on 16th January.**
- **Infinity, which received water on every 25th day, received water on 25th January.**

Q.55

In 2016, the number of societies that received water on a same day could not be more than.
Fill "1 if your answer is 2"
Fill "2 if your answer is 3"
Fill "3 if your answer is 4"
Fill "4 if your answer is 5"

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Answer key/Solution

Directions for questions 55 to 58 : Answer the questions on the basis of the information given below.

A water supplier supplies water in 5 societies namely Panchsheel, Supertech, Amrapali, Gaur and Infinity. The following information is also known with regard to water supplied to the five societies in 2016:

- **Panchsheel, which received water on every 5th day, received water on 5th January.**
- **Supertech, which received water on every 6th day, received water on 6th January.**
- **Amrapali, which received water on every 10th day, received water on 10th January.**
- **Gaur, which received water on every 16th day, received water on 16th January.**
- **Infinity, which received water on every 25th day, received water on 25th January.**

Q.56

The first instance when exactly three societies were supplied water in April, 2016 was
Fill "1 if your answer is 9th April"
Fill "2 if your answer is 29th April"
Fill "3 if your answer is 14th April"
Fill "4 if your answer is This does not occur in April"

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Answer key/Solution

Directions for questions 55 to 58 : Answer the questions on the basis of the information given below.

A water supplier supplies water in 5 societies namely Panchsheel, Supertech, Amrapali, Gaur and Infinity. The following information is also known with regard to water supplied to the five societies in 2016:

- **Panchsheel, which received water on every 5th day, received water on 5th January.**
- **Supertech, which received water on every 6th day, received water on 6th January.**
- **Amrapali, which received water on every 10th day, received water on 10th January.**
- **Gaur, which received water on every 16th day, received water on 16th January.**
- **Infinity, which received water on every 25th day, received water on 25th January.**

Q.57

The second instance when maximum number of societies were supplied water in 2016 was
Fill "1 if your answer is 29th April"
Fill "2 if your answer is 30th April"
Fill "3 if your answer is 29th October"
Fill "4 if your answer is 27th August"

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Answer key/Solution

Directions for questions 55 to 58 : Answer the questions on the basis of the information given below.

A water supplier supplies water in 5 societies namely Panchsheel, Supertech, Amrapali, Gaur and Infinity. The following information is also known with regard to water supplied to the five societies in 2016:

- **Panchsheel, which received water on every 5th day, received water on 5th January.**
- **Supertech, which received water on every 6th day, received water on 6th January.**
- **Amrapali, which received water on every 10th day, received water on 10th January.**
- **Gaur, which received water on every 16th day, received water on 16th January.**
- **Infinity, which received water on every 25th day, received water on 25th January.**

Q.58

If the given frequency for all receivers was being followed since 2016, then in 2017, how many times can the societies- Amrapali, Gaur and Infinity have received water together in a single day in the given year?
Fill "1 if your answer is Only once"
Fill "2 if your answer is Only twice"
Fill "3 if your answer is Only thrice"
Fill "4 if your answer is This cannot occur in 2017"

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Answer key/Solution

Directions for questions 59 to 62 : Answer the questions on the basis of the information given below.

Ten students – A, B, C, D, E, F, G, H, I and J– appeared for an exam in which 4 questions– Q1, Q2, Q3 and Q4– were asked. Each student was given different sheets and each sheet contained the same four questions. Each of them answered all the four questions correctly or incorrectly. At the end, it was found that no one has answered all the 4 questions correctly and also none of the questions was correctly answered by all of them. It is also found that:

(i) No two questions were answered correctly by the same number of students.
(ii) All the students who answered Q1 correctly also answered Q2 correctly.
(iii) There was one question which was answered incorrectly by only A, C and D, and another question was answered incorrectly by only B and E.
(iv) The number of students who answered Q4 correctly was more than the number of students who answered Q3 correctly, which, in turn, was more than number of students who answered Q1 correctly.
(v) There was total 11 incorrect answers in the sheet put together.
(vi) Only J answered Q2 incorrectly.

Q.59
How many students answered Q2 correctly?

1 **9**

2 **8**

3 **7**

4 **6**

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Answer key/Solution

Directions for questions 59 to 62 : Answer the questions on the basis of the information given below.

Ten students – A, B, C, D, E, F, G, H, I and J– appeared for an exam in which 4 questions– Q1, Q2, Q3 and Q4– were asked. Each student was given different sheets and each sheet contained the same four questions. Each of them answered all the four questions correctly or incorrectly. At the end, it was found that no one has answered all the 4 questions correctly and also none of the questions was correctly answered by all of them. It is also found that:

(i) No two questions were answered correctly by the same number of students.
(ii) All the students who answered Q1 correctly also answered Q2 correctly.
(iii) There was one question which was answered incorrectly by only A, C and D, and another question was answered incorrectly by only B and E.
(iv) The number of students who answered Q4 correctly was more than the number of students who answered Q3 correctly, which, in turn, was more than number of students who answered Q1 correctly.
(v) There was total 11 incorrect answers in the sheet put together.
(vi) Only J answered Q2 incorrectly.

Q.60
Who among the following answered Q3 and Q1 correctly?

1 **B**

2 **E**

3 **Both (B) & (E)**

4 **A**

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Answer key/Solution

Directions for questions 59 to 62 : Answer the questions on the basis of the information given below.

Ten students – A, B, C, D, E, F, G, H, I and J– appeared for an exam in which 4 questions– Q1, Q2, Q3 and Q4– were asked. Each student was given different sheets and each sheet contained the same four questions. Each of them answered all the four questions correctly or incorrectly. At the end, it was found that no one has answered all the 4 questions correctly and also none of the questions was correctly answered by all of them. It is also found that:

(i) No two questions were answered correctly by the same number of students.
(ii) All the students who answered Q1 correctly also answered Q2 correctly.
(iii) There was one question which was answered incorrectly by only A, C and D, and another question was answered incorrectly by only B and E.
(iv) The number of students who answered Q4 correctly was more than the number of students who answered Q3 correctly, which, in turn, was more than number of students who answered Q1 correctly.
(v) There was total 11 incorrect answers in the sheet put together.
(vi) Only J answered Q2 incorrectly.

Q.61
Who among the following did not answer Q1 correctly?

1 **I, J, E, C**

2 **F, G, H, J, E**

3 **F, H, G, C**

4 **F, G, H, I, J**

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Answer key/Solution

Directions for questions 59 to 62 : Answer the questions on the basis of the information given below.

Ten students – A, B, C, D, E, F, G, H, I and J– appeared for an exam in which 4 questions– Q1, Q2, Q3 and Q4– were asked. Each student was given different sheets and each sheet contained the same four questions. Each of them answered all the four questions correctly or incorrectly. At the end, it was found that no one has answered all the 4 questions correctly and also none of the questions was correctly answered by all of them. It is also found that:

(i) No two questions were answered correctly by the same number of students.
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(iv) The number of students who answered Q4 correctly was more than the number of students who answered Q3 correctly, which, in turn, was more than number of students who answered Q1 correctly.
(v) There was total 11 incorrect answers in the sheet put together.
(vi) Only J answered Q2 incorrectly.

Q.62
Who among the following did not answer Q4 correctly?

1 **A**

2 **C**

3 **E**

4 **F**

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Answer key/Solution

Directions for questions 63 to 66 : Answer the questions on the basis of the information given below.

XYZ Pvt Ltd. sent its five salesmen–Raman, Raghav Rahul, Ram and Ravi – to five different cities–Patna, Guwahati, Kolkata, Chandigarh and Lucknow–not necessarily in the same order. All five salesmen are of different heights and each of them carries a different mobile phone out of Samsung, Motorola, Lenovo, Mi and One Plus. It is also known that:

• Raghav, the third tallest, was sent to Kolkata. Neither Raghav nor the fourth tallest person carries Motorola phone.
• The shortest person carries One Plus phone and he was not sent to Guwahati or Lucknow.
• The Samsung phone is carried by the tallest person who is not Ram.
• Rahul, who is not shorter than the one who was sent to Chandigarh, carries Mi phone.
• Raman, who does not carry Motorola phone, was sent to Lucknow.

Q.63
Who carries the Samsung phone?

1 **Raman**

2 **Raghav**

3 **Ram**

4 **Ravi**

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Answer key/Solution

Directions for questions 63 to 66 : Answer the questions on the basis of the information given below.

XYZ Pvt Ltd. sent its five salesmen–Raman, Raghav Rahul, Ram and Ravi – to five different cities–Patna, Guwahati, Kolkata, Chandigarh and Lucknow–not necessarily in the same order. All five salesmen are of different heights and each of them carries a different mobile phone out of Samsung, Motorola, Lenovo, Mi and One Plus. It is also known that:

• Raghav, the third tallest, was sent to Kolkata. Neither Raghav nor the fourth tallest person carries Motorola phone.
• The shortest person carries One Plus phone and he was not sent to Guwahati or Lucknow.
• The Samsung phone is carried by the tallest person who is not Ram.
• Rahul, who is not shorter than the one who was sent to Chandigarh, carries Mi phone.
• Raman, who does not carry Motorola phone, was sent to Lucknow.

Q.64
To which city was the 4th tallest person sent?

1 **Patna**

2 **Guwahati**

3 **Lucknow**

4 **Cannot be determined**

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Answer key/Solution

Directions for questions 63 to 66 : Answer the questions on the basis of the information given below.

XYZ Pvt Ltd. sent its five salesmen–Raman, Raghav Rahul, Ram and Ravi – to five different cities–Patna, Guwahati, Kolkata, Chandigarh and Lucknow–not necessarily in the same order. All five salesmen are of different heights and each of them carries a different mobile phone out of Samsung, Motorola, Lenovo, Mi and One Plus. It is also known that:

• Raghav, the third tallest, was sent to Kolkata. Neither Raghav nor the fourth tallest person carries Motorola phone.
• The shortest person carries One Plus phone and he was not sent to Guwahati or Lucknow.
• The Samsung phone is carried by the tallest person who is not Ram.
• Rahul, who is not shorter than the one who was sent to Chandigarh, carries Mi phone.
• Raman, who does not carry Motorola phone, was sent to Lucknow.

Q.65
If Ram carries the Motorola phone, then to which city was Ravi sent?

1 **Lucknow**

2 **Guwahati**

3 **Patna**

4 **Chandigarh**

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Answer key/Solution

Directions for questions 63 to 66 : Answer the questions on the basis of the information given below.

XYZ Pvt Ltd. sent its five salesmen–Raman, Raghav Rahul, Ram and Ravi – to five different cities–Patna, Guwahati, Kolkata, Chandigarh and Lucknow–not necessarily in the same order. All five salesmen are of different heights and each of them carries a different mobile phone out of Samsung, Motorola, Lenovo, Mi and One Plus. It is also known that:

• Raghav, the third tallest, was sent to Kolkata. Neither Raghav nor the fourth tallest person carries Motorola phone.
• The shortest person carries One Plus phone and he was not sent to Guwahati or Lucknow.
• The Samsung phone is carried by the tallest person who is not Ram.
• Rahul, who is not shorter than the one who was sent to Chandigarh, carries Mi phone.
• Raman, who does not carry Motorola phone, was sent to Lucknow.

Q.66
If Ravi was sent to Patna, then which phone was carried by the person who was sent to Guwahati?

1 **Motorola**

2 **One Plus**

3 **Mi**

4 **Cannot be determined**

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Answer key/Solution

Sec 3

Q.67

Sunder works for a multinational company and earns (in Rs.) a 4-digit monthly salary. Sunder prefers to disclose his salary to his friends in terms of base 9, in which his salary would correspond to a 5-digit number. Find the difference (as a decimal number) between the maximum and minimum possible values of his salary.

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Answer key/Solution

Q.68

a, b and c are positive real numbers such that $a^2 + b^2 + c^2 = 12$. Find the maximum possible value of (a + b + c).

1 **8**

2 **6**

3 **4**

4 **12**

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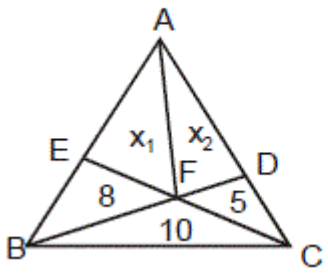
Answer key/Solution

Q.69

A triangle is divided into five parts as shown in the figure below. The figures mentioned inside each of the five triangles represent area of that triangle. Find the value of $(x_1 + x_2)$.



1 **12.5**

2 **22**

3 **15**

4 **18**

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Answer key/Solution

Q.70

A sequence of natural numbers is such that the difference of two successive terms are in an Arithmetic Progression. If the first, second and fifth terms are 3, 6 and 27 respectively. Find the eighth term of the sequence.

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Answer key/Solution

Q.71

A bottle contains milk-water solution, in which concentration of milk is 80%. Ram takes out some solution from the bottle and replaces it with another milk-water solution in which concentration of milk is 30%. The resultant solution has 60% milk. What percentage of the original solution did Ram take out?

1 **80%**

2 **40%**

3 **62.5%**

4 **88.88%**

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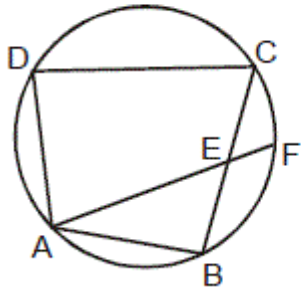
Answer key/Solution

Q.72

In the given figure, ABCD is a cyclic quadrilateral, where AB = 15 cm, BC = 16 cm and ∠ADC = 90°. If E is the mid point of BC, which of the following is approximately the length of the chord AF?



1 **20.8 cm**

2 **17.8 cm**

3 **19.2 cm**

4 **22.2 cm**

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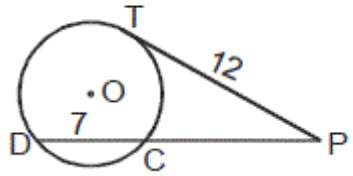
Answer key/Solution

Q.73

In the following figure, it is given that tangent PT = 12 cm, CD = 7 cm. Find the value of PC.



1 **16 cm**

2 **12 cm**

3 **14 cm**

4 **9 cm**

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Answer key/Solution

Q.74

Find the value of 1 × 2 + 2 × 3 + 3 × 4 + … + 16 × 17.

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Answer key/Solution

Q.75

A box contains a collection of triangular and square paper sheets. There are 25 sheets in the box having 84 sides in total. How many square paper sheets are there in the box?

1 **9**

2 **16**

3 **10**

4 **4**

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Answer key/Solution

Q.76

Arun has a hollow right circular cone with a radius of 5 cm and the height of 10 cm. He put a solid sphere of maximum possible volume in the cone such that at least half of the sphere lies inside the cone. Find the radius (in cm) of largest such sphere.

1 **$2\sqrt{5}$**

2 **$5\sqrt{2}$**

3 **2**

4 **5**

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Answer key/Solution

Q.77

$P = 5^{4n} - 3^{2n}$, where n is an even natural number and is not a multiple of 4. Which of the following does not divide P.

1 **317**

2 **13**

3 **11**

4 **7**

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Answer key/Solution

Q.78

n is natural number such that $n + \frac{336}{n} \leq 50$, how many values can n assume?.

1 **15**

2 **34**

3 **19**

4 **35**

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Answer key/Solution

Q.79

What is the remainder when 34^{2006} is divided by 10?

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Answer key/Solution

Q.80

On any given day, the bank balance of a person A is the sum of his bank balance on the previous day and his bank balance on the next day. If the bank balance of A on 18th November 2007 and 19th November 2007 is Rs.4000 and Rs.2000 respectively, then what will be his bank balance (in Rs.) on 16th November 2008? (Assume that the bank balance of A can be negative.)

1 **–4000**

2 **–2000**

3 **4000**

4 **2000**

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Answer key/Solution

Q.81

In an island, which had a total population of 55009, a war was fought between 'Benos' and 'Malos' the only tribes residing in the island. During the war every 'Benos' fought with a different number of 'malos'. One of them fought with exactly 140 'Malos', a second one fought with exactly 141 'Malos', a third one fought with exactly 142 'Malos', a fourth one with exactly 143 'Malos' and so on till one of them fought with every 'Malos' residing in the island. Find the number of 'Malos' residing in the island.

1 **27435**

2 **33000**

3 **27574**

4 **30000**

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Answer key/Solution

Q.82

When a two-digit number having distinct digits is divided by the sum of its digits, gives the same remainder as when a two-digit number that is formed by reversing the digits of the original number is divided by the sum of its digits. How many such two-digit numbers are possible?

1 **12**

2 **14**

3 **18**

4 **16**

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Answer key/Solution

Q.83

One unit of A is made by mixing 4 units of B and 5 units of C. One unit of B is made by mixing 1 unit of X and 4 units of Y. One unit of C is made by mixing 2 units of X and 6 units of Y. The weight of 1 unit each of X and Y is 5 kg and 3 kg respectively. What is the total quantity of Y required to make 1040 kg of A?

1 **630 kg**

2 **720 kg**

3 **690 kg**

4 **870 kg**

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Answer key/Solution

Q.84

There is a group of 11 persons namely $A_1, A_2, A_3, \ldots, A_{11}$. The number of balls with A_1 through A_{11} in that order is in an Arithmetic Progression. If the sum of the number of balls with A_1, A_3, A_5, A_7, A_9 and A_{11} is equal to 72, what is the number of balls with A_1, A_6 and A_{11} put together?

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Answer key/Solution

Q.85

If $\frac{x}{x+2}+\frac{y}{y+2}+\frac{z}{z+2}=a$, where x, y and z are real numbers, then find the value of $\frac{1}{x+2}+\frac{1}{y+2}+\frac{1}{z+2}$.

1 $\frac{3}{2}a$

2 **2a**

3 $\frac{3-2a}{2}$

4 $\frac{3-a}{2}$

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Answer key/Solution

Q.86

A cola company 'X' has to produce two types of bottled soft drinks – 8100 units of 'Cool Blue' and 9000 units of 'Kiss of Coffee' – within a stipulated deadline. The production of 'Cool Blue' was achieved 3 days before the deadline. And the production of 'Kiss of Coffee' was achieved 6 days prior to the deadline. The production was at an uniform rate everyday. If 210 more units of 'Kiss of Coffee' were produced in comparison to the 'Cool Blue' everyday, then the daily production of 'Cool Blue' was

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Answer key/Solution

Q.87

A language school has 2001 students. The percentage of students who study French is between 80 and 85 (both included) and the percentage of the students who study Spanish is between 30 and 40(both included). Each student of this school studies at least one of the two languages. What is the absolute difference between the minimum and maximum possible numbers of students who study both French and Spanish?

1 **201**

2 **299**

3 **499**

4 **298**

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Answer key/Solution

Q.88

In an examination, 40% of the candidates wrote their answers in Hindi and the remaining candidates in English. The average marks of the candidates who wrote the exam in Hindi is 74 and the average marks of the candidates who wrote the exam in English is 77. What is the average marks of all the candidates?

1 **75.5**

2 **75.8**

3 **76.0**

4 **76.8**

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Answer key/Solution

Q.89

A person bought 8 quintals of rice for certain rupees. He sold 3 quintals of rice at 10% profit, 3 quintals of rice with neither profit nor loss and 2 quintals at 5% loss. The over all percentage profit earned by him is

1 **10**

2 **5**

3 **7.5**

4 **None of these**

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Answer key/Solution

Q.90

A and B play a game using two dice viz. 'X' and 'Y'. 'X' has 1, 2, 3, 4, 5 and 7 printed on its six faces whereas 'Y' has 2, 3, 4, 5, 6 and 8 printed on its six faces. There is only one number printed on every face of the two dice. In turns each of A and B rolls both the dice simultaneously and records the product of the two numbers appearing on the top of the two dice, as their respective scores. If the sum of the scores of players A and B is an even number in a round then how many distinct scores A could have in that round?

1 **32**

2 **18**

3 **22**

4 **24**

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Answer key/Solution

Q.91

A box contains 25 red balls and 20 blue balls. An unbiased die is rolled. If the result is an even number, then 3 red balls and 1 blue ball are taken out from the box without replacement and if the result is an odd number, then 2 blue balls and 1 red ball are taken out from the box without replacement. If the die is rolled 4 times, then what is the probability that the total number of red balls taken out is more than the number of blue balls taken out?

1 **1/2**

2 **5/8**

3 **11/16**

4 **4/7**

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Answer key/Solution

Q.92

A typist had to type 360 pages of matter. By typing daily 4 pages more than what he had planned, the work was completed one day ahead of the schedule. For how many days did he work on the job?

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Answer key/Solution

Q.93

If A is the sum of the factors of 72, then what is the product of all the factors of A?

1 **195^8**

2 **195^4**

3 **1950**

4 **195^3**

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Answer key/Solution

Q.94

Twenty seven men can complete a piece of work in 21 days working 6 hrs a day. In how many days 18 women working 9 hrs a day can complete twice the amount of work if each women is 50% more efficient than a man?

1 **34 days**

2 **42 days**

3 **28 days**

4 **14 days**

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Answer key/Solution

Q.95

A boat can travel at 32 km/hr in still water. The speed of stream is 4 km/hr. The boat takes 135 minutes to cover a certain distance upstream. The time (in minute) taken by the boat to cover the same distance downstream is

1 **94.5**

2 **105**

3 **108.25**

4 **120**

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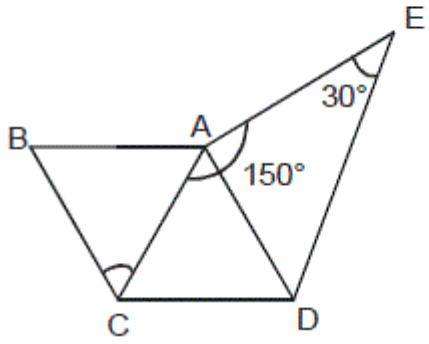
Answer key/Solution

Q.96

In ΔACD, AD = AC and $\angle BCA = 2\angle E$. The distance between parallel lines AB and CD is h. If A_1 = Area of parallelogram ABCD and A_2 = Area of ΔADE, then which of the following is true?



1 $\frac{A_1}{2} = A_2$

2 $A_1 = \frac{A_2}{2}$

3 **$A_1 = A_2$**

4 $A_1 = \frac{A_2}{3}$

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Answer key/Solution

Q.97

A quadratic function $ax^2 + bx + c$ attains its maximum value of 3 at x = 1. The value of the function at x = 0 is 1. What is the value of the function at x = 10?

1 **−119**

2 **−159**

3 **−110**

4 **−180**

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Answer key/Solution

Q.98

Hundred concentric circles are drawn with radius 1, 2, 3….100 cm. The region bounded by the inner most circle is labelled as 1, the region bounded by inner most and the second inner most circles is labelled as 2, the region bounded by the second inner most and the third inner most circles is lebelled as 3 and so on. The sum of the areas of the regions that are labelled by even numbers is what fraction of the total area of all the regions?

1 **1/2**

2 **101/200**

3 **49/100**

4 **51/100**

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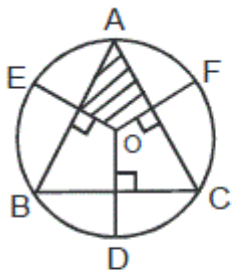
Answer key/Solution

Q.99



ABC is an equilateral triangle inscribed in a circle, whose centre is O. What fraction of the area of the circle does the shaded region occupy?

1 $\frac{3\sqrt{3}}{4\pi}$

2 $\frac{\sqrt{3}}{4\pi}$

3 $\frac{\sqrt{3}}{2\pi}$

4 $\frac{\sqrt{3}}{8\pi}$

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Answer key/Solution

Q.100

A room with circular base has a hemispherical roof, inner diameter of which is equal to the height of the room. If 48,510 cm^3 is the inner volume of the room, find the height of the room.

1 **36 cm**

2 **21 cm**

3 **20 cm**

4 **42 cm**

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Answer key/Solution