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Mock CAT – 11 2018

Scorecard (procreview.jsp?sid=aaa5BycB_LJvH-TdBuPHwSun Jan 20 05:48:33 UTC 2019&qsetId=WkvOGaZg1O8=&qsetName=Mock CAT – 11 2018)

Accuracy (AccSelectGraph.jsp?sid=aaa5BycB_LJvH-TdBuPHwSun Jan 20 05:48:33 UTC 2019&qsetId=WkvOGaZg1O8=&qsetName=Mock CAT – 11 2018)

Qs Analysis (QsAnalysis.jsp?sid=aaa5BycB_LJvH-TdBuPHwSun Jan 20 05:48:33 UTC 2019&qsetId=WkvOGaZg1O8=&qsetName=Mock CAT – 11 2018)

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VARC

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QA

Sec 1

Directions for questions (1 to 6):The passage below is accompanied by a set of six questions. Choose the best answer to each question.

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As an entrepreneur, you can't avoid networking. But there are techniques you can use to prevent and cope with networking-induced exhaustion

Determine your optimum level of social interaction. Being with others can be enjoyable, but there will always be a point when it becomes too draining for you. Your mission is to figure out what that point is. Next, ask yourself: How many hours, in total, did you spend in networking activities each week? How did you feel at the end of each week? Which week drained you the most and which week did you find energizing, or at least realistically sustainable?

Tracking your networking hours and energy levels can help you be aware of your personal limits.

Second, Choose quality over quantity, even if it means meeting fewer people. Networking is often seen as a quantity game: The bigger your network is, the better off you are. But if you're already exhausted, trying to network with every interesting person that comes your way can backfire professionally. If your time is limited and you have an event that doesn't meet the standards, you're probably better off skipping it and conserving your energy for a different opportunity.

Third, Use microbreaks to reenergize during networking events. Research shows that microbreaks, or nonwork periods of less than 10 minutes in duration, can help replenish a person's energy resources so that they're able to continue their work tasks. A one-minute break can be just as effective as taking a longer break of five or nine minutes! This makes microbreaks ideal for busy entrepreneurs.

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Q.1

As used in the passage, what does the term 'microbreak' mean?

1 ○ **Sleep at work**

2 ○ **Limited leisure**

3 **Passing hobby**

4 **Minimal work**

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Q.2

According to the author all of the following are helpful for networking except:

1 ○ **disregarding personal limitations of interactions.**

2 ○ **attending social functions.**

3 **quality of contacts should be prioritised over quantity.**

4 **taking necessary breaks from work.**

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Q.3

The author thinks networking can be exhausting because:

1 ○ **it makes you take unnecessary breaks.**

2 ○ **it forces people to travel with or without their consent.**

3 **it includes excessive interactions which can be exhausting.**

4 **it makes one resort to further trainings which increase work burden.**

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Q.4

The article primarily focuses on exhaustions faced by:

1 ○ **enterprisers.**

2 ○ **computer scientists.**

3 **network magnates.**

4 **coaches.**

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Q.5

The most appropriate title for the passage is:

1 ○ **Hack the Network.**

2 ○ **Take It Easy: A guide to lead a tension free business venture.**

3 **Networking: The rules of the game.**

4 **How to Keep Networking Exhaustion at Bay.**

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Q.6

The author's tips are ultimately aimed at:

1 ○ **making the workplace tensions free.**

2 ○ **setting up long term success.**

3 **reducing business related stress.**

4 **making networking palatable among entrepreneurs.**

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Answer key/Solution

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A couple of years ago, at a massive conference of neuroscientists — 35,000 attendees, scores of sessions going at any given time — I wandered into a talk that I thought would be about consciousness but proved (wrong room) to be about grasshoppers and locusts. At the front of the room, a bug-obsessed neuroscientist named Steve Rogers was describing these two creatures — one elegant, modest, and well-mannered, the other a soccer hooligan.

The grasshopper, he noted, sports long legs and wings, walks low and slow, and dines discreetly in solitude. The locust scurries hurriedly and hoggishly on short, crooked legs and joins hungrily with others to form swarms that darken the sky and descend to chew the farmer's fields bare.

Related, yes, just as grasshoppers and crickets are. But even someone as insect-ignorant as I could see that the hopper and the locust were radically different animals — different species, doubtless, possibly different genera. So I was quite amazed when Rogers told us that grasshopper and locust are in fact the same species, even the same animal, and that, as Jekyll is Hyde, one can morph into the other at alarmingly short notice.

Not all grasshopper species, he explained (there are some 11,000), possess this morphing power; some always remain grasshoppers. But every locust was, and technically still is, a grasshopper — not a different species or subspecies, but a sort of hopper gone mad. If faced with clues that food might be scarce, such as hunger or crowding, certain grasshopper species can transform within days or even hours from their solitudinous hopper states to become part of a maniacally social locust scourge. They can also return quickly to their original form.

In the most infamous species, Schistocerca gregaria, the desert locust of Africa, the Middle East and Asia, these phase changes (as this morphing process is called) occur when crowding spurs a temporary spike in serotonin levels, which causes changes in gene expression so widespread and powerful they alter not just the hopper's behaviour but its appearance and form. Legs and wings shrink. Subtle camo colouring turns conspicuously garish. The brain grows to manage the animal's newly complicated social world, which includes the fact that, if a locust moves too slowly amid its million cousins, the cousins directly behind might eat it. How does this happen? Does something happen to their genes? Yes, but — and here was the point of Rogers's talk — their genes don't actually change. That is, they don't mutate or in any way alter the genetic sequence or DNA. Nothing gets rewritten. Instead, this bug's DNA — the genetic book with millions of letters that form the instructions for building and operating a grasshopper — gets reread so that the very same book becomes the instructions for operating a locust. Even as one animal becomes the other, as

Jekyll becomes Hyde, its genome stays unchanged. Same genome, same individual, but, I think we can all agree, quite a different beast.

Transforming the hopper is gene expression — a change in how the hopper's genes are 'expressed', or read out. Gene expression is what makes a gene meaningful, and it's vital for distinguishing one species from another. We humans, for instance, share more than half our genomes with flatworms; about 60 per cent with fruit flies and chickens; 80 per cent with cows; and 99 per cent with chimps. Those genetic distinctions aren't enough to create all our differences from those animals — what biologists call our particular phenotype, which is essentially the recognisable thing a genotype builds. This means that we are human, rather than wormlike, flylike, chickenlike, feline, bovine, or excessively simian, less because we carry different genes from those other species than because our cells read differently our remarkably similar genomes as we develop from zygote to adult. The writing varies — but hardly as much as the reading.

This raises a question: if merely reading a genome differently can change organisms so wildly, why bother rewriting the genome to evolve? How vital, really, are actual changes in the genetic code? Do we always need DNA changes to adapt to new environments? Are there other ways to get the job done? Is the importance of the gene as the driver of evolution being overplayed?

Q.7

What is the primary purpose of the author in writing this passage?

1 **To show that gene expression and DNA reading as the primary force behind the differences in organisms**

2 **To prove that gene is not the driver of evolution**

3 **To highlight the importance of gene expression via the example of grasshoppers and locusts**

4 **To raise the issue of scientists being wrong about their understanding of evolution and importance of DNA**

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Q.8
Which of the following is not a feature of locusts?

---

1 ○ **They are social animals that hunt in swarms.**

---

2 ○ **They change from a grasshopper form to locust when there is a spike in the serotonin levels.**

---

3 They can return to their original form.

4 They have short, crooked legs.

FeedBack

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Q.9

Why does the author cite the example of human gene pool?

1 **To show that humans have derived their gene pool from a variety of animals**

2 **To prove that every species is a combination of various gene pools**

3 **To prove that even we could behave like a worm, a fly or a chicken, just as a grasshopper, if faced with a genetic crisis**

4 **To prove that it is not the actual gene composition but only its expression which determines the behaviour of a species**

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Not all grasshopper species, he explained (there are some 11,000), possess this morphing power; some always remain grasshoppers. But every locust was, and technically still is, a grasshopper — not a different species or subspecies, but a sort of hopper gone mad. If faced with clues that food might be scarce, such as hunger or crowding, certain grasshopper species can transform within days or even hours from their solitudinous hopper states to become part of a maniacally social locust scourge. They can also return quickly to their original form.

In the most infamous species, Schistocerca gregaria, the desert locust of Africa, the Middle East and Asia, these phase changes (as this morphing process is called) occur when crowding spurs a temporary spike in serotonin levels, which causes changes in gene expression so widespread and powerful they alter not just the hopper's behaviour but its appearance and form. Legs and wings shrink. Subtle camo colouring turns conspicuously garish. The brain grows to manage the animal's newly complicated social world, which includes the fact that, if a locust moves too slowly amid its million cousins, the cousins directly behind might eat it. How does this happen? Does something happen to their genes? Yes, but — and here was the point of Rogers's talk — their genes don't actually change. That is, they don't mutate or in any way alter the genetic sequence or DNA. Nothing gets rewritten. Instead, this bug's DNA — the genetic book with millions of letters that form the instructions for building and operating a grasshopper — gets reread so that the very same book becomes the instructions for operating a locust. Even as one animal becomes the other, as Jekyll becomes Hyde, its genome stays unchanged. Same genome, same individual, but, I think we can all agree, quite a different beast.

Transforming the hopper is gene expression — a change in how the hopper's genes are 'expressed', or read out. Gene expression is what makes a gene meaningful, and it's vital for distinguishing one species from another. We humans, for instance, share more than half our genomes with flatworms; about 60 per cent with fruit flies and chickens; 80 per cent with cows; and 99 per cent with chimps. Those genetic distinctions aren't enough to create all our differences from those animals — what biologists call our particular phenotype, which is essentially the recognisable thing a genotype builds. This means that we are human, rather than wormlike, flylike, chickenlike, feline, bovine, or excessively simian, less because we carry different genes from those other species than because our cells read differently our remarkably similar genomes as we develop from zygote to adult. The writing varies — but hardly as much as the reading.

This raises a question: if merely reading a genome differently can change organisms so wildly, why bother rewriting the genome to evolve? How vital, really, are actual changes in the genetic code? Do we always need DNA changes to adapt to new environments? Are there other ways to get the job done? Is the importance of the gene as the driver of evolution being overplayed?

Q.10

Which of the following is true according to the passage?

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1 ○ **Gene expression distinguishes one species from another.**

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2 ○ **The genes in humans and other animals do not vary; it's only the way they are expressed that varies.**

---

3 ○ **Humans share 99% of their Genes with cows, 80% with Chimps and about 60% with fruit flies.**

---

4 All grasshoppers have morphing powers to change into locust, whenever there is a crisis.

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Answer key/Solution

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Q.11

Which of the following would be most helpful in determining the answer to the questions raised in the last paragraph?

1 How DNA changes work in humans?

2 How genetic codes are evolved in species?

3 How writing and reading of genes work?

4 How important is genes in the evolution of humans?

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Q.12

As per the passage, which of the following is not true about gene expression?

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1 ○ **It accounts for the reason why humans don't behave like other species despite the genetic similarities.**

---

2 ○ **It is of significantly higher importance than genetic reading and writing.**

---

3 ○ **It is a factor behind the way we are shaped when we evolve from zygote to adult.**

---

4 It explains to some extent the way different species behave differently and are distinguished from one another.

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Answer key/Solution

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Most social scientists agree that H. economicus bears almost no relation to H. sapiens, and yet, to this day, the general equilibrium model enjoys a dominant position in economic thought and policy. In the classic essay 'The Methodology of Positive Economics' (1953), Milton Friedman confidently assured his readers that the predictions of the orthodox model could be correct even if its assumptions were wrong. Walras's theory prescribed an extreme laissez-faire approach to economic policy, and gave license to Friedman to argue, tirelessly, that just about anything would work better if government got out of the way — and presidents and prime ministers listened.

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questions results in a fully rounded understanding of colouration in desert species. All branches of biology are unified by this approach.

This kind of thinking might seem far removed from economics and public policy, but it can be applied to core economic concepts, especially when we remember that evolutionary theory includes the study of cultural evolution in addition to genetic evolution. The evolutionary paradigm challenges assumptions that are so deeply embedded in orthodox economic theory that they aren't even recognised as assumptions. For example, the general equilibrium model assumes that individuals strive to maximise their absolute utilities, but by contrast natural selection is based on relative fitness. It doesn't matter how well an organism survives and reproduces in absolute terms. It only matters how well it does relative to organisms that employ alternative strategies. The traits that maximise the advantage of an individual, relative to the members of its group, are typically different from the traits required for the group to function as a co-ordinated unit to achieve shared goals. What's good for me is not necessarily good for my family. What's good for my family is not necessarily good for my clan. What's good for my clan is not necessarily good for my nation. What's good for my nation is not necessarily good for the global environment or economy.

Q.13

Why does the author talk about 'satellites' in the third paragraph?

1 to show how economics has not been able to escape its mathematical models.

2 to point out how behavioural economists supply new information to general equilibrium model in the form of its anomalies and paradoxes.

3 to emphasise how the existence of behavioural economics is dependent on that of the general equilibrium model.

4 to point out how the paradoxes and anomalies pointed by behavioural economists have pushed them to the margins.

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Q.14

From the last paragraph, it cannot be inferred that:

1 ○ **it is the traits that maximise the advantage of an individual, relative to the members of its group that lead to equilibrium.**

2 ○ **the interests of a clan can be different from its global environment.**

3 the fact that evolutionary theory involves the study of cultural evolution has some bearing on its application to basic economic concepts.

4 orthodox economic theory involves some assumptions.

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Q.15

Which of the following expressions best captures the assurance given by Friedman to his readers in his essay?

1 **Ends could justify the means.**

2 **The wrong train could lead us to the right destination.**

3 **More often than not, two wrongs could make a right.**

4 **It's all relative.**

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Q.16

What do you think is the most likely source of the passage?

1 ○ **A newspaper article**

2 ○ **A research paper in the field of Economics**

3 An essay in an inter-disciplinary magazine

4 A speech by a leading social scientist

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Evolution might have a role to play in filling this theoretical vacuum but, first, it's important to acknowledge that evolutionary theory is not at all like Newtonian physics. In fact, it doesn't have to be. For evolutionary theory achieves its generality in a very different way. Evolutionists have a conceptual toolkit that can be applied to the study of any aspect of any organism. This includes asking four questions in parallel, concerning the function, history, physical mechanism, and development of the trait. For example, species that live in the desert are typically sandy-coloured. How do we go about explaining this fact? First they are sandy-coloured to avoid detection by their predators and prey (a functional explanation). Second, the sandy colouration is achieved by various physical mechanisms, depending upon the species — fur in

mammals, chitin in insects, feathers in birds (a physical explanation). What is more, the particular mechanism is based in part on the lineage of the species (an historical explanation) and develops during the lifetime of the organism by a variety of pathways (a developmental explanation). Answering these four questions results in a fully rounded understanding of colouration in desert species. All branches of biology are unified by this approach.

This kind of thinking might seem far removed from economics and public policy, but it can be applied to core economic concepts, especially when we remember that evolutionary theory includes the study of cultural evolution in addition to genetic evolution. The evolutionary paradigm challenges assumptions that are so deeply embedded in orthodox economic theory that they aren't even recognised as assumptions. For example, the general equilibrium model assumes that individuals strive to maximise their absolute utilities, but by contrast natural selection is based on relative fitness. It doesn't matter how well an organism survives and reproduces in absolute terms. It only matters how well it does relative to organisms that employ alternative strategies. The traits that maximise the advantage of an individual, relative to the members of its group, are typically different from the traits required for the group to function as a co-ordinated unit to achieve shared goals. What's good for me is not necessarily good for my family. What's good for my family is not necessarily good for my clan. What's good for my clan is not necessarily good for my nation. What's good for my nation is not necessarily good for the global environment or economy.

Q.17

Which of the following is not a part of the conceptual toolkit of evolutionists?

1 **History**

2 **Physical mechanism**

3 **Function**

4 **Personality trait**

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Answer key/Solution

Directions for questions (13 to 18): The passage below is accompanied by a set of six questions. Choose the best answer to each question.

The flaws of the general equilibrium model of economics are well-documented. In his essay 'On the Definition of Political Economy' (1844), John Stuart Mill described Homo economicus (the rational man) as 'an arbitrary definition of man, a being who inevitably does that by which he may obtain the greatest amount of necessaries, conveniences, and luxuries, with the smallest quantity of labour and physical self-denial with which they can be obtained'. In his essay 'Why Is Economics not an Evolutionary Science' (1898), Thorstein Veblen lampooned Homo economicus as 'a lightning calculator of pleasures and pains, who oscillates like a homogenous globule of desire of happiness under the impulse of stimuli that shift about the area, but leave him intact'. Even back then, Veblen regarded this conception of human nature as 'some generations' out of date.

Most social scientists agree that H. economicus bears almost no relation to H. sapiens, and yet, to this day, the general equilibrium model enjoys a dominant position in economic thought and policy. In the classic essay 'The Methodology of Positive Economics' (1953), Milton Friedman confidently assured his readers that the predictions of the orthodox model could be correct even if its assumptions were wrong. Walras's theory prescribed an extreme laissez-faire approach to economic policy, and gave license to Friedman to argue, tirelessly, that just about anything would work better if government got out of the way — and presidents and prime ministers listened.

The current economic paradigm owes its dominance in part to its prestige as a formal mathematical theory. Everything else in economics seems like a mish-mash of ideas by comparison. The strongest challenge to the dominant model comes from behavioural economists, who call for economic theory and policy based on Homo sapiens, not Homo economicus. But, so far, behavioural economists have merely compiled a list of 'anomalies' and 'paradoxes' that are anomalous and paradoxical only against the background of the general equilibrium model, like satellites that cannot escape the orbit of their mother planet. They have not put forth a general theory of their own.

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Q.18
What is the main idea of the passage?

1 ○ **To establish through examples that the general equilibrium model's idea of Homo Economics is flawed**

2 ○ **To highlight the limitation of the current economic paradigm and suggest the application of the evolutionary paradigm to it**

3 To highlight that the idea of Homo Economics is flawed and can be refuted by Evolution

4 To argue that the current economic paradigm is flawed and offer that evolutionary theory can be used to establish a new economic theory

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Answer key/Solution

Directions for questions (19 to 21): The passage below is accompanied by a set of three questions. Choose the best answer to each question.

The 70-year-old Abbas Kiarostami is perhaps the most distinctive of a remarkable generation of Iranian film-makers. The influences on his work range from the Italian neo-realists to Pirandello, and he has developed a highly individual style that involves long takes, working with non-professional casts, and frequently shooting scenes or whole films with the camera fixed to the dashboard to observe the driver and passengers of a car in motion. His recurrent themes include the nature of illusion and reality, the passage of time and its erosions, the closeness of life and death.

The most recent offering from Kiarostami is a full-length film in English, French and Italian, a co-production between France, Italy and Belgium set over two summers in Tuscany. The thoughtful, mysterious, extremely chic Certified Copy is, on the face of it, a characteristically continental art house production, its central characters having the fashionable occupations favoured by the readers of Vogue and the followers of the Nouvelle Vague.

In Certified Copy, Juliette Binoche plays a Frenchwoman identified simply as "she" in the credits, who runs a gallery specialising in antiques in an idyllic Tuscan town. At the beginning of the film she attends a lecture and book signing with her cheeky, precocious 10-year-old son, whose father is nowhere in evidence. The guest of honour is the strikingly handsome, grey-haired, casually tweedy James Miller (William Shimell), a middle-aged English art historian, whose new book Certified Copy deals with the nature of fakes, copies and artistic authenticity. He's a smooth, witty man who disarmingly explains that he'd thought of calling the book "Forget the Original, Get a Good Copy".

The Binoche character leaves him a note suggesting a meeting, an offer very difficult to refuse, and the next morning, a Sunday, he drops into her elegant gallery where the artistic debate continues. She then suggests they drive to another Tuscan hill town, which he agrees to provided he can catch his train at nine in the evening. They talk as she drives and a curious relationship of irritation and intimacy develops which continues at their destination, a place populated with young couples who are virtually queuing up at the town hall and churches to marry. The discourse on art alternates with a discussion of love, marriage and commitment until the two are inseparable, and when an elderly woman serving them in a coffee shop mistakes them for husband and wife, they slip into the roles of a married couple having a reunion.

Q.19

All of the following are true about the film “Certified Copy” EXCEPT:

1 Juliette Binoche’s character has a son whose father is not present in the story.

2 **James Miller is a smooth, witty man who was married to Juliette Binoche's character earlier in the story.**

3 **The discussion on art in the film eventually becomes inseparable from the discussion on marriage and commitment.**

4 **The audience may suspect the two lead characters to be engaged in some sort of matrimonial charade.**

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Answer key/Solution

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Q.20

With which of the following would the author of the passage most likely agree?

1 **Kiarostami thought to model his characters after professional in Vogue as they are favoured by Nouvelle Vague.**

2 **The nature of reality and illusion is the most common theme running through Kiarostami's films.**

3 **The movie "Certified Copy" is a tale of mystery which aims to make the audience think.**

4 **Juliette Binoche's character in the movie evokes a sense of suspense and dread.**

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Answer key/Solution

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Q.21

The author's point about the occupations of the central characters of the movie (in Para 2) is based on which of the following assumptions?

1 ○ **It is considered fashionable for the central characters of continental art house productions to be followers of Nouvelle Vague.**

2 ○ **Continental art house productions often have their central characters in occupations that are considered fashionable by readers of Vogue.**

3 ○ **Occupations like that of an art historian are a fashionable characteristic of art house productions.**

4 ○ **Continental art house productions often have their central characters in occupations related to art.**

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Answer key/Solution

Directions for questions (22 to 24): The passage below is accompanied by a set of three questions. Choose the best answer to each question.

It has long been a blot on Indian society that while leprosy is completely curable, there lingers a social stigma attached to it. Even more shocking is that colonial laws that predate leprosy eradication programmes and medical advancements remain on the statute book. These were unconscionably discriminatory from the beginning, but even in independent India, where the law has been an instrument for social change, the process of removing them has been bafflingly slow. The Lepers Act of 1898 was repealed only two years ago. It is time for concerted action to end the entrenched discrimination in law and society against those afflicted by it. Two recent developments hold out hope. One was the introduction of a Bill in Parliament to remove leprosy as a ground for seeking divorce or legal separation from one's spouse, and the other was the Supreme Court asking the Centre whether it would bring in a positive law conferring rights and benefits on persons with leprosy and deeming as repealed all Acts and rules that perpetuated the stigma associated with it. The Personal Laws (Amendment) Bill, 2018, is only a small step. An affirmative action law that recognises the rights of those affected and promotes their social inclusion will serve a larger purpose. It may mark the beginning of the end to the culture of ostracisation that most of them face and help remove misconceptions about the disease and dispel the belief that physical segregation of patients is necessary. It is sad that it took so long to get such proposals on the legislative agenda.

Since last year, the Supreme Court has been hearing a writ petition by the Vidhi Centre for Legal Policy seeking to uphold the fundamental rights of people with leprosy and the repeal of discriminatory laws against them. The court has been approaching the issue with sensitivity and is seeking to find legal means to ensure a life of dignity for them. The 256th Report of the Law Commission came up with a number of suggestions, including the repeal of discriminatory legal provisions. It listed for abolition personal laws and Acts on beggary. The report cited the UN General Assembly resolution of 2010 on the elimination of discrimination against persons with leprosy. The resolution sought the abolition of laws, rules, regulations, customs and practices that amounted to discrimination, and wanted countries to promote the understanding that leprosy is not easily communicable and is curable. The campaign to end discrimination against those afflicted, and combating the stigma associated with it, is decades old. While governments may have to handle the legislative part, society has an even larger role to play. It is possible to end discrimination by law, but stigma tends to survive reform and may require more than legal efforts to eliminate.

Q.22

Which of the following is the author most likely to agree with?

1 **Legislation alone might not be enough to do away with the stigma associated with leprosy.**

2 **All forms of social evils are best tackled by a combination of legislation and social reform.**

3 **Leprosy, though easily communicable, is easily curable.**

4 India is lagging behind other countries in dealing with social evils.

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Answer key/Solution

Directions for questions (22 to 24): The passage below is accompanied by a set of three questions. Choose the best answer to each question.

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Q.23

Which of the following best sums up the author's opinion on the steps taken by the legislative to tackle the problem of leprosy?

1 It is a case of too little too late.

2 Late action but not without promise.

3 **Complete apathy for a serious issue.**

4 **Action driven only by immediate necessity.**

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Answer key/Solution

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Q.24

Which of the following can be inferred about personal laws and Acts on beggary?

1 **They have very little impact on the problem of leprosy.**

2 They are ineffective in dealing with the problem of leprosy.

3 They are very likely to promote discrimination against patients of leprosy.

4 They are not in sync with similar acts and laws around the world.

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Answer key/Solution

Q.25

Directions for question 25: The passage given below is followed by four summaries. Choose the option that best captures the author's position.

Following a month of media hype that spread from Argentina to Russia, the Messi brand was hyped up while the man on the pitch remained as small, introverted and enigmatic as ever. If the first match against Iceland had left one gasping for air, a solitary point with a new burden for Lionel Messi to live with (the failed penalty), the second act saw him reduced even further. The shadow of Maradona may be a contributing factor to the tiny genius' mental block when it comes to the national team, but he wasn't even able to be a shadow of himself on the night they most needed to recover.

1. Messi's past contributions overshadow his present performances for Argentina.
2. Messi's bloated up image constructed by the media has failed to live up on the pitch.
3. Messi's present performances stand out as a contrast to Maradona's past glories.
4. Messi's genius is failing to shine due to Maradona's presence.

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Answer key/Solution

Q.26

Directions for question 26: The passage given below is followed by four summaries. Choose the option that best captures the author's position.

The recent killing of a pedestrian by a self-driving Uber vehicle is the source of the latest negative headlines about this company. But there's a much deeper problem. While the leadership has changed — Dara Khosrowshahi replaced Uber's co-founder Travis Kalanick as chief executive last August after a series of scandals — the company itself has not evolved. The problem with Uber was never that the chief executive had created a thuggish "Game of Thrones"-type culture, as Susan Fowler, an engineer, described it in a blog post. The problem was, and still is, Uber's business model: Its modus operandi is to subsidize fares and flood streets with its cars to achieve a transportation monopoly.

1. Uber's leadership change couldn't resolve the prevailing problems because of lack of able governing body who failed to take a strict action when a pedestrian was killed.
2. Uber's business idea to settle for a transportation monopoly is the main flaw which even changes in the leadership couldn't resolve.
3. Uber follows a "Game of Thrones" culture which meant that a change in leadership is not a solution to all the problems but a change in idea is what is required.
4. Uber's recent negative reviews have resulted in the sacking of the then CEO of the company yet the basic problems remain unanswered.

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Answer key/Solution

Q.27

Directions for question 27: The passage given below is followed by four summaries. Choose the option that best captures the author's position.

While millions of Americans found this weekend's nationwide marches for gun control inspiring, many others are giving them a skeptical eye — and not just Second Amendment advocates. How could a bunch of teenagers have the wherewithal to make change in America's deadlocked politics? After all, they're just kids. Older people have long grumbled about the young in politics, dismissing them as "baby politicians" or "beardless boys" in the early years of this country. But when American politics were at their darkest, in the late 19th century, it was young people who broke a partisan divide and helped save democracy. Maybe they can do it again.

1. There is no point giving a skeptical eye to teenagers who have marched for the gun control law as they are the future of America.
2. The nationwide marches for gun control law was questioned by most people because of the involvement of teenagers but when time demanded the young people were the only one who saved democracy.
3. Democracy in the 19th century was saved by young people but people are still skeptical about the fact that the teenagers who marched for gun control laws are only kids.
4. The marches for gun control law have been questioned by many as most participants were teenagers who according to them do not have a clue about American politics.

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Answer key/Solution

Q.28

Directions for question 28: The five sentences (labelled 1, 2, 3, 4, 5) given in this question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. Thousands of students are naturally frustrated that their best shot at these papers has come to nought; they must now make another strenuous effort in a re-examination.
2. The Central Board of Secondary Education faces a serious erosion of credibility with the leak of its annual examination question papers on Economics for Class 12 and Mathematics for Class 10.
3. Clearly, the Ministry of Human Resource Development failed to assign top priority to secrecy and integrity of the process, considering that its standard operating procedure was easily breached, and the questions were circulated on instant messaging platforms.
4. When the HRD Ministry was asked in the Lok Sabha three years ago what it intended to do to secure the CBSE Class 12 and 10 examinations, Smriti Irani, who was the Minister then, asserted the inviolability of the process, since the question papers were sealed and stored in secret places and released to authorised officials with a window of only a few hours
5. Yet, the problem is not new. State board question papers have been leaked in the past.

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Answer key/Solution

Q.29

Directions for question 29: The five sentences (labelled 1, 2, 3, 4, 5) given in this question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. The researchers observed these structures in many tissues of the body like gastrointestinal tract, urinary bladder, skin and the lungs.
2. The study published in *Scientific reports* reveals that layers below the skin's surface, which were long thought to be dense, connective tissues are instead interconnected, fluid-filled compartments.
3. By freezing the biopsy tissue, the researchers preserved the structure and demonstrated that this new part was supported by a complex network of thick collagen bundles.
4. The scientists used Confocal laser endomicroscopy (pCLE), which provides real-time images of human tissues, to find these compartments.
5. Researchers from New York University School of Medicine have reported a previously unrecognised structure in the human body which may have implications in the mechanisms of major diseases.

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Answer key/Solution

Q.30

Directions for question 30: The five sentences (labelled 1, 2, 3, 4, 5) given in this question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. A man killed his daughter in Kerala on the eve of her wedding just last week because she was about to marry a boy below her caste – a case in point.
2. Indians bristle with them, nowadays growing a new bristle every week.
3. In everyday life, too, family sensitivities do not always stop at mental cruelty.
4. Sensitivities about caste, sub-caste, faith, clan, community and whatever else are not just the proud possessions of families, they overrun the nation.
5. The violence in Mitra's story is emotional, 'naturalized' through a family structure that uses 'sentiments' about woman's compliance, family honour and male pride as both garb and armour.

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Answer key/Solution

Q.31

Directions for question 31: The five sentences (labelled 1, 2, 3, 4, 5) given in this question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a number. Decide on the proper order for the sentences and key in this sequence of five numbers as your answer.

1. In a video demonstration, the "written" figures appear on an adjacent screen.
2. In the future, the researchers say the technology could be used to send phone calls to voicemail or answer text messages — all without the wearer reaching for their phone or even looking at it.
3. With the whirl of a thumb, Georgia Tech researchers have created technology that allows people to trace letters and numbers on their fingers and see the figures appear on a nearby computer screen.
4. "When a person grabs their phone during a meeting, even if trying to silence it, the gesture can infringe on the conversation or be distracting," said Thad Starner, the Georgia Tech School of Interactive Computing professor leading the project.
5. The system is triggered by a thumb ring outfitted with a gyroscope and tiny microphone; as wearers strum their thumb across the fingers, the hardware detects the movement.

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Answer key/Solution

Q.32

Directions for question 32: Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

1. These jobs will require new kinds of skills; people would need to work more closely with intelligent machines and that's why they need to re-skill.
2. Business leaders constantly think about how they can transform their companies to become more lean, agile and innovative.
3. A business will be able to comply only by embracing emerging technologies like artificial intelligence (AI), machine learning, deep learning, Blockchain, sensors and Internet of Things.
4. Today, business is driven by customers who are the new focal point. Customers demand better experiences and innovative products.
5. These technologies will be common in the future workplace, which will have humans and machines coordinating with each other, exchanging information and working synergistically towards a common goal.

✔

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Answer key/Solution

Q.33

Directions for question 33: Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

1. The Indian and Chinese economies are now in two entirely different stages of development.
2. A slowed down China now growing at 6.6% still adds $7-800 billion to global growth, while a speeded up India now growing at more than 7% adds a mere $160 billion.
3. How China moves and acts in the future will affect the developed economies enormously as it has been the major provider of growth for the last two decades, and India's growth had little bearing or derived little benefit from it.
4. For a start, China's GDP is more than four and a half times bigger than India's.
5. China's GDP now is about $12 trillion and India is inching towards $2.4 trillion.

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Answer key/Solution

Q.34

Directions for question 34: Five sentences related to a topic are given below. Four of them can be put together to form a meaningful and coherent short paragraph. Identify the odd one out.

1. That's where the value of IoT sensors that collect data and systematically broadcast signals from emergency areas comes into play.
2. Today, disaster responders gain reliable, timely information only when they reach an emergency zone and take stock of the situation.
3. Ineffective communication channels, overburdened response systems, satellite disruptions, and internet blackouts further impede people from getting the help they need.
4. In the case of hurricanes and major weather events, physical and technical roadblocks often prevent response teams from obtaining critical data to track damages, prioritize response needs, and keep the public informed so that people know how to stay safe.
5. Drones could surveil disaster areas during the search-and-rescue phase and then move to data collection to support the recovery effort once the immediate danger has passed.

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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.

Eight teams – A, B, C, D, E, F, G and H – participated in a hockey tournament. Each team played against two of the given teams. Four teams won both of their respective matches. Each team scored a distinct total number of goals in both matches out of 0, 1, 2, 4, 5, 6, 7 and 9 not necessarily in this order. (Note: One goal gives one point to the team). Further Information is given as follows:

1. A scored 5 goals in total and won both of the matches and one of them was played against H.
2. F scored the maximum total points among the teams, whereas H lost both their matches.
3. The matches between (A and H) and (E and B) have same identical goal points i.e. score of A against H will be equal to that of E against B, similarly both H and B will have same score against A and E respectively. The same is true for the matches between (C and G) and (E and D).
4. The highest goals difference was in the match between B and F where F scored 4 goals and won by the same number of goals.
5. G did not score a single goal in any of the matches and B scored 1 goal in one of the matches.
6. E scored equal goal points in both the matches. In a game against H, C beats H with 4-3.
7. No match ended in a draw.

Q.35
Which team scored the second highest number of goals in both the matches put together?

1 **H**

2 **E**

3 **F**

4 **C**

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Answer key/Solution

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

Eight teams – A, B, C, D, E, F, G and H – participated in a hockey tournament. Each team played against two of the given teams. Four teams won both of their respective matches. Each team scored a distinct total number of goals in both matches out of 0, 1, 2, 4, 5, 6, 7 and 9 not necessarily in this order. (Note: One goal gives one point to the team). Further Information is given as follows:

1. A scored 5 goals in total and won both of the matches and one of them was played against H.
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4. The highest goals difference was in the match between B and F where F scored 4 goals and won by the same number of goals.
5. G did not score a single goal in any of the matches and B scored 1 goal in one of the matches.
6. E scored equal goal points in both the matches. In a game against H, C beats H with 4-3.
7. No match ended in a draw.

Q.36
Which of the following was the number of goals scored by B in a match?

1 **0**

2 **1**

3 **2**

4 **Cannot be determined**

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Answer key/Solution

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

Eight teams – A, B, C, D, E, F, G and H – participated in a hockey tournament. Each team played against two of the given teams. Four teams won both of their respective matches. Each team scored a distinct total number of goals in both matches out of 0, 1, 2, 4, 5, 6, 7 and 9 not necessarily in this order. (Note: One goal gives one point to the team). Further Information is given as follows:

1. A scored 5 goals in total and won both of the matches and one of them was played against H.
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4. The highest goals difference was in the match between B and F where F scored 4 goals and won by the same number of goals.
5. G did not score a single goal in any of the matches and B scored 1 goal in one of the matches.
6. E scored equal goal points in both the matches. In a game against H, C beats H with 4-3.
7. No match ended in a draw.

Q.37
What is the goal difference in the match played between A and H?

1 **0**

2 **1**

3 **2**

4 **3**

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Answer key/Solution

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

Eight teams – A, B, C, D, E, F, G and H – participated in a hockey tournament. Each team played against two of the given teams. Four teams won both of their respective matches. Each team scored a distinct total number of goals in both matches out of 0, 1, 2, 4, 5, 6, 7 and 9 not necessarily in this order. (Note: One goal gives one point to the team). Further Information is given as follows:

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4. The highest goals difference was in the match between B and F where F scored 4 goals and won by the same number of goals.
5. G did not score a single goal in any of the matches and B scored 1 goal in one of the matches.
6. E scored equal goal points in both the matches. In a game against H, C beats H with 4-3.
7. No match ended in a draw.

Q.38
The maximum number of goals scored by both the teams taken together in any match is

1 **7**

2 **6**

3 **5**

4 **9**

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Answer key/Solution

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

Anurag's Book of Cricket, commonly known as ABC, is a renowned Cricket rating agency. It rates - teams, batsmen, bowlers and all rounders - based on their performances. The batsmen are rated based on four different parameters i.e. Consistency (C), Finishing Ability (FA), Attacking Skills (AS) and Ability to Handle Pressure (AHP). In each parameter, the batsmen are rated by giving a score from 1 to 6, with 6 being the best and 1 being the worst. Then the scores in the 4 parameters are added to get the total score. Scores in each parameter is an integer. The top seven batsmen, rated by ABC, based on the total scores are - Warner, Kohli, Gayle, Buttler, Afridi, Russell and Maxwell - in no particular order. The following table gives the partial information about the scores of the top 7 batsmen in various parameters :

Players	(C)	(FA)	(AS)	(AHP)	Total
Warner			3		19
Kohli	5		2	6	
Gayle				4	
Buttler	3	4	4	5	16
Afridi				5	15
Russell	3		4		
Maxwell	3				11

NOTE : No batsmen has his total score higher than that of the batsmen mentioned above in the table. Further, it is known that,

(A) In each parameter, any 3 batsmen have the same score and all the remaining 4 batsmen have distinct scores.
(B) No batsmen other than Afridi, have distinct scores in all the 4 parameters.
(C) Russell has same score in 3 of the 4 parameters.
(D) There are 2 pairs of batsmen with same total score. (The total score of one of these 2 pairs can be different from the other pair).
(E) Kohli is one of the highest scorer batsman.

Q.39
For how many batsmen the total score is an even number?

1 **1**

2 **2**

3 **3**

4 **Cannot be determined**

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Answer key/Solution

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Anurag's Book of Cricket, commonly known as ABC, is a renowned Cricket rating agency. It rates - teams, batsmen, bowlers and all rounders - based on their performances. The batsmen are rated based on four different parameters i.e. Consistency (C), Finishing Ability (FA), Attacking Skills (AS) and Ability to Handle Pressure (AHP). In each parameter, the batsmen are rated by giving a score from 1 to 6, with 6 being the best and 1 being the worst. Then the scores in the 4 parameters are added to get the total score. Scores in each parameter is an integer. The top seven batsmen, rated by ABC, based on the total scores are - Warner, Kohli, Gayle, Buttler, Afridi, Russell and Maxwell - in no particular order. The following table gives the partial information about the scores of the top 7 batsmen in various parameters :

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Afridi				5	15
Russell	3		4		
Maxwell	3				11

NOTE : No batsmen has his total score higher than that of the batsmen mentioned above in the table. Further, it is known that,

(A) In each parameter, any 3 batsmen have the same score and all the remaining 4 batsmen have distinct scores.
(B) No batsmen other than Afridi, have distinct scores in all the 4 parameters.
(C) Russell has same score in 3 of the 4 parameters.
(D) There are 2 pairs of batsmen with same total score. (The total score of one of these 2 pairs can be different from the other pair).
(E) Kohli is one of the highest scorer batsman.

Q.40
Which batsman has the highest score in the maximum number of parameters?

1 **Kohli**

2 **Warner**

3 **Kohli and Warner**

4 **Cannot be determined**

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Answer key/Solution

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

Anurag's Book of Cricket, commonly known as ABC, is a renowned Cricket rating agency. It rates - teams, batsmen, bowlers and all rounders - based on their performances. The batsmen are rated based on four different parameters i.e. Consistency (C), Finishing Ability (FA), Attacking Skills (AS) and Ability to Handle Pressure (AHP). In each parameter, the batsmen are rated by giving a score from 1 to 6, with 6 being the best and 1 being the worst. Then the scores in the 4 parameters are added to get the total score. Scores in each parameter is an integer. The top seven batsmen, rated by ABC, based on the total scores are - Warner, Kohli, Gayle, Buttler, Afridi, Russell and Maxwell - in no particular order. The following table gives the partial information about the scores of the top 7 batsmen in various parameters :

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Gayle				4	
Buttler	3	4	4	5	16
Afridi				5	15
Russell	3		4		
Maxwell	3				11

NOTE : No batsmen has his total score higher than that of the batsmen mentioned above in the table. Further, it is known that,

(A) In each parameter, any 3 batsmen have the same score and all the remaining 4 batsmen have distinct scores.
(B) No batsmen other than Afridi, have distinct scores in all the 4 parameters.
(C) Russell has same score in 3 of the 4 parameters.
(D) There are 2 pairs of batsmen with same total score. (The total score of one of these 2 pairs can be different from the other pair).
(E) Kohli is one of the highest scorer batsman.

Q.41
In how many parameters did Gayle get a better score than Afridi?

✔

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Answer key/Solution

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

Anurag's Book of Cricket, commonly known as ABC, is a renowned Cricket rating agency. It rates - teams, batsmen, bowlers and all rounders - based on their performances. The batsmen are rated based on four different parameters i.e. Consistency (C), Finishing Ability (FA), Attacking Skills (AS) and Ability to Handle Pressure (AHP). In each parameter, the batsmen are rated by giving a score from 1 to 6, with 6 being the best and 1 being the worst. Then the scores in the 4 parameters are added to get the total score. Scores in each parameter is an integer. The top seven batsmen, rated by ABC, based on the total scores are - Warner, Kohli, Gayle, Buttler, Afridi, Russell and Maxwell - in no particular order. The following table gives the partial information about the scores of the top 7 batsmen in various parameters :

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Afridi				5	15
Russell	3		4		
Maxwell	3				11

NOTE : No batsmen has his total score higher than that of the batsmen mentioned above in the table. Further, it is known that,

(A) In each parameter, any 3 batsmen have the same score and all the remaining 4 batsmen have distinct scores.
(B) No batsmen other than Afridi, have distinct scores in all the 4 parameters.
(C) Russell has same score in 3 of the 4 parameters.
(D) There are 2 pairs of batsmen with same total score. (The total score of one of these 2 pairs can be different from the other pair).
(E) Kohli is one of the highest scorer batsman.

Q.42
How many batsmen have a lower score than Buttler in (FA)?

1 **3**

2 **4**

3 **5**

4 **Cannot be determined**

✔

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Answer key/Solution

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

The table given below shows the percentage of employees, in the age group of 25 years to 40 years, in five different departments during the year 2015 and 2018. Employees of each department are further sub-divided into three positions - Assistant manager, Deputy manager and Manager. No employee joined or left the company or shifted to other department during the period of 2015-2018. Also there were only these three five mentioned departments in the company.

	2015	2018
Accounts	10	25
Marketing	20	10
Sales	30	15
HR	15	20
Operations	25	30

Total number of employees in the age group of 25-40 in 2015 and 2018 were 100 and 80 respectively.

Q.43

What is the minimum number of employees who crossed the upper limit of age, i.e. 40, between 2015 and 2018?

1 **20**

2 **0**

3 **31**

4 **11**

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Answer key/Solution

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

The table given below shows the percentage of employees, in the age group of 25 years to 40 years, in five different departments during the year 2015 and 2018. Employees of each department are further sub-divided into three positions - Assistant manager, Deputy manager and Manager. No employee joined or left the company or shifted to other department during the period of 2015-2018. Also there were only these three five mentioned departments in the company.

	2015	2018
Accounts	10	25
Marketing	20	10
Sales	30	15
HR	15	20
Operations	25	30

Total number of employees in the age group of 25-40 in 2015 and 2018 were 100 and 80 respectively.

Q.44

Find the minimum possible number of employees who crossed the lower limit of age, i.e. 25, between 2015 and 2018?

1 **11**

2 **0**

3 **31**

4 **20**

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Answer key/Solution

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

The table given below shows the percentage of employees, in the age group of 25 years to 40 years, in five different departments during the year 2015 and 2018. Employees of each department are further sub-divided into three positions - Assistant manager, Deputy manager and Manager. No employee joined or left the company or shifted to other department during the period of 2015-2018. Also there were only these three five mentioned departments in the company.

	2015	2018
Accounts	10	25
Marketing	20	10
Sales	30	15
HR	15	20
Operations	25	30

Total number of employees in the age group of 25-40 in 2015 and 2018 were 100 and 80 respectively.

Q.45

If all the assistant managers who attained an age of 22 years got promoted to the level of deputy manager and all deputy managers after attaining an age of 25, got promoted to managers, then in which department was the number of deputy managers maximum in 2015?

1 **HR**

2 **Sales**

3 **Accounts**

4 **Cannot be determined**

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Answer key/Solution

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

The table given below shows the percentage of employees, in the age group of 25 years to 40 years, in five different departments during the year 2015 and 2018. Employees of each department are further sub-divided into three positions - Assistant manager, Deputy manager and Manager. No employee joined or left the company or shifted to other department during the period of 2015-2018. Also there were only these three five mentioned departments in the company.

	2015	2018
Accounts	10	25
Marketing	20	10
Sales	30	15
HR	15	20
Operations	25	30

Total number of employees in the age group of 25-40 in 2015 and 2018 were 100 and 80 respectively.

Q.46

If the number of employees who crossed the age of 37 years but were below 40 years in 2015 was minimum possible, then which of the following statements is definitely true? Given that the company has no employee over the age of 40 years in year 2015.

1 **Maximum number of employees crossing the age of 40, from 2015 to 2018, are from Accounts department**

2 **Maximum number of employees crossing the age of 40, from 2015 to 2018, are from Marketing department.**

3 **Maximum number of employees crossing the age of 40, from 2015 to 2018, are from Sales department.**

4 **None of these**

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Answer key/Solution

Directions for questions 47 to 50: Answer the questions on the basis of the information given below.

Mr. Bhokali, a bibulous, drinks alcohol on 5 days of the week. He does not consume alcohol on Tuesdays and Saturdays. On rest of the 5 days of the week, he visits his favorite bar – 'The Tashni Bar'. Everytime he visits the bar, he follows one of the 3 routines that are either he drinks only whiskey; or he drinks both beer and whiskey; or he drinks whiskey and smokes cigarettes.
Following is the additional information about the 3 routines that he follows:

Routine	Quantity Consumed	
	Minimum	Maximum
Only Whiskey	5 pegs of whiskey	10 pegs of whiskey
Whiskey & Beer	1 can of Beer and 2 pegs of whiskey	2 cans of Beer and 5 pegs of whiskey
Whiskey & Smoke Cigarettes	3 pegs of whiskey & 1 packet of 10 cigarettes(classic)	8 pegs of whiskey and 1 packet of 10 cigarettes each (classic)

Further, Mr. Bhokali drinks whiskey of only 2 brands i.e. Black dog and Blenders Pride, drinks beer of only 2 brands i.e. Miller and Ultra Max and smokes cigarettes of only 1 brand i.e. classic.
(Note: At a time he drinks only one brand. For e.g. if he drinks 5 pegs of whiskey and 2 cans of beer i.e. maximum consumption according to his second routine, then he will drink either Black dog or Blenders Pride but not both, same is true for beer also.)
Following is the information about the price list of the above brands in the bar:

Item	Price (in Rs.)
1 Peg of Black dog	400
1 Peg of Blenders Pride	200
1 can of Miller	300
1 can of Ultra Max	200
1 packet of classic (pack of 10 cigarettes)	300

Further, it is known that:
(i) In the bar, Mr. Bhokali spends only on Whiskey, Beer and Cigarette.
(ii) In a week, on each of his 5 visits to the bar, he spends a different amount and two of these 5 amounts are distinct prime multiples of Rs. 100.
(iii) Total spending in the bar is Rs. 11000 per week.
(iv) On his every visit to the bar on Mondays he smokes and on Sunday, he drinks Black dog Whiskey.
(v) On every Fridays' visit to the bar, he spends the maximum possible amount (in accordance to one of the routine)
(vi) On his any visit to the bar, if he drinks Blenders Pride then he does not drink Miller i.e. he never drinks Miller and Blenders Pride both in the same visit.
(vii) On his every visit to the bar on Thursday, each time he spends an amount which is a prime multiple of Rs. 100.
(viii) On his every visit, he either follows the maximum or the minimum part of the routine consumption i.e. if he follows the only whiskey routine then he drinks either 10 pegs of whiskey or 5 pegs of whiskey, nothing in between.

Q.47
On his visit on Sundays to the bar, how many pegs of Black dog whiskey does he drink?

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Answer key/Solution

Directions for questions 47 to 50: Answer the questions on the basis of the information given below.

Mr. Bhokali, a bibulous, drinks alcohol on 5 days of the week. He does not consume alcohol on Tuesdays and Saturdays. On rest of the 5 days of the week, he visits his favorite bar – 'The Tashni Bar'. Everytime he visits the bar, he follows one of the 3 routines that are either he drinks only whiskey; or he drinks both beer and whiskey; or he drinks whiskey and smokes cigarettes.
Following is the additional information about the 3 routines that he follows:

Routine	Quantity Consumed	
	Minimum	Maximum
Only Whiskey	5 pegs of whiskey	10 pegs of whiskey
Whiskey & Beer	1 can of Beer and 2 pegs of whiskey	2 cans of Beer and 5 pegs of whiskey
Whiskey & Smoke Cigarettes	3 pegs of whiskey & 1 packet of 10 cigarettes(classic)	8 pegs of whiskey and 1 packet of 10 cigarettes each (classic)

Further, Mr. Bhokali drinks whiskey of only 2 brands i.e. Black dog and Blenders Pride, drinks beer of only 2 brands i.e. Miller and Ultra Max and smokes cigarettes of only 1 brand i.e. classic.
(Note: At a time he drinks only one brand. For e.g. if he drinks 5 pegs of whiskey and 2 cans of beer i.e. maximum consumption according to his second routine, then he will drink either Black dog or Blenders Pride but not both, same is true for beer also.)
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1 packet of classic (pack of 10 cigarettes)	300

Further, it is known that:
(i) In the bar, Mr. Bhokali spends only on Whiskey, Beer and Cigarette.
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(iii) Total spending in the bar is Rs. 11000 per week.
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(vi) On his any visit to the bar, if he drinks Blenders Pride then he does not drink Miller i.e. he never drinks Miller and Blenders Pride both in the same visit.
(vii) On his every visit to the bar on Thursday, each time he spends an amount which is a prime multiple of Rs. 100.
(viii) On his every visit, he either follows the maximum or the minimum part of the routine consumption i.e. if he follows the only whiskey routine then he drinks either 10 pegs of whiskey or 5 pegs of whiskey, nothing in between.

Q.48

On which day other than Monday, does he smoke in the bar?

1 **Thursday**

2 **Wednesday**

3 **Sunday**

4 **None of the days**

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Answer key/Solution

Directions for questions 47 to 50: Answer the questions on the basis of the information given below.

Mr. Bhokali, a bibulous, drinks alcohol on 5 days of the week. He does not consume alcohol on Tuesdays and Saturdays. On rest of the 5 days of the week, he visits his favorite bar – 'The Tashni Bar'. Everytime he visits the bar, he follows one of the 3 routines that are either he drinks only whiskey; or he drinks both beer and whiskey; or he drinks whiskey and smokes cigarettes.
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Only Whiskey	5 pegs of whiskey	10 pegs of whiskey
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Whiskey & Smoke Cigarettes	3 pegs of whiskey & 1 packet of 10 cigarettes(classic)	8 pegs of whiskey and 1 packet of 10 cigarettes each (classic)

Further, Mr. Bhokali drinks whiskey of only 2 brands i.e. Black dog and Blenders Pride, drinks beer of only 2 brands i.e. Miller and Ultra Max and smokes cigarettes of only 1 brand i.e. classic.
(Note: At a time he drinks only one brand. For e.g. if he drinks 5 pegs of whiskey and 2 cans of beer i.e. maximum consumption according to his second routine, then he will drink either Black dog or Blenders Pride but not both, same is true for beer also.)
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Further, it is known that:
(i) In the bar, Mr. Bhokali spends only on Whiskey, Beer and Cigarette.
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(vi) On his any visit to the bar, if he drinks Blenders Pride then he does not drink Miller i.e. he never drinks Miller and Blenders Pride both in the same visit.
(vii) On his every visit to the bar on Thursday, each time he spends an amount which is a prime multiple of Rs. 100.
(viii) On his every visit, he either follows the maximum or the minimum part of the routine consumption i.e. if he follows the only whiskey routine then he drinks either 10 pegs of whiskey or 5 pegs of whiskey, nothing in between.

Q.49
How much does he spend (in Rs.) on his visits on Sundays to the bar?

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Answer key/Solution

Directions for questions 47 to 50: Answer the questions on the basis of the information given below.

Mr. Bhokali, a bibulous, drinks alcohol on 5 days of the week. He does not consume alcohol on Tuesdays and Saturdays. On rest of the 5 days of the week, he visits his favorite bar – 'The Tashni Bar'. Everytime he visits the bar, he follows one of the 3 routines that are either he drinks only whiskey; or he drinks both beer and whiskey; or he drinks whiskey and smokes cigarettes.
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Whiskey & Smoke Cigarettes	3 pegs of whiskey & 1 packet of 10 cigarettes(classic)	8 pegs of whiskey and 1 packet of 10 cigarettes each (classic)

Further, Mr. Bhokali drinks whiskey of only 2 brands i.e. Black dog and Blenders Pride, drinks beer of only 2 brands i.e. Miller and Ultra Max and smokes cigarettes of only 1 brand i.e. classic.
(Note: At a time he drinks only one brand. For e.g. if he drinks 5 pegs of whiskey and 2 cans of beer i.e. maximum consumption according to his second routine, then he will drink either Black dog or Blenders Pride but not both, same is true for beer also.)
Following is the information about the price list of the above brands in the bar:

Item	Price (in Rs.)
1 Peg of Black dog	400
1 Peg of Blenders Pride	200
1 can of Miller	300
1 can of Ultra Max	200
1 packet of classic (pack of 10 cigarettes)	300

Further, it is known that:
(i) In the bar, Mr. Bhokali spends only on Whiskey, Beer and Cigarette.
(ii) In a week, on each of his 5 visits to the bar, he spends a different amount and two of these 5 amounts are distinct prime multiples of Rs. 100.
(iii) Total spending in the bar is Rs. 11000 per week.
(iv) On his every visit to the bar on Mondays he smokes and on Sunday, he drinks Black dog Whiskey.
(v) On every Fridays' visit to the bar, he spends the maximum possible amount (in accordance to one of the routine)
(vi) On his any visit to the bar, if he drinks Blenders Pride then he does not drink Miller i.e. he never drinks Miller and Blenders Pride both in the same visit.
(vii) On his every visit to the bar on Thursday, each time he spends an amount which is a prime multiple of Rs. 100.
(viii) On his every visit, he either follows the maximum or the minimum part of the routine consumption i.e. if he follows the only whiskey routine then he drinks either 10 pegs of whiskey or 5 pegs of whiskey, nothing in between.

Q.50
What can be concluded about his routine on Wednesdays in the Bar?

1 **5 pegs of Blenders Pride and 2 cans of Ultra Max**

2 **5 pegs of Black Dog and 2 cans of Miller**

3 **3 pegs of Black Dog and 1 packet of Classic cigarettes.**

4 **8 pegs of Blenders Pride and 2 packets of Classic cigarettes.**

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Answer key/Solution

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

Five friends - Jay, Arun, Ashish, Ravi, and Vishal - decided to have a get-together once a week for five weeks. They also decided that each one of them will host the other four together at his own house for the get-together. Their Surnames are Dubey, Bhatia, Mehta, Gupta and Verma, not necessarily in the same order. They also decided to arrange a show of their favourite movies at their place. One of the movie names is 'Nth Degree'.
Further Information about their get-together is also known:

1. The get-together at Jay's House is one week before the get-together at Bhatia's house, which is one week before when movie directed by Steve Smith would have played.
2. One week after the gathering had at Gupta's house, they watched the movie directed by Keeves.
3. They watched 'Romeo' one week before they watched the movie directed by Nick Jones.
4. The movie directed by Andy Murray was not watched at Jay's House.
5. In the gatherings held in three consecutive weeks, Dubey was the host in the first week, they watched 'The Sun' in the next week and Vishal welcomed them at his house in the last week among these three consecutive weeks.
6. One week after they watch 'Love Life', Ashish host the get-together at his house.
7. The movie directed by John Smith was not watched at Verma's house.
8. 'Moon walk' was not watched at Arun's Home.
9. Ravi was the host one week before they watched the movie directed by Andy Murray.
10. Vishal, whose surname is not Bhatia, did not play the movie directed by Steve Smith.
11. The movie directed by Nick Jones was not 'The Sun' and was not played at Dubey's house.

Q.51
Which movie was played at Ashish's house?

1 **Romeo**

2 **Love life**

3 **The Sun**

4 **Moon walk**

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Answer key/Solution

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

Five friends - Jay, Arun, Ashish, Ravi, and Vishal - decided to have a get-together once a week for five weeks. They also decided that each one of them will host the other four together at his own house for the get-together. Their Surnames are Dubey, Bhatia, Mehta, Gupta and Verma, not necessarily in the same order. They also decided to arrange a show of their favourite movies at their place. One of the movie names is 'Nth Degree'.
Further Information about their get-together is also known:

1. The get-together at Jay's House is one week before the get-together at Bhatia's house, which is one week before when movie directed by Steve Smith would have played.
2. One week after the gathering had at Gupta's house, they watched the movie directed by Keeves.
3. They watched 'Romeo' one week before they watched the movie directed by Nick Jones.
4. The movie directed by Andy Murray was not watched at Jay's House.
5. In the gatherings held in three consecutive weeks, Dubey was the host in the first week, they watched 'The Sun' in the next week and Vishal welcomed them at his house in the last week among these three consecutive weeks.
6. One week after they watch 'Love Life', Ashish host the get-together at his house.
7. The movie directed by John Smith was not watched at Verma's house.
8. 'Moon walk' was not watched at Arun's Home.
9. Ravi was the host one week before they watched the movie directed by Andy Murray.
10. Vishal, whose surname is not Bhatia, did not play the movie directed by Steve Smith.
11. The movie directed by Nick Jones was not 'The Sun' and was not played at Dubey's house.

Q.52
Who directed the movie 'Nth degree'?

1 **Andy Murray**

2 **Keeve**

3 **John Smith**

4 **Nick Jones**

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Answer key/Solution

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

Five friends - Jay, Arun, Ashish, Ravi, and Vishal - decided to have a get-together once a week for five weeks. They also decided that each one of them will host the other four together at his own house for the get-together. Their Surnames are Dubey, Bhatia, Mehta, Gupta and Verma, not necessarily in the same order. They also decided to arrange a show of their favourite movies at their place. One of the movie names is 'Nth Degree'.
Further Information about their get-together is also known:

1. The get-together at Jay's House is one week before the get-together at Bhatia's house, which is one week before when movie directed by Steve Smith would have played.
2. One week after the gathering had at Gupta's house, they watched the movie directed by Keeves.
3. They watched 'Romeo' one week before they watched the movie directed by Nick Jones.
4. The movie directed by Andy Murray was not watched at Jay's House.
5. In the gatherings held in three consecutive weeks, Dubey was the host in the first week, they watched 'The Sun' in the next week and Vishal welcomed them at his house in the last week among these three consecutive weeks.
6. One week after they watch 'Love Life', Ashish host the get-together at his house.
7. The movie directed by John Smith was not watched at Verma's house.
8. 'Moon walk' was not watched at Arun's Home.
9. Ravi was the host one week before they watched the movie directed by Andy Murray.
10. Vishal, whose surname is not Bhatia, did not play the movie directed by Steve Smith.
11. The movie directed by Nick Jones was not 'The Sun' and was not played at Dubey's house.

Q.53
What is the surname of Arun?

1 **Bhatia**

2 **Dubey**

3 **Mehta**

4 **Vema**

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Answer key/Solution

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

Five friends - Jay, Arun, Ashish, Ravi, and Vishal - decided to have a get-together once a week for five weeks. They also decided that each one of them will host the other four together at his own house for the get-together. Their Surnames are Dubey, Bhatia, Mehta, Gupta and Verma, not necessarily in the same order. They also decided to arrange a show of their favourite movies at their place. One of the movie names is 'Nth Degree'.
Further Information about their get-together is also known:

1. The get-together at Jay's House is one week before the get-together at Bhatia's house, which is one week before when movie directed by Steve Smith would have played.
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3. They watched 'Romeo' one week before they watched the movie directed by Nick Jones.
4. The movie directed by Andy Murray was not watched at Jay's House.
5. In the gatherings held in three consecutive weeks, Dubey was the host in the first week, they watched 'The Sun' in the next week and Vishal welcomed them at his house in the last week among these three consecutive weeks.
6. One week after they watch 'Love Life', Ashish host the get-together at his house.
7. The movie directed by John Smith was not watched at Verma's house.
8. 'Moon walk' was not watched at Arun's Home.
9. Ravi was the host one week before they watched the movie directed by Andy Murray.
10. Vishal, whose surname is not Bhatia, did not play the movie directed by Steve Smith.
11. The movie directed by Nick Jones was not 'The Sun' and was not played at Dubey's house.

Q.54
Which movie was played at Jay's house?

1 **Romeo**

2 **Love life**

3 **The Sun**

4 **Moon walk**

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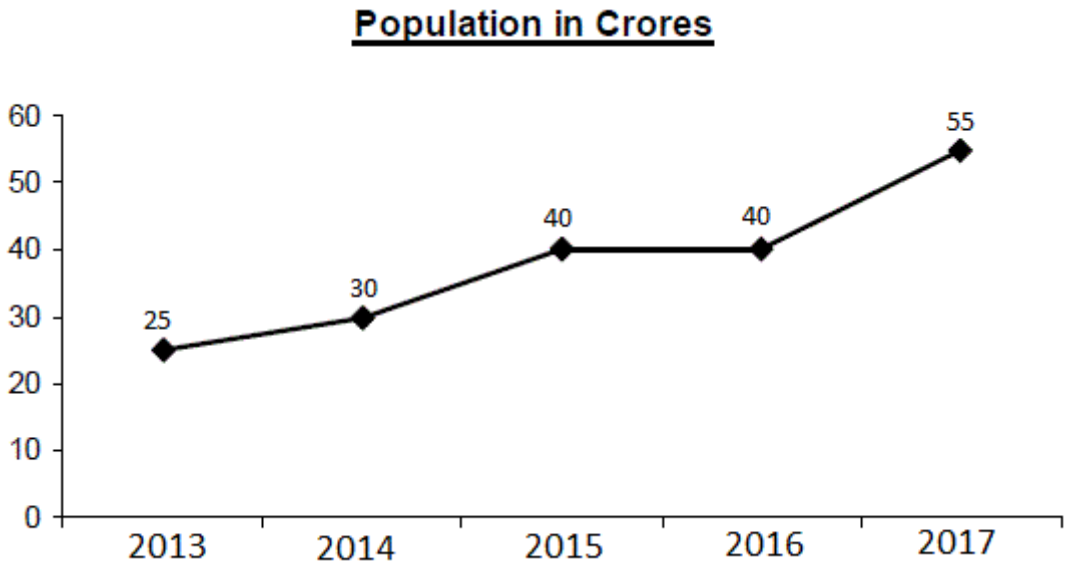
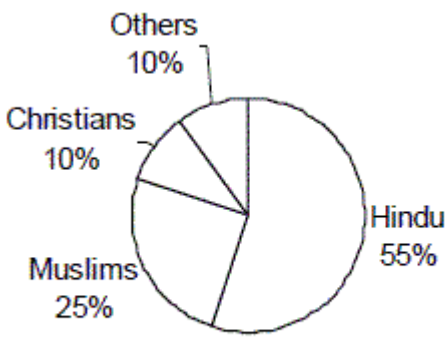
Answer key/Solution

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

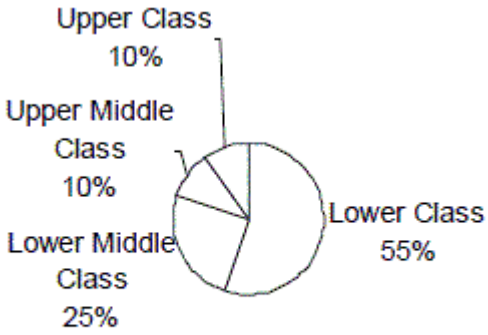
As the election time is around the corner in the country, all political parties wanted to entice the people to cast their votes in favour of their party. For which they wanted to analyse the country's progress in terms of equality in the past few years. Hence an index has been developed by some statisticians to measure the discrimination ratio among the various castes to improve the overall development of country. For this, the detailed information about the population of different categories for five different years has been provided.
The line chart shown below provides the information about the population of country in five years:



The pie charts shown below provide the break up of the total population of a particular year based on their religions and class respectively:



Percentage



Percentage

Q.55
Suppose the given pie charts are valid only for the year 2015.
If during 2015, 10% of Lower Class population upgrade themselves to Lower Middle Class and 5% of Lower Middle Class people upgrade themselves to Upper Middle Class, then what is the difference between the final percentage of the Lower Middle Class population in 2016 and the initial percentage of Lower Middle Class population in 2015?

1 **4.00%**

2 **4.25%**

3 **4.50%**

4 **4.75%**

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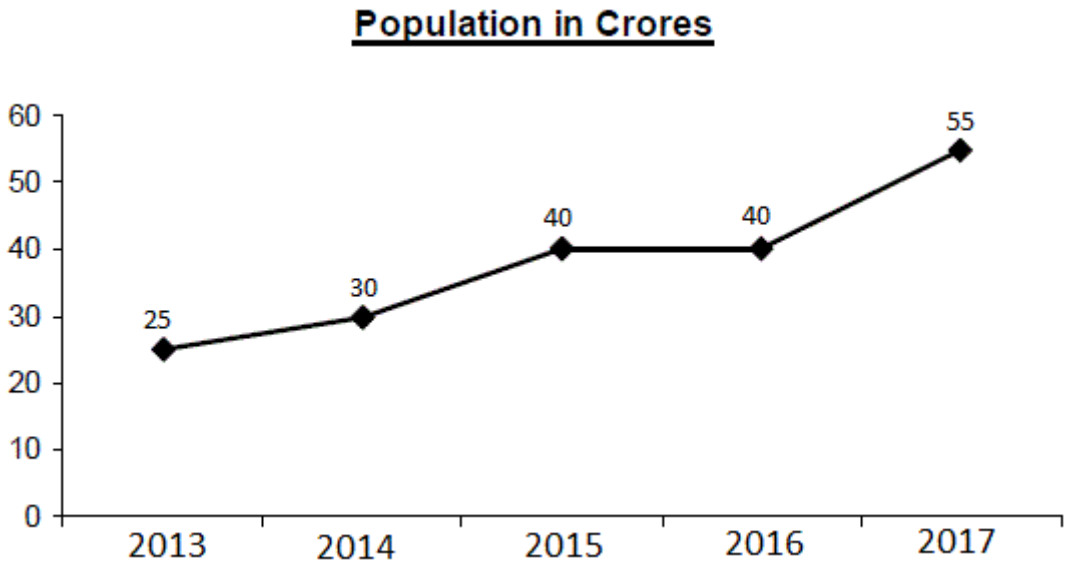
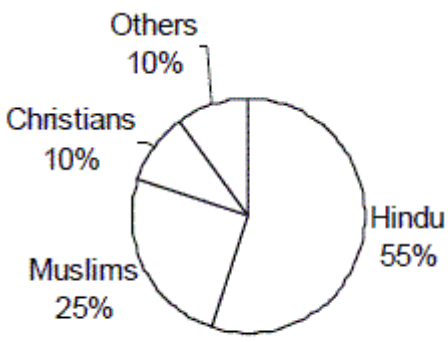
Answer key/Solution

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

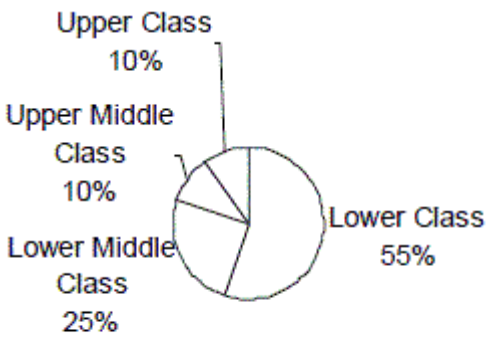
As the election time is around the corner in the country, all political parties wanted to entice the people to cast their votes in favour of their party. For which they wanted to analyse the country's progress in terms of equality in the past few years. Hence an index has been developed by some statisticians to measure the discrimination ratio among the various castes to improve the overall development of country. For this, the detailed information about the population of different categories for five different years has been provided.
The line chart shown below provides the information about the population of country in five years:



The pie charts shown below provide the break up of the total population of a particular year based on their religions and class respectively:



Percentage



Percentage

Q.56

Suppose that the given pie chart is valid for year 2013. If from 2013 to 2015, Muslims, Hindus and Christians grow respectively by 80%, 60% and 40% respectively, then what is the percentage change in the others community from 2013 to 2015?

1 **5%**

2 **30%**

3 **40%**

4 **60%**

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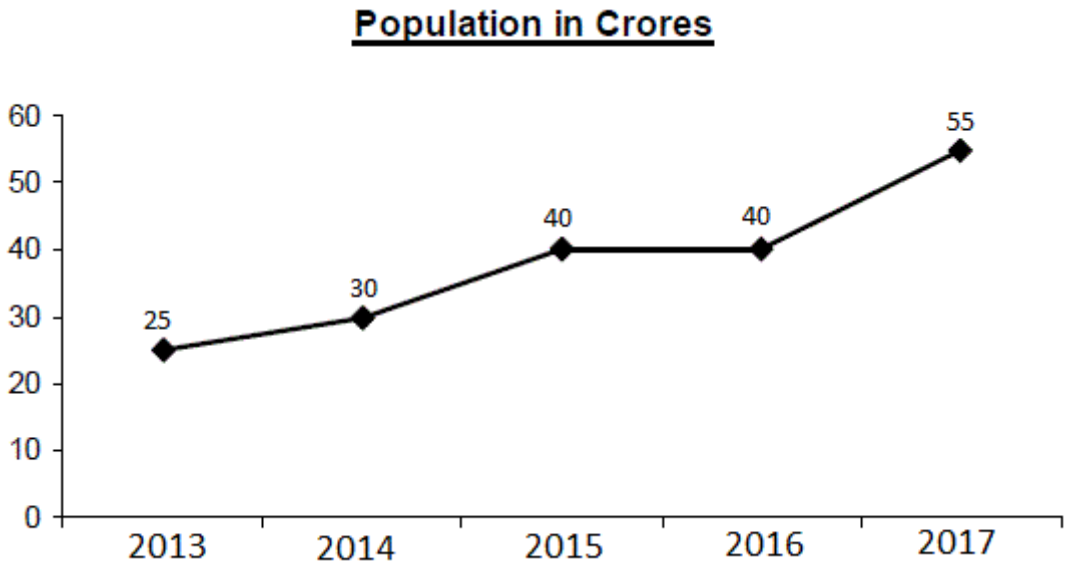
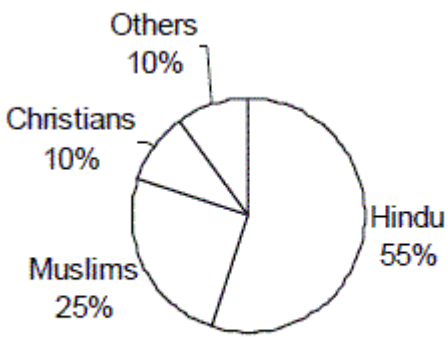
Answer key/Solution

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

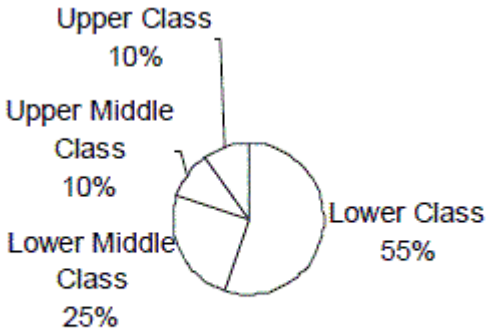
As the election time is around the corner in the country, all political parties wanted to entice the people to cast their votes in favour of their party. For which they wanted to analyse the country's progress in terms of equality in the past few years. Hence an index has been developed by some statisticians to measure the discrimination ratio among the various castes to improve the overall development of country. For this, the detailed information about the population of different categories for five different years has been provided.
The line chart shown below provides the information about the population of country in five years:



The pie charts shown below provide the break up of the total population of a particular year based on their religions and class respectively:



Percentage



Percentage

Q.57

Suppose the given pie chart is valid for the whole period of 2013-2017. If in the year 2013, 50% of Lower Class people were living below poverty line and due to government's initiatives, every year that percentage decreases by 5 percentage points with respect to previous year, then what is the approximate percentage change in the number of people living below poverty line during 2013-2017?

1 **40%**

2 **60%**

3 **32%**

4 **100%**

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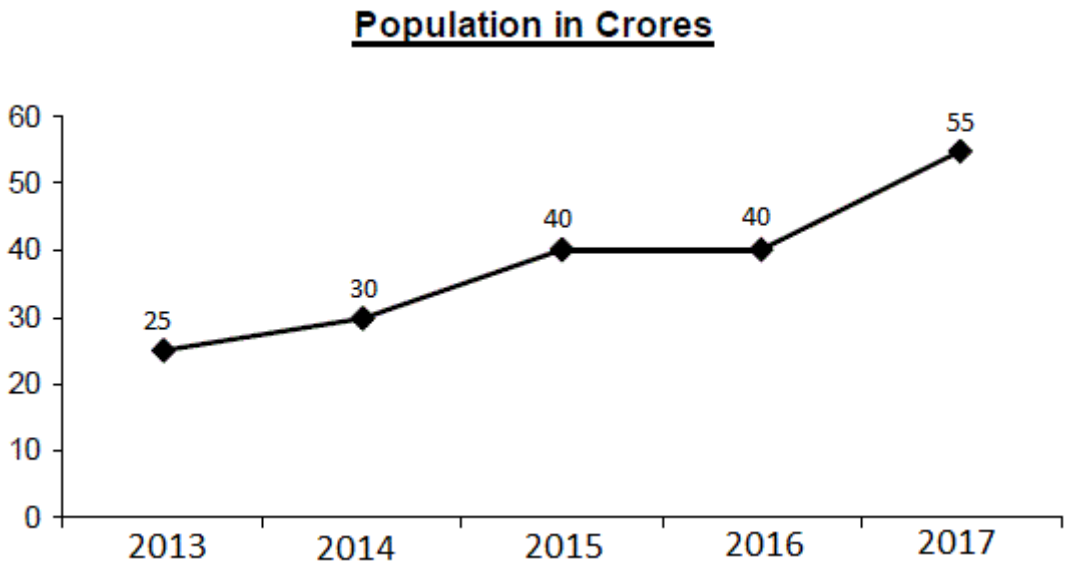
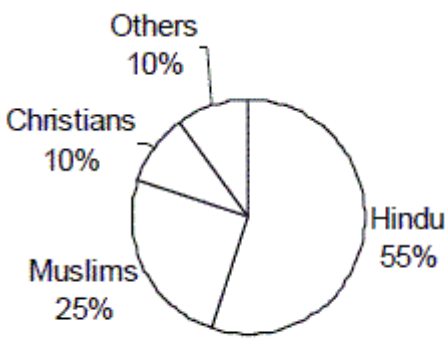
Answer key/Solution

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

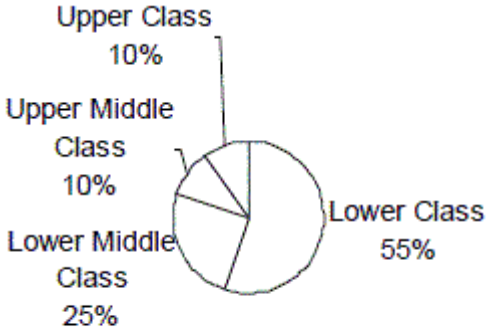
As the election time is around the corner in the country, all political parties wanted to entice the people to cast their votes in favour of their party. For which they wanted to analyse the country's progress in terms of equality in the past few years. Hence an index has been developed by some statisticians to measure the discrimination ratio among the various castes to improve the overall development of country. For this, the detailed information about the population of different categories for five different years has been provided.
The line chart shown below provides the information about the population of country in five years:



The pie charts shown below provide the break up of the total population of a particular year based on their religions and class respectively:



Percentage



Percentage

Q.58

Suppose the given pie chart is valid for 2017. If in the first half of 2017, due to Cholera attack in the country, 20% of Lower Class people, 10% of Lower Middle Class people and 5% of Upper Middle class people die, then what will be the new percentage of Upper Class people out of the remaining total population in 2017 after Cholera attack?

1 **11.0%**

2 **11.2%**

3 **14.0%**

4 **11.6%**

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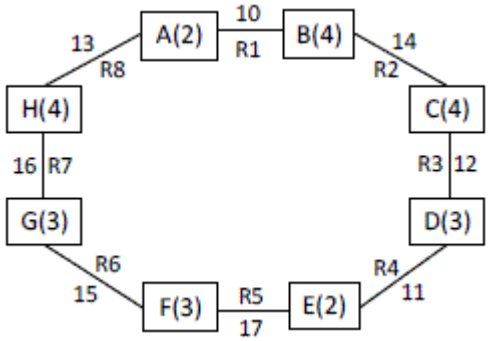
Answer key/Solution

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

Eight loading-unloading stations - A, B, C, D, E, F, G and H - are connected by eight roads, R1 through R8, as shown in the figure. C1, C2, C3, ... are the cars which travel between these stations. All the cars run at the same speed. Alongside each of the roads a number is given in the figure which indicates the travelling time (in minutes) taken by any car to travel between the two stations connected by that road. One number is given with the name of the station (in bracket) which indicates the halting time (in minutes) of any car at that particular station. Read the diagram carefully and answer all the questions that follow.



Q.59

If car C1 starts from A at 11 AM in clockwise direction while at the same time car C2 starts from F in the anti-clockwise direction, then at what time will they meet each other for the first time?

1 **11:38 AM**

2 **11:39 AM**

3 **11:39:30 AM**

4 **11:38:30 AM**

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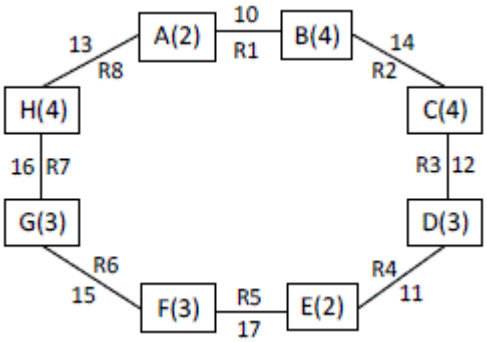
Answer key/Solution

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

Eight loading-unloading stations - A, B, C, D, E, F, G and H - are connected by eight roads, R1 through R8, as shown in the figure. C1, C2, C3, …… are the cars which travel between these stations. All the cars run at the same speed. Alongside each of the roads a number is given in the figure which indicates the travelling time (in minutes) taken by any car to travel between the two stations connected by that road. One number is given with the name of the station (in bracket) which indicates the halting time (in minutes) of any car at that particular station. Read the diagram carefully and answer all the questions that follow.



Q.60

If C1 starts from C at 9 AM in clockwise direction and from H one car starts after every 15 minutes with first car leaving H at 9 AM (all the cars which leave H run in anti-clockwise direction), then how many cars will C1 cross until it reaches H for the first time?

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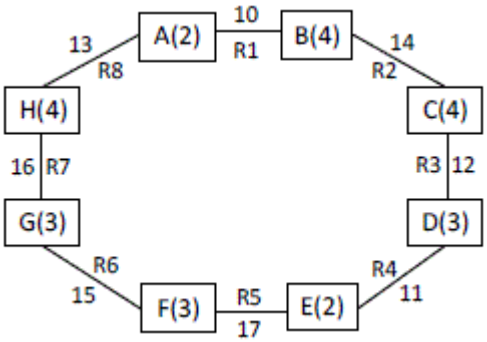
Answer key/Solution

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

Eight loading-unloading stations - A, B, C, D, E, F, G and H - are connected by eight roads, R1 through R8, as shown in the figure. C1, C2, C3, …… are the cars which travel between these stations. All the cars run at the same speed. Alongside each of the roads a number is given in the figure which indicates the travelling time (in minutes) taken by any car to travel between the two stations connected by that road. One number is given with the name of the station (in bracket) which indicates the halting time (in minutes) of any car at that particular station. Read the diagram carefully and answer all the questions that follow.



Q.61

If C1 starts from H at 8 AM in clockwise direction and it keeps travelling indefinitely, then by 8 PM of the same day how many times will it have crossed station C?

✖

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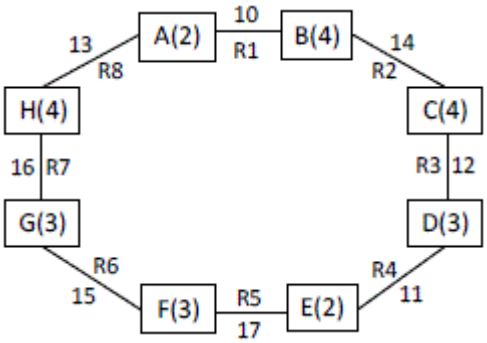
Answer key/Solution

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

Eight loading-unloading stations - A, B, C, D, E, F, G and H - are connected by eight roads, R1 through R8, as shown in the figure. C1, C2, C3, …… are the cars which travel between these stations. All the cars run at the same speed. Alongside each of the roads a number is given in the figure which indicates the travelling time (in minutes) taken by any car to travel between the two stations connected by that road. One number is given with the name of the station (in bracket) which indicates the halting time (in minutes) of any car at that particular station. Read the diagram carefully and answer all the questions that follow.



Q.62

If C1 and C2 start from B and F respectively at the same time, in opposite directions (i.e one in clockwise direction and other in anti-clockwise direction, in any order), then find the minimum value of the time (in minutes) that they will take to meet each other for the first time?

1 **31.5**

2 **30**

3 **29**

4 **30.5**

✖

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Answer key/Solution

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

Three machines - A, B and C - are used to manufacture 3 products - Product 1, Product 2 and Product 3 - in such a way that at a time a machine can manufacture any one of these three products and once a machine starts manufacturing a product it cannot be stopped until the process of manufacturing is over. When a unit of any of these three products is being manufactured by any of the three machines then none of the other two machines can provide any support in that process. To manufacture the given three products, only these three machines can be used. Each of the three machines can work on manufacturing of these products for at most 9 hours a day. Following table provides the details of the time (in minutes) that a machine takes to manufacture one unit of each of these three products.

	Machine A	Machine B	Machine C
Product 1	10	9	15
Product 2	12	18	10
Product 3	15	12	20

Q.63

At most how many units of products can be manufactured by these machines in a day?

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Answer key/Solution

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

Three machines - A, B and C - are used to manufacture 3 products - Product 1, Product 2 and Product 3 - in such a way that at a time a machine can manufacture any one of these three products and once a machine starts manufacturing a product it cannot be stopped until the process of manufacturing is over. When a unit of any of these three products is being manufactured by any of the three machines then none of the other two machines can provide any support in that process. To manufacture the given three products, only these three machines can be used. Each of the three machines can work on manufacturing of these products for at most 9 hours a day. Following table provides the details of the time (in minutes) that a machine takes to manufacture one unit of each of these three products.

	Machine A	Machine B	Machine C
Product 1	10	9	15
Product 2	12	18	10
Product 3	15	12	20

Q.64

If each machine is used to manufacture units of a single product for the entire day and no two machines can manufacture the same product, then at most how many units can be manufactured in a day?

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Answer key/Solution

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

Three machines - A, B and C - are used to manufacture 3 products - Product 1, Product 2 and Product 3 - in such a way that at a time a machine can manufacture any one of these three products and once a machine starts manufacturing a product it cannot be stopped until the process of manufacturing is over. When a unit of any of these three products is being manufactured by any of the three machines then none of the other two machines can provide any support in that process. To manufacture the given three products, only these three machines can be used. Each of the three machines can work on manufacturing of these products for at most 9 hours a day. Following table provides the details of the time (in minutes) that a machine takes to manufacture one unit of each of these three products.

	Machine A	Machine B	Machine C
Product 1	10	9	15
Product 2	12	18	10
Product 3	15	12	20

Q.65

If 200 units of each of the three products are to be manufactured then at least how many minutes of manufacturing will be required to get the task done?(All the three machines are made to work continuously, without even stopping after 9 hours daily working)

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Answer key/Solution

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

Three machines: A, B and C are used to manufacture 3 products: 1, 2 and 3 in such a way that at a time a machine can manufacture any one of these three products and once a machine starts manufacturing a product it cannot be stopped until the process of manufacturing is over. When a unit of any of these three products is being manufactured by any of the three machines then none of the other two machines can provide any support in that process. To manufacture the given three products, only these three machines can be used. Each of the three machines can manufacture these products for at most 9 hours a day. Following table shows the time (in minutes) that a machine takes to manufacture one unit of each of the three products.

	Machine A	Machine B	Machine C
Product 1	10	9	15
Product 2	12	18	10
Product 3	15	12	20

Q.66

On a particular day, machine B remains unavailable for manufacturing and 'x' units of each of the three products are manufactured on that day by the other two machines. Which of the following can be the maximum value of 'x'?

1 **26**

2 **27**

3 **29**

4 **28**

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Answer key/Solution

Sec 3

Q.67

In a 100 km race, how far is P from the finishing point when Q finishes the race, if P's speed is 40 kmph and Q's speed is 60 kmph? (Assume that both of them started at the same time)

1 **20/3 km**

2 **100/3 km**

3 **10/3 km**

4 **200/3km**

✖

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Answer key/Solution

Q.68

If $\log_2(\log_3(x^2 + 7x + 19)) = 1$, find positive value of x.

1 **2**

2 **5 and 2**

3 **5**

4 **Not possible**

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Answer key/Solution

Q.69

Find maximum and minimum value of $\frac{x^2 - x + 1}{x^2 + x + 1}$, for all real values of x.

1 **3 and 1/3**

2 **5 and 1/5**

3 **3/2 and 2/3**

4 **4 and 1/4**

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Answer key/Solution

Q.70

B alone takes 3 days more to finish a job than what B and C working together should have taken, while C alone takes 12 days more. How many days do B and C take to finish the job working together?

✖

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Answer key/Solution

Q.71

A shopkeeper bought two kinds of wheat. The per kg rate of dearer wheat is 25% more than that of the cheaper wheat. In what ratio should the cheaper and the dearer wheat be mixed by the shop keeper so that if he sold them at the per kg rate of dearer wheat he had a gain of 10% per kg?

1 **3 : 2**

2 **2 : 3**

3 **5 : 6**

4 **6 : 5**

✔

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Answer key/Solution

Q.72

Two men X and Y hired by a certain company on January 1, 2010 (for doing similar jobs). X demanded for an initial salary of Rs. 300 with an annual increment of Rs. 30. Y demanded for an initial salary of Rs. 200 with an increment of Rs. 15 in every six months. This salary and increment structure remains unaltered for both of them till December 31, 2019 and salary is paid on the last day of every month. What is the total amount (in Rs.), earned by both of them, as their salaries during the given period?

✖

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Answer key/Solution

Q.73

Fifty kilograms of an alloy has 60% Lead and remaining Tin. How much lead (in kg) is to be added in it to make it 75% of the final alloy?

✔

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Answer key/Solution

Q.74

The average of n numbers is 41. If 2/3rd of these numbers are increased by 9 and the remaining 1/3rd are decreased by 6, then find the new average.

1 **36**

2 **39**

3 **42**

4 **45**

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Answer key/Solution

Q.75

If $t_n = \left(1+\frac{1}{n^2-1}\right)t_{n-1}$ for $n > 1$ where $t_1 = 1$, then find the value of $(t_{12} - t_3)$.

1 **7/3**

2 **3/2**

3 **24/13**

4 **9/26**

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Answer key/Solution

Q.76

Entry ticket for a food festival cost Rs.100 which was later reduced by 20%. After which, the total sales of the festival's ticket increased by 44%. Find the percentage increase in the number of people who attended the festival.

✖

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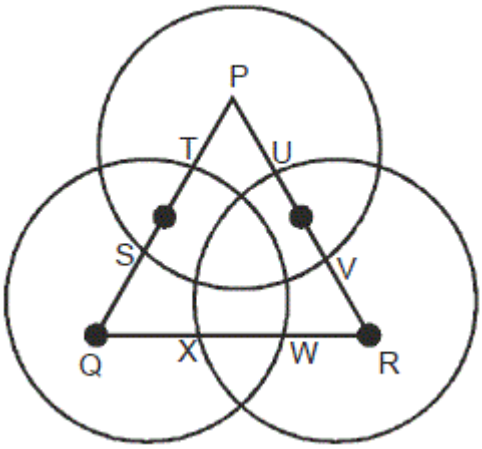
Answer key/Solution

Q.77

There are 3 circles with centres P, Q and R, each having radius 24 cm. They intersect each other as shown in the figure below. If ST = 4cm, UV = 7 cm and WX = 10 cm, then find the perimeter (in cm) of the triangle formed by joining the centers of the 3 circles.



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Answer key/Solution

Q.78

A shopkeeper purchases wheat from a wholesaler at a discount of 10% over the listed price. Out of which, 12.5% of the wheat was eaten by rats, so he mixed that much impurity in the remaining wheat. Further, while selling them, he sells at a discount of 11.11% and his scale reads 900 gram for 1000 grams. Find his profit/loss percentage.

1 **12.5% profit**

2 **11.11% loss**

3 **20% profit**

4 **12.5% loss**

✖

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Answer key/Solution

Q.79

If the perimeter of a right angled triangle is four times of its shortest side, then the ratio of the other side to the hypotenuse is

1 **3 : 4**

2 **5 : 6**

3 **4 : 5**

4 **2 : 3**

✔

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Answer key/Solution

Q.80

Find out the principle (in Rs.) which gives Rs. 200 as simple interest and Rs. 220 as compound interest after 2 years at the same rate of interest.

✔

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Answer key/Solution

Q.81

Ajay started painting a room at some time between 6 pm and 7 pm. When he was done with his painting, clock showed time somewhere between 8 pm and 9 pm on the same day. Also he noticed that hours hand and minute hand have interchanged their positions. At what time did Ajay finished his painting?

1 **8 : 10 pm**

2 $8 : \frac{4800}{143}\text{pm}$

3 **8:45 pm**

4 **8:50 pm**

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Answer key/Solution

Q.82

What is the remainder when N = 1421 × 1423 × 1425 is divided by 12?

✔

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Answer key/Solution

Q.83

While selling an article for Rs 24, the profit percentage is equal to the value of its cost price (in rupees). Find that cost price of the article.

1 **Rs 12**

2 **Rs 16**

3 **Rs 20**

4 **Rs 18**

✖

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Answer key/Solution

Q.84

A racing car spots a cyclist from a distance of 100 m. It overtakes the cyclist and then the cyclist can observe the racing car upto a distance of 200m. If the car's speed is 5 times that of the cyclist's and the time elapsed between the time when the car racer spots the cyclist until the last moment the cyclist observe the racer is 5 seconds, then find the speed of the car.(Assuming no time lapse while overtaking)

1 **15 m/s**

2 **60 m/s**

3 **75 m/s**

4 **100 m/s**

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Answer key/Solution

Q.85

If roots of the equation, (x – p) (x + 5) + 9 = 0, are integers and p is also an integer, then what is the sum of all possible values of p?

1 **–20**

2 **–40**

3 **–12**

4 **–28**

✖

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Answer key/Solution

Q.86

Which of the following is one of the roots of the quadratic equation:
$(a + 2b - 3c)x^2 + (b + 2c - 3a)x + (c + 2a - 3b) = 0$, where a, b and c are positive integers?

1 **(a + 2b – 3c)**

2 $\frac{(a+2b-3c)}{(c+2a-3b)}$

3 $\frac{(b+2c-3a)}{(c+2a-3b)}$

4 $\frac{(c+2a-3b)}{(a+2b-3c)}$

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Answer key/Solution

Q.87

Four distinct numbers are in a Geometric Progression, whose first term and the common ratio are both natural numbers. If the sum of the four numbers is 255, then find the Geometric Mean of the highest and the 3rd highest numbers.

1 **48**

2 **50**

3 **68**

4 **Both (1) and (3)**

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Answer key/Solution

Q.88

Each of P, Q and R have some coins with them such that their numbers are in ratio x : y : z, where x, y and z are integers. P gave 2 coins to Q, who then gave 4 coins to R, who then gave 9 coins to P. Now if each one of them have the same number of coins after this interchange, what is the minimum possible value of (x + y + z)?

1 **10**

2 **24**

3 **6**

4 **13**

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Answer key/Solution

Q.89

If $p^2 = q^2 - q^4 + q^6 - q^8 + \ldots\ldots\infty$ where $|q| < 1$, then find 'p'.

1 $\frac{\pm q}{\sqrt{1-q^2}}$

2 $\frac{\pm(q+1)}{\sqrt{q^2+1}}$

3 $\frac{\pm q}{\sqrt{q^2-1}}$

4 $\frac{\pm q}{\sqrt{q^2+1}}$

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Answer key/Solution

Q.90

ABCD is a rectangle with AB as 15 units and BC as 10 units. Point E, on side AB, divides AB in the ratio 2 : 1 and DE intersects AC at R. Find the ratio of the area of quadrilateral BERC to the area of rectangle ABCD.

1 **1 : 3**

2 **11 : 30**

3 **2 : 5**

4 **7 : 30**

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Answer key/Solution

Q.91

$(15^{23} + 23^{23})$ is always divisible by

1 **15**

2 **19**

3 **38**

4 **Both (2) and (3)**

✔

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Answer key/Solution

Q.92

$x_1, x_2, ..., x_n$ is either - 1 or 1. If $x_1x_2x_3x_4 + x_2x_3x_4x_5 + x_3x_4x_5x_6 + ... + x_4x_3x_2x_1 = 0$, where $n \geq 4$, then n must be

1 **prime**

2 **even**

3 **odd**

4 **can't be determined**

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Answer key/Solution

Q.93

From a deck of 52 playing cards, 2 cards are selected randomly. What is the probability that the two cards are of same color but different values.

1 **12/52**

2 **24/51**

3 **8/17**

4 **24/52**

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Answer key/Solution

Q.94

Akhil wants to make a 5 distinct digits code using digits from 0 to 9. He has to follow two conditions strictly:

I. 2 and 3 has to be there in the code.
II. 5 should not be included in the code.

In how many ways can he make this code?

1 **4000**

2 **4200**

3 **1200**

4 **75**

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Answer key/Solution

Q.95

A contractor expected to complete a work in 60 days with 30 men. But after 40 days he employed 45 more men to complete the whole task in 55 days. How many extra days, than his expectation, it would have taken, if he had not employed the extra workers to finish the task?

1 **20**

2 **17.5**

3 **37.5**

4 **22.5**

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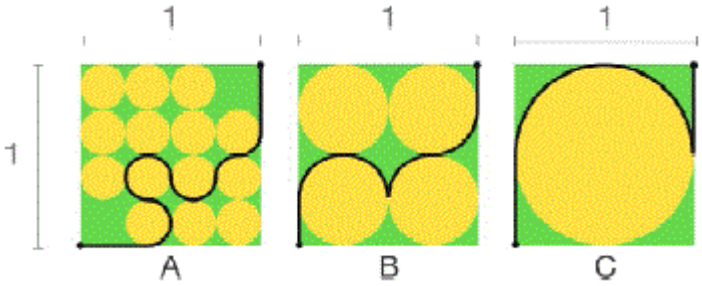
Answer key/Solution

Q.96

In which figure is the black path the shortest, where A, B and C are all squares of sides 1 unit each?



1 **A**

2 **B**

3 **C**

4 **All paths are equal**

✔

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Answer key/Solution

Q.97

If $\log_{54} 72 = b$, then the value of $\log_{96} 128$ in terms of b is

1 $\frac{7(3b-2)}{7-16b}$

2 $\frac{2b-1}{3b-2}$

3 $\frac{7-16b}{7(3b-2)}$

4 $\frac{3b-2}{2b-1}$

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Answer key/Solution

Q.98

If A = (n + 1)! and B = (n - 1)!, where n is a natural number, then what can be said about the value of A/B?

1 **$n^2 + 1$**

2 **$n^2 + n$**

3 **n**

4 **None of these**

✔

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Answer key/Solution

Q.99

$|x - 8| + |x + 12| - |x - 10| \leq 50$,
then how many integer values of x satisfy the above inequality?

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Answer key/Solution

Q.100

A rope of 77 meters is cut into 2 pieces such that one piece is $4/7^{th}$ of the other piece. What is the length (in meters upto 1 decimal place) of $3/14^{th}$ of the longer piece?

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Answer key/Solution