

## Flexi Master Series Mock - 01 (2020)

Scorecard (procreview.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&qsetId=drCPkM0/bBA=&qsetName=Flexi Master Series Mock - 01 (2020))

Accuracy (AccSelectGraph.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&qsetId=drCPkM0/bBA=&qsetName=Flexi Master Series Mock - 01 (2020))

Qs Analysis (QsAnalysis.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&qsetId=drCPkM0/bBA=&qsetName=Flexi Master Series Mock - 01 (2020))

Video Attempt (VideoAnalysis.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&gsetId=drCPkM0/bBA=&gsetName=Flexi Master Series Mock - 01 (2020))

Solutions (Solution.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&qsetId=drCPkM0/bBA=&qsetName=Flexi Master Series Mock - 01 (2020))

Bookmarks (Bookmarks.jsp?sid=aaabxYtlqFsLahrNu3nExThu Feb 11 21:53:48 IST 2021&qsetId=drCPkM0/bBA=&qsetName=Flexi Master Series Mock - 01 (2020))

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# Sec 1

Direction for questions (1-5): Read the given passage and answer the questions that follow.

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Given bad behaviour's prevalence and impact, surely leaders take reports of it seriously, get the facts, and punish offenders, right? Some scholars have noted that, when information about misbehaviour surfaces, savvy leaders know better than to blame the messenger. Unfortunately, our research paints a picture that is much bleaker.

We set out to investigate how people in positions of power view victims and perpetrators of workplace misbehaviour. [...] The two studies were telling, but they had an important limitation: Because employees who experience rudeness may also be rude themselves, as our earlier research has shown, bosses who blame victims might actually be evaluating these employees accurately. That is, these victims might also be perpetrators. If so, leaders' evaluations might not be biased after all. [...]

When we crunched the numbers, we found that participants perceived victims as having engaged in misbehaviour. And by presenting participants with clear information that some employees did *not* behave rudely, we were able to demonstrate that victims are blamed for their mistreatment *even when they've done nothing wrong*.

It gets worse: We also wanted to see if leaders' bias toward victims extended to their assessments of the victims' job performance, even when we provided concrete information about whether the employee was a high performer or a low performer. It does: Victims of rudeness were perceived as performing considerably worse on the job than employees who hadn't been mistreated, regardless of the employees' *actual* performance. As performance ratings often have a substantial impact on compensation and promotion decisions, our results show that victims of workplace mistreatment can be adversely impacted in several other important ways, adding insult to injury.

So, how can leaders combat bias when evaluating employees? We recommend leaders receive training similar to that undergone by judges and arbitrators, who are taught to distinguish between relevant and irrelevant information. Homing in on job-relevant behaviours, whether

during interviews or performance appraisals, can effectively reduce subjectivity and enhance decision accuracy. But because unrelated contextual and personal factors can influence the outcome — even among highly skilled judicial decision makers — training should also increase leaders' awareness of the forces that may be influencing their decisions. Organizations might take a page from the Federal Judicial Centre, which runs a program that does just that: It trains new judicial appointees to become more aware of their biases and prevent those biases from affecting their decision making.

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### Q.1 [11594329]

The main advice of the author for decision makers in workplace is:

$1\ \bigcirc$ to not be biased in their outlook towards low performing employees.	
$2\bigcirc$ to be just and accurate in their assessment of employee behaviour.	
3 ○ to not punish the messenger for delivering a complaint.	
4 ○ to be critical yet fair while conducting performance appraisal.	
•	
	♣ Answer key/Solution
Bookmark FeedBack	

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### Q.2 [11594329]

Why does the author mention the program run by the Federal Judicial Centre?

م Answer key/Solution

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### Q.3 [11594329]

Which of the following has not been cited as a consequence for people who face workplace rudeness?

1 O Suffer emotional and bodily challenges	
2 O Feel demotivated to participate in the workplace	
3 O Not encouraged to prolong one's association with the company	
4 ○ Are negatively assessed by the management	
•	
	م Answer key/Solution
Bookmark FeedBack	

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### Q.4 [11594329]

How were the victims of rudeness perceived by their superiors in the study?

1 ○ As being ungrateful	
2 ○ As being biased	
3 ○ As being subpar performers	
4 ○ As being low wage earners	
•	
	← Answer key/Solution
Bookmark FeedBack	

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## Q.5 [11594329]

The tone of the author can best be described as:

1 ○ explanatory	
2 O cautious	
3 ○ ambiguous	
4 O fastidious	
•	
	م Answer key/Solution
Bookmark FeedBack	

Direction for questions (6-10): Read the given passage and answer the questions that follow.

What colour were the dinosaurs? If you have a picture in your head, fresh studies suggest you may need to revise it. New fossil research also suggests that pigment-producing structures go beyond how the dinosaurs looked and may have played a fundamental role inside their bodies too. The latest findings have also paved the way for a more accurate reconstruction of the internal anatomy of extinct animals, and insight into the origins of features such as feathers and flight.

Much of this stems from investigations into melanin, a pigment found in structures called melanosomes inside cells that gives external features including hair, feather, skin and eyes their colour-and which, it now turns out, is abundant inside animals' bodies too. "We've found it in places where we didn't think it existed," said Maria McNamara, a paleobiologist at University College Cork, in Ireland.

The discoveries in her team's newest research, published in mid-August, were made using advanced microscopy and synchrotron X-ray techniques, which harness the energy of fast-moving electrons to help examine fossils in minute detail. Using these, the researchers found that melanin was widespread in the internal organs of both modern and fossil amphibians, reptiles, birds, and mammals—following up a finding they made last year that melanosomes in the body of existing and fossil frogs in fact vastly outnumbered those found externally. What's more, they were surprised to discover that the chemical make-up and shape of the melanosomes varied between organ types, thus opening up exciting opportunities to use them to map the soft tissues of ancient animals.

These studies also have further implications. For one, the finding that melanosomes are so common inside animals' bodies may overhaul our very understanding of melanin's function, says McNamara. "There's the potential that melanin didn't evolve for colour at all," she said. "That role may actually be secondary to much more important physiological functions." Her research indicates that it may have an important role in homeostasis, or regulation of the internal chemical and physical state of the body, and the balance of its metallic elements. "A big question now is does this apply to the first, most primitive vertebrates?" said McNamara. "Can we find fossil evidence of this? Which function of melanin is evolutionarily primitive production of colour or homeostasis?"

At the same time, the findings imply that we may need to review our understanding of the colours of ancient animals. That's because fossil melanosomes previously assumed to represent external hues may in fact be from internal tissues, especially if the fossil has been disturbed over time. McNamara says her research has also shown that melanosomes can change shape and shrink over the course of millions of years, potentially affecting colour reconstructions.

Further complicating the picture is that animals contain additional non-melanin pigments such as carotenoids and what is known as structural colour, which was only recently identified in fossils. In 2016, a study by McNamara's team on the skin of a 10-million-year-old snake found that these could be preserved in certain mineralized remains. "These have the potential to preserve all aspects of the colour-producing gamut that vertebrates have," she said. She hopes over time that these findings and techniques will together help us to much more accurately interpret the colours of ancient organisms—though in these early days, she doesn't have examples of animals for which this has already changed. [...]

### Q.6 [11594329]

As per the passage, which of the following can be inferred about melanin?

1 Olts evolutionary role has changed over the course of history.

2 O Its impact on the internal structure of animals has now been	revealed.
3 ○ Its structural and evolutionary importance is now under ques	tion.
$4  \bigcirc$ Its role in the development of colours is not very significant.	
•	
	ه Answer key/Solution
Bookmark FeedBack	

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### Q.7 [11594329]

Which of the following is the thematic highlight of the passage?

1 ○ An analysis of the reconstruction of the internal anatomy of extinct animals.

$2\bigcirc$ An evaluation of research done to better understand the evolutionary purpose of dinosaurs.	
3 ○ A description of certain internal anomalies in the structure of extinct animals.	
4 ○ An analysis of certain new findings regarding the structu	ral makeup of dinosaurs.
•	
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### Q.8 [11594329]

Why does the author say that we need to revise our mental image of dinosaurs?

1 OBecause a new research has disputed the perceived belief that dinosaurs had any colour.

$2\bigcirc$ Because researchers have found evidence that dinosaurs may have looked different from what we thought.	
$3\bigcirc$ Because researchers now speculate that the internal structure of dinosaurs might be more complicated than previously thought.	
4 O Because a new research has raised new questions about pigment produc	ing structures in animals.
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### Q.9 [11594329]

Which of the following is not true regarding the research cited in the passage?

1 O It used techniques to examine fossils in a more detailed manner.

$2\bigcirc$ It expanded upon the finding of a previous related study.	
3 ○ Some of the researchers found an exciting way to recreate soft tissues of animals.	
4 ○ Some findings of the research surprised the researchers.	
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These studies also have further implications. For one, the finding that melanosomes are so common inside animals' bodies may overhaul our very understanding of melanin's function, says McNamara. "There's the potential that melanin didn't evolve for colour at all," she said. "That role may actually be secondary to much more important physiological functions." Her research indicates that it may have an important role in homeostasis, or regulation of the internal chemical and physical state of the body, and the balance of its metallic elements. "A big question now is does this apply to the first, most primitive vertebrates?" said McNamara. "Can we find fossil evidence of this? Which function of melanin is evolutionarily primitive production of colour or homeostasis?"

At the same time, the findings imply that we may need to review our understanding of the colours of ancient animals. That's because fossil melanosomes previously assumed to represent external hues may in fact be from internal tissues, especially if the fossil has been disturbed over time. McNamara says her research has also shown that melanosomes can change shape and shrink over the course of millions of years, potentially affecting colour reconstructions.

Further complicating the picture is that animals contain additional non-melanin pigments such as carotenoids and what is known as structural colour, which was only recently identified in fossils. In 2016, a study by McNamara's team on the skin of a 10-million-year-old snake found that these could be preserved in certain mineralized remains. "These have the potential to preserve all aspects of the colour-producing gamut that vertebrates have," she said. She hopes over time that these findings and techniques will together help us to much more accurately interpret the colours of ancient organisms—though in these early days, she doesn't have examples of animals for which this has already changed. [...]

### Q.10 [11594329]

As per the passage, the result of the study cited can:

1 Change our comprehension of melanin's function.

2 O make melanin an obsolete element in terms of colour studies.	
3 O dispute the role of homeostasis or regulation of internal chemical.	
4 O implicate the primitive role attached to evolution.	
×	
	م Answer key/Solution
Bookmark FeedBack	

Direction for questions (11-14): Read the given passage and answer the questions that follow.

In 70,000 years, Homo sapiens have grown from thousands of hunter-gatherers teetering on the brink of extinction to a global population of 7.7 billion. In Growth, Vaclav Smil explains how we have peopled the planet through our growing capacity for harvesting energy from our environment: food from plants, labour from animals and energy from fossil fuels. Civilization has developed by dominating Earth's resources. Smil, whose research spans energy, population and environmental change, drives home the cost of growth on a finite planet. It is high: polluted land, air and water, lost wilderness and rising levels of atmospheric carbon dioxide.

He argues that most economic projections predict growth by ignoring the biophysical reality of limited resources. Economists emphasize that efficient use enables growth without pumping up energy consumption. Smil does not deny that energy efficiency has increased. For example, he details how agriculture now extracts ten times as much food energy from each parcel of land as it did a century ago. But the 10-fold increase in yield has been driven by a 90-fold boost in energetic inputs — caused by fossil-fuelled farm machinery, and electricity for irrigation and fertilizer production. When this complexity is accounted for, the story of efficiency is turned on its head: we now put more fossil-fuel energy in for each unit of food we get out.

On a crowded Earth, we mostly address this challenge by eating up more land. As grasslands and forests are converted to agriculture, the land is no longer available for carbon storage or biodiversity-sustaining wilderness. Human history is a story of innovation and increased efficiency, but also of relentless depletion of Earth's resources. Is there a path to prosperity and well-being that does not rely on overconsumption?

Smil is not optimistic. There are no solutions to reconcile our species' burgeoning consumption with a viable future. Instead, he focuses on simple equations that can be used to model (but rarely predict) growth and the energetic, physical and biological principles that are its foundations. He amasses examples of seemingly disparate systems that start small, enter a phase of exponential increase and then plateau.

In some cases, the trajectories tip into dramatic decline, as happened with video tapes and CDs. In others, a decline can rebound. US oil production, for instance, was in decline from 1970; with the expansion of hydraulic fracturing, or fracking, a decade ago, it rebounded. In 2018, it surpassed its 50-year-old peak. Smil shows repeatedly how beautifully fitting models have failed to predict the future.

As energy use has increased, per capita gross domestic product and life spans have risen while birth rates and infant mortality have fallen. Smil admits that disentangling cause from effect and fundamental drivers from correlative happenstance is enormously difficult. However, he argues that energy is essential to the growth of our immensely complex modern civilization because it is required to do work. Every baby born, bit transmitted, material moved demands energy.

Smil is sceptical of the "techno-optimists" who envision solutions to our immense challenges coming from greater efficiency, shrinking material inputs to economic production, or information technology. He looks at technologies such as smartphones, laptop batteries and supercomputers, in which growth follows Moore's Law - computing capacity doubles approximately every two years. In that exponential growth, he sees no hope of solving environmental crises.

As for the cost of computing, it has, in Smil's estimate, fallen an astonishing 100 billion times since the days of vacuum tubes. But again, he sees little evidence that the 'saving' will save us from planetary crises, quipping that social media proves "convincingly that the volume of communication must be inversely related to its quality". Our most spectacular technological achievements have, thus far, done little to abate our impact on the planet. Many have exacerbated it.

## Q.11 [11594329]

Which of the following measures is Smil most likely to support to address the problem of over-consumption of resources?

1 O Increasing the funding for research in energy, population and environmental of	change
2    Targeted technological innovation that focuses on maximum utilization of fini	te agricultural land
3 Optimal resource utilization planning in tandem with research to predict future	e outcomes
$4\bigcirc$ Using elementary equations to model growth, and the biophysical principles it	depends upon
	ه Answer key/Solution
Bookmark FeedBack	

Direction for questions (11-14): Read the given passage and answer the questions that follow.

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He argues that most economic projections predict growth by ignoring the biophysical reality of limited resources. Economists emphasize that efficient use enables growth without pumping up energy consumption.

Smil does not deny that energy efficiency has increased. For example, he details how agriculture now extracts ten times as much food energy from each parcel of land as it did a century ago. But the 10-fold increase in yield has been driven by a 90-fold boost in energetic inputs — caused by fossil-fuelled farm machinery, and electricity for irrigation and fertilizer production. When this complexity is accounted for, the story of efficiency is turned on its head: we now put more fossil-fuel energy in for each unit of food we get out.

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In some cases, the trajectories tip into dramatic decline, as happened with video tapes and CDs. In others, a decline can rebound. US oil production, for instance, was in decline from 1970; with the expansion of hydraulic fracturing, or fracking, a decade ago, it rebounded. In 2018, it surpassed its 50-year-old peak. Smil shows repeatedly how beautifully fitting models have failed to predict the future.

As energy use has increased, per capita gross domestic product and life spans have risen while birth rates and infant mortality have fallen. Smil admits that disentangling cause from effect and fundamental drivers from correlative happenstance is enormously difficult. However, he argues that energy is essential to the growth of our immensely complex modern civilization because it is required to do work. Every baby born, bit transmitted, material moved demands energy.

Smil is sceptical of the "techno-optimists" who envision solutions to our immense challenges coming from greater efficiency, shrinking material inputs to economic production, or information technology. He looks at technologies such as smartphones, laptop batteries and supercomputers, in which growth follows Moore's Law — computing capacity doubles approximately every two years. In that exponential growth, he sees no hope of solving environmental crises.

As for the cost of computing, it has, in Smil's estimate, fallen an astonishing 100 billion times since the days of vacuum tubes. But again, he sees little evidence that the 'saving' will save us from planetary crises, quipping that social media proves "convincingly that the volume of communication must be inversely related to its quality". Our most spectacular technological achievements have, thus far, done little to abate our impact on the planet. Many have exacerbated it.

## Q.12 [11594329]

According to the author, Smil is skeptical about the "techno-optimists" because:

- 1 Ohuman history is a story of innovation and increased efficiency, but also of relentless depletion of Earth's resources.
- 2 O more computing capacity at lower cost and mere reduction in material inputs will not solve the environmental crises.

3 C technological innovations often start small, enter a phase of exponential increase and then plateau.  4 C we have increased our capacity to harvest energy from the planet using technological advancements.	
Bookmark FeedBack	

Direction for questions (11-14): Read the given passage and answer the questions that follow.

In 70,000 years, Homo sapiens have grown from thousands of hunter-gatherers teetering on the brink of extinction to a global population of 7.7 billion. In *Growth*, Vaclav Smil explains how we have peopled the planet through our growing capacity for harvesting energy from our environment: food from plants, labour from animals and energy from fossil fuels. Civilization has developed by dominating Earth's resources. Smil, whose research spans energy, population and environmental change, drives home the cost of growth on a finite planet. It is high: polluted land, air and water, lost wilderness and rising levels of atmospheric carbon dioxide.

He argues that most economic projections predict growth by ignoring the biophysical reality of limited resources. Economists emphasize that efficient use enables growth without pumping up energy consumption. Smil does not deny that energy efficiency has increased. For example, he details how agriculture now extracts ten times as much food energy from each parcel of land as it did a century ago. But the 10-fold increase in yield has been driven by a 90-fold boost in energetic inputs — caused by fossil-fuelled farm machinery, and electricity for irrigation and fertilizer production. When this complexity is accounted for, the story of efficiency is turned on its head: we now put more fossil-fuel energy in for each unit of food we get out.

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As energy use has increased, per capita gross domestic product and life spans have risen while birth rates and infant mortality have fallen. Smil admits that disentangling cause from effect and fundamental drivers from correlative happenstance is enormously difficult. However, he argues that energy is essential to the growth of our immensely complex modern civilization because it is required to do work. Every baby born, bit transmitted,

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Smil is sceptical of the "techno-optimists" who envision solutions to our immense challenges coming from greater efficiency, shrinking material inputs to economic production, or information technology. He looks at technologies such as smartphones, laptop batteries and supercomputers, in which growth follows Moore's Law — computing capacity doubles approximately every two years. In that exponential growth, he sees no hope of solving environmental crises.

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Q.13 [11594329] Smil shows repeatedly how beautifully fitting models have failed to predi	ct the future in order to:
1 ○ discredit the steady growth attributed to certain industries like CDs	and video tapes.
$2\bigcirc$ explain the benefits of adopting simple equations to model growth ra	ather than using complex models.
3 O argue against making economic predictions while ignoring the pauci	ty of available resources.
$4\bigcirc$ show how oil production which had fallen in the US has risen again, we demand for oil.	which highlights the increase in
	م Answer key/Solution
Bookmark FeedBack	

Direction for questions (11-14): Read the given passage and answer the questions that follow.

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## Q.14 [11594329]

Which of the following statements best expresses the overall argument of this passage?

$1\ \bigcirc$ We must use simple equations to model growth for proper utilization natural resources while maintaining equilibrium in nature, .
$2 \bigcirc$ To minimize environmental degradation and to better human lives requires more than just technology and resource efficiency strategies.
3 ○ There are no solutions to reconcile our species' excessive and increasing capacity for consumption with a viable future.

$4\bigcirc$ Using economic projections to predict and forecast growth while overlooking the biophysical reality of limited resources is unsustainable.	
	ه Answer key/Solution
Bookmark FeedBack	

Direction for questions (15-18): Read the given passage and answer the questions that follow.

In Veronica Gonzalez Peña's fascinating new documentary about the painter Pat Steir, which premiered at the New York Jewish Film Festival earlier this year, Steir recalls an interview with the philosopher Sylvère Lotringer in which he remarked: "When I look at your work closely, I feel that your entire career has been a long effort to disappear." "It's true," Steir says in the film, adding that she has been "trying to take my ego out of the art and my body out of the art. I want the paintings to express something in the will of nature."

"In much of her work," writes Colm Tóibín, "Steir-whose latest paintings are on view in the exhibition "Pat Steir Silent Secret Waterfalls," at the Barnes Foundation in Philadelphia until mid-November-applies a mass of oil paint to the upper part of her canvases, many of which are taller than herself, then lets it drip. Or she throws paint at the surface, letting the marks happen by accident or by a process we might call random design. "My idea," she says in the documentary, "was not to touch the canvas, not to paint, but to pour the paint and let the paint itself make a picture. I set the limitations. The limitations, of course, are the color, the size, the wind in the room, and how I put the paint on. And then everything outside of me controls how that paint falls. It's a joy to let the painting make itself. It takes away all kinds of responsibility."

In the Annenberg Court of the Barnes Foundation (the large space where people line up to see the permanent collection), Steir's monumental black-and-white paintings—all seven feet tall and ranging from about five to seventeen feet wide-cover three walls. These eleven "Silent Secret Waterfalls" enact the falling of water, and the idea of water as having its own internal power; but they also enact the falling of paint—the great, luminous whiteness that Steir allows to have its own inner life. She is more concerned with essences than with experiences, more interested in what the poet Gerard Manley Hopkins called inscape than she is in landscape.

While it should be possible for someone looking at these paintings to feel that they depict or suggest the flowing of water downward over rock or stone, that is to miss the point of works that are concerned much more with the potential of paint than the need to represent something in nature. They are, to a large extent, autonomous spaces, powered by the visual possibilities of chance and flow. This may connect them to nature: they do what a waterfall does. They have some of the same force. But as paintings, they are dynamic rather than completed; they happened by an arranged accident, the surface is not settled, it is often fully free, moving beyond the natural phenomenon of the exhibition's title and reaching into the realm of the visionary.

### Q.15 [11594329]

Lotringer's observation that Steir's entire career has been a long effort to disappear is best explained by:

1 OSteir 'paints' but without touching the canvas, she pours the paint to allow it to make the picture.

ntings.
rpress nature's
by allowing
r key/Solution
•

Direction for questions (15-18): Read the given passage and answer the questions that follow.

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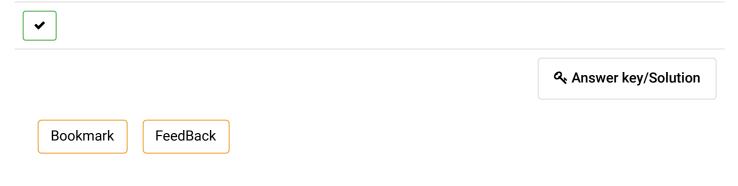
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### Q.16 [11594329]

According to the author, Steir's works move beyond the exhibitions title "Pat Steir Silent Secret Waterfalls"

because:
$1\ \bigcirc$ they enact the falling of water, and the idea of water as having its own internal power; but they also enact the falling of paint.
$2\bigcirc$ in them the paint takes over, thus creating a work that depicts nature but is also both subjected to and created by nature itself.
$3\bigcirc$ they depict nature without merely mimicking it, which allows the viewer to go beyond and experience even the sounds of the waterfall.
4 O they are interpretative, evocative and dynamic and have 'some of the same force as the waterfall' and are hence more than just 'silent'.



Direction for questions (15-18): Read the given passage and answer the questions that follow.

In Veronica Gonzalez Peña's fascinating new documentary about the painter Pat Steir, which premiered at the New York Jewish Film Festival earlier this year, Steir recalls an interview with the philosopher Sylvère Lotringer in which he remarked: "When I look at your work closely, I feel that your entire career has been a long effort to disappear." "It's true," Steir says in the film, adding that she has been "trying to take my ego out of the art and my body out of the art. I want the paintings to express something in the will of nature."

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## Q.17 [11594329]

The author mentions 'inscape' to refer to:

- 1 Othe paintings of Steir which enact the falling of water and are accurate representations of waterfalls.
- 2 O Steir's concern for essence rather than expression which shines through her works.

$3\bigcirc$ the luminous whiteness in Steir's paintings that focuses on the true essence of things.		
$4\bigcirc$ ideas like that of water having its own internal power, that allow Steir to create works that are based in essence.		
	م Answer key/Solution	
Bookmark FeedBack		

Direction for questions (15-18): Read the given passage and answer the questions that follow.

In Veronica Gonzalez Peña's fascinating new documentary about the painter Pat Steir, which premiered at the New York Jewish Film Festival earlier this year, Steir recalls an interview with the philosopher Sylvère Lotringer in which he remarked: "When I look at your work closely, I feel that your entire career has been a long effort to disappear." "It's true," Steir says in the film, adding that she has been "trying to take my ego out of the art and my body out of the art. I want the paintings to express something in the will of nature."

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### Q.18 [11594329]

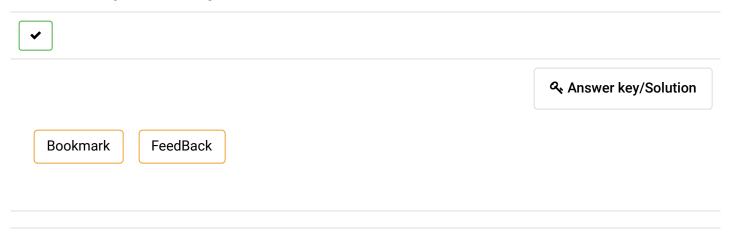
Steir's process of painting can most accurately be described as:

$1\ \bigcirc$ applying or throwing paint on a large canvas, and letting the paint tell its own away all kinds of responsibility.	story, such that it takes
$2\bigcirc$ setting limitations, and allowing the thrown or applied paint to paint itself a pion the will of nature.	cture to express something
$3\bigcirc$ not touching the canvas, not painting but rather pouring paint, so that everythin how the painting forms.	ing outside of Steir controls
$4\bigcirc$ applying or throwing a mass of oil paint onto the upper part of her canvases, many of which are taller than herself, and then channeling the drip.	
•	
Bookmark FeedBack	ه Answer key/Solution

## Q.19 [11594329]

Directions for question (19): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. The horns of cattle, the high, long-napped hats of wealthy peasants, the headdresses of the women came to the surface of that sea.
- 2. Above it occasionally rose a huge burst of laughter from the sturdy lungs of a merry peasant or a prolonged bellow from a tied cow.
- 3. In the market-place at Goderville was a great crowd, a mingled multitude of men and beasts.
- 4. And the sharp, shrill, barking voices made a continuous, wild din.

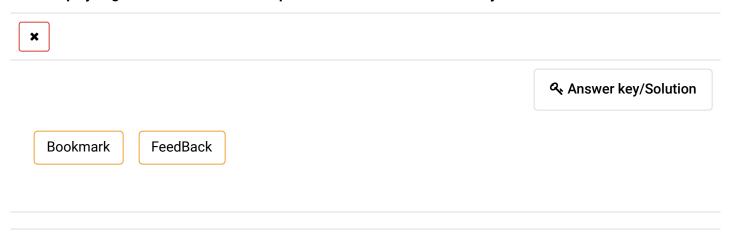


### Q.20 [11594329]

2/11/2021

Directions for question (20): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

- 1. Fewer than a dozen years passed between the founding of NASA and the Apollo 11 Moon landing on July 20, 1969.
- 2. It has stuck with us, because the human imagination is puny compared with the vastness of our experience and our potential.
- 3. The triumphs of the Space Age are perhaps the greatest illustrations of this gap.
- 4. "Seeing is believing" is such a truism that it was already a cliché in the second century BCE, when the Roman playwright Titus Maccius Plautus planted those words in his comedy Truculentus.



## Q.21 [11594329]

Directions for question (21): The passage given below is followed by four summaries. Choose the option that best captures the author's position.

The connection of philosophy with politics has been less evident in Britain than in Continental countries. Empiricism, broadly speaking, is connected with liberalism, but Hume was a Tory; what philosophers call 'idealism' has, in general, a similar connection with conservatism, but T. H. Green was a Liberal. On the Continent distinctions have been more clear-cut, and there has been a greater readiness to accept or reject a block of doctrines as a whole, without critical scrutiny of each separate part.

1 On the Continent, unlike in Britain, the connection between politics and philosophy is significantly stronger, thus there has been a greater readiness to accept a block of doctrines as whole.
$2\bigcirc$ In Britain, as compared to the Continent, the connection between philosophy and politics was less apparent as was evinced by the fact that there was a greater readiness to reject doctrines on the Continent.
$3\bigcirc$ If the relationship between philosophy and politics is too strong it can lead to important works and doctrines being rejected as a whole due to the inherent bias of such a connection.
4 On the Continent, unlike in Britain, the connection between politics and philosophy is clearer, thus leading to blocks of doctrines being accepted and rejected without scrutiny.

Answer key/Solution

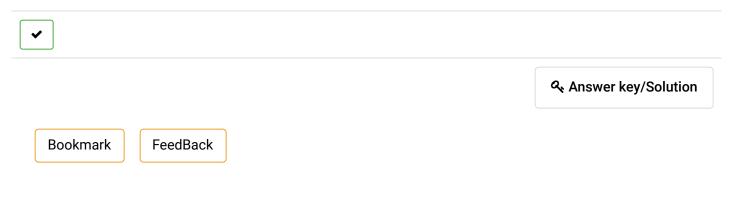
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## Q.22 [11594329]

Directions for question (22): 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. Kerala received over two and a half times more rainfall over the average for August.
- 2. The unprecedented rainfall was caused by a spell of low pressure over the region.
- 3. This was 42% more than during the entire monsoon season.
- 4. The Indian state of Kerala receives some of India's highest rainfall during the monsoon season.
- 5. Between August 1 and 19, the state received 758.6 mm of rainfall, compared to the average of 287.6 mm, or 164% more.



## Q.23 [11594329]

Directions for question (23): The passage given below is followed by four summaries. Choose the option that best captures the author's position.

It would be foolish to deny that there are any skeletons in IQ-testing's closet. Many, though by no means all, of the originators of the tests were involved with the eugenics movement in the early 20th century, and it's reasonable to be appalled at some of the uses to which IQ tests were originally put. But these concerns are irrelevant to the main question of whether an IQ score, taken today, can tell you anything about a person. Facts are facts, and the validity of intelligence test scores is amply backed by voluminous evidence.

1 ○ IQ tests, despite some controversies, remain a trustworthy indicator of one's intelligence.
$2\bigcirc$ Though IQ tests have many secrets, their overall impact on eugenics can't be denied.
$3 \bigcirc$ IQ tests owe their origin and related controversies to the eugenics movement of the early 20th century.
4 O Despite widespread criticism, IQ tests remain a valid indicator of one's intelligence.

Answer key/Solution

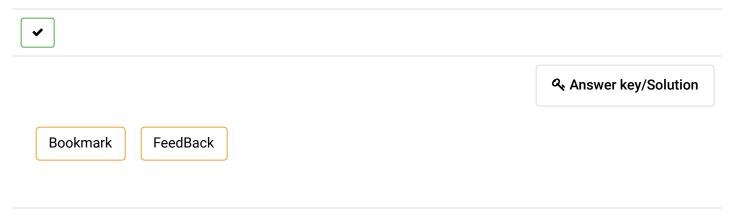
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### Q.24 [11594329]

Directions for question (24): The four sentences (labelled 1, 2, 3, and 4) given in this question, when properly sequenced, form a coherent paragraph. Decide on the proper order for the sentences and key in this sequence of four numbers as your answer.

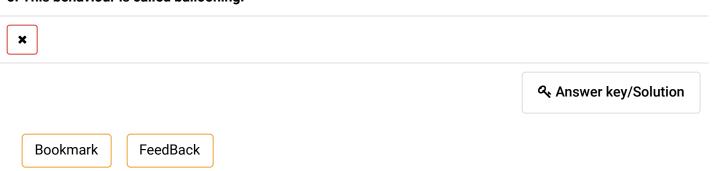
- 1. All three of these 1948 anniversaries are linked.
- 2. The NHS was one of its key pillars.
- 3. And mass migration, which began in earnest that year has been intrinsically linked with its development.
- 4. The human rights framework, with its attention to socioeconomic rights such as healthcare and housing, provided a language for the vision of fairness implicit in Britain's postwar welfare state.



## Q.25 [11594329]

Directions for question (25): 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. They'll climb to an exposed point, raise their abdomens to the sky, extrude strands of silk, and float away.
- 2. But that doesn't entirely make sense, especially since spiders only balloon during light winds.
- 3. It might carry spiders away from predators and competitors, or toward new lands with abundant resources.
- 4. Spiders have no wings, but they can take to the air nonetheless.
- 5. This behaviour is called ballooning.



## Q.26 [11594329]

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

The saints should always be judged guilty until they are proven innocent, but the tests that have to be applied to them are not, of course, the same in all cases. In Gandhi's case the questions one feels inclined to ask are: to what extent was Gandhi moved by vanity - by the consciousness of himself as a humble, naked old man, sitting on a praying-mat and shaking empires by sheer spiritual power - and to what extent did he compromise his own principles by entering politics, which by their nature are inseparable from coercion and fraud? To give a definite answer one would have to study Gandhi's acts and writings in immense detail, for his whole life was a cort of pilgrimage in which every act was significant

whole life was a sort of phythiage in which every act was significant.	
1 O Whether or not Gandhi was saint, he must be guilty and for one to declare it ot study the life and actions of Gandhi in detail as his entire life was shaped by significant	
2 O Whether Gandhi's actions were based in vanity, and to what extent he compronentering politics, can be answered only if one was to study his life and his works in	• • •
$3\bigcirc$ Only by studying Gandhi's actions and writings in detail can one judge his guilt whether or not he was motivated by vanity.	about entering politics and
4 O Vanity, coercion and fraud are tags that can only be attached to Gandhi if his life	fe and writings justified it.
•	
	م Answer key/Solution
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# Sec 2

Directions for questions 27 to 30: Answer the questions on the basis of the information given below.

Based on the types of intelligence, described by American developmental psychologist Howard Gardener, a recruitment firm has designed a new testing mechanism for fresh graduates who are aspiring for jobs. Further, the different types of intelligence are grouped under four broad skill sets - L (Linguistic and Kinesthetic intelligence), M (Mathematical and Logical intelligence), P (Interpersonal and Intrapersonal intelligence) and S (Spatial and Existential intelligence). Also, each of these skill sets are further divided based on four possible grades - E(excellent - 10 points), G(good - 8 points), F(fair - 6 points) and S (satisfactory - 4 points). Four candidates - W, X, Y and Z - aspiring for job are given the following grades, as shown in the below given table, in those four skill sets.

Skill set Person	L	М	Р	s
W	Е	S	G	F
X	G	G	F	E
Y	F	G	E	G
Z	E	Е	G	F

Jobs, available for the fresh graduates, are in three departments - HR, Data Science, and Administration - in a company. The weightage of the different skills required for each of these departments is given in the table shown below.

Weight Department	0.4	0.3	0.2	0.1
HR	р	s	_	m
Data Science	m		S	р
Administration	s	m	р	1

where, p: the point value of the grade obtained in P

s: the point value of the grade obtained in S

I: the point value of the grade obtained in L

m: the point value of the grade obtained in M

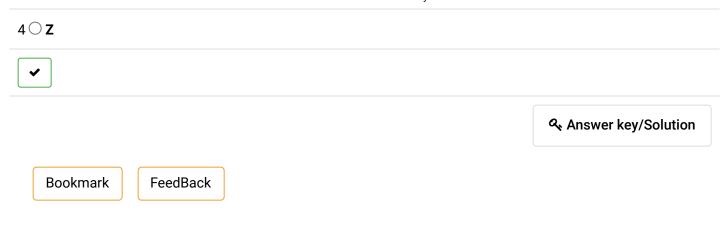
A candidate is considered to be eligible for the job in a particular department, if his score is at least 8 where the score of any candidate is his weighted average.

{For example, the score for a job in HR department will be  $(0.4 \times p) + (0.3 \times s) + (0.2 \times l) + (0.1 \times m)$ .}

#### Q.27 [11594329]

A candidate is considered as an all rounder if he is eligible for a job in all the three departments. Who among the four candidates is an all rounder?

1 <b>W</b>		
2 O <b>X</b>		
3 O Y		



Directions for questions 27 to 30: Answer the questions on the basis of the information given below.

Based on the types of intelligence, described by American developmental psychologist Howard Gardener, a recruitment firm has designed a new testing mechanism for fresh graduates who are aspiring for jobs. Further, the different types of intelligence are grouped under four broad skill sets - L (Linguistic and Kinesthetic intelligence), M (Mathematical and Logical intelligence), P (Interpersonal and Intrapersonal intelligence) and S (Spatial and Existential intelligence). Also, each of these skill sets are further divided based on four possible grades - E(excellent - 10 points), G(good - 8 points), F(fair - 6 points) and S (satisfactory - 4 points). Four candidates - W, X, Y and Z - aspiring for job are given the following grades, as shown in the below given table, in those four skill sets.

Skill set Person	L	M	Р	s
W	Е	S	G	F
X	G	G	F	Е
Y	F	G	E	G
Z	E	Е	G	F

Jobs, available for the fresh graduates, are in three departments - HR, Data Science, and Administration - in a company. The weightage of the different skills required for each of these departments is given in the table shown below.

Weight Department	0.4	0.3	0.2	0.1
HR	р	s	1	m
Data Science	m		S	р
Administration	s	m	р	1

where, p: the point value of the grade obtained in P

s: the point value of the grade obtained in S

I: the point value of the grade obtained in L

m: the point value of the grade obtained in M

A candidate is considered to be eligible for the job in a particular department, if his score is at least 8 where the score of any candidate is his weighted average.

{For example, the score for a job in HR department will be  $(0.4 \times p) + (0.3 \times s) + (0.2 \times l) + (0.1 \times m)$ .}

## O 28 [1150/320]

Which candidate is eligible for exactly two out of the three jobs available?	
1 Only X	
2 ○ Both Y and Z	
3 ○ Both X and Y	
4 ○ Only Y	
•	
	م Answer key/Solution
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Directions for questions 27 to 30: Answer the questions on the basis of the information given below.

Based on the types of intelligence, described by American developmental psychologist Howard Gardener, a recruitment firm has designed a new testing mechanism for fresh graduates who are aspiring for jobs. Further, the different types of intelligence are grouped under four broad skill sets - L (Linguistic and Kinesthetic intelligence), M (Mathematical and Logical intelligence), P (Interpersonal and Intrapersonal intelligence) and S (Spatial and Existential intelligence). Also, each of these skill sets are further divided based on four possible grades - E(excellent - 10 points), G(good - 8 points), F(fair - 6 points) and S (satisfactory - 4 points). Four candidates - W, X, Y and Z - aspiring for job are given the following grades, as shown in the below given table, in those four skill sets.

Skill set Person	L	М	Р	s
W	Е	S	G	F
X	G	G	F	E
Y	F	G	E	G
Z	E	Е	G	F

Jobs, available for the fresh graduates, are in three departments - HR, Data Science, and Administration - in a company. The weightage of the different skills required for each of these departments is given in the table shown below.

Weight Department	0.4	0.3	0.2	0.1
HR	р	s	_	m
Data Science	m		S	р
Administration	s	m	р	-

where, p: the point value of the grade obtained in P

s: the point value of the grade obtained in S

I: the point value of the grade obtained in L

m: the point value of the grade obtained in M

A candidate is considered to be eligible for the job in a particular department, if his score is at least 8 where the score of any candidate is his weighted average.

{For example, the score for a job in HR department will be  $(0.4 \times p) + (0.3 \times s) + (0.2 \times l) + (0.1 \times m)$ .}

#### Q.29 [11594329]

What is the maximum score obtained by any of these candidates for any of the available jobs?



Answer key/Solution

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Directions for questions 27 to 30: Answer the questions on the basis of the information given below.

Based on the types of intelligence, described by American developmental psychologist Howard Gardener, a recruitment firm has designed a new testing mechanism for fresh graduates who are aspiring for jobs. Further, the different types of intelligence are grouped under four broad skill sets - L (Linguistic and Kinesthetic intelligence), M (Mathematical and Logical intelligence), P (Interpersonal and Intrapersonal intelligence) and S (Spatial and Existential intelligence). Also, each of these skill sets are further divided based on four possible grades - E(excellent - 10 points), G(good - 8 points), F(fair - 6 points) and S (satisfactory - 4 points). Four candidates - W, X, Y and Z - aspiring for job are given the following grades, as shown in the below given table, in those four skill sets.

Skill set	L	M	Р	s
W	Е	S	G	F
X	G	G	F	E
Y	F	G	E	G
Z	E	Е	G	F

Jobs, available for the fresh graduates, are in three departments - HR, Data Science, and Administration - in a company. The weightage of the different skills required for each of these departments is given in the table shown below.

Weight Department	0.4	0.3	0.2	0.1
HR	р	s	_	m
Data Science	m		S	р
Administration	s	m	р	1

where, p: the point value of the grade obtained in P

s: the point value of the grade obtained in S

I: the point value of the grade obtained in L

m: the point value of the grade obtained in M

A candidate is considered to be eligible for the job in a particular department, if his score is at least 8 where the score of any candidate is his weighted average.

{For example, the score for a job in HR department will be  $(0.4 \times p) + (0.3 \times s) + (0.2 \times l) + (0.1 \times m)$ .}

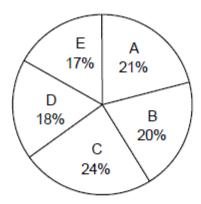
### Q.30 [11594329]

If W is given a chance to reappear for the test after a month and he can improve one of his skill sets by upgrading the grade got in that skill set by one. For example, he initially got grade S in skill set M, so after upgrading it by one, his new grade becomes F. Then which of the following will get him a job?

1 ○ By improving P	
2 O By improving M	
3 C Either (1) or (2)	
4 ○ None of these	
	≪ Answer key/Solution
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Directions for questions 31 to 34: Answer the questions on the basis of the information given below.

The pie chart given below shows the percentage break-up of the number of competitors who participated from five different countries A, B, C, D and E in Asian Games 2018.



The partially filled-in table given below shows the number of competitors who participated from the five countries in the six sports conducted during the Asian Games 2018.

Country Sport	Α	В	C	D	E
Boxing	24		32	40	18
Badminton	36	29		20	24
Kabaddi	28		35	26	46
Shooting	38	32	52	26	
Wrestling	44	46	34		30
Athletics		23	42	33	20

#### Note:

- Each competitor who came to the Asian Games participated in exactly one of the six sports. (i)
- At least one competitor from each country participated in each of the six sports. (ii)
- Six cells in the table are left blank and the sum of that six missing values is 222. (iii)

#### Q.31 [11594329]

The number of competitors who participated from the country C in Badminton is what percentage more/less than that from country D in Wrestling?

1 ○ <b>28.57% more</b>
2 ○ <b>22.22</b> % more
3 ○ <b>28.57% less</b>
4 ○ 22.22% less
•

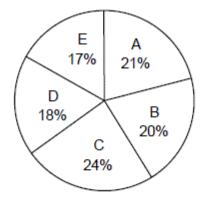
Answer key/Solution

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#### Directions for questions 31 to 34: Answer the questions on the basis of the information given below.

The pie chart given below shows the percentage break-up of the number of competitors who participated from five different countries A, B, C, D and E in Asian Games 2018.



The partially filled-in table given below shows the number of competitors who participated from the five countries in the six sports conducted during the Asian Games 2018.

Country Sport	Α	В	C	D	E
Boxing	24		32	40	18
Badminton	36	29		20	24
Kabaddi	28		35	26	46
Shooting	38	32	52	26	
Wrestling	44	46	34		30
Athletics		23	42	33	20

#### Note:

- (i) Each competitor who came to the Asian Games participated in exactly one of the six sports.
- At least one competitor from each country participated in each of the six sports. (ii)
- Six cells in the table are left blank and the sum of that six missing values is 222. (iii)

#### Q.32 [11594329]

Which of the following is not a possible ratio of the number of competitors who participated from the country B in Boxing and Kabaddi respectively?

1 03:4

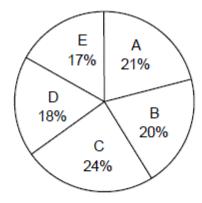
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3 O 5:3 4 0 11:3 Answer key/Solution

Directions for questions 31 to 34: Answer the questions on the basis of the information given below.

The pie chart given below shows the percentage break-up of the number of competitors who participated from five different countries A, B, C, D and E in Asian Games 2018.



The partially filled-in table given below shows the number of competitors who participated from the five countries in the six sports conducted during the Asian Games 2018.

Country Sport	Α	В	С	D	E
Boxing	24		32	40	18
Badminton	36	29		20	24
Kabaddi	28		35	26	46
Shooting	38	32	52	26	
Wrestling	44	46	34		30
Athletics	·	23	42	33	20

#### Note:

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- Each competitor who came to the Asian Games participated in exactly one of the six sports. (i)
- At least one competitor from each country participated in each of the six sports. (ii)
- Six cells in the table are left blank and the sum of that six missing values is 222. (iii)

Mock Analysis

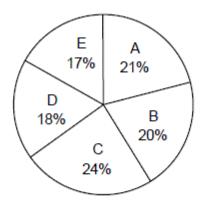
Q.33	[11594329]
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2/11/2021

Which of the six sports witnessed the highest participation of the competitors from the five countries put together?

Directions for questions 31 to 34: Answer the questions on the basis of the information given below.

The pie chart given below shows the percentage break-up of the number of competitors who participated from five different countries A, B, C, D and E in Asian Games 2018.



The partially filled-in table given below shows the number of competitors who participated from the five countries in the six sports conducted during the Asian Games 2018.

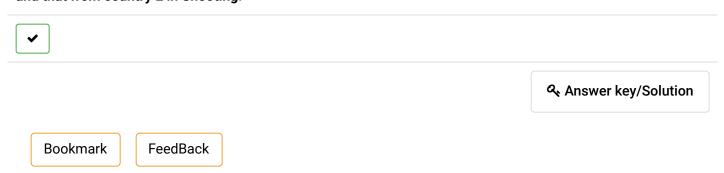
Α	В	С	D	E
24		32	40	18
36	29		20	24
28		35	26	46
38	32	52	26	
44	46	34		30
	23	42	33	20
	24 36 28 38	24 29 28 32 44 46	24     32       36     29       28     35       38     32     52       44     46     34	24     32     40       36     29     20       28     35     26       38     32     52     26       44     46     34

#### Note:

- Each competitor who came to the Asian Games participated in exactly one of the six sports. (i)
- At least one competitor from each country participated in each of the six sports. (ii)
- Six cells in the table are left blank and the sum of that six missing values is 222. (iii)

#### Q.34 [11594329]

Find the absolute difference between the number of competitors who participated from country A in Athletics and that from country E in Shooting.



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

Pramod Gautam, Sachin Kale, Harish Dhandev, Vishwanath Bobade and Rajiv Bittu - are five farmers each having some cattle with him. The total number of cattle with five of them taken together is 249. It is also known that:

- (i) The number of cattle with Pramod Gautam is the square of a natural number.
- (ii) Each of them has at least 21 cattle.
- (iii) The number of cattle with Harish Dhandev is 6 more than the square of a natural number.
- (iv) The ratio of the number of cattle with Vishwanath Bobade and Rajiv Bittu is 4:5 respectively.
- (v) Sachin Kale has an even number of cattle.
- (vi) The sum of the number of cattle with Vishwanath Bobade and Rajiv Bittu is equal to the number of cattle with Pramod Gautam.

#### Q.35 [11594329]

Which among the following can be the possible absolute difference between the number of cattle with Sachin

Kale and Harish Dhandev?	
1 ○ <b>21</b>	
2 O <b>23</b>	
3 O <b>25</b>	
4 ○ Either (2) or (3)	
•	
	♣ Answer key/Solution
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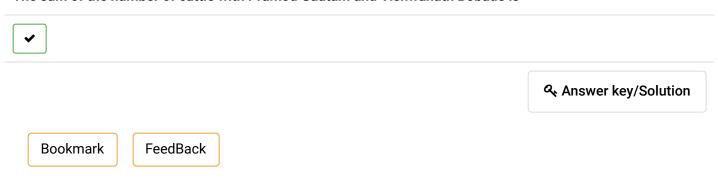
Directions for questions 35 to 38: Answer the questions on the basis of the information given below.

Pramod Gautam, Sachin Kale, Harish Dhandev, Vishwanath Bobade and Rajiv Bittu - are five farmers each having some cattle with him. The total number of cattle with five of them taken together is 249. It is also known that:

- (i) The number of cattle with Pramod Gautam is the square of a natural number.
- (ii) Each of them has at least 21 cattle.
- (iii) The number of cattle with Harish Dhandev is 6 more than the square of a natural number.
- (iv) The ratio of the number of cattle with Vishwanath Bobade and Rajiv Bittu is 4:5 respectively.
- (v) Sachin Kale has an even number of cattle.
- (vi) The sum of the number of cattle with Vishwanath Bobade and Rajiv Bittu is equal to the number of cattle with Pramod Gautam.

#### Q.36 [11594329]

The sum of the number of cattle with Pramod Gautam and Vishwanath Bobade is



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

Pramod Gautam, Sachin Kale, Harish Dhandev, Vishwanath Bobade and Rajiv Bittu - are five farmers each having some cattle with him. The total number of cattle with five of them taken together is 249. It is also known that:

- (i) The number of cattle with Pramod Gautam is the square of a natural number.
- (ii) Each of them has at least 21 cattle.
- (iii) The number of cattle with Harish Dhandev is 6 more than the square of a natural number.
- (iv) The ratio of the number of cattle with Vishwanath Bobade and Rajiv Bittu is 4:5 respectively.
- (v) Sachin Kale has an even number of cattle.
- (vi) The sum of the number of cattle with Vishwanath Bobade and Rajiv Bittu is equal to the number of cattle with Pramod Gautam.

# Q.37 [11594329] Who among the five farmers has the second lowest number of cattle? 1 O Vishwanath Bobade 2 O Sachin Kale 3 O Harish Dhandev 4 Cannot be determined Answer key/Solution

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

Pramod Gautam, Sachin Kale, Harish Dhandev, Vishwanath Bobade and Rajiv Bittu - are five farmers each having some cattle with him. The total number of cattle with five of them taken together is 249. It is also known that:

- (i) The number of cattle with Pramod Gautam is the square of a natural number.
- (ii) Each of them has at least 21 cattle.
- (iii) The number of cattle with Harish Dhandev is 6 more than the square of a natural number.
- (iv) The ratio of the number of cattle with Vishwanath Bobade and Rajiv Bittu is 4:5 respectively.
- (v) Sachin Kale has an even number of cattle.
- (vi) The sum of the number of cattle with Vishwanath Bobade and Rajiv Bittu is equal to the number of cattle with Pramod Gautam.

# Q.38 [11594329] How many farmers have an odd number of cattle? Answer key/Solution Bookmark FeedBack

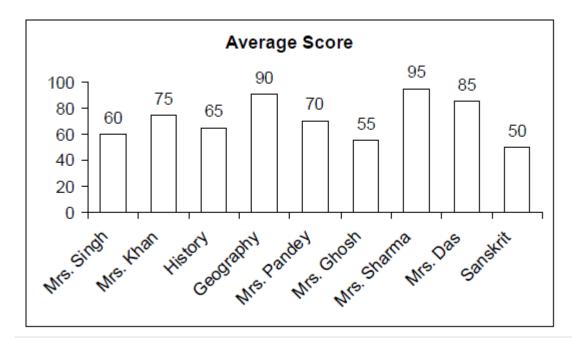
Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

At ZPS international school, nine different subjects - English, Hindi, Sanskrit, History, Geography, Physics, Chemistry, Biology and Mathematics - were taught during nine different periods in a day to the 8th class students. Duration of each period is of 30 minutes and the time gap between any two classes is negligible. The first period of the day begins at 8 a.m. and the last period ends at 1:00 p.m. with a 30 minutes recess period in between. Each subject is taught by a different teacher - Mrs. Chopra, Mrs. Sharma, Mrs. Pandey, Mrs. Gupta, Mrs. Joshi, Mrs. Das, Mrs. Ghosh, Mrs. Khan and Mrs. Singh - not necessarily in that order.

Some additional information about these periods routine is also known which is as follows:

- (i) Mrs. Gupta's class begins at 9.30 a.m. and is not immediately preceded by Biology or Physics class.
- (ii) The Mathematics class begins at 8 a.m. and Hindi class ends at noon.
- (iii) Chemistry is taught by Mrs. Sharma which is held some time after the break.
- (iv) Mrs. Joshi's class starts exactly three and a half hours after the end of Mrs. Singh's class and neither of them teaches Physics.
- (v) The Geography period starts exactly one hour before the English period starts and neither of them is taken by Mrs. Chopra or Mrs. Khan.
- (vi) There are exactly three periods between the English period and the Physics period.
- (vii) The Biology period is neither immediately preceded nor immediately followed by the Hindi period.
- (viii) There are exactly five periods between Mrs. Chopra's class and Mrs. Joshi's class.
- (ix) Mrs. Khan's class ends at 9 a.m. and the recess is immediately after the Geography class.
- (x) Biology class is after Mrs. Joshi's class.

The bar graph given below shows the average score of the students in the respective subjects or teacher's classes:



#### Q.39 [11594329]

If the average score of Mrs. Chopra's class is more than the average score of Mrs. Singh's class, then which of the following subjects does Mrs. Chopra teach?

1 O History

2 O Sanskrit	
3 O Hindi	
4 O Cannot be determined	
	م Answer key/Solution
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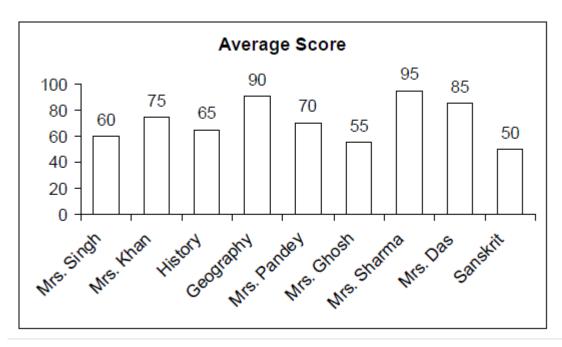
Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

At ZPS international school, nine different subjects - English, Hindi, Sanskrit, History, Geography, Physics, Chemistry, Biology and Mathematics - were taught during nine different periods in a day to the 8th class students. Duration of each period is of 30 minutes and the time gap between any two classes is negligible. The first period of the day begins at 8 a.m. and the last period ends at 1:00 p.m. with a 30 minutes recess period in between. Each subject is taught by a different teacher - Mrs. Chopra, Mrs. Sharma, Mrs. Pandey, Mrs. Gupta, Mrs. Joshi, Mrs. Das, Mrs. Ghosh, Mrs. Khan and Mrs. Singh - not necessarily in that order.

Some additional information about these periods routine is also known which is as follows:

- (i) Mrs. Gupta's class begins at 9.30 a.m. and is not immediately preceded by Biology or Physics class.
- (ii) The Mathematics class begins at 8 a.m. and Hindi class ends at noon.
- (iii) Chemistry is taught by Mrs. Sharma which is held some time after the break.
- (iv) Mrs. Joshi's class starts exactly three and a half hours after the end of Mrs. Singh's class and neither of them teaches Physics.
- (v) The Geography period starts exactly one hour before the English period starts and neither of them is taken by Mrs. Chopra or Mrs. Khan.
- (vi) There are exactly three periods between the English period and the Physics period.
- (vii) The Biology period is neither immediately preceded nor immediately followed by the Hindi period.
- (viii) There are exactly five periods between Mrs. Chopra's class and Mrs. Joshi's class.
- (ix) Mrs. Khan's class ends at 9 a.m. and the recess is immediately after the Geography class.
- (x) Biology class is after Mrs. Joshi's class.

The bar graph given below shows the average score of the students in the respective subjects or teacher's classes:



## Q.40 [11594329]

If the average score of the English class is the mean of the average scores of Mrs. Sharma's class and the Physics class, then who teaches English?

1 ○ Mrs. Pandey	
2 O Mrs. Das	
3 ○ Mrs. Ghosh	
4 ○ Mrs. Gupta	
	Anower key/Solution

Answer key/Solution

Bookmark

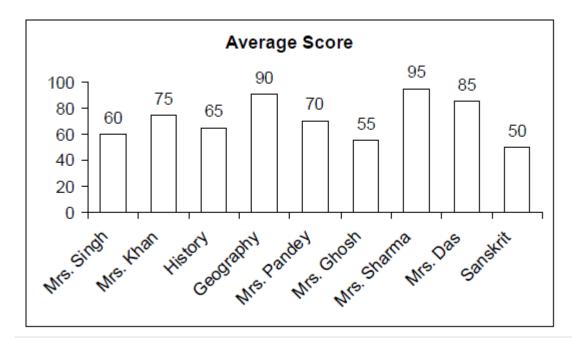
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Some additional information about these periods routine is also known which is as follows:

- (i) Mrs. Gupta's class begins at 9.30 a.m. and is not immediately preceded by Biology or Physics class.
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- (iv) Mrs. Joshi's class starts exactly three and a half hours after the end of Mrs. Singh's class and neither of them teaches Physics.
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- (vi) There are exactly three periods between the English period and the Physics period.
- (vii) The Biology period is neither immediately preceded nor immediately followed by the Hindi period.
- (viii) There are exactly five periods between Mrs. Chopra's class and Mrs. Joshi's class.
- (ix) Mrs. Khan's class ends at 9 a.m. and the recess is immediately after the Geography class.
- (x) Biology class is after Mrs. Joshi's class.

The bar graph given below shows the average score of the students in the respective subjects or teacher's classes:



## Q.41 [11594329]

If the mean of average score of Mathematics, Physics, Chemistry and Biology is 75, then which of the following is definitely true?

1 Mrs. Ghosh teaches Hindi

2 O Mrs. Das teaches English	
3 O Mrs.Pandey teaches Biology	
4 ○ Either Mrs. Ghosh or Mrs. Das teaches Biology	
	م Answer key/Solution
Bookmark FeedBack	

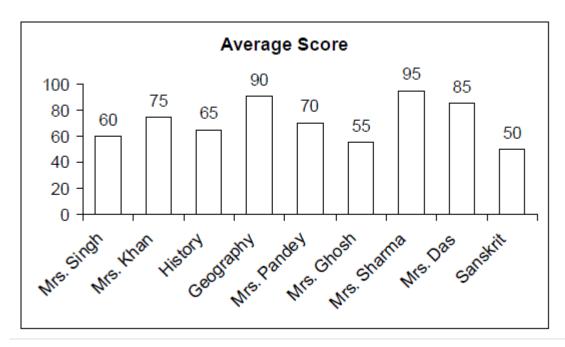
Directions for questions 39 to 42: Answer the questions on the basis of the information given below.

At ZPS international school, nine different subjects - English, Hindi, Sanskrit, History, Geography, Physics, Chemistry, Biology and Mathematics - were taught during nine different periods in a day to the 8th class students. Duration of each period is of 30 minutes and the time gap between any two classes is negligible. The first period of the day begins at 8 a.m. and the last period ends at 1:00 p.m. with a 30 minutes recess period in between. Each subject is taught by a different teacher - Mrs. Chopra, Mrs. Sharma, Mrs. Pandey, Mrs. Gupta, Mrs. Joshi, Mrs. Das, Mrs. Ghosh, Mrs. Khan and Mrs. Singh - not necessarily in that order.

Some additional information about these periods routine is also known which is as follows:

- (i) Mrs. Gupta's class begins at 9.30 a.m. and is not immediately preceded by Biology or Physics class.
- (ii) The Mathematics class begins at 8 a.m. and Hindi class ends at noon.
- (iii) Chemistry is taught by Mrs. Sharma which is held some time after the break.
- (iv) Mrs. Joshi's class starts exactly three and a half hours after the end of Mrs. Singh's class and neither of them teaches Physics.
- (v) The Geography period starts exactly one hour before the English period starts and neither of them is taken by Mrs. Chopra or Mrs. Khan.
- (vi) There are exactly three periods between the English period and the Physics period.
- (vii) The Biology period is neither immediately preceded nor immediately followed by the Hindi period.
- (viii) There are exactly five periods between Mrs. Chopra's class and Mrs. Joshi's class.
- (ix) Mrs. Khan's class ends at 9 a.m. and the recess is immediately after the Geography class.
- (x) Biology class is after Mrs. Joshi's class.

The bar graph given below shows the average score of the students in the respective subjects or teacher's classes:



### Q.42 [11594329]

If Mrs. Joshi takes the subject which has an average score of 50, then which of the following periods do not held before the recess?

1 O Mathematics	
2 O Sanskrit	
3 O History	
4 O Geography	
	≪ Answer key/Solution

Bookmark

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

Eight friends - Mohan, Mohit, Mandeep, Mandar, Mukesh, Manish, Manoj and Vinod - each ordered a food item among Idli, Dosa, Kulcha, Veg thali, Burger, Baby corn, Veg roll and Malai Chap from a food delivery App, not necessarily in that order. The actual cost (in Rupees) of these items were 30, 40, 50, 60, 70, 80, 90 and 100, in any order. But when these friends went on payment page of the App and made payment, the amount deducted from their bank accounts were Rs. 50, 60, 70, 90, 100 and 110, in any order due to high demand of food. It means same amount might be deducted from more than one friend's bank account. It was also known that:

- (i) The price of no item was increased by more than Rs. 20, due to high demand. Mohit's bank account had been debited by the highest possible amount among them and he had ordered Veg thali that had actual cost of Rs. 90.
- (ii) The amount debited from Mukesh's bank account was less than Rs. 70 but more than that from the amount that debited from the friend's account who had ordered Burger. The actual cost of Malai Chap was Rs. 30.
- (iii) A friend whose bank account was debited by Rs. 50 had ordered the item whose actual cost was more than that of the item ordered by the friend whose bank account was debited by Rs. 60.
- (iv) Both, amount deducted and actual cost, were same for four food items. Mandeep's account was debited by Rs. 100 who had ordered Kulcha. The actual price of the items ordered by Manish and Manoj were Rs. 40 and Rs. 80 respectively.
- (v) The actual cost of item ordered by Mandar was less than that ordered by Manish. The bank account of the person who had ordered Idli was deducted by higher amount than that of the friend who had ordered Dosa but by lesser amount than that of the friend who had ordered Veg roll.

Q.43 [11594329] The actual price of Dosa was	
1 ○ Rs. 40	
2 O Rs. 60	
3 ○ <b>Rs. 70</b>	
4 ○ Either (1) or (2)	
	م Answer key/Solution
Bookmark FeedBack	

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

Eight friends - Mohan, Mohit, Mandeep, Mandar, Mukesh, Manish, Manoj and Vinod - each ordered a food item among Idli, Dosa, Kulcha, Veg thali, Burger, Baby corn, Veg roll and Malai Chap from a food delivery App, not necessarily in that order. The actual cost (in Rupees) of these items were 30, 40, 50, 60, 70, 80, 90 and 100, in any order. But when these friends went on payment page of the App and made payment, the amount deducted from their bank accounts were Rs. 50, 60, 70, 90, 100 and 110, in any order due to high demand of food. It means same amount might be deducted from more than one friend's bank account. It was also known that:

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- (iii) A friend whose bank account was debited by Rs. 50 had ordered the item whose actual cost was more than that of the item ordered by the friend whose bank account was debited by Rs. 60.
- (iv) Both, amount deducted and actual cost, were same for four food items. Mandeep's account was debited by Rs. 100 who had ordered Kulcha. The actual price of the items ordered by Manish and Manoj were Rs. 40 and Rs. 80 respectively.
- (v) The actual cost of item ordered by Mandar was less than that ordered by Manish. The bank account of the person who had ordered Idli was deducted by higher amount than that of the friend who had ordered Dosa but by lesser amount than that of the friend who had ordered Veg roll.

Q.44 [11594329] Who had ordered Veg roll?	
1 O Manish	
2 ○ Manoj	
3 O Vinod	
4 ○ Mohan	
	ه Answer key/Solution
Bookmark FeedBack	

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

Eight friends - Mohan, Mohit, Mandeep, Mandar, Mukesh, Manish, Manoj and Vinod - each ordered a food item among Idli, Dosa, Kulcha, Veg thali, Burger, Baby corn, Veg roll and Malai Chap from a food delivery App, not necessarily in that order. The actual cost (in Rupees) of these items were 30, 40, 50, 60, 70, 80, 90 and 100, in any order. But when these friends went on payment page of the App and made payment, the amount deducted from their bank accounts were Rs. 50, 60, 70, 90, 100 and 110, in any order due to high demand of food. It means same amount might be deducted from more than one friend's bank account. It was also known that:

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- (ii) The amount debited from Mukesh's bank account was less than Rs. 70 but more than that from the amount that debited from the friend's account who had ordered Burger. The actual cost of Malai Chap was Rs. 30.
- (iii) A friend whose bank account was debited by Rs. 50 had ordered the item whose actual cost was more than that of the item ordered by the friend whose bank account was debited by Rs. 60.
- (iv) Both, amount deducted and actual cost, were same for four food items. Mandeep's account was debited by Rs. 100 who had ordered Kulcha. The actual price of the items ordered by Manish and Manoj were Rs. 40 and Rs. 80 respectively.
- (v) The actual cost of item ordered by Mandar was less than that ordered by Manish. The bank account of the person who had ordered Idli was deducted by higher amount than that of the friend who had ordered Dosa but by lesser amount than that of the friend who had ordered Veg roll.

#### Q.45 [11594329]

The actual price (in Rs.) of Burger and Idli together was

Answer key/Solution

Bookmark

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

Eight friends - Mohan, Mohit, Mandeep, Mandar, Mukesh, Manish, Manoj and Vinod - each ordered a food item among Idli, Dosa, Kulcha, Veg thali, Burger, Baby corn, Veg roll and Malai Chap from a food delivery App, not necessarily in that order. The actual cost (in Rupees) of these items were 30, 40, 50, 60, 70, 80, 90 and 100, in any order. But when these friends went on payment page of the App and made payment, the amount deducted from their bank accounts were Rs. 50, 60, 70, 90, 100 and 110, in any order due to high demand of food. It means same amount might be deducted from more than one friend's bank account. It was also known that:

- (i) The price of no item was increased by more than Rs. 20, due to high demand. Mohit's bank account had been debited by the highest possible amount among them and he had ordered Veg thali that had actual cost of Rs. 90.
- (ii) The amount debited from Mukesh's bank account was less than Rs. 70 but more than that from the amount that debited from the friend's account who had ordered Burger. The actual cost of Malai Chap was Rs. 30.
- (iii) A friend whose bank account was debited by Rs. 50 had ordered the item whose actual cost was more than that of the item ordered by the friend whose bank account was debited by Rs. 60.
- (iv) Both, amount deducted and actual cost, were same for four food items. Mandeep's account was debited by Rs. 100 who had ordered Kulcha. The actual price of the items ordered by Manish and Manoj were Rs. 40 and Rs. 80 respectively.
- (v) The actual cost of item ordered by Mandar was less than that ordered by Manish. The bank account of the person who had ordered Idli was deducted by higher amount than that of the friend who had ordered Dosa but by lesser amount than that of the friend who had ordered Veg roll.

#### Q.46 [11594329]

The amount (in Rs.) debited from Mandar's account was

Answer key/Solution

Bookmark

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

Arun has rented out his four storey building i.e, ground, 1st, 2nd and 3rd floor, to ten tenants - Prakash, Gautam, Ankit, Upendra, Samar, Tarun, Saral, Manoj, Sandeep and Ajit. There are 12 flats, named from 0 to Z, such that the number of flats on ground, 1st, 2nd and 3rd floor are three, four, two and three respectively. Each flat is occupied by one tenant only. The rents paid by these tenants are between Rs. 6k and Rs. 12k (both including). Rent of a flat at any end, either left or right, i.e., corner flat of any floor is not less than that of flat(s) which is/are not at the end i.e., non-corner flats. The maximum rent paid for any flat at a lower floor is less than or equal to that for any flat at upper floor.

Some additional information is as given below:

- (i) Flat 'S' and 'R' are left and right end corner flats respectively. Total rent collected from these twelve flats was Rs. 88k.
- (ii) Sandeep lives exactly between Prakash and Gautam on the same floor, and Saral, Manoj and Ajit live on different floors. Flat T and W are not occupied by anyone.
- (iii) Tarun lives in a right end corner flat 'V' on the ground floor and pays rent of Rs. 7k which is equal to the rent paid by Gautam who lives on the 1st floor. Total rent collected from any floor was not less than Rs. 10k.
- (iv) Flat P, U and Q are on the same floor from left to right in that order but are below to the floor on which flats O, W and Z (in that order from left to right) are located.
- (v) Total rent collected from the flats at ground floor and at 1st floor are Rs. 20k and Rs. 24k respectively. Manoj, who pays rent of Rs. 9k, lives in a left end corner flat 'X' on the 2nd floor.
- (vi) Upendra lives to the left of Saral and pays more rent than that paid by Samar. The flats of Ankit and Ajit are adjacent to each other and Ajit does not pay the least rent among all ten tenants.
- (vii) The rents paid by all the tenants are multiple of 1000.

[Note:- Flats on each floor are in a row facing north direction]

Q.47 [11594329] Find the total sum of the rents paid by Sandeep, Samar and Saral.	
1 ○ <b>30k</b>	
2 O 31k	
3 ○ <b>32k</b>	
4 ○ None of these	
	م Answer key/Solution
Bookmark FeedBack	

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

Arun has rented out his four storey building i.e, ground, 1st, 2nd and 3rd floor, to ten tenants - Prakash, Gautam, Ankit, Upendra, Samar, Tarun, Saral, Manoj, Sandeep and Ajit. There are 12 flats, named from 0 to Z, such that the number of flats on ground, 1st, 2nd and 3rd floor are three, four, two and three respectively. Each flat is occupied by one tenant only. The rents paid by these tenants are between Rs. 6k and Rs. 12k (both including). Rent of a flat at any end, either left or right, i.e., corner flat of any floor is not less than that of flat(s) which is/are not at the end i.e., non-corner flats. The maximum rent paid for any flat at a lower floor is less than or equal to that for any flat at upper floor.

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- (i) Flat 'S' and 'R' are left and right end corner flats respectively. Total rent collected from these twelve flats was Rs. 88k.
- (ii) Sandeep lives exactly between Prakash and Gautam on the same floor, and Saral, Manoj and Ajit live on different floors. Flat T and W are not occupied by anyone.
- (iii) Tarun lives in a right end corner flat 'V' on the ground floor and pays rent of Rs. 7k which is equal to the rent paid by Gautam who lives on the 1st floor. Total rent collected from any floor was not less than Rs. 10k.
- (iv) Flat P, U and Q are on the same floor from left to right in that order but are below to the floor on which flats O, W and Z (in that order from left to right) are located.
- (v) Total rent collected from the flats at ground floor and at 1st floor are Rs. 20k and Rs. 24k respectively. Manoj, who pays rent of Rs. 9k, lives in a left end corner flat 'X' on the 2nd floor.
- (vi) Upendra lives to the left of Saral and pays more rent than that paid by Samar. The flats of Ankit and Ajit are adjacent to each other and Ajit does not pay the least rent among all ten tenants.
- (vii) The rents paid by all the tenants are multiple of 1000.

[Note:- Flats on each floor are in a row facing north direction]

Q.48 [11594329] Saral lives in flat named	
1 ○ <b>z</b>	
2○ <b>0</b>	
3 ○ <b>R</b>	
4 ○ <b>s</b>	
	م Answer key/Solution
Bookmark FeedBack	

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

Arun has rented out his four storey building i.e, ground, 1st, 2nd and 3rd floor, to ten tenants - Prakash, Gautam, Ankit, Upendra, Samar, Tarun, Saral, Manoj, Sandeep and Ajit. There are 12 flats, named from 0 to Z, such that the number of flats on ground, 1st, 2nd and 3rd floor are three, four, two and three respectively. Each flat is occupied by one tenant only. The rents paid by these tenants are between Rs. 6k and Rs. 12k (both including). Rent of a flat at any end, either left or right, i.e., corner flat of any floor is not less than that of flat(s) which is/are not at the end i.e., non-corner flats. The maximum rent paid for any flat at a lower floor is less than or equal to that for any flat at upper floor.

Some additional information is as given below:

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- (ii) Sandeep lives exactly between Prakash and Gautam on the same floor, and Saral, Manoj and Ajit live on different floors. Flat T and W are not occupied by anyone.
- (iii) Tarun lives in a right end corner flat 'V' on the ground floor and pays rent of Rs. 7k which is equal to the rent paid by Gautam who lives on the 1st floor. Total rent collected from any floor was not less than Rs. 10k.
- (iv) Flat P, U and Q are on the same floor from left to right in that order but are below to the floor on which flats O, W and Z (in that order from left to right) are located.
- (v) Total rent collected from the flats at ground floor and at 1st floor are Rs. 20k and Rs. 24k respectively. Manoj, who pays rent of Rs. 9k, lives in a left end corner flat 'X' on the 2nd floor.
- (vi) Upendra lives to the left of Saral and pays more rent than that paid by Samar. The flats of Ankit and Ajit are adjacent to each other and Ajit does not pay the least rent among all ten tenants.
- (vii) The rents paid by all the tenants are multiple of 1000.

[Note:- Flats on each floor are in a row facing north direction]	
Q.49 [11594329] Who among the following can live in the left end corner flats?	
1 ○ Saral, Manoj, Ajit	
2 O Upendra, Manoj, Prakash and Ajit	
3 ○ Saral, Manoj, Prakash and Ajit.	
4 ○ Upendra, Manoj, Ajit, Samar	
	م Answer key/Solution
Bookmark FeedBack	

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

Arun has rented out his four storey building i.e, ground, 1st, 2nd and 3rd floor, to ten tenants - Prakash, Gautam, Ankit, Upendra, Samar, Tarun, Saral, Manoj, Sandeep and Ajit. There are 12 flats, named from 0 to Z, such that the number of flats on ground, 1st, 2nd and 3rd floor are three, four, two and three respectively. Each flat is occupied by one tenant only. The rents paid by these tenants are between Rs. 6k and Rs. 12k (both including). Rent of a flat at any end, either left or right, i.e., corner flat of any floor is not less than that of flat(s) which is/are not at the end i.e., non-corner flats. The maximum rent paid for any flat at a lower floor is less than or equal to that for any flat at upper floor.

Some additional information is as given below:

- (i) Flat 'S' and 'R' are left and right end corner flats respectively. Total rent collected from these twelve flats was Rs. 88k.
- (ii) Sandeep lives exactly between Prakash and Gautam on the same floor, and Saral, Manoj and Ajit live on different floors. Flat T and W are not occupied by anyone.
- (iii) Tarun lives in a right end corner flat 'V' on the ground floor and pays rent of Rs. 7k which is equal to the rent paid by Gautam who lives on the 1st floor. Total rent collected from any floor was not less than Rs. 10k.
- (iv) Flat P, U and Q are on the same floor from left to right in that order but are below to the floor on which flats O, W and Z (in that order from left to right) are located.
- (v) Total rent collected from the flats at ground floor and at 1st floor are Rs. 20k and Rs. 24k respectively. Manoj, who pays rent of Rs. 9k, lives in a left end corner flat 'X' on the 2nd floor.
- (vi) Upendra lives to the left of Saral and pays more rent than that paid by Samar. The flats of Ankit and Ajit are adjacent to each other and Ajit does not pay the least rent among all ten tenants.
- (vii) The rents paid by all the tenants are multiple of 1000.

[Note:- Flats on each floor are in a row facing north direction] 0 50 [11504200]

Among the following flats, which one has the least rent?	
1 <b>0</b>	
2 ○ R	
3 ○ <b>U</b>	
4 ○ <b>s</b>	
	م Answer key/Solution
Bookmark FeedBack	

Sec 3

#### Q.51 [11594329]

If f(x) + f(3-x) = 20, then find the value of  $f\left(\frac{1}{10}\right) + f\left(\frac{2}{10}\right) + f\left(\frac{3}{10}\right) + \dots + f\left(\frac{29}{10}\right)$ .

- 1 0 270
- 2 O **290**
- 3 O **310**
- 4 0 350

Answer key/Solution

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## Q.52 [11594329]

A cake is cut into three pieces, whose weights are in the ratio 1:2:3. The heaviest of these three pieces is then further cut into four pieces with their weights in the ratio 1:2:3:4. If at the end of this process, the lightest piece obtained weights 24 grams, then find the weight (in grams) of the original cake.



Answer key/Solution

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#### Q.53 [11594329]

There were 4 cards A, B, C and D. Two different numbers were written, one on each side such that one of these is a prime number on each card. The other numbers on those four cards in that order were 39, 24, 34 and 12 respectively. If the sum of the two numbers on each of these cards was the same, then the difference between the second smallest and the second largest numbers on these cards is

- 1 0 27
- 205

3 O 12	
4 🔾 17	
Bookmark FeedBack	≪ Answer key/Solution
Q.54 [11594329]  If the rate of simple interest on a certain sum becomes one and a half times of who would be the percentage reduction in the time taken for the sum to become three	
1 🔾 20	
$2^{\circ}_{33\frac{1}{3}}$	
$3 \frac{2}{3}$	
4 🔾 50	
×	
Bookmark FeedBack	≪ Answer key/Solution
Q.55 [11594329]  If the two quadratic equations, $x^2 - ax + 3 = 0$ and $x^2 + ax - 5 = 0$ , have one positive the value of a.	re root in common, then find
uie value 01 a.	Answer key/Solution
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### Q.56 [11594329]

The food available for a garrison of 240 men is sufficient to last for exactly 120 days. If after the first 40 days, a re-enforcement of 60 men joins the garrison and every men decreases his daily consumption by 20%, then for how many days more or less than the scheduled time will the food last?

- 1 0 10 days less
- 2 0 **12** days more
- 3 0 40 days more
- 4 O None of the above

Answer key/Solution

Bookmark

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## Q.57 [11594329]

Find the range of x that satisfies the inequality  $\frac{1}{x-2} > \frac{3}{x-3}$ .

- 1 (1, 4) {2, 3}
- 2 (2, 3)
- $3\bigcirc\left(-\infty,\frac{3}{2}\right)\cup(2,3)$
- $4 \bigcirc (-\infty, 1) \cup (1, 4)$



Answer key/Solution

Bookmark

2021 Work Analysis	
Q.58 [11594329] Find the ratio in which water should be mixed with a Pepsi concentrate of 40% by selling the resultant drink at Rs. 20/litre.	costing Rs. 16/litre to make a profit of
1 03:25	
2 🔾 1 : 8	
3 O 23 : 3	
4 🔾 25 : 3	
•	
Bookmark FeedBack	≪ Answer key/Solution
Q.59 [11594329] Sumanta said to Tamal, "When I was half as old as you are today, you we Sumanta is eight years older than Tamal, then what is the sum of their p	
	م Answer key/Solution

Bookmark

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## Q.60 [11594329]

If it takes 50% more time to row a boat upstream, over a certain distance, than what it takes to row the boat downstream over the same distance, then how many times the speed of the stream is the speed of the boat upstream?

1	- (	١.
	(	/ -
•	$\sim$	•

2 0 4

3 O **5/2** 

407
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Q.61 [11594329] How many distinct four-tuples (p, q, r, s) of integers are there with p $\log_{10} 2 + q \log_{10} 3 + r \log_{10} 5 + s \log_{10} 7$ 2149?
1 0 0
2 🔾 1
3 O 2148
4 O Infinitely Many
Bookmark FeedBack
Q.62 [11594329] A can complete a work in 12 days. A started the job on September 1. B joined him on September 4. C joined them on September 5. A quit the job after September 6. B quit the job after September 7. C worked alone thereafter. The job was completed at the end of September 9. They were paid Rs. 10000 for completing the job, whereas the share of B out of it was Rs. 3000. Find the number of days, C would take to do the job all by himself.
1 ○ <b>30 days</b>
$2^{\circ}13\frac{1}{3}$ days
3 ○ <b>25</b> days
4 ○ 15 days

2021		Mock Analy	ysis	
				& Answer key/Solution
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Q.63 [11594329] f 2a + 3b + 6c = 66	o, where a, b and c are po	ositive real numbers, th	nen find the maxin	num value of a <sup>6</sup> b <sup>2</sup> c <sup>3</sup> .
○ 2 <sup>15</sup> × 3 <sup>12</sup>				
$2 \odot 2^{14} \times 3^8 \times 1^{12}$				
$3\bigcirc 2^{12}\times 3^{14}$				
$4\bigcirc 2^{10} \times 3^{15}$				
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eggs of eight of th		n transportation. While	e selling the rest,	he makes 22% profit. The how much discount should
○24%				
2 ○ 20.8%				
3 ○ 18.6%				
○ <b>19.2</b> %				
				م Answer key/Solution

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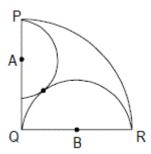
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# Q.65 [11594329] Set A has 'a' elements and set B has 'b' elements. If the sum of the number of proper subsets of A and that of B is 142, then find the value of (a + b). Answer key/Solution Bookmark FeedBack Q.66 [11594329] If the area of a circle, in which a chord of length $6\sqrt{3}$ units subtends an angle of 120 degrees at the centre of the circle, is $k\pi$ sq. units, then find k. Answer key/Solution Bookmark FeedBack Q.67 [11594329] Find the number of integer values of z such that $0.0625 = 4^z = 1050$ , and $4^z + 4$ is perfectly divisible by either 5 or 8. Answer key/Solution

### Q.68 [11594329]

In a quadrant of a circle, two semicircles are drawn as shown in the figure. The radius of the quadrant PQR is 12 cm. Then AB (in cm) is equal to



1	$\bigcirc$	6√	2

2	$\bigcirc$	8√	5
_	$\sim$	O v	_

3 0 10

4  $\bigcirc$  8

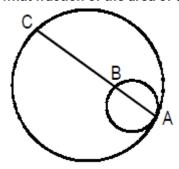
Answer key/Solution

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### Q.69 [11594329]

In the figure shown below, the smaller circle touches the larger circle internally at the point A and AB is a chord of the smaller circle. If AB, when extended, intersects the larger circle at C such that AB/ BC = 1/2, then what fraction of the area of the outer circle is not included in the inner circle?



1 0 3/4

2 O **2/3** 

3 0 8/9

○ 7/9		
	≪ Answer key/Solu	utior
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).70 [11594329] nd the remainder we get on dividing	g 3 <sup>352</sup> by 11.	
ĸ		
	م Answer key/Solu	utior
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1 1 1		
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2.71 [11594329] The number of ways in which 12 square a common side is  13  15	ares can be selected from a 5 × 5 chess board such that no two squ	Jares
ne number of ways in which 12 square a common side is  13  15	ares can be selected from a 5 × 5 chess board such that no two squ	ares
ne number of ways in which 12 square a common side is  13	ares can be selected from a 5 × 5 chess board such that no two squ	
ne number of ways in which 12 square a common side is  13  15		
ne number of ways in which 12 square a common side is  13  15  20  14		

## Q.72 [11594329]

In a triangle ABC, right-angled at B, E and F are points on AC such that E is the midpoint of AC and BF is perpendicular to AC. If  $\frac{BF}{AE} = \frac{24}{25}$ , then find  $\frac{AB}{BC} + \frac{BC}{BA}$ .

- $1 \circ_{2\frac{5}{9}}$
- $2 \frac{1}{10}$
- $3 \frac{1}{12}$
- 4 0 2

Answer key/Solution

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## Q.73 [11594329]

If in an infinite Geometric Progression, the sum of the squares of all the terms equals twice the square of sum of all the terms, then find the common ratio of the progression.

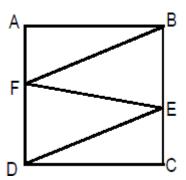
- 1 0 -1/3
- 2 0 -1/2
- 3 O **3**
- 4 0 1/2

Answer key/Solution

Bookmark

### Q.74 [11594329]

In the figure given below, ABCD is a square. If BF = FE = ED = 20 cm, then find the area (in sq.cm) of the square.



♠ Answer key/Solution

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## Q.75 [11594329]

A and B are two points with coordinates (0, 0) and (16, 64) respectively. M<sub>1</sub> is the midpoint of the line joining A and B,  $M_2$  is the midpoint of that joining  $M_1$  and A,  $M_3$  is the midpoint of that line joining  $M_2$  and A, and so on. If the coordinates of  $M_{10}$  are (h, k), then find the value of (1/h + 1/k).

Answer key/Solution

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