Section : Verbal Ability

QNo:- 1 ,Correct Answer:- B

Explanation:- Q is "Which one of the following scenarios, **if false**, could be seen as supporting the passage?" which means we are looking for an option which in its current form contradicts the passage

In para 2, the author says that the Nano-sentinels **won't** be used invade our bodies and turn us into robots,

QNo:- 2 ,Correct Answer:- D

Explanation:-
The entire passage is about nano robots and how they are now a reality. The first line of second para states it clearly.

QNo:- 3 ,Correct Answer:- B

Explanation:-
Refer to the lines, 'some of them could one day swim through our bloodstream to heal us.

QNo:- 4 ,Correct Answer:- D

Explanation:-
The first para is about the battle between Nano sentinels and X-men.

QNo:- 5 ,Correct Answer:- A

Explanation:-
The author uses this example to clarify the relationship between accuracy and entropy.

QNo:- 6 ,Correct Answer:- B

Explanation:-
The price paid is not the heat, but the increased entropy.

QNo:- 7 ,Correct Answer:- C

Explanation:-
Option 3 is the best set of words as it's about the relationship between entropy and accuracy in the context of measuring time.

QNo:- 8 ,Correct Answer:- B

Explanation:-
Q is "**None** of the following statements can be inferred from the passage **EXCEPT** that:" i.e. we are looking for an option which can be inferred
Option B can be inferred as the passage states that the quantum computers emphasise on accuracy and accuracy leads to more heat and more entropy.
For option C refer lines:
"*The relationship that the researchers found is a limit on the accuracy of a clock, so it **doesn't** mean that a clock that creates the most possible entropy would be maximally accurate –hence a large, inefficient grandfather clock isn't more precise than an atomic clock.*"

QNo:- 9 ,Correct Answer:- D

Explanation:-
Option 2 and 1 can be drawn from the second para" The vocabulary concerning the soul and the mind increased enormously in the course of the nineteenth century. The enrichments of literary and intellectual language led to an altered understanding of the meanings that underlie time-honoured expressions and traditional catchwords. At the same time, once coined, powerful new ideas attracted to themselves a whole host of seemingly unrelated issues, practices, and experiences, creating a peculiar network of preoccupations that as a group had not existed before. "Also, option 1 further can be drawn from last para.

Option 3 can be drawn from the 3rd para "Thus, before 1790, few if any spoke, in medical terms, of the affinity between creative genius and the hallucinations of the insane"

QNo:- 10 ,Correct Answer:- B

Explanation:-
The passage talks about The collating of diverse ideas under the single term: unconscious.
The passage throughout talks about vocabulary/language/concept and unconscious

It can be seen in the 2nd para and final para of the passage "Striving vaguely and independently to give expression to a latent conception, various lines of thought can be brought together by some novel term. The new concept then serves as a kind of resting place or stocktaking in the development of ideas, giving satisfaction and a stimulus for further discussion or speculation. Thus, the massive introduction of the term unconscious by Hartmann in 1869 appeared to focalize many stray thoughts, affording a temporary feeling that a crucial step had been taken forward, a comprehensive knowledge gained, a knowledge

that required only further elaboration, explication, and unfolding in order to bring in a bounty ofhigher understanding."

QNo:- 11 ,Correct Answer:- A

Explanation:-
The enrichments of literary and intellectual language led to an altered understanding of the meanings that underlie time-honoured expressions and traditional catchwords."
So option 1 which is The meanings of time-honoured expressions were changed by innovations in literary and intellectual language is apt.
Option 2 goes in a different direction and states language was altered
Option 4 does not mention about alteration/change in meanings rather talks about enrichment/defining the term better.

QNo:- 12 ,Correct Answer:- A

Explanation:-
Main sets of words closest to mapping the main arguments of the passage are Language; Unconscious; Psychoanalysis.
They form the basis of the passage and present from the start of the passage till the end. "The "unconscious" burst the shell of conventional language, coined as it had been to embody the fleeting ideas and the shifting conceptions of several generations until, finally, it became fixed and defined in specialized terms within the realm of medical psychology and Freudian psychoanalysis." Para 2 explains these points in detail.

QNo:- 13 ,Correct Answer:- D

Explanation:-
It is mentioned in para 3 "Unlike Mr. Chomsky, Mr. Pinker firmly places the wiring of the brain for language within the framework of Darwinian natural selection and evolution. He effectively disposes of all claims that intelligent nonhuman primates like chimps have any abilities to learn and use language. Itis not those chimps lack the vocal apparatus to speak; it is just that their brains are unable to produce or use grammar."

QNo:- 14 ,Correct Answer:- A

Explanation:-
It is mentioned in the 3rd para
" He effectively disposes of all claims that intelligent nonhuman primates like chimps have any abilities to learn and use language. Itis not those chimps lack the vocal apparatus to speak; it is just that their brains are unable to produce or use grammar. On the other hand, the "language instinct," when it first appeared among our most distant hominid ancestors,

must have given them a selective reproductive advantage over their competitors'

For option 3 refer lines "*A half-century ago, this would have been pooh-poohed as a "black box" theory, since one could not actually pinpoint this grammatical faculty in a specific part of the brain, or describe its functioning. **But now things are different. Neurosurgeons [have now found that this] "black box" is situated in and around Broca's area, on the left side of the forebrain. .** . *"

For option 4 refer lines "*On the other hand, the "language instinct," when it first appeared among o**ur most distant hominid ancestors, must have given them a selective reproductive advantage over their competitors** (including the ancestral chimps).*"

QNo:- 15 ,Correct Answer:- B

Explanation:-
For option 2 refer lines
"**So according to Mr. Pinker,** *the roots of language must be in the genes, but there cannot be a "grammar gene" any more than there can be a gene for the heart or any other complex body structure.* **This proposition will undoubtedly raise the hackles of some behavioral psychologists** *and anthropologists*,"
Also, it is mentioned in the 1st para ". In "T*he Language Instinct" he has gathered persuasive data from such diverse fields as cognitive neuroscience, developmental psychology and speech therapy to make his points, and when he disagrees with Mr. Chomsky he tells you so.*" So, we cannot infer behavior psychology.

OPtion 1 can be inferred from "*Since this message was couched in terms of Chomskyan theoretical linguistics, in discourse so opaque that it was nearly incomprehensible even to some scholars, many people did not hear it. Now, in a brilliant, witty and altogether satisfying book, Mr. Chomsky's colleague Steven Pinker . . . has brought Mr. Chomsky's findings to everyman.*"
Options C and D can also be drawn from "*Now, in a brilliant, witty and altogether satisfying book, Mr. Chomsky's colleague Steven Pinker . . . **has brought Mr. Chomsky's findings to everyman.** In "The Language Instinct" he has gathered persuasive data from such diverse fields as cognitive neuroscience, developmental psychology and speech therapy to make his points, and **when he disagrees with Mr. Chomsky he tells you so**. . . .*"

QNo:- 16 ,Correct Answer:- B

Explanation:-
It is mentioned in the last para that "*Racial differences are literally only "skin deep." The fundamental unity of humanity is the theme of Mr. Chomsky's universal grammar, and of this exciting book.*"

OPtion 4 is incorrect because of it's not about 'anatomical' developments or 'voice' box or 'language acquisition' (Refer line 1- Language is innate)

QNo:- 17 ,Correct Answer:- D

Explanation:-
The clue limes are 'Brazil's growth rate has been low, yet most Brazilians say their financial situation has improved, and they expect it to get even better & "But despite recent improvements the Brazilian economy is still painfully unequal, with poor Brazilian spaying the biggest share of their income in taxes and getting the least back in government services'. There is no mention of impending problems from rising inequality. There is no mention of 'most Brazilians being misled or even guided by the progress in the economy of the nation. This could be an inference and not the summary that unfair taxation of the poor that is likely to destabilise the Brazilian economy in the next few years.

QNo:- 18 ,Correct Answer:- 3412

Explanation:-
The question has presented views on threat to the employement by politicians & economists. The opening sentence is 3 as it introduces the theme of the discussion. It is countered by 4 as the real problem ,as stated by economists, is 'automation'. This has been futher explained by 1. After this 2 will come as it counters 1 as it's not just manual labour where robotic employees are helpful in increasing efficiency and productivity but now, computers are rapidly handling some white-collar and service-sector work, which explains increasing unemployment owing to automation

QNo:- 19 ,Correct Answer:- 4

Explanation:- Other sentences talk about technology sector but 4 talks about workplace in general.
3152
3 opens the argument
3-152 152 give an example and explain stt 3
1-5 are linked by 'reflect their interests.' in 1 and 'reflects the perspectives of the male stereotype' in 5
5-2 are linked by diversity

QNo:- 20 ,Correct Answer:- 3214

Explanation:-
The context talks about returninmg the artefacts to the countries they belong and challenges & apprehensions involved.
The opening sentence is 3 as it introduces the topic under discussion.
'this' in 2 in what has been said in 3.

After this 1 will come as it talks about the legal hurdles in this process.
The legal context has been further extended by 4 and will the conclude the context by stating the politicians stand on the issue.

QNo:- 21 ,Correct Answer:- D

Explanation:-
The clue lines are 'Work has become a way for them to keep busy, even though many find their work meaningles' & 'hard work has made us prosperous'. Also the line 'has also brought innovation'.
OPtion 1 is incorrect as author states both positives and negatives of vieweing hard work as virtuous but never goes on to say 'hard work is essential'
OPtion2 is incorrect as glorification of hard work has 'led to greater idleness' isn't implied

QNo:- 22 ,Correct Answer:- 3

Explanation:-
The sentences talk about the Chinese business schools and inspite of looking like their western rival, they are somewhat distinct in terms of what they offer. 3 is focusing on what western schools are doing and not actions of Chinese schools

QNo:- 23 ,Correct Answer:- C

Explanation:-
The clue lines are '*Intuition draws from that deep memory well to inform our decisions going forward. In other words, intuitive decisions are based on data, and not contrary to data as many would like to assume*' & '*subconsciously spot patterns, the body starts firing neuro chemicals in both the brain and gut*'.
Option 1 is incorrect because of words 'may not be related to data' whichc contradicts '*In other words, intuitive decisions are based on data, and not contrary to data as many would like to assume*'
Option 2 is incorrect as it focuses lot more on big data than the para. Also, 'accomplishes more than what big data can' is different from big data not being able to draw on qualitative factors like sight, sounds etc {'*our intuition draws from decades of diverse qualitative experience(sights, sounds, interactions, etc.) – a wholly human feature that big data alone could never accomplish.*'}
Option D is incomplete as it leaves out the 1st half completely. Also, it's not just speed that makes intuition better '*Not only are these automatic processes faster than rational thought, but our intuition draws from decades of diverse qualitative experience(sights, sounds, interactions, etc.)* '

QNo:- 24 ,Correct Answer:- 2314

Explanation:-

The context moves around what constitutes the understanding of relationships other than what is generally perceived. The opening sentence is 2 as it talks about what scholars should attend to while establishing the realtionships. 3 & 4 talk about the 'approach' that goes beyond the macro level in establishing the relationship in true essence. 1 further explains this approach and its ability to sustain truth.

Section : DI & Reasoning

QNo:- 25 ,Correct Answer:- C

Explanation:-

The given information can be gathered as follows

Phase 1											
Rank	P1	P2	P3	P4	P5	P6	P7	P8		P9	P10
Round 1 score	82.9	0	81.5	0	86.4	82.5	87.2	0		84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9		P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1		0	82.5 < < 87.6
Maximum	82.9	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P5	P9	P8	P10	P3	P7	P2	P6		P4	P1*
Round 3 score	88.6	0	79.0	0	0	0	0	0		81.4	0
Maximum	88.6	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6		P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10

So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data can be arranged as follows

Phase 2											
Round 4 score	NA	-	-	-	NA	-	88.4	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	88.4	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P2	P6		P5	P3
Round 5 score	NA	-	-	-	NA	-	89.6	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P4	-	P1	P6		P5	P3
Round 6 score	NA	-	-	-	87.6	-	NA	NA		NA	NA
Maximum	88.6	-	-	-	87.6	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P3	-	P1	P6		P5	P4
		Silver	-	-	Bronze	-	Gold	-		-	-

Since P1, P2 and P4 never gets a double,
Hence, eliminating the options, it must be P8 and P10

QNo:- 26 ,Correct Answer:- D

Explanation:-
The given information can be gathered as follows

Phase 1										
Rank	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Round 1 score	82.9	0	81.5	0	86.4	82.5	87.2	0	84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9	P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1	0	82.5 < < 87.6
Maximum	82.9	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P5	P9	P8	P10	P3	P7	P2	P6	P4	P1*
Round 3 score	88.6	0	79.0	0	0	0	0	0	81.4	0
Maximum	88.6	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6	P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10
So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data can be arranged as follows

Phase 2										
Round 4 score	NA	-	-	NA	-	88.4	NA		NA	NA
Maximum	88.6	-	-	86.4	-	88.4	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P1	-	-	P4	-	P2	P6		P5	P3
Round 5 score	NA	-	-	NA	-	89.6	NA		NA	NA
Maximum	88.6	-	-	86.4	-	89.6	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P2	-	-	P4	-	P1	P6		P5	P3
Round 6 score	NA	-	-	87.6	-	NA	NA		NA	NA
Maximum	88.6	-	-	87.6	-	89.6	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P2	-	-	P3	-	P1	P6		P5	P4
	Silver	-	-	Bronze	-	Gold	-		-	-

P1

QNo:- 27 ,Correct Answer:- A

Explanation:-

The given information can be gathered as follows

Phase 1

Rank	P1	P2	P3	P4	P5	P6	P7	P8		P9	P10
Round 1 score	82.9	0	81.5	0		86.4	82.5	87.2	0		84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9		P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1	0	82.5 < < 87.6
Maximum	82.9	0	81.5	0		86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P5	P9	P8	P10	P3	P7	P2	P6		P4	P1*
Round 3 score	88.6	0	79.0	0		0	0	0	0	81.4	0
Maximum	88.6	0	81.5	0		86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6		P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10
So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data can be arranged as follows

Phase 2

Round 4 score	NA	-	-	-	NA	-	88.4	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	88.4	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P2	P6		P5	P3
Round 5 score	NA	-	-	-	NA	-	89.6	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P4	-	P1	P6		P5	P3
Round 6 score	NA	-	-	-	87.6	-	NA	NA		NA	NA
Maximum	88.6	-	-	-	87.6	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P3	-	P1	P6		P5	P4
		Silver	-	-	Bronze	-	Gold	-		-	-

P7 (who won gold)

QNo:- 28 ,Correct Answer:- C

Explanation:-
The given information can be gathered as follows

Phase 1

Rank	P1	P2	P3	P4	P5	P6	P7	P8		P9	P10
Round 1 score	82.9	0	81.5	0		86.4	82.5	87.2	0		84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9		P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1	0	82.5 < < 87.6
Maximum	82.9	0	81.5	0		86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6

Rank	P5	P9	P8	P10	P3	P7	P2	P6	P4	P1*
Round 3 score	88.6	0	79.0	0	0	0	0	0	81.4	0
Maximum	88.6	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6	P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10

So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data can be arranged as follows

Phase 2									
Round 4 score	NA	-	-	-	NA	-	88.4	NA	NA	NA
Maximum	88.6	-	-	-	86.4	-	88.4	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P2	P6	P5	P3
Round 5 score	NA	-	-	-	NA	-	89.6	NA	NA	NA
Maximum	88.6	-	-	-	86.4	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P4	-	P1	P6	P5	P3
Round 6 score	NA	-	-	-	87.6	-	NA	NA	NA	NA
Maximum	88.6	-	-	-	87.6	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P3	-	P1	P6	P5	P4
	Silver	-	-	-	Bronze	-	Gold	-	-	-

88.6

QNo:- 29 ,Correct Answer:- D

Explanation:-

The given information can be gathered as follows

Phase 1									
Rank	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Round 1 score	82.9	0	81.5	0	86.4	82.5	87.2	0	84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9	P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1	0	82.5 < < 87.6
Maximum	82.9	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P5	P9	P8	P10	P3	P7	P2	P6	P4	P1*
Round 3 score	88.6	0	79.0	0	0	0	0	0	81.4	0
Maximum	88.6	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6	P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10

So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data

can be arranged as follows

Phase 2								
Round 4 score	NA	-	-	-	NA	-	88.4	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	88.4	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P2	P6		P5	P3
Round 5 score	NA	-	-	-	NA	-	89.6	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P4	-	P1	P6		P5	P3
Round 6 score	NA	-	-	-	87.6	-	NA	NA		NA	NA
Maximum	88.6	-	-	-	87.6	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P2	-	-	-	P3	-	P1	P6		P5	P4
	Silver	-	-	-	Bronze	-	Gold	-		-	-

82.5 < P8 < 84.1, so 82.7 is possible score among given options

QNo:- 30 ,Correct Answer:- D

Explanation:-
The given information can be gathered as follows

Phase 1										
Rank	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10
Round 1 score	82.9	0	81.5	0	86.4	82.5	87.2	0	84.1	0
Rank	P4	P7	P6	P8	P2	P5	P1	P9	P3	P10
Round 2 score	0	0	0	0	0	0	0	82.5 < < 84.1	0	82.5 < < 87.6
Maximum	82.9	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P5	P9	P8	P10	P3	P7	P2	P6	P4	P1*
Round 3 score	88.6	0	79.0	0	0	0	0	0	81.4	0
Maximum	88.6	0	81.5	0	86.4	82.5	87.2	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P3	P6	P5	P2

*After solving the whole data, the possibility of having double is for P8 and P10
So, P10 in round 2 being last, scores maximum in round 3 being first, and, P8 scoring last in round 3 would have 1st turn in round 1 as in phase 2, last rank throws 1st and rest of the data can be arranged as follows

Phase 2								
Round 4 score	NA	-	-	-	NA	-	88.4	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	88.4	82.5 < < 84.1	84.1	87.2 < < 87.6
Rank	P1	-	-	-	P4	-	P2	P6		P5	P3
Round 5 score	NA	-	-	-	NA	-	89.6	NA		NA	NA
Maximum	88.6	-	-	-	86.4	-	89.6	82.5 < < 84.1	84.1	87.2 < < 87.6

Rank	P2	-	-	-	P4	-	P1	P6		P5	P3
Round 6 score	NA	-	-	-	87.6	-	NA	NA		NA	NA
Maximum	88.6	-	-	-	87.6	-	89.6	82.5 < < 84.1		84.1	87.2 < < 87.6
Rank	P2	-	-	-	P3	-	P1	P6		P5	P4
		Silver	-	-	Bronze	-	Gold	-		-	-

89.6 - 87.2 = 2.4

QNo:- 31 ,Correct Answer:- 3

Explanation:-

The information can be gathered as follows

Created by			Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
		Q01				✓	Accepted
Q02				✓/×	×/✓	×	Rejected
		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
		Q11		×		×	Rejected
	Q12				×	×	Rejected
Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

Amal definitely created 3 questions Q07, Q09, Q12

QNo:- 32 ,Correct Answer:- 1

Explanation:-

The information can be gathered as follows

Created by			Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
		Q01				✓	Accepted
Q02				✓/×	×/✓	×	Rejected

		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
		Q11		×		×	Rejected
	Q12				×	×	Rejected
Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

Komal definitely created 1 question Q10

QNo:- 33 ,Correct Answer:- 3

Explanation:-
The information can be gathered as follows

Created by				Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
		Q01				✓	Accepted
Q02				✓/×	×/✓	×	Rejected
		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
		Q11		×		×	Rejected
	Q12				×	×	Rejected
Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

SME definitely created 3 questions Q02, Q04 and Q08

QNo:- 34 ,Correct Answer:- 4

Explanation:-

The information can be gathered as follows

Created by			Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
		Q01				✓	Accepted
Q02				✓/×	×/✓	×	Rejected
		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
		Q11		×		×	Rejected
	Q12				×	×	Rejected
Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

Bimal definitely disapproved 4 questions Q06, Q07, Q09 and Q12

QNo:- 35 ,Correct Answer:- A

Explanation:-

The information can be gathered as follows

Created by			Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
		Q01				✓	Accepted
Q02				✓/×	×/✓	×	Rejected
		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
	Q11			×		×	Rejected
	Q12				×	×	Rejected

Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

Amal reviewed 8 questions, among them he approved at least 2 questions Q03, Q10 and maximum Amal can approve 6 questions Q02, Q03, Q04, Q08, Q10 and Q13
Approval ratio of Amal lies between 2/8 = 0.25 and 6/8 = 0.75

QNo:- 36 ,Correct Answer:- A

Explanation:-
The information can be gathered as follows

Created by				Reviewed by			Status
SME	Amal	Bimal	Komal	Amal	Bimal	Komal	
			Q01			✓	Accepted
Q02				✓/×	×/✓	×	Rejected
		Q03		✓		×	Accepted
Q04				✓/×	×/✓	✓	Accepted
		Q05				✓	Accepted
Q06			Q06	×	×		Rejected
	Q07				×	✓	Accepted
Q08				✓/×	×/✓	✓	Accepted
	Q09				×	×	Rejected
			Q10	✓			Accepted
		Q11		×		×	Rejected
	Q12				×	×	Rejected
Q13			Q13	✓/×	✓		Accepted

✓ means approved and × means disapproved

For Amal, Q07, Q09 and Q12 or for Bimal Q03 and Q11 are disapproved by at least one of the other reviewers, total = 5 questions

QNo:- 37 ,Correct Answer:- B

Explanation:-
The given information can be gathered as follows

	Abani	Bahni	Danni	Tinni	Total Employee-Month	Project Completion Index
Project 1	2 × 100%	2 × 100%	0	2 × 80%	6	560/6 = 93.33%

Project 2	0	0	3 × 90%	2 × 100%	5	470/5 = 94%
Project 3	2 × 100%	4 × 75%	3 × 100%	0	9	800/9 = 88.89%
Project 4	5 × 80%	0	2 × 100%	3 × 100%	10	900/10 = 90%
Project 5	0	3 × 90%	1 × 100%	2 × 100%	6	570/6 = 95%
Total Project-Month	9	9	9	9		
Employee Annual Completion Index	800/9 = 88.89%	770/9 = 85.56%	870/9 = 96.67%	860/9 = 95.56%		

From the above table, it is clear that
I: The total project-month was the same for the four employees = 9 is true
II: The total employee-month was the same for the five projects is not true
Only I is true

QNo:- 38 ,Correct Answer:- D

Explanation:-
The given information can be gathered as follows

	Abani	Bahni	Danni	Tinni	Total Employee-Month	Project Completion Index
Project 1	2 × 100%	2 × 100%	0	2 × 80%	6	560/6 = 93.33%
Project 2	0	0	3 × 90%	2 × 100%	5	470/5 = 94%
Project 3	2 × 100%	4 × 75%	3 × 100%	0	9	800/9 = 88.89%
Project 4	5 × 80%	0	2 × 100%	3 × 100%	10	900/10 = 90%
Project 5	0	3 × 90%	1 × 100%	2 × 100%	6	570/6 = 95%
Total Project-Month	9	9	9	9		
Employee Annual Completion Index	800/9 = 88.89%	770/9 = 85.56%	870/9 = 96.67%	860/9 = 95.56%		

By observation only Tinni worked in multiple projects, so Abani, Bahni and Danni did not work in multiple projects

QNo:- 39 ,Correct Answer:- C

Explanation:-
The given information can be gathered as follows

	Abani	Bahni	Danni	Tinni	Total Employee-Month	Project Completion Index

	Abani	Bahni	Danni	Tinni	Total Employee-Month	Project Completion Index
Project 1	2 × 100%	2 × 100%	0	2 × 80%	6	560/6 = 93.33%
Project 2	0	0	3 × 90%	2 × 100%	5	470/5 = 94%
Project 3	2 × 100%	4 × 75%	3 × 100%	0	9	800/9 = 88.89%
Project 4	5 × 80%	0	2 × 100%	3 × 100%	10	900/10 = 90%
Project 5	0	3 × 90%	1 × 100%	2 × 100%	6	570/6 = 95%
Total Project-Month	9	9	9	9		
Employee Annual Completion Index	800/9 = 88.89%	770/9 = 85.56%	870/9 = 96.67%	860/9 = 95.56%		

Again, by observation, project duration of
Project 1 = Jan to Mar = 3 months
Project 2 = Feb to Apr = 3 months
Project 3 = Apr to Aug = 5 months
Project 4 = Jul to Nov = 5 months
Project 5 = Sep to Dec = 4 months
Hence, project duration as per options, Project 3 and Project 4 is same

QNo:- 40 ,Correct Answer:- B

Explanation:-
The given information can be gathered as follows

	Abani	Bahni	Danni	Tinni	Total Employee-Month	Project Completion Index
Project 1	2 × 100%	2 × 100%	0	2 × 80%	6	560/6 = 93.33%
Project 2	0	0	3 × 90%	2 × 100%	5	470/5 = 94%
Project 3	2 × 100%	4 × 75%	3 × 100%	0	9	800/9 = 88.89%
Project 4	5 × 80%	0	2 × 100%	3 × 100%	10	900/10 = 90%
Project 5	0	3 × 90%	1 × 100%	2 × 100%	6	570/6 = 95%
Total Project-Month	9	9	9	9		
Employee Annual Completion Index	800/9 = 88.89%	770/9 = 85.56%	870/9 = 96.67%	860/9 = 95.56%		

From the above table, it is clear that in terms of Annual Completion Index
Danni > Tinni > Abani > Bahni

QNo:- 41 ,Correct Answer:- A

Explanation:-

Given, A = 0% I and 100% P
Let B = x% I and (100 − x)% P
Since they are mixed in equal quantity to detect the presence of I.
(0% I + x% I)/2 ≥ 10% Total, x% I ≥ 20% Total
Hence, x% I ≥ 20% of 50 ml = 10 ml

QNo:- 42 ,Correct Answer:- 1

Explanation:-
Since each bottle contains only P or only I
Take equal quantity from each bottle say 10 ml and mix them
Now, if at least any one of them will contain only I, then
I % = 10/40 × 100 = 25% > 10%, so impurity will be detected
And if all four bottles contain only P, then 0% I will be detected
Hence, minimum of 1 test required to ascertain that all of them contain only P

QNo:- 43 ,Correct Answer:- 2

Explanation:-
Since three bottles contains only P and one contains 80% P and 20% I
Taking equal quantity from each bottle say 10 ml and mixing them
I % = 2/40 × 100 = 5% < 10%, so only one test is not sufficient to detect the bottle
Let the bottles be B1, B2, B3 and B4 in any order
Now consider any two bottles (say B1 and B2) and take equal quantity from each bottle say 10 ml and mix them,
Case I, if I% = 0, then both the bottles are only P and now take any one bottle from either B1 or B2 and mix with either B3 or B4
if I% is still = 0, then the remaining bottle contains 20% I
and if I% = (0 + 20)/2 = 10, then the newly mixed bottle contains 20% I
Case II, if I% = 10, then remaining B3 and B4 are only P, now take either B1 or B2 and mix with B3 or B4
If I% = 0, then the other bottle among B1 or B2 contains 20% I
And if I% is still = 10, then the bottle taken among B1 or B2 contains 20% I
Hence, minimum of 2 tests required in either of the cases

QNo:- 44 ,Correct Answer:- B

Explanation:-
Case I, if only one bottle contains only P and remaining three bottles contains 15% I
Take equal quantity from each bottle and mix them
I% = (0 + 15 + 15 + 15)/4 = 11.25 > 10, so impurity will be detected
Case II, if two bottles contain only P and remaining two bottles contain 15% I
Take equal quantity from each bottle and mix them

I% = (0 + 0 + 15 + 15)/4 = 7.5 < 10, so impurity will not be detected
Hence, minimum of only 1 test ascertain the exact number of bottles containing only P

Section : Quantitative Ability

QNo:- 45 ,Correct Answer:- 3000

Explanation:-
Since money paid is in proportion to the work done
Let work = 24000 units (1 unit = 1 Re)
Anil's efficiency = 24000/12 = 2000 units/day
Barun's efficiency = 24000/16 = 1500 units/day
Together, Anil + Barun + Chandu = 24000/6 = 4000 units/day
Chandu's efficiency = 4000 – 2000 – 1500 = 500 units/day
Since Chandu worked for 6 days, money paid = 500 × 6 = Rs 3000

QNo:- 46 ,Correct Answer:- 92

Explanation:-
Sum (25 students) = 25 × 50 = 1250
Let the score of each topper = x, sum (5 toppers) = 5x
Remaining students = 20
To maximize the score of the topper, we have to minimize the remaining score with 30 being least and all distinct integer
Sum (20 students minimum) = 30 + 31 + 32 + ... 20 values
= 20/2 (2 × 30 + 19 × 1) = 790
So, Sum (5 toppers) = 5x = 1250 – 790 = 460
Hence, the score of each topper (maximum) = 460/5 = 92

QNo:- 47 ,Correct Answer:- C

Explanation:-
Let the number of large size shirt = x and small size shirt = 64 – x
Let the price of the large shirt = P, then price of small shirt = P – 50
Given, P × x = 5000 and (P – 50)(64 – x) = 1800
64P – Px – 3200 + 50x = 1800
64P + 50x = 10000
32P + 25 (5000/P) = 5000
$32P^2$ – 5000P + 125000 = 0
$4P^2$ – 625P + 15625 = 0
$4P^2$ – 500P – 125P + 15625 = 0
(4P – 125)(P – 125) = 0
P = 125 (as P = 125/4 making P – 50 negative, so rejected)

Hence the price of large shirt and small shirt together
= P + (P − 50) = 200

QNo:- 48 ,Correct Answer:- D

Explanation:-
Given information can be gathered as follows

	Male	Female	Total
1970	m	f	100 (let)
1980	1.4m	1.2f	125

m + f = 100 and 1.4m + 1.2f = 1250
Solving, m = 25 and f = 75

	Male	Female	Total
1970	25	75	100
1980	35	90	125
1990	56.25	90 + 25/100 × 90 = 112.5	168.75

Required percentage increase = (168.75 − 100)/100 × 100 = 68.75%

QNo:- 49 ,Correct Answer:- 34

Explanation:-
Let the price of smallest cup = 2x, price of medium cup = 5x
And let the price of largest cup = p
Given, $2x \times 5x \times p = 800$, $p = 80/x^2$
Also, $(2x + 6) \times (5x + 6) \times p = 3200$
$(10x^2 + 42x + 36) \times p = 3200$
$10x^2 + 42x + 36 = 40x^2$, $5x^2 − 7x − 6 = 0$
$(5x + 3)(x − 2) = 0$, x = 2, p = 20
Required sum = 2x + 5x + p = 34

QNo:- 50 ,Correct Answer:- A

Explanation:-
Let the weight of the initial alloy = x kg and percentage of silver in the alloy = p%
Given, p% of x + 100% of 3 = 90% of (x + 3)
px + 300 = 90x + 270, 90x − px = 30
Also, p% of x + 90% of 2 = 84% of (x + 2)

px + 180 = 84x + 168, 84x – px = 12
Subtracting and solving, 6x = 18, x = 3 kg

QNo:- 51 ,Correct Answer:- 12

Explanation:-
There are two cases possible

Case I, 0 < 1 + mn < m + n < 5	Case II, -5 < m + n < 1 + mn < 0
mn – m – n + 1 < 0	mn – m – n + 1 > 0
(m – 1)(n – 1) < 0	(m – 1)(n – 1) > 0
m < 1 or n < 1	m > 1 or n > 1
Also, mn + 1 > 0, mn > -1	Also, mn + 1 < 0, mn < -1
Only possible,	Again, only possible,
if either m = 0, n = 2, 3, 4	if either m = 0, n = -2, -3, -4
or n = 0, m = 2, 3 and 4	or n = 0, m = -2, -3 and -4

Total solutions = 12

QNo:- 52 ,Correct Answer:- C

Explanation:-
Total Expenses = Total Revenue – Total Profit
Also, Total Expenses (T) = Fixed Expenses (F) + Variable Expenses per boarder (V) × Number of boarder (n)
(1600 – 200) × 50 = 70000 = F + 50V
(1600 – 250) × 75 = 101250 = F + 75V
Solving, V = 1250 and F = 7500
Total Expenses (80 boarders) = 7500 + 80 × 1250 = 107500
Total Profit = 80 × 1600 – 107500 = 20500

QNo:- 53 ,Correct Answer:- B

Explanation:-
Given, AD = 10 cm and AC = 20 cm
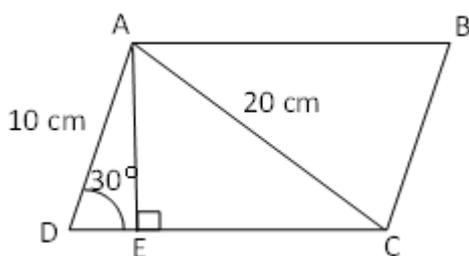
Also angle ADC = 30°
Drop perpendicular AE at DC
Triangle DAE becomes 30-60-90
Since, AD = 10 cm, AE = 5 cm
and DE = 5√3 cm
Also, in right angled triangle AEC
$AC^2 = AE^2 + EC^2$
$EC^2 = 400 - 25 = 375$, EC = 5√15 cm

Required Area = AE × (DE + EC) = 5 × (5√3 + 5√15) = 25 (√3 + √15) cm^2

QNo:- 54 ,Correct Answer:- A

Explanation:-
$f(g(x)) - 3x = f(x + 3) - 3x = (x + 3)^2 - 7(x + 3) - 3x = x^2 - 4x - 12$
The minimum value of above function is at x = -(-4)/2 = 2
Hence, required value = 4 – 8 – 12 = -16

QNo:- 55 ,Correct Answer:- 6

Explanation:-
$(10)^{1/7} \times (10)^{2/7} \times \dots \times (10)^{n/7} > 999$
$(10)^{1/7 + 2/7 + \dots + n/7} > 999 \approx 10^3$
$(10)^{n(n+1)/14} \approx 10^3$
n(n+1) ≈ 42, so for n = 6 satisfies the given in equation

QNo:- 56 ,Correct Answer:- A

Explanation:-
Matches played = 40, Won = 30% of 40 = 12
Let remaining matches = x, Win among them = 60% of x = 0.6
Overall win, 12 + 0.6x = 50% of (40 + x)
Solving, x = 80 = remaining matches
Required value = 12 + 90% of 80 = 84

QNo:- 57 ,Correct Answer:- B

Explanation:-
Let L and B be the length and breadth of rectangular plot
One side cost = 200 be on one of the lengths and other three sides cost = 100
Total cost = 200L + 100L + 100B + 100B = 300L + 200B

The cost to be lowest possible, 300L = 200B = k
Area, L × B = 60000, k/300 × k/200 = 60000, k = 60000
Hence, L = 200 and B = 300
Required lowest cost = 300 × 200 + 200 × 300 = 120000

QNo:- 58 ,Correct Answer:- B

Explanation:-
Let R and G be the efficiencies respectively
Given, R × 8 + G × 6 = W (total work)   × 5
Also, R × 7.5 + G × 7.5 = W   × 4
Subtracting, 40R – 30R = W, R = W/10
Hence, Rahul alone would have taken 10 hours

QNo:- 59 ,Correct Answer:- D

Explanation:-
$3x + 2|y| + y = 7$ and $x + |x| + 3y = 1$

Case I, x > 0, y > 0 3x + 3y = 7 2x + 3y = 1 Solving, x = 6 and y = -11/3 rejected as y > 0	Case II, x > 0, y < 0 3x – y = 7 2x + 3y = 1 Solving, x = 2 and y = -1 So, x + 2y = 0
Case III, x < 0, y > 0 3x + 3y = 7 3y = 1 Solving, x = 2 and y = 1/3 rejected as x < 0	Case IV, x < 0, y < 0 3x – y = 7 3y = 1 Solving, x = 22/9 and y = 1/3 rejected as x and y < 0

Hence, only case II possible, x + 2y = 0

QNo:- 60 ,Correct Answer:- D

Explanation:-
Let the rate of interest at bank B = R%, then at bank C = 2R%
Let the principal invested by Raju at bank B = P
Amount accrued by Raju = P + PRT/100
= $P(1 + (6/2)/100)^{1×2}$

$1 + RT/100 = (1.03)^2$,

$RT = 6.09$,

Rupa invested Rs 10000 at twice the rate and twice the period

Rupa's interest = $10000 \times 4RT/100$ = Rs 2436

QNo:- 61 ,Correct Answer:- 3500

Explanation:-

Area of rhombus = $1/2 \times d_1 \times d_2 = 96$, $d_1 \times d_2 = 192$

Also, Perimeter (given) = 40 m, so side, $a = 10$ m

We know, $(d_1/2)^2 + (d_2/2)^2 = a^2 = 100$

Considering d_1 and d_2 to be integers, d_1 and $d_2 = 12$

and 16 satisfies the above triplet as well as $12 \times 16 = 192$

Hence required cost = $(12 + 16) \times 125$ = Rs 3500

QNo:- 62 ,Correct Answer:- B

Explanation:-

Given, $x_1 = -1$

$x_2 = x_1 + 1 - 1 = -1$

$x_3 = x_2 + 2 - 1 = 0$

$x_4 = x_3 + 3 - 1 = 2$

$x_5 = x_4 + 4 - 1 = 5$

...

Sum = $x_1 + x_2 + x_3 + x_4 + x_5 + ... + x_n$

Sum = $-1 + -1 + 0 + 2 + 5 + ... + x_n$

Sum = $\qquad -1 + -1 + 0 + 2 + 5 + ... + x_{n-1} + x_n$

Subtracting,

$0 = -1 + 0 + 1 + 2 + 3 + ... + (n - 2) - x_n$

$x_n = n/2\ (-1 + n - 2) = n(n - 3)/2$

$x_{100} = (100 \times 97)/2 = 4850$

QNo:- 63 ,Correct Answer:- 8

Explanation:-

Let the length of the track = x

Let the speed of Mira and Amal be m and a respectively

If Amal completes 3 more round than Mira in 45 min walking in same direction,

$a - m = 3x/45 = x/15$

Also, when they walk in opposite direction, $a + m = x/3$
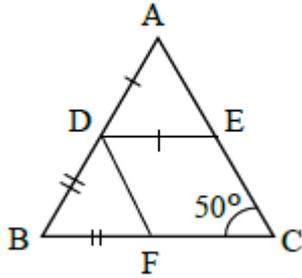
Solving, $a = x/5$ and $m = 2x/15 = x/7.5$

So, Mira walks one round in 7.5 mins
Hence number of rounds Mira walks in one hours = 60/7.5 = 8

QNo:- 64 ,Correct Answer:- D

Explanation:-
Given, angle BCA = 50°

AD = DE and BD = DF
Let angle DAE = angle DEA = x
So, angle ADE = 180° – 2x
Also let angle BDF = angle BFD = y°
So, angle BDF = 180° – 2y
Also, angle A + B + C = 180°
So, x + y = 130°
Again, angle ADE + angle BDF + angle FDE = 180°
180° – 2x + 180° – 2y + angle FDE = 180°
Angle FDE = 260° - 180° = 80°

QNo:- 65 ,Correct Answer:- C

Explanation:-
$(\log_{15} a + \log_{32} a)/(\log_{15} a)(\log_{32} a) = 4$
$[(\log a)/(\log 15) + (\log a)/(\log 32)]/[(\log a)/(\log 15) \times (\log a)/(\log 32)] = 4$
$\log 32 + \log 15 = 4 \log a$, $\log 480 = \log a^4$
Hence, 4 < a < 5

QNo:- 66 ,Correct Answer:- 50

Explanation:-
Following cases are possible
(2, 3, 1, 1) can be arranged in 4!/2! = 12 cases
(2, 3, 1, 2) can be arranged in 4!/2! = 12 cases
(2, 3, 1, 3) can be arranged in 4!/2! = 12 cases
(2, 3, 2, 2) can be arranged in 4!/3! = 4 cases
(2, 3, 2, 3) can be arranged in 4!/2!2! = 6 cases

(2, 3, 3, 3) can be arranged in 4!/3! = 4 cases
Total = 50 cases