Directions of Test

Test Name	Bull Placement Goldman Sachs 01	Total Questions	37	Total Time	135 Mins

Section Name	No. of Questions	Time limit	Marks per Question	Negative Marking
Aptitude	25	0:45(h:m)	1	0
Technical	10	0:30(h:m)	1	0
Coding	2	1:0(h:m)	1	0

Section : Aptitude

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 1

As soon as the news reached South Africa that I along with other Indians had offered my services in the war, I received a cable from Mr. Polak who questioned the consistency of my action with my profession of *ahimsa*.

All of us recognized the immorality of war. If I was not prepared to prosecute my assailant, much less should I be willing to participate in a war, especially when I knew nothing of the justice or otherwise of the cause of the combatants. The very same line of argument that persuaded me to take part in the Boer War had weighed with me on this occasion. It was quite clear to me that participation in war could never be consistent with ahimsa. A votary of truth is often obliged to grope in the dark.

Ahimsa is a comprehensive principle. We are helpless mortals caught in the conflagration of *himsa*. The saying that life lives on life has a deep meaning in it. A votary of *ahimsa* therefore remains true to his faith if the spring of all his actions is compassion, if he shuns to the best of his ability the destruction of the tiniest creature, tries to save it, and thus incessantly strives to be free from the deadly coil of *himsa*.

So long as he continues to be a social being, he cannot but participate in the *himsa* that the very existence of society involves. When two nations are fighting, the duty of a votary of *ahimsa* is to stop the war. He who is not equal to that duty, he who has no power of resisting war, he who is not qualified to resist war, may take part in war, and yet whole-heartedly try to free himself, his nation and the world from war.

I had hoped to improve my status and that of my people through the British Empire. If I desired to retain my connection with the Empire and to live under its banner, one of three courses was open to me: I could declare open resistance to the war and boycott the Empire until it changed its military policy; or I could seek imprisonment by civil disobedience of such of its laws as were fit to be disobeyed; or I could participate in the war on the side of the Empire and thereby acquire the capacity and fitness for resisting the violence of war. I lacked this capacity and fitness, as I thought there was nothing for it but to serve in the war.

Excerpted from Pages 261-263 from 'The Story of My Experiments with Truth' by MK Gandhi

According to Gandhiji, a believer of truth ...

A) knows that one can be completely liberated of himsa, if he so wants
B) may not always be able to have a clear view of what his obligations are
C) can participate in violence if it improves his status in society D) takes the side of the mightier combatant

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 2

As soon as the news reached South Africa that I along with other Indians had offered my services in the war, I received a cable from Mr. Polak who questioned the consistency of my action with my profession of *ahimsa*.

All of us recognized the immorality of war. If I was not prepared to prosecute my assailant, much less should I be willing to participate in a war, especially when I knew nothing of the justice or otherwise of the cause of the combatants. The very same line of argument that persuaded me to take part in the Boer War had weighed with me on this occasion. It was quite clear to me that participation in war could never be consistent with ahimsa. A votary of truth is often obliged to grope in the dark.

Ahimsa is a comprehensive principle. We are helpless mortals caught in the conflagration of *himsa*. The saying that life lives on life has a deep meaning in it. A votary of *ahimsa* therefore remains true to his faith if the spring of all his actions is compassion, if he shuns to the best of his ability the destruction of the tiniest creature, tries to save it, and thus incessantly strives to be free from the deadly coil of *himsa*.

So long as he continues to be a social being, he cannot but participate in the *himsa* that the very existence of society involves. When two nations are fighting, the duty of a votary of *ahimsa* is to stop the war. He who is not equal to that duty, he who has no power of resisting war, he who is not qualified to resist war, may take part in war, and yet whole-heartedly try to free himself, his nation and the world from war.

I had hoped to improve my status and that of my people through the British Empire. If I desired to retain my connection with the Empire and to live under its banner, one of three courses was open to me: I could declare open resistance to the war and boycott the Empire until it changed its military policy; or I could seek imprisonment by civil disobedience of such of its laws as were fit to be disobeyed; or I could participate in the war on the side of the Empire and thereby acquire the capacity and fitness for resisting the violence of war. I lacked this capacity and fitness, as I thought there was nothing for it but to serve in the war.

Excerpted from Pages 261-263 from 'The Story of My Experiments with Truth' by MK Gandhi

Which of the following reasons does Gandhiji use to justify his stand of taking part in the war?

A) If you are a follower of ahimsa, in a war supporting the stronger combatant is customary
B) If you participate in wars when none of the combatants are ruling over you, it improves the status of the people in your nation
C) If your objective is to emancipate your country, but you cannot stop the war or are unfit to resist the war, participation in war is acceptable
D) If you are practicing ahimsa, you cannot fight against those who are ruling you and supporting them is the best approach

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 3

As soon as the news reached South Africa that I along with other Indians had offered my services in the war, I received a cable from Mr. Polak who questioned the consistency of my action with my profession of *ahimsa*.

All of us recognized the immorality of war. If I was not prepared to prosecute my assailant, much less should I be willing to participate in a war, especially when I knew nothing of the justice or otherwise of the cause of the combatants. The very same line of argument that persuaded me to take part in the Boer War had weighed with me on this occasion. It was quite clear to me that participation in war could never be consistent with ahimsa. A votary of truth is often obliged to grope in the dark.

Ahimsa is a comprehensive principle. We are helpless mortals caught in the conflagration of *himsa*. The saying that life lives on life has a deep meaning in it. A votary of *ahimsa* therefore remains true to his faith if the spring of all his actions is compassion, if he shuns to the best of his ability the destruction of the tiniest creature, tries to save it, and thus incessantly strives to be free from the deadly coil of *himsa*.

So long as he continues to be a social being, he cannot but participate in the *himsa* that the very existence of society involves. When two nations are fighting, the duty of a votary of *ahimsa* is to stop the war. He who is not equal to that duty, he who has no power of resisting war, he who is not qualified to resist war, may take part in war, and yet whole-heartedly try to free himself, his nation and the world from war.

I had hoped to improve my status and that of my people through the British Empire. If I desired to retain my connection with the Empire and to live under its banner, one of three courses was open to me: I could declare open resistance to the war and boycott the Empire until it changed its military policy; or I could seek imprisonment by civil disobedience of such of its laws as were fit to be disobeyed; or I could participate in the war on the side of the Empire and thereby acquire the capacity and fitness for resisting the violence of war. I lacked this capacity and fitness, as I thought there was nothing for it but to serve in the war.

Excerpted from Pages 261-263 from 'The Story of My Experiments with Truth' by MK Gandhi

From the point of Ahimsa, all of the following are as guilty of dacoity as the dacoits themselves, except

A) He who volunteers to serve a band of dacoits, by working as their carrier
B) He who works for the dacoits, as the watchman while they are about their business
C) He who nurses the dacoits when the dacoits are wounded in battle
D) He who is compelled into dacoity because of injustice done by society to him

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 4

With normal computers there are only two options – on and off – for processing information. A computer "bit", the smallest unit into which all information is broken down, is either a "1" or a "0". And the computational power of a normal computer is dependent on the number of binary transistors – tiny power switches – that are contained within its microprocessor.

But in the mysterious subatomic realm of quantum computers, particles can act like waves, so that they can be particle or wave or particle and wave. This is what's known in quantum mechanics as superposition. As a result of superposition a qubit can be a 0 or 1 or 0 and 1. That means it can perform two equations at the same time. Two qubits can perform four equations. And three qubits can perform eight, and so on in an exponential expansion.

In areas such as artificial intelligence and cryptography, it's thought that quantum computing will transform the landscape, perhaps bringing about the breakthrough that will enable machines to "think" with the nuance and interpretative skill of humans. A pioneer in this field is D-Wave, a company that prides itself on building the world's first functioning quantum computer, which is what is contained within the large fridge-like casing. Actually it is a fridge, the coldest fridge ever assembled. The cooling apparatus enables the niobium computer chip at its core to function at a temperature of just under –273C, or as close to absolute zero as the known universe gets.

The supercooled environment is necessary to maintain coherent quantum activity of superposition and entanglement, the state in which particles begin to interact – again rather mysteriously – co-dependently, and the qubits are linked by quantum mechanics regardless of their position in space. Any intrusion of heat or light would corrupt the process and thus the effectiveness of the computer.

D-Wave's CEO, Brownell, used to be chief of technology at Goldman Sachs. In that job there were few tech developments that he didn't have pitched at him. He believes that while social media successes like Facebook are clever utilisations of existing technology, the fact that Silicon Valley is constantly chasing profitable variations on the same theme means that it is no longer doing the really tough mental work. "The level of innovation is much, much less than we've seen historically and probably at an all-time low in terms of the real world-changing innovations."

The kinds of problems that quantum computers might help address are all concerned with what's called optimisation – finding the most efficient model in complex systems. "Optimisation sounds like a really boring problem," says Brownell, "but it's at the core of so many complex application problems in every discipline. Probably one of the most exciting is in the artificial intelligence world. Say you're trying to recognise a water bottle. It still takes computers an enormous amount of time to do that not as well as humans do. Computers are catching up, but quantum computing can help accelerate that process."

D-Wave's vision, he says, is for a green revolution in computing, in which everyone will have access to much more energy-efficient quantum computers through the cloud.

D-Wave's first demonstration in 2007 of its 16-qubit device, which involved solving a sudoku puzzle, hardly set the world on fire. Umesh Vazirani, co-author of a paper on quantum complexity theory, dismissed D-Wave's claims of speedup as a misunderstanding of his work, and suggested that "even if it turns out to be a true quantum computer, and even if it could be scaled to thousands of qubits, [it] would likely not be more powerful than a cellphone".

Thereafter the company was regularly accused of hype and exaggeration. Part of the problem was that it was very hard to measure with any agreed accuracy what was happening. D-Wave came up with a test to show that entanglement – seen as a necessary prerequisite for a working quantum computer – was taking place.

Excerpted from an article in The Guardian dated May 2016 'Has the age of quantum computing arrived?' by Andrew Anthony

What does the current version of the quantum computer require intense cooling?

A) Work on room temperature superconductors is in an advanced state
B) The volume of transactions is quite high – which leads to excessive heat generation
C) Heat can disturb the quantum state and entanglement
D) The sophistication of qubits as switches requires high energy densities

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 5

With normal computers there are only two options – on and off – for processing information. A computer "bit", the smallest unit into which all information is broken down, is either a "1" or a "0". And the computational power of a normal computer is dependent on the number of binary transistors – tiny power switches – that are contained within its microprocessor.

But in the mysterious subatomic realm of quantum computers, particles can act like waves, so that they can be particle or wave or particle and wave. This is what's known in quantum mechanics as superposition. As a result of superposition a qubit can be a 0 or 1 or 0 and 1. That means it can perform two equations at the same time. Two qubits can perform four equations. And three qubits can perform eight, and so on in an exponential expansion.

In areas such as artificial intelligence and cryptography, it's thought that quantum computing will transform the landscape, perhaps bringing about the breakthrough that will enable machines to "think" with the nuance and interpretative skill of humans. A pioneer in this field is D-Wave, a company that prides itself on building the world's first functioning quantum computer, which is what is contained within the large fridge-like casing. Actually it is a fridge, the coldest fridge ever assembled. The cooling apparatus enables the niobium computer chip at its core to function at a temperature of just under –273C, or as close to absolute zero as the known universe gets.

The supercooled environment is necessary to maintain coherent quantum activity of superposition and entanglement, the state in which particles begin to interact – again rather mysteriously – co-dependently, and the qubits are linked by quantum mechanics regardless of their position in space. Any intrusion of heat or light would corrupt the process and thus the effectiveness of the computer.

D-Wave's CEO, Brownell, used to be chief of technology at Goldman Sachs. In that job there were few tech developments that he didn't have pitched at him. He believes that while social media successes like Facebook are clever utilisations of existing technology, the fact that Silicon Valley is constantly chasing profitable variations on the same theme means that it is no longer doing the really tough mental work. "The level of innovation is much, much less than we've seen historically and probably at an all-time low in terms of the real world-changing innovations."

The kinds of problems that quantum computers might help address are all concerned with what's called optimisation – finding the most efficient model in complex systems. "Optimisation sounds like a really boring problem," says Brownell, "but it's at the core of so many complex application problems in every discipline. Probably one of the most exciting is in the artificial intelligence world. Say you're trying to recognise a water bottle. It still takes computers an enormous amount of time to do that not as well as humans do. Computers are catching up, but quantum computing can help accelerate that process."

D-Wave's vision, he says, is for a green revolution in computing, in which everyone will have access to much more energy-efficient quantum computers through the cloud.

D-Wave's first demonstration in 2007 of its 16-qubit device, which involved solving a sudoku puzzle, hardly set the world on fire. Umesh Vazirani, co-author of a paper on quantum complexity theory, dismissed D-Wave's claims of speedup as a misunderstanding of his work, and suggested that "even if it turns out to be a true quantum computer, and even if it could be scaled to thousands of qubits, [it] would likely not be more powerful than a cellphone".

Thereafter the company was regularly accused of hype and exaggeration. Part of the problem was that it was very hard to measure with any agreed accuracy what was happening. D-Wave came up with a test to show that entanglement – seen as a necessary prerequisite for a working quantum computer – was taking place.

Excerpted from an article in The Guardian dated May 2016 'Has the age of quantum computing arrived?' by Andrew Anthony

Which of the following is possibly a reason why Brownell would consider quantum computing an important part of D wave's vision?

A) Quantum computing being state of the art B) Brownell expects quantum computers to be more energy efficient
C) The computing power usage is a small fraction of the cooling power usage.
D) It would help solve complex problems like climate change – which would help the green movement.

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 6

With normal computers there are only two options – on and off – for processing information. A computer "bit", the smallest unit into which all information is broken down, is either a "1" or a "0". And the computational power of a normal computer is dependent on the number of binary transistors – tiny power switches – that are contained within its microprocessor.

But in the mysterious subatomic realm of quantum computers, particles can act like waves, so that they can be particle or wave or particle and wave. This is what's known in quantum mechanics as superposition. As a result of superposition a qubit can be a 0 or 1 or 0 and 1. That means it can perform two equations at the same time. Two qubits can perform four equations. And three qubits can perform eight, and so on in an exponential expansion.

In areas such as artificial intelligence and cryptography, it's thought that quantum computing will transform the landscape, perhaps bringing about the breakthrough that will enable machines to "think" with the nuance and interpretative skill of humans. A pioneer in this field is D-Wave, a company that prides itself on building the world's first functioning quantum computer, which is what is contained within the large fridge-like casing. Actually it is a fridge, the coldest fridge ever assembled. The cooling apparatus enables the niobium computer chip at its core to function at a temperature of just under –273C, or as close to absolute zero as the known universe gets.

The supercooled environment is necessary to maintain coherent quantum activity of superposition and entanglement, the state in which particles begin to interact – again rather mysteriously – co-dependently, and the qubits are linked by quantum mechanics regardless of their position in space. Any intrusion of heat or light would corrupt the process and thus the effectiveness of the computer.

D-Wave's CEO, Brownell, used to be chief of technology at Goldman Sachs. In that job there were few tech developments that he didn't have pitched at him. He believes that while social media successes like Facebook are clever utilisations of existing technology, the fact that Silicon Valley is constantly chasing profitable variations on the same theme means that it is no longer doing the really tough mental work. "The level of innovation is much, much less than we've seen historically and probably at an all-time low in terms of the real world-changing innovations."

The kinds of problems that quantum computers might help address are all concerned with what's called optimisation – finding the most efficient model in complex systems. "Optimisation sounds like a really boring problem," says Brownell, "but it's at the core of so many complex application problems in every discipline. Probably one of the most exciting is in the artificial intelligence world. Say you're trying to recognise a water bottle. It still takes computers an enormous amount of time to do that not as well as humans do. Computers are catching up, but quantum computing can help accelerate that process."

D-Wave's vision, he says, is for a green revolution in computing, in which everyone will have access to much more energy-efficient quantum computers through the cloud.

D-Wave's first demonstration in 2007 of its 16-qubit device, which involved solving a sudoku puzzle, hardly set the world on fire. Umesh Vazirani, co-author of a paper on quantum complexity theory, dismissed D-Wave's claims of speedup as a misunderstanding of his work, and suggested that "even if it turns out to be a true quantum computer, and even if it could be scaled to thousands of qubits, [it] would likely not be more powerful than a cellphone".

Thereafter the company was regularly accused of hype and exaggeration. Part of the problem was that it was very hard to measure with any agreed accuracy what was happening. D-Wave came up with a test to show that entanglement – seen as a necessary prerequisite for a working quantum computer – was taking place.

Excerpted from an article in The Guardian dated May 2016 'Has the age of quantum computing arrived?' by Andrew Anthony

Why are quantum computers likely to be solving optimisation problems first?

A) Solving complex optimisation problems is high on priority.
B) Continuous optimisation problems are tougher to solve than discrete ones.
C) Optimisation problems require lots of computing .
D) They are the low hanging fruit which a new machine can cut its teeth on.

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 7

With normal computers there are only two options – on and off – for processing information. A computer "bit", the smallest unit into which all information is broken down, is either a "1" or a "0". And the computational power of a normal computer is dependent on the number of binary transistors – tiny power switches – that are contained within its microprocessor.

But in the mysterious subatomic realm of quantum computers, particles can act like waves, so that they can be particle or wave or particle and wave. This is what's known in quantum mechanics as superposition. As a result of superposition a qubit can be a 0 or 1 or 0 and 1. That means it can perform two equations at the same time. Two qubits can perform four equations. And three qubits can perform eight, and so on in an exponential expansion.

In areas such as artificial intelligence and cryptography, it's thought that quantum computing will transform the landscape, perhaps bringing about the breakthrough that will enable machines to "think" with the nuance and interpretative skill of humans. A pioneer in this field is D-Wave, a company that prides itself on building the world's first functioning quantum computer, which is what is contained within the large fridge-like casing. Actually it is a fridge, the coldest fridge ever assembled. The cooling apparatus enables the niobium computer chip at its core to function at a temperature of just under –273C, or as close to absolute zero as the known universe gets.

The supercooled environment is necessary to maintain coherent quantum activity of superposition and entanglement, the state in which particles begin to interact – again rather mysteriously – co-dependently, and the qubits are linked by quantum mechanics regardless of their position in space. Any intrusion of heat or light would corrupt the process and thus the effectiveness of the computer.

D-Wave's CEO, Brownell, used to be chief of technology at Goldman Sachs. In that job there were few tech developments that he didn't have pitched at him. He believes that while social media successes like Facebook are clever utilisations of existing technology, the fact that Silicon Valley is constantly chasing profitable variations on the same theme means that it is no longer doing the really tough mental work. "The level of innovation is much, much less than we've seen historically and probably at an all-time low in terms of the real world-changing innovations."

The kinds of problems that quantum computers might help address are all concerned with what's called optimisation – finding the most efficient model in complex systems. "Optimisation sounds like a really boring problem," says Brownell, "but it's at the core of so many complex application problems in every discipline. Probably one of the most exciting is in the artificial intelligence world. Say you're trying to recognise a water bottle. It still takes computers an enormous amount of time to do that not as well as humans do. Computers are catching up, but quantum computing can help accelerate that process."

D-Wave's vision, he says, is for a green revolution in computing, in which everyone will have access to much more energy-efficient quantum computers through the cloud.

D-Wave's first demonstration in 2007 of its 16-qubit device, which involved solving a sudoku puzzle, hardly set the world on fire. Umesh Vazirani, co-author of a paper on quantum complexity theory, dismissed D-Wave's claims of speedup as a misunderstanding of his work, and suggested that "even if it turns out to be a true quantum computer, and even if it could be scaled to thousands of qubits, [it] would likely not be more powerful than a cellphone".

Thereafter the company was regularly accused of hype and exaggeration. Part of the problem was that it was very hard to measure with any agreed accuracy what was happening. D-Wave came up with a test to show that entanglement – seen as a necessary prerequisite for a working quantum computer – was taking place.

Excerpted from an article in The Guardian dated May 2016 'Has the age of quantum computing arrived?' by Andrew Anthony

Why does Brownell imply Silicon Valley workers to be technically inept?

A) No innovation has happened in the Valley B) Because all their work revolves around binary computers.
C) The focus of the valley has been more on marketing than technology.
D) The research that is happening in Silicon Valley is earth-shaking.

DIRECTIONS for the question : *Read the passage and answer the question based on it.*

Question No. : 8

With normal computers there are only two options – on and off – for processing information. A computer "bit", the smallest unit into which all information is broken down, is either a "1" or a "0". And the computational power of a normal computer is dependent on the number of binary transistors – tiny power switches – that are contained within its microprocessor.

But in the mysterious subatomic realm of quantum computers, particles can act like waves, so that they can be particle or wave or particle and wave. This is what's known in quantum mechanics as superposition. As a result of superposition a qubit can be a 0 or 1 or 0 and 1. That means it can perform two equations at the same time. Two qubits can perform four equations. And three qubits can perform eight, and so on in an exponential expansion.

In areas such as artificial intelligence and cryptography, it's thought that quantum computing will transform the landscape, perhaps bringing about the breakthrough that will enable machines to "think" with the nuance and interpretative skill of humans. A pioneer in this field is D-Wave, a company that prides itself on building the world's first functioning quantum computer, which is what is contained within the large fridge-like casing. Actually it is a fridge, the coldest fridge ever assembled. The cooling apparatus enables the niobium computer chip at its core to function at a temperature of just under –273C, or as close to absolute zero as the known universe gets.

The supercooled environment is necessary to maintain coherent quantum activity of superposition and entanglement, the state in which particles begin to interact – again rather mysteriously – co-dependently, and the qubits are linked by quantum mechanics regardless of their position in space. Any intrusion of heat or light would corrupt the process and thus the effectiveness of the computer.

D-Wave's CEO, Brownell, used to be chief of technology at Goldman Sachs. In that job there were few tech developments that he didn't have pitched at him. He believes that while social media successes like Facebook are clever utilisations of existing technology, the fact that Silicon Valley is constantly chasing profitable variations on the same theme means that it is no longer doing the really tough mental work. "The level of innovation is much, much less than we've seen historically and probably at an all-time low in terms of the real world-changing innovations."

The kinds of problems that quantum computers might help address are all concerned with what's called optimisation – finding the most efficient model in complex systems. "Optimisation sounds like a really boring problem," says Brownell, "but it's at the core of so many complex application problems in every discipline. Probably one of the most exciting is in the artificial intelligence world. Say you're trying to recognise a water bottle. It still takes computers an enormous amount of time to do that not as well as humans do. Computers are catching up, but quantum computing can help accelerate that process."

D-Wave's vision, he says, is for a green revolution in computing, in which everyone will have access to much more energy-efficient quantum computers through the cloud.

D-Wave's first demonstration in 2007 of its 16-qubit device, which involved solving a sudoku puzzle, hardly set the world on fire. Umesh Vazirani, co-author of a paper on quantum complexity theory, dismissed D-Wave's claims of speedup as a misunderstanding of his work, and suggested that "even if it turns out to be a true quantum computer, and even if it could be scaled to thousands of qubits, [it] would likely not be more powerful than a cellphone".

Thereafter the company was regularly accused of hype and exaggeration. Part of the problem was that it was very hard to measure with any agreed accuracy what was happening. D-Wave came up with a test to show that entanglement – seen as a necessary prerequisite for a working quantum computer – was taking place.

Excerpted from an article in The Guardian dated May 2016 'Has the age of quantum computing arrived?' by Andrew Anthony

The 2007 D-wave demo machine can perform how many equations at one time?

A) 2^{16} B) 16^2 C) 16 D) 16^{16}

DIRECTIONS for the question: *The question consists of five statements labelled A, B, C, D and E which when logically ordered form a coherent passage. Choose the option that represents the most logical order.*

Question No. : 9

A. That's a very high price to pay for getting rid of Greece, and much more expensive than letting it stay.
B. It would be costly for the rest of Europe, too.
C. Rationally, then, this standoff should end with a compromise—relaxing some austerity measures, and giving Greece a little more aid and time to reform. And we may still end up there.
D. Even though a devalued currency would make Greece's exports cheaper and attract tourists, it would do so at a terrible price, destroying huge amounts of wealth and seriously harming the country's G.D.P.
E. Greece owes almost half a trillion euros, and containing the damage would likely require the recapitalization of banks, continent-wide deposit insurance (to prevent bank runs), and more aid to Portugal, Spain, and Italy, which seem to be the next countries in line to default.

A) CDBEA B) DBEAC C) EDABC D) DEBAC

DIRECTIONS for the question: *For each of the words below, a contexual usage is provided. Pick the word from the alternatives given that is most appropriate in the given context.*

Question No. : 10

By the time a ---------- employee is fired, the damage is usually already done.

A) Turbulence B) Disgruntled C) Failure D) Affinity

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 11

A server is processing requests for printing documents in a LAN. The database administrator sorts the print queue (descending order of priority, i.e. the highest first and the lowest last) and finds Sunil's file 19^{th} in queue. On reversing the sort Sunil's file is 12^{th} in the queue. Sometime later the printer breaks down. The DBA checks that at this time the print queue is half the length of what he had last checked. Just then Sunil calls and wants to find the status of his file in the print queue. Fill in the blank in the DBA reply: "Extremely sorry that there has been a printer malfunction. Don't worry, there are only ___ jobs before your job."

A) 3 B) 0 C) 2 D) Inconsistent data

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 12

Last Sunday, every customer who visited the CENTRA MALL was given a gift coupon, on every purchase worth Rs. 1000, with a unique six-digit code written on it. Each code was such that-

i). The first digit was non-zero.
ii). All the six digits were distinct.
iii). The 1^{st} and the 6^{th} digits added up to 9 and so do the 2^{nd} and 5^{th} digits, and also the 3^{rd} and 4^{th} digits.

A gift was given to a customer who had two coupons with codes such that the numbers formed using the first three digits of each code were the reverse of each other. The number of coupons distributed could not have been more than

A) 504 B) 729 C) 432 D) 648

DIRECTIONS for the question: *Solve the following question and mark the best possible option*
Question No. : 13

A ball rolls inside a rectangular room of base 8m × 5m. It deflects after hitting the base of the wall of the room. The ball starts rolling from one corner of the room and moves at an angle of 45^0 towards the opposite side of the room. Every time after hitting, it gets deflected such that its line of travel is perpendicular to its previous path. Find, after how many deflections, it will reach a corner.

A) 6 B) 13 C) 11 D) 8

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 14

It was a rainy morning in Delhi when Rohit drove his mother to a dentist in his Maruti Alto. They started at 8.30 AM from home and Rohit maintained the speed of the vehicle at 30 Km/hr. However, while returning from the doctor's chamber, rain intensified and the vehicle could not move due to severe water logging. With no other alternative, Rohit kept the vehicle outside the doctor's chamber and returned home along with his mother in a rickshaw at a speed of 12 Km/hr. They reached home at 1.30 PM. If they stayed at the doctor's chamber for the dental check-up for 48 minutes, the distance of the doctor's chamber from Rohit's house is

A) 15 km B) 30 km C) 36 km D) 45 km

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 15

Amol, Nupur and Rohit have certain sums of money with themselves. Amol gives Nupur and Rohit some money so that the amounts with them are doubled. Nupur then gives Amol and Rohit some money so that the amounts with them are doubled. Finally Rohit gives Amol and Nupur some money so that the amounts with them are doubled. After this, Amol has 128 more than the sum he started out with, Rohit ends up with 24 less than he started out with and Nupur ends up with 12 less than Rohit.

What was the ratio of the sums of money with Amol, Nupur and Rohit in the beginning?

A) 58 : 5 : 76 B) 116 : 10 : 13 C) 29 : 72 : 38 D) 84 : 36 : 19

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 16

In ABC School there are 98 students in 1st standard. The students were in a mood to play a game. So the class teacher came out with a very interesting game. She made all the 98 students stand in a line and asked them to count off in sevens as 'one, two, three, four, five, six, seven, one, two, three, four, five, six, seven,' and so on from the first person in the line. The teacher then told them that the students who say 'seven' to move one step back. Those remaining repeat this procedure, starting again from the first student, until only six students remain in the line. What was the original position in the line of the student, who will be last in the queue, when only six students are left?

A) 93 B) 95 C) 96 D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 17

Two trains P and Q are scheduled to reach New Delhi railway station at 10.00 AM. The probability that train P and train Q will be late is $^7/_9$ and $^{11}/_{27}$ respectively. The probability that train Q will be late, given that train P is late, is $^8/_9$. Then the probability that neither train will be late on a particular day is

A) 40/81 B) 41/81 C) 77/81 D) 77/243

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 18

In front of a wall 60 metres long, a triangular plot is to be cordoned off using the wall as one of its sides and taking the sum of other two sides as 100 metres. Then the maximum possible area (in sq. metres) that can be cordoned off is

A) 2400 B) 1800 C) 1250 D) 1200

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 19

There are two concentric circular tracks of radii 100 m and 102 m, respectively. A runs on the inner track and goes once round the track in 1 minute 30 seconds, while B runs on the outer track in 1 minute 32 seconds. Who runs faster?

A) A B) B C) Cannot be determined D) None of these

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 20

Ganitwala had a strange problem. Whenever he sees a sequence of numbers having the same difference, he starts calculating the sum of the sequence. One day, he realized that he had come across sequences with only 6 terms and whenever he added them he got sum of 144. If all the numbers in the sequences were natural numbers, which of the following represents the maximum number of sequences he came across and the second term of any of those sequences respectively?

A) 8, 12 B) 8, 14 C) 9, 18 D) 4, 21

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 21

Sawan is very fond of numbers. Whenever asked for a number he always replies with a four-digit number where the first two digits form a two-digit perfect square and the last two digits form a different two-digit perfect square. How many such numbers exist and what is the sum of all these numbers?

A) 30, 136855 B) 30, 145675 C) 36, 136840 D) 20, 189234

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 22

Two integers, x and y are chosen at random, without replacement, such that $0 \le x, y \le 10$. The probability that $|x - y| \le 5$ is

A) $8/11$ B) $36/55$ C) $91/121$ D) $101/110$

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 23

In Bundi Laddu, Besan, Ghee and Sugar are used in the ratio 2:1:2; in Besan Laddu, these ingredients are used respectively in the ratio 1:2:2; while in Maisoor Pak the same ingredients are used respectively in the ratio 2:4:1. If Junior Dagdu Halwai buys all the ingredients in equal quantities, what should be the minimum quantity in kilograms of each ingredient he should buy to prepare whole number kilograms of each sweet?

A) 4 B) 9 C) 14 D) 22

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 24

Jasneet goes to the local kiryana store near his house in Ludhiana. He purchased four chocolates from there. The first one cost Rs. 1.5, the second Rs. 3, the third Rs. 4 and the fourth's cost we don't know. When Jasneet multiplied the prices of the four chocolates he got a product which was the same as the money in Rupees he paid at the kiryana shop. We know that he paid the kiryana shop owner with a 50 Rs. note and got back some money. If the kiryana shop owner gave him the minimum number of notes/coins, then Jasneet has surely got which of the following notes/coins back from the kiryana shop owner?

A) Rs. 0.5 B) Rs. 2 C) Rs. 5 D) Rs. 20

DIRECTIONS for the question: *Solve the following question and mark the best possible option.*

Question No. : 25

When in each box 5 or 6 dozens of oranges were packed, three dozens were remaining. Therefore, bigger boxes were taken to pack 8 or 9 dozens of oranges. However, still three dozens of oranges remained. What was the least number of dozens of oranges that were supposed to be packed?

A) 216 B) 243 C) 363 D) 435

Section : Technical

DIRECTIONS for the question: Mark the best option:

Question No. : 26

Which of the following techniques lists the nodes of a binary search tree in ascending order?

A) post-order B) in-order C) pre-order D) None of these

DIRECTIONS for the question: *Mark the best option:*

Question No. : 27

CPU fetches the instruction from memory according to the value of

A) next counter B) status register C) program counter D) program status word

DIRECTIONS for the question: Mark the best option:

Question No. : 28

The average successful search time taken by binary search on a sorted array of 10 items is

A) 2.6 B) 2.7 C) 2.8 D) 2.9

DIRECTIONS for the question: Mark the best option:

Question No. : 29

A strictly binary tree with 10 leaves

A) cannot have more than 19 nodes B) has exactly 19 nodes C) has exactly 17 nodes
D) cannot have more than 17 nodes

DIRECTIONS for the question: *Mark the best option:*

Question No. : 30

The process in which OS saves all data associated with current process and switches over to the next is called

A) Process Switching B) Task Switching C) Context Switching D) None

DIRECTIONS for the question: *Mark the best option:*

Question No. : 31

REPLACE ('JACK AND JUE','J','BL') will return

A) JACK AND BLUE B) BLACK AND JACK C) BLACK AND BLUE D) None of the above

DIRECTIONS for the question: *Mark the best option:*

Question No. : 32

Which of the following is not correct about an Exception

A) Raised automatically / Explicitly in response to an ORACLE_ERROR
B) An exception will be raised when an error occurs in that block C) Process terminates after completion of error sequence
D) A Procedure or Sequence of statements may be processed

DIRECTIONS for the question: *Mark the best option:*

Question No. : 33

A time sharing system imply

A) more than one processor in the system B) more than one program in file C) more than one program in memory
D) None of above

DIRECTIONS for the question: *Mark the best option:*

Question No. : 34

Calculate the average waiting time from the following data below in case of SRTF

Process	Burst Time	Arrival Time
P1	7	0
P2	4	2

A) 2 B) 2.5 C) 3 D) 3.5

DIRECTIONS for the question: *Mark the best option:*

Question No. : 35

No preemption in deadlock condition refers to _____.

A) The resource(s) can be released voluntarily only after the process has completed its task
B) The process must be holding at least one resource and waiting to acquire additional resources.
C) The resources should be forcibly released after a fixed time quanta D) Both A and B

Section : Coding

DIRECTIONS for the question: *Solve the following question:*

Question No. : 36

A) B) C) D)

DIRECTIONS for the question: *Solve the following question:*

Question No. : 37

A) B) C) D)