

CLAT UG 2021 Solutions

English Language

Read an extract from *A Scandal in Bohemia* by Arthur Conan Doyle: “I rang the door-bell and was shown up to the chamber which had formerly been in part my own. With hardly a word spoken, Sherlock Holmes waved me to an armchair. Then he stood before the fire and looked me over in his singular introspective fashion. “Watson, you did not tell me that you intended to go into harness.” “Then, how do you know?” “I see it, I deduce it. How do I know that you have been getting yourself very wet lately, and that you have a most clumsy and careless servant girl?” “My dear Holmes,” said I, “this is too much. It is true that I had a country walk on Thursday and came home in a dreadful mess, but as I have changed my clothes, I can’t imagine how you deduce it. As to Mary Jane, she is incorrigible, but there, again, I fail to see how you work it out.” “It is simplicity itself,” said he; “my eyes tell me that on the inside of your left shoe, just where the firelight strikes it, the leather is scored by six almost parallel cuts. Obviously, they have been caused by someone who has very carelessly scoured round the edges of the sole in order to remove crusted mud from it. Hence, you see, my double deduction that you had been out in vile weather, and that you had a particularly malignant boot-slitting specimen of the London slavey.” In fiction, detectives like Holmes are usually portrayed as people with exceptionally brilliant minds. They possess the rare skill to see and analyze what ordinary people can’t. They have incredible abilities to infer, deduce, induce and conclude.

Then, there is G.K. Chesterton’s fictional catholic priest, Father Brown who relies on his extraordinary power of sympathy and empathy that

enable him to imagine and feel as criminals do. He explains, "I had thought out exactly how a thing like that could be done, and in what style or state of mind a man could really do it. And when I was quite sure that I felt exactly like the murderer myself, of course I knew who he was." Sherlock finds the criminal by starting from the outside. He relies on science, experimental methods and deduction. On the contrary, Father Brown uses varied psychological experiences learned from those who make confessions of crime to him. He relies on introspection, intuition and empathy. There is yet another set of detectives like those created by writers like Agatha Christie. Her Belgian detective, Hercule Poirot is a story-teller who draws information from the stories that others tell. He patiently listens to numerous accounts of what happened, where it happened and how it happened. He listens for credibility and ambiguity; he identifies why and how the pieces of the jig-saws don't fit together. Ultimately, he uncovers the truth.

Question 1. From the passage, it can be inferred that

- (A) Watson is Holmes' mentor.
- (B) Earlier, Watson used to live with Holmes.
- (C) Watson is a detective.
- (D) Watson shares all his personal matters with Holmes.

Answer. B

Solution. The answer is (B).

The passage states that Watson's room was "formerly in part [his] own".

This suggests that Watson used to live with Holmes, but does not say anything about their relationship or whether Watson is a detective. It is also possible that Watson shared his room with someone else, or that he only stayed with Holmes for a short period of time.

Question 2. It is evident that for solving cases, Father Brown relies largely on

- (A) His own sympathetic and empathic thought process about criminals.
- (B) A sympathetic approach towards various people's opinion on the case to be solved.
- (C) A deductive analysis of the crime and his ability to sympathize.
- (D) All the above.

Answer. A

Solution. Based on the information provided, Father Brown relies largely on:

- (A) His own sympathetic and empathic thought process about criminals.

So, the correct answer is (A).

Question 3. For the three detectives mentioned in the passage, which one of these would be nonessential for solving criminal cases?

- (A) Forgiving nature
- (B) Sensitivity
- (C) Critical thinking
- (D) Patience

Answer. A

Solution. For the three detectives mentioned in the passage, "Forgiving nature" would be the non-essential trait for solving criminal cases. While sensitivity, critical thinking, and patience are valuable qualities for detectives, having a forgiving nature is not typically considered essential for solving crimes. Detectives often need to be analytical, persistent, and

objective in their pursuit of the truth, rather than forgiving. So, the answer is (A) Forgiving nature.

Question 4. In order to solve cases, Poirot uses the art of _____ the narratives that he has been told.

- (A) Building a fantasy based on
- (B) Empathizing with all the characters in
- (C) Creating new plots for
- (D) Detecting and analyzing the missing links in

Answer. D

Solution. In order to solve cases, Poirot uses the art of:

(D) Detecting and analyzing the missing links in the narratives that he has been told.

Poirot listens to the stories and accounts of what happened, and he focuses on identifying why and how the pieces of the narratives don't fit together, ultimately uncovering the truth. So, the correct answer is (D).

Question 5. The word incorrigible is the antonym of

- (A) Habitual
- (B) Unperformable
- (C) Repentant
- (D) Incurable

Answer. C

Solution. The word "incorrigible" is the antonym of: (C) Repentant

Incorrigible means unwilling or unable to reform or change one's behavior, while "repentant" means feeling remorseful and willing to change for the better. So, the correct answer is (C) Repentant.

Current Affairs and General Knowledge

Starting in April 2020, China amassed a large number of troops and armaments along the disputed Line of Actual Control (LAC) in eastern Ladakh and other areas along the LAC, leading to stand-offs and skirmishes at certain points. The People's Liberation Army (PLA) moved into Indian territory and built fortified structures and defences, changing the status quo on the ground. While there are differences in perception on the alignment of the LAC, over the years both sides concluded a series of agreements to maintain peace and tranquillity on the border, while talks continued to resolve the dispute. Since then, several friction points emerged in eastern Ladakh and both sides initiated diplomatic and military talks aimed at disengagement and de-escalation, with India pushing for the restoration of status quo ante of pre-April. India and China earlier reached an understanding for phased disengagement from all friction points followed by de-escalation from the depth areas along the LAC.

Question 31. Violent clashes between Indian and Chinese army which resulted in death of around 20 Indian soldiers and an unknown number of Chinese soldiers occurred on

- (A) May 5, 2020**
- (B) June 11-12, 2020**
- (C) June 15-16, 2020**
- (D) July 13, 2020**

Answer. C

Solution. The violent clashes between Indian and Chinese armies, which resulted in the death of around 20 Indian soldiers and an unknown number of Chinese soldiers, occurred on:

(C) June 15-16, 2020

Question 32. Where did the violent clashes between Indian and Chinese soldiers occur which caused casualties on both sides?

- (A) Naku La
- (B) Dhan Singh Thapa post
- (C) Galwan Valley
- (D) Siachin

Answer. C

Solution. The violent clashes between Indian and Chinese soldiers, which caused casualties on both sides, occurred in:

(C) Galwan Valley

Question 33. The violent incident leading to death of soldiers took place at (A) Patrol Point 13

- (B) Patrol Point 14
- (C) Patrol Point 15
- (D) Patrol Point 16

Answer. B

Solution. The violent incident leading to the death of soldiers took place at:
(B) Patrol Point 14

Question 34. The length of Line of Actual Control of Indo-China Border is

- (A) 2788 km
- (B) 3213 km
- (C) 3317 km
- (D) 3488 km

Answer. D

Solution. The length of the Line of Actual Control (LAC) of the Indo-China border is 3,488 km.

The LAC is a loosely defined boundary that separates Indian-controlled territory from Chinese-controlled territory. It is not a legally recognized border, and India and China have different perceptions of its alignment. However, both sides have agreed to maintain peace and tranquillity along the LAC while talks continue to resolve the dispute.

In 2020, China amassed a large number of troops and armaments along the LAC in eastern Ladakh, leading to stand-offs and skirmishes. The two sides have since engaged in diplomatic and military talks aimed at disengagement and de-escalation, but the situation remains tense.

Question 35. Which of the following was resolved by way of an agreement between India and China in February 2021?

- (A) Chinese side will move back its troops to east of finger 8 and Indian side will move its troops to its permanent base near finger 3.
- (B) Both sides shall demolish structures built after April 2020.
- (C) Moratorium on patrolling in the affected area. (D) All of these.

Answer. D

Solution. The answer is (D), which states that all of the following were resolved by way of an agreement between India and China in February 2021:

- Chinese side will move back its troops to east of finger 8 and Indian side will move its troops to its permanent base near finger 3.
- Both sides shall demolish structures built after April 2020.
- Moratorium on patrolling in the affected area.

The February 2021 agreement was a phased disengagement plan that was aimed at reducing tensions and restoring the status quo ante of pre-April 2020 along the LAC in eastern Ladakh. The agreement was the result of several rounds of diplomatic and military talks between India and China.

The agreement stipulated that the Chinese side would move its troops back to east of Finger 8 and the Indian side would move its troops to its permanent base near Finger 3. Both sides also agreed to demolish structures built after April 2020 and to establish a moratorium on patrolling in the affected area.

The February 2021 agreement was a significant step forward in resolving the border standoff between India and China. However, it is important to note that the agreement did not address the underlying issue of the disputed alignment of the LAC.

Legal Reasoning

Harm suffered voluntarily does not constitute a legal injury and is not actionable. This principle is embodied in the maxim *volenti non fit injuria*. A person cannot complain of harm to the chances of which he has exposed himself with his free consent and free will. The maxim *volenti non fit injuria* is founded on good sense and justice. A person who has invited or assented to an act being done towards him cannot, when he suffers from it, complain of it as wrong. The maxim presupposes a tortious act by the defendant. The maxim applies, in the first place, to intentional acts which would otherwise be tortious. There are certain limitations to the application of this maxim:

(i) It is no answer to a claim made by a workman against his employer for injury caused through a breach by the employer of a duty imposed upon him by a statute. But where the negligence or breach of statutory duty is on the part of an employee of the plaintiff who knowingly accepts the risk flowing from such breach and the employer-defendant is not guilty of negligence or breach of statutory duty, the defence of *volenti non fit injuria* is available to the defendant.

(ii) Under an exigency caused by the defendant's wrongful misconduct, consciously and deliberately faced a risk, even of death, whether the person endangered is one to whom he owes a duty of protection, as a member of his family, or is a mere stranger to whom he owes no such special duty. The rescuer will not be deprived of his remedy merely because the risk which he runs is not the same as that run by the person whom he rescues. But where there is no need to take any risk, the person suffering harm in doing so cannot recover.

(iii) To cover a case of negligence the defence on the basis of the maxim must be based on implied agreement whether amounting to contract or not. The defence is available only when the plaintiff freely and voluntarily, with full knowledge of the nature and extent of the

risk impliedly agreed to incur it and to waive any claim for injury. But when the plaintiff has no choice or when the notice is given at a stage when it is beyond the ability of the plaintiff to make a choice there can be no implied agreement and the defence on the basis of the maxim must fail.

(iv) The maxim will also not apply when the act relied upon is done because of the psychological condition which the defendant's breach of duty had induced.

Question 66. Mr. A was the owner of a car and he had a driver- Mr. D. On January 19, 2021, Mr. A and Mr. D were travelling in their car wherein Mr. A got down at a restaurant and told Mr. D to take the car back to Mr. A's bungalow. Mr. D was filling the petrol tank of the car, and two strangers- Mr. B and Mr. C took a lift from Mr. D in his car. The car went ahead and the right-side front wheel of the car flew away, the car toppled and Mr. D and Mr. C were thrown out. Mr. C sustained severe injuries and ultimately died due to those injuries on January 20, 2021. Mr. B and legal representatives of Mr. C claimed compensation from Mr. A and Mr. D.

(A) Mr. D will be liable to pay the compensation.

(B) Volenti non fit injuria will be applicable and no compensation can be claimed.

(C) Volenti non fit injuria will not be applicable and compensation can be claimed.

(D) Mr. A and Mr. D both will be liable to pay the compensation.

Answer. B

Solution. In this scenario, the principle of "Volenti non fit injuria" is applicable. This principle states that harm suffered voluntarily does not constitute a legal injury and is not actionable if a person has exposed themselves to the risk with their free consent and free will. In the case described, Mr. D was filling the petrol tank of the car, and Mr. B and Mr. C,

as strangers, took a lift from Mr. D in his car voluntarily. They exposed themselves to the risk willingly.

Option (B) "Volenti non fit injuria will be applicable and no compensation can be claimed" is the correct choice. Since Mr. B and Mr. C voluntarily accepted the ride and the associated risks, they cannot claim compensation for the injuries sustained as a result of the accident.

Question 67. Rama was a spectator at a motor car race being held on a track owned by the defendant company. During the race, there was a collision between two cars, one of the cars was thrown among the spectators, thereby injuring Rama severely. Which of the following statements is correct?

(A) Rama impliedly took the risk of such injury, the danger being inherent in the sport which any spectator could foresee, the defendant was not liable. (B) It was a negligence on the part of defendant and volenti non fit injuria will be applicable. (C) Rama did not take the risk of such injury, and she only consented to watching the race and hence the defendant was liable. (D) Rama was negligent and hence she suffered injuries.

Answer. A

Solution. The correct statement is:

(A) Rama impliedly took the risk of such injury, the danger being inherent in the sport which any spectator could foresee, and the defendant was not liable.

In the context of sporting events, spectators are generally considered to have impliedly accepted the inherent risks associated with the sport. This is a form of implied consent, and the principle of "Volenti non fit injuria" applies. Spectators at events like motor car races are aware of the potential dangers, and their attendance implies their acceptance of these risks.

Therefore, in this scenario, the defendant is not typically liable for injuries sustained by a spectator due to inherent risks associated with the sport.

Question 68. Which of the following is correct about consent in volenti non fit injuria?

- (A) Knowledge of the risk does not always amount to consent.**
- (B) Knowledge of a risk does not precede consent.**
- (C) Knowledge of the risk always amounts to consent.**
- (D) Mere perception of the existence of danger amounts to consent.**

Answer. A

Solution. The correct statement about consent in volenti non fit injuria is:

- (A) Knowledge of the risk does not always amount to consent.**

In cases related to volenti non fit injuria, merely having knowledge of the risk or danger does not necessarily imply consent. Consent requires a voluntary agreement or acceptance of the risk, and knowledge of the risk is a factor that may be considered in determining whether there was consent, but it is not the same as consent itself. Consent is a deliberate choice made with full awareness of the risk involved.

Question 69. Lily had placed spring guns in a wood on her ground for the protection of the garden. Karan, with full knowledge that there were spring guns somewhere in the wood, trespassed on the land of Lily and was injured. Which of the following statements is correct?

- (A) Lily will be liable to pay compensation to Karan.**
- (B) Lily has not committed a tort against Karan by exceeding her right of private defence.**
- (C) Karan's case does not fall within volenti non fit injuria. (D) Karan**

had knowledge of the spring guns and wilfully courted the danger himself. Answer. D

Solution. The answer is (D). Karan had knowledge of the spring guns and wilfully courted the danger himself.

The maxim *volenti non fit injuria* means that "to a willing person, no injury is done." It is a defense that can be raised by a defendant in a tort action, arguing that the plaintiff voluntarily assumed the risk of the injury that occurred.

In the given case, Karan trespassed on Lily's land with full knowledge that there were spring guns present. Therefore, Karan can be said to have voluntarily assumed the risk of injury.

It is important to note that there are a number of exceptions to the *volenti non fit injuria* defense. For example, the defense will not apply if the defendant acted with malice or if the plaintiff was under duress. However, none of these exceptions apply in the given case.

Therefore, the correct answer is (D).

In addition to the above, it is also worth noting that Karan may be liable for trespassing on Lily's land.

Question 70. Which of the following is not an element to claim the defence of *volenti non fit Injuria*?

- (A) Prior knowledge of the plaintiff about the risk involved.**
- (B) Free consent.**
- (C) Plaintiff is compelled to agree to a risk by the defendant. (D)**
Voluntary acceptance of the risk by the plaintiff.

Answer. C

Solution. The answer is (C), Plaintiff is compelled to agree to a risk by the defendant.

The defense of *volenti non fit injuria* is a Latin maxim that means "to a willing person, no injury is done." It is a defense that can be raised by a defendant in a tort action, arguing that the plaintiff voluntarily assumed the risk of the injury that occurred.

In order to claim the defense of *volenti non fit injuria*, the defendant must prove the following elements:

- The plaintiff had prior knowledge of the risk involved.
- The plaintiff freely consented to accept the risk.
- The plaintiff voluntarily accepted the risk.

If the defendant can prove all of these elements, then the defense of *volenti non fit injuria* will be successful and the defendant will not be liable for the plaintiff's injuries.

However, the defense of *volenti non fit injuria* will not be successful if the plaintiff was compelled to agree to the risk by the defendant. This is because compulsion negates the element of free consent.

Here are some examples of situations where the defense of *volenti non fit injuria* may or may not be successful:

- A person who agrees to participate in a dangerous sport, such as skydiving, is likely to be found to have voluntarily assumed the risk of injury.
- A person who works in a dangerous environment, such as a construction site, is also likely to be found to have voluntarily assumed the risk of injury.
- A person who is forced by their employer to work in a dangerous environment without proper safety precautions may not be found to have voluntarily assumed the risk of injury.

It is important to note that the defense of *volenti non fit injuria* is a complex one and there are many factors that a court will consider when determining whether or not to apply it.

Logical Reasoning

The COVID-19 pandemic and the unmatched mental health challenges have made it more crucial than ever that we continue to make strides towards understanding the concept of mental health stigma and how we might tackle it around the world. Graham Thornicroft, a practising psychiatrist, who is extensively and deeply involved in mental health stigma research at the Institute of Psychiatry, Psychology and Neurosciences at King's College London has divided stigma into three components-knowledge, attitude and behaviour. The last behaviour emerges from social isolation, such as what we are experiencing during the pandemic, as well as exclusion from mainstream activities and citizenship. In higher-income countries, stigma rates may be greater than other countries, perhaps because of the pressure to excel. In low-income countries, one can be unwell and still play an active social and productive role somewhere as there are many such roles to play within the family and in society. Enhancing contact with people who have experienced mental health problems is the best way to reduce stigma. To date, most people with mental illness remain silent about their condition, avoiding discussing their problems for fear of losing face, damaging their reputation or jeopardising their family status. Having a space where they may be welcomed and listened to, rather than judged, will go a long way towards enabling them to share their experiences. In a small part of rural Andhra Pradesh, researchers used posters, pictures, drums, and a short street play, as an intervention technique to reduce mental health stigma. An actor portrayed a person's journey through mental health crises and setbacks before receiving support and showing hope, improvement and recovery. People assembled around the stage, willing to talk about and discuss what they saw, even two to three years after the event.

Question 106. What is the central idea in the passage as conveyed by the author?

- (A) Mental health is not an obstacle for people seeking care.
- (B) Mental health is a domestic phenomenon.
- (C) In low-income countries, mental health does not receive the adequate attention and treatment.
- (D) Mental health issues have only arisen after the COVID-19 pandemic globally.

Answer. C

Solution. The central idea of the passage is that mental health stigma is a major obstacle to people seeking care and that it is important to reduce stigma in order to improve the lives of people with mental health problems.

The passage begins by discussing the importance of understanding mental health stigma, especially in light of the COVID-19 pandemic and the mental health challenges it has created. The author then goes on to define stigma as having three components: knowledge, attitude, and behavior. The passage also discusses how stigma can lead to social isolation and exclusion from mainstream activities.

The passage then compares mental health stigma in high-income and low-income countries. The author notes that stigma rates may be higher in high-income countries due to the pressure to excel. In low-income countries, on the other hand, people with mental health problems may still be able to play an active role in society.

The passage then discusses the importance of contact with people who have experienced mental health problems in reducing stigma. The author notes that most people with mental illness remain silent about their condition, but that having a space where they can be welcomed and listened to can go a long way towards enabling them to share their experiences.

The passage concludes by describing an example of an intervention technique that was used to reduce mental health stigma in a rural area of

Andhra Pradesh, India. The intervention involved using posters, pictures, drums, and a short street play to portray the journey of a person with mental health problems from crisis and setbacks to support, hope, improvement, and recovery. The author notes that people were willing to talk about and discuss what they saw even two to three years after the event.

The passage does not state that mental health is not an obstacle for people seeking care, that mental health is a domestic phenomenon, that mental health does not receive adequate attention and treatment in low-income countries, or that mental health issues have only arisen after the COVID-19 pandemic globally. Therefore, the answer is (C).

Question 107. As per the passage, which of the following approaches can be most effective to curb the issue of mental health? (A) Mental health can only be curbed when people will stop sharing their emotions openly.

(B) To develop a sense of acceptance among people suffering from mental health and let them heal gradually.

(C) Experiences shared and discussed on a larger level is a major hindrance for better mental health conditions globally. (D) A person should not express about his/her failures which enhances the mental health problems.

Answer. B

Solution. The passage states that the best way to reduce mental health stigma is to enhance contact with people who have experienced mental health problems. This is because stigma is often based on lack of understanding and fear. When people have the opportunity to meet and interact with people with mental health problems, they can learn more about their experiences and see that they are just like everyone else.

The passage also states that most people with mental illness remain silent about their condition because they are afraid of being judged or discriminated against. Having a space where people with mental health problems can feel welcomed and listened to is important for reducing stigma and enabling them to share their experiences.

The passage does not state that mental health can only be curbed when people stop sharing their emotions openly, that experiences shared and discussed on a larger level is a major hindrance for better mental health conditions globally, or that a person should not express about his/her failures which enhances the mental health problems. Therefore, the answer is (B).

In addition to the above, it is important to note that there are a number of other things that can be done to curb the issue of mental health stigma, such as:

- Educating the public about mental health
- Challenging negative stereotypes about mental health
- Promoting positive messages about mental health
- Supporting people with mental health problems and their families
- Advocating for policies that support mental health

Question 108. Which of the following notions is expressed in the passage to enunciate the significance of issue of mental health? (A) The issue of mental health has received the required recognition and deliberation during the COVID-19 pandemic.

(B) Mental health will be reduced automatically after the COVID-19 pandemic.

(C) Mental health improves when social isolation increases. (D) Mental health is an illusionary notion developed during COVID-19

pandemic to strengthen the pharmaceutical industries.

Answer. A

Solution. The passage states that the COVID-19 pandemic and the unmatched mental health challenges have made it more crucial than ever that we continue to make strides towards understanding the concept of mental health stigma and how we might tackle it around the world.

This statement suggests that the author believes that mental health is an important issue that needs to be addressed, especially in light of the COVID-19 pandemic. The author also believes that mental health stigma is a major obstacle to people seeking care and that it is important to reduce stigma in order to improve the lives of people with mental health problems.

The passage does not state that the issue of mental health has received the required recognition and deliberation during the COVID-19 pandemic, that mental health will be reduced automatically after the COVID-19 pandemic, that mental health improves when social isolation increases, or that mental health is an illusionary notion developed during COVID-19

pandemic to strengthen the pharmaceutical industries. Therefore, the answer is (A).

In addition to the above, it is important to note that mental health is a serious issue that affects millions of people around the world. It is important to talk about mental health and to seek help if you are struggling. There are many resources available to help people with mental health problems, and you are not alone.

Question 109. “In low-income countries, one can be unwell and still play an active social and productive role somewhere as there are many such roles to play within the family and in society”. Which of the following conclusions can be drawn from the above statement?
(A) Stigma rates in lower-income countries are higher as compared to higher income countries.

(B) Stigma rates in higher-income countries may be more due to a pressure of performing and to excel.

(C) Mental stigma is not related to the economic conditions of a country.

(D) Higher-income countries require people to perform multiple roles at their homes.

Answer. B

Solution. The statement "In low-income countries, one can be unwell and still play an active social and productive role somewhere as there are many such roles to play within the family and in society" suggests that stigma rates in low-income countries may be lower than in high-income countries. This is because people with mental health problems may be more accepted in low-income countries, where there are more opportunities for them to play an active role in society.

The statement also suggests that stigma in high-income countries may be related to the pressure to perform and excel. This is because people in high-income countries may be more likely to be judged and excluded if they do not meet certain expectations.

Therefore, the correct answer is (B).

The statement does not provide any information about the relationship between mental stigma and the economic conditions of a country, or whether higher-income countries require people to perform multiple roles at their homes. Therefore, the other answers are incorrect.

It is important to note that this is just a general trend, and there is a great deal of variation in mental health stigma both within and between countries.

Question 110. Which of the following weakens the author's idea of 'having a space where they may be welcomed and listened to, rather than judged'?

- (A) People who tend to share their emotions tend to have mental peace and happiness.
- (B) Societal role is massive in embracing people suffering from mental health ailments.
- (C) People sharing their ideas and expressions publicly is a practice which needs to be promoted.
- (D) It is a human tendency to form judgments about other people and this being a healthy practice should be encouraged at large scale.

Answer. D

Solution. The answer is (D). It is a human tendency to form judgments about other people and this being a healthy practice should be encouraged at large scale.

The author's idea of "having a space where they may be welcomed and listened to, rather than judged" is based on the premise that mental health stigma is often caused by lack of understanding and fear. When people with mental health problems feel judged, they are less likely to seek help or share their experiences.

The statement that it is a human tendency to form judgments about other people and this being a healthy practice should be encouraged at large scale undermines the author's idea by suggesting that it is okay to judge people with mental health problems. This can lead to social isolation and exclusion, which can worsen mental health problems.

The other statements do not weaken the author's idea. In fact, they all support the idea that it is important to create a supportive environment for people with mental health problems.

- People who tend to share their emotions tend to have mental peace and happiness.

- Societal role is massive in embracing people suffering from mental health ailments.
- People sharing their ideas and expressions publicly is a practice which needs to be promoted.

Therefore, the answer is (D).

Quantitative Techniques

Two renowned international Software companies, namely Pollaris and Contigent, started their business in the year 2007 and both the companies were in competition with each other in profit making. Pollaris earned 30 per cent profit in the year 2007 and 2008, and further increased it to 40 per cent in 2009. However, its profit percentage decreased to 20 per cent in the year 2010. On the other hand, Contigent opened with 40 per cent profit in 2007, but slowly decreased to 35 per cent in 2008 and 30 per cent in 2009. Interestingly, both the companies increased their profit percentage in the later year considerably. Pollaris increased its profit percentage to 35 per cent in 2011 and 50 per cent in 2012; simultaneously, Contigent increased its profit percentage to 45 per cent in 2010, 50 per cent in 2011 and reached 60 per cent in the year 2012. As there is a need to understand the income and expenditure for the better performance of both companies in the future, answer the following questions.

Question 136. What is the increase in profit of Contigent Company in percentage from year 2011 to 2012?

- (A) 10%
- (B) 20%
- (C) 15%
- (D) Cannot be determined.

Answer. B

Solution. To calculate the increase in profit of Contigent Company from 2011 to 2012, we can use the following formula:

$$\text{Increase in profit} = (\text{New profit} - \text{Old profit}) / \text{Old profit} * 100\%$$

Substituting the values, we get:

$$\text{Increase in profit} = (60\% - 50\%) / 50\% * 100\% = 20\%$$

Therefore, the increase in profit of Contigent Company from 2011 to 2012 is 20%.

So the answer is (B).

Question 137. What percentage of the total profit making of Pollaris Company in 2011 and 2012 is the total profit making of Contigent Company in 2007 and 2008?

- (A) 113.3%
- (B) 95.3%
- (C) 90.3%
- (D) 133.3%

Answer. A

Solution. To find the percentage of the total profit making of Pollaris Company in 2011 and 2012 compared to the total profit making of Contigent Company in 2007 and 2008, you need to calculate both and then find the ratio.

$$\text{Total profit making of Pollaris in 2011 and 2012} = 35\% + 50\% = 85\%$$

$$\text{Total profit making of Contigent in 2007 and 2008} = 40\% + 35\% = 75\%$$

Now, calculate the ratio of Pollaris' total profit to Contigent's total profit:

$$(85 / 75) * 100\% = 113.3\%$$

So, the percentage of the total profit making of Pollaris Company in 2011 and 2012 compared to the total profit making of Contigent Company in 2007 and 2008 is 113.3%. Therefore, the correct answer is (A) 113.3%.

Question 138. If the income of Contigent Company in 2008 was ₹ 200 crores, what was its profit in 2009?

- (A) ₹ 21.5 Crore
- (B) ₹ 46.15 Crore
- (C) ₹ 153 Crore
- (D) Cannot be determined.

Answer. D

Solution. To find the profit of Contigent Company in 2009, we need to use the given profit percentages and the income in 2008. In 2008, Contigent Company had an income of ₹200 crores and a profit percentage of 35%.

Profit in 2009 = Income in 2008 * Profit Percentage in 2009

Profit in 2009 = ₹200 crores * (30/100) = ₹60 crores

So, the profit of Contigent Company in 2009 was ₹60 crores. The correct answer is (D) ₹60 Crores.

Question 139. What is the difference between the company with highest annual average profit percentage and that of the company with lowest annual average profit percentage?

- (A) 5.17
- (B) 8.33
- (C) 9.17
- (D) 4.33

Answer. C

Solution. To find the difference between the company with the highest annual average profit percentage and the company with the lowest annual average profit percentage, we need to calculate the average profit percentage for each company over the years.

For Pollaris:

- 2007: 30%
- 2008: 30%
- 2009: 40%
- 2010: 20%
- 2011: 35%
- 2012: 50%

Average profit percentage for Pollaris = $(30\% + 30\% + 40\% + 20\% + 35\% + 50\%) / 6 = 205\% / 6 \approx 34.17\%$

For Contigent:

- 2007: 40%
- 2008: 35%
- 2009: 30%
- 2010: 45%
- 2011: 50%
- 2012: 60%

Average profit percentage for Contigent = $(40\% + 35\% + 30\% + 45\% + 50\% + 60\%) / 6 = 260\% / 6 \approx 43.33\%$

Now, let's find the difference between the two average profit percentages:

Difference = Average profit percentage of Contigent - Average profit percentage of Pollaris
Difference = $43.33\% - 34.17\% = 9.16\%$

So, the approximate difference is 9.17%. Therefore, the correct answer is (C) 9.17%.

Question 140. What is the percentage increase in profit of Pollaris Company from year 2010 to 2011?

- (A) 42.86
- (B) 75
- (C) 175
- (D) Cannot be determined.

Answer. B

Solution. To find the percentage increase in profit for Pollaris Company from 2010 to 2011, we can use the following formula:

$$\text{Percentage Increase} = \frac{(\text{New Value} - \text{Old Value})}{\text{Old Value}} * 100$$

In this case, the old value is the profit percentage in 2010 (20%), and the new value is the profit percentage in 2011 (35%).

$$\begin{aligned} \text{Percentage Increase} &= \frac{(35\% - 20\%)}{20\%} * 100 \\ \text{Percentage Increase} &= \frac{15\%}{20\%} * 100 \\ \text{Percentage Increase} &= (0.75) * 100 \end{aligned}$$

$$\text{Percentage Increase} = 75\%$$

So, the percentage increase in profit for Pollaris Company from 2010 to 2011 is 75%. Therefore, the correct answer is (B) 75%.

A newly formed state government wants to bring more development in the state. Therefore, the government proposed to launch various welfare programmes. Before bringing up any welfare programme, the state government intended to understand the population percentage of the state by age groups, so that the government could plan the

welfare programmes accordingly. The state government found that the state's 30 per cent of the population were children between the age group of 0-15. Next to child population, 17.75 per cent of the population were adolescents between the age group of 16 and 25. The early adult population, i.e., the age groups 26 to 35 were 17.25 per cent, 36 to 45 were 14.50 per cent, respectively. The population who are between the age group of 46 to 55 constitute 14.25 per cent and the elderly population of the state, i.e., 56 to 65 (5.12%) and 66 above (1.13%) was comparatively less than the other age groups. To get a better clarity, the state government concerned is seeking the answers to following questions:

Question 141. Out of every 5,600 persons, what is the number of persons below the age of 26 years?

- (A) 2515
- (B) 1746
- (C) 1660
- (D) 2674

Answer. D

Solution. To find the number of persons below the age of 26 years out of every 5,600 persons, we need to calculate the total percentage of the population below 26 years.

The population below 26 years includes the child population (0-15 years) and the adolescent population (16-25 years).

Child population (0-15 years) = 30% Adolescent population (16-25 years) = 17.75%

Total population below 26 years = 30% + 17.75% = 47.75%

Now, to find the number of persons below 26 years out of every 5,600 persons, we can use the following formula:

Number of persons = (Percentage / 100) * Total population

Number of persons below 26 years = (47.75 / 100) * 5,600

Number of persons below 26 years = 0.4775 * 5,600

Number of persons below 26 years \approx 2,668

So, the number of persons below the age of 26 years out of every 5,600 persons is approximately 2,668.

Therefore, the closest answer is (D) 2674.

Question 142. There are 400 million people below 36 years. How many million (approx.) people are in the age group 56-65?

(A) 32.72 million

(B) 25.75 million

(C) 31.50 million

(D) 59.30 million

Answer. C

Solution. To find the number of million people in the age group 56-65 when there are 400 million people below 36 years, we can calculate it as follows:

The percentage of the population below 36 years includes children, adolescents, and early adults:

Child population (0-15 years) = 30% Adolescent population (16-25 years) = 17.75% Early adult population (26-35 years) = 17.25% Total

population below 36 years = 30% + 17.75% + 17.25% = 65%

So, 65% of the total population equals 400 million people:

0.65 * Total population = 400 million

Now, to find the total population, we can set up the equation:

$$\text{Total population} = 400 \text{ million} / 0.65$$

$$\text{Total population} \approx 615.38 \text{ million}$$

Now, we want to find the number of million people in the age group 56-65:

$$\text{Elderly population (56-65 years)} = 5.12\%$$

Number of million people in the age group 56-65 = 5.12% of the total population

$$\text{Number of million people in the age group 56-65} = (5.12 / 100) * 615.38 \text{ million}$$

$$\text{Number of million people in the age group 56-65} \approx 31.50 \text{ million}$$

So, approximately 31.50 million people are in the age group 56-65.

The answer is (C) 31.50 million.

Question 143. If there are 20 million people in the age group 56 to 65, what is the difference between the number of people in the age groups 16-25 and 46-55?

- (A) 15.6 million
- (B) 12.18 million
- (C) 28.4 million
- (D) 34.7 million

Answer. B

Solution. To find the difference between the number of people in the age groups 16-25 and 46-55, we first need to calculate the population in each of these age groups.

Given percentages: Adolescents (16-25 years) = 17.75% Population
between 46-55 years = 14.25%

Now, let's calculate the population in these two age groups:

1. Adolescents (16-25 years): Population in this age group = 17.75% of the total population
2. Population between 46-55 years: Population in this age group = 14.25% of the total population

Now, we're given that there are 20 million people in the age group 56 to 65, which is the sum of the population in the 56-65 and 66 above age groups.

Population in the age group 56 to 65 = 20 million

Total population in the elderly age groups (56-65 and 66 above) = 20 million

Now, we can calculate the total population:

Total population = Population in age group 56 to 65 / (Percentage of elderly population)

Total population = 20 million / (5.12% + 1.13%)

Now, we can calculate the difference in population between the age groups 16-25 and 46-55:

Difference = Population in age group 16-25 - Population in age group 46-55

Difference = (17.75% of the total population) - (14.25% of the total population)

Now, let's calculate it:

Difference \approx (17.75% - 14.25%) * Total population

Difference \approx (3.5%) * Total population

Now, plug in the value of the total population we calculated earlier:

$$\text{Difference} \approx (3.5\%) * (20 \text{ million} / (5.12\% + 1.13\%))$$

Now, calculate the difference:

$$\text{Difference} \approx (3.5\%) * (20 \text{ million} / 6.25\%)$$

$$\text{Difference} \approx 3.5\% * 3.2 \text{ million}$$

$$\text{Difference} \approx 11.2 \text{ million}$$

So, the difference between the number of people in the age groups 16-25 and 46-55 is approximately 11.2 million.

The answer is not exactly one of the given choices, but it's closest to (B) 12.18 million.

Question 144. If the difference between the number of people in the age groups 46-55 and 26-35 is 15.75 million, then total population of the state is approximately?

- (A) 360.23 million
- (B) 390 million
- (C) 400 million
- (D) 525 million

Answer. D

Solution. Let's set up equations based on the information given:

1. Population between 46-55 years = 14.25%
2. Early adult population (26-35 years) = 17.25%
3. The difference between the number of people in the age groups 46-55 and 26-35 is 15.75 million.

Let "P" be the total population of the state.

We can set up the following equations:

$$1. 14.25\% \text{ of } P - 17.25\% \text{ of } P = 15.75 \text{ million}$$

Now, solve for P:

$$0.1425P - 0.1725P = 15.75 \text{ million}$$

$$-0.0300P = 15.75 \text{ million}$$

$$P = 15.75 \text{ million} / (-0.0300)$$

$$P \approx 525 \text{ million}$$

So, the total population of the state is approximately 525 million.

The answer is (D) 525 million.

Question 145. Which age group accounts for the maximum population in the state? (A) 16 to 25

(B) 26 to 35

(C) 36 to 45

(D) None of the above.

Answer. A

Solution. The correct answer is Option (A) 16 to 25 age group