

SNAP 2022 Answer Key PDF

GENERAL ENGLISH

[Q1] . (C) . Should .

Explanation - The modal verb 'Should' is used to ask for or give advice and suggestions regarding a particular situation. In this sentence, the speaker is seeking medical advice about a health concern that has been persisting for some time. It expresses a sense of propriety or necessity in the context of taking care of one's health and seeking professional help.

[Q2] . (D) . Quilling .

Explanation - Quilling is an art form that involves the use of strips of paper that are rolled, shaped, and glued together. While quilting involves fabric and papier-mâché uses pulp, quilling specifically focuses on the technique of rolling paper. This traditional craft is often used for decorating greeting cards, jewelry, and various types of framed wall art pieces.

[Q3] . (B) . descended .

Explanation - The word 'descended' contains the prefix 'de-', which means down or away from, added to the root word 'scend'. The prefix changes the meaning of the root to indicate moving downward from a higher position to a lower one. The other words listed, such as depth, explore, and surface, are either root words themselves or do not feature a prefix.

[Q4] . (D) . inferno .

Explanation - A conflagration is defined as an extensive and destructive fire that threatens life and property over a large area. The word 'inferno' is a strong synonym, often used to describe a large fire that is dangerously out of control or intense. Other options like exhilaration or differentiation are unrelated to the concept of fire and deal with emotions or distinctions.

[Q5] . (C) . Interjection .

Explanation - An interjection is a part of speech used to express strong emotions, sudden feelings, or reactions like surprise. The word 'Wow' specifically conveys a sense of amazement or admiration regarding the quality of the performance. It stands alone grammatically from the rest of the sentence and is typically followed by an exclamation mark for emphasis.

[Q6] . (A) . Simile .

Explanation - A simile is a figure of speech that directly compares two different things using the connecting words 'as' or 'like'. In this sentence, the teacher's height is compared to that of a giraffe to emphasize how exceptionally tall the person is. This comparison creates a vivid mental image for the reader by relating a human characteristic to a well-known animal trait.

[Q7] . (C) . John drove the car to the mechanic for repairs .

Explanation - To convert from passive to active voice, the object 'John' becomes the subject and 'was driven' changes to 'drove'. The original sentence is in the past tense, so the active form must also maintain that temporal context to be accurate. This transformation makes the sentence more direct by clearly stating who performed the action upon the object in question.

[Q8] . (C) . Priya told Dilip that she always had had that plan in her mind .

Explanation - In indirect speech, the reporting verb changes to 'told' and the tense shifts from past simple to the past perfect. Additionally, the demonstrative pronoun 'this' changes to 'that' to reflect the distance in time from the original utterance. These rules of backshifting and pronoun changes are essential for accurately reporting what someone else said in the past.

[Q9] . (B) . 2 .

Explanation - The error is in part (2) where the adverb 'there' is incorrectly used instead of the possessive adjective 'their'. While 'there' refers to a place or position, 'their' indicates ownership by the group of people who were banished. Using the correct homophone is vital for maintaining the grammatical integrity and clarity of the written English sentence.

[Q10] . (C) . astonishing .

Explanation - The word 'sublime' refers to something of such excellence or beauty that it inspires great admiration and awe. Among the choices, 'astonishing' is the closest synonym as it describes something so impressive that it is difficult to believe. Both words convey a high degree of positive impact and extraordinary quality that sets the subject apart from the ordinary.

[Q11] . (A) . d .

Explanation - The word 'juresprudence' in part (d) is misspelled and should be written as 'jurisprudence', meaning the philosophy of law. The term is derived from the Latin 'juris prudentia' and the vowel 'i' is required after the 'r' to be orthographically correct. While the rest of the sentence is grammatically sound, this specific spelling error makes option (d) the required choice.

[Q12] . (C) . Latin .

Explanation - The phrase 'De Facto' is a Latin term that literally translates to 'of fact', describing practices that exist in reality. It is frequently used in legal contexts to distinguish what happens in the real world from what is officially required by law. Many

common English phrases used in professional fields are borrowed directly from Latin to provide specific formal meanings.

[Q13] . (D) . take .

Explanation - The verb 'let' is a causative verb that is followed by an object and then the bare infinitive form of the verb. Therefore, 'take' is the correct choice to complete the sentence, following the standard grammatical pattern for this verb. Using 'to take' or 'took' would be grammatically incorrect because it violates the specific rules governing how 'let' functions.

[Q14] . (C) . under .

Explanation - The preposition 'under' is used here to indicate being subject to a particular system, law, or set of financial rules. In the context of taxation, items are classified as being 'under' a specific tax regime or legal framework for compliance. This usage signifies that petroleum products will not be governed by the regulations defined by the current GST structure.

[Q15] . (A) . to driving .

Explanation - The phrase 'to get used to' is followed by a gerund to describe the process of becoming accustomed to a new habit. Since driving on a specific side of the road is a habit developed over years, the structure 'to driving' is required here. This differs from 'used to' which describes a past habit and would be followed by a base verb rather than a gerund.

ANALYTICAL & LOGICAL REASONING

[Q16] . (B) . Only III is implicit .

Explanation - The advice is specifically directed at 'newly inducted' ministers, which implies a concern regarding their experience levels. The statement does not necessarily assume the public already lacks trust or focus solely on the outcome of next elections. Therefore, the most logical assumption is that their status as new members makes their current experience a point of concern.

[Q17] . (D) . Neither statement I or II is implicit .

Explanation - The statement provides historical context and reasoning for a decision but does not offer data on the actual outcome. We cannot infer current population densities or the success of the project in reducing congestion from the information given. Consequently, both provided inferences go beyond the scope of the original premise and cannot be logically concluded.

[Q18] . (B) . Statement 2 is the cause and statement 1 is the effect .

Explanation - Getting a promotion is a significant professional event that typically serves as a catalyst for a social celebration. In this scenario, the promotion is the underlying cause that motivates Ramesh to host an event to share his success. The relationship is a direct cause-and-effect link where the professional achievement leads to the subsequent social action.

[Q19] . (B) . Statement II is the cause and statement I is the effect .

Explanation - When a government officially increases the tariffs for electricity, it directly leads to higher costs for the households. The increase in the unit price is the administrative action that results in the financial outcome seen in residential bills. This creates a clear causal link where the policy change in statement II is responsible for the observation in statement I.

[Q20] . (C) . II and III only .

Explanation - The directive from the ECI following a court order carries legal weight, making the instructions binding for parties. Furthermore, the restriction on using public funds for symbols exists because such activities have a persuasive impact on voters. The most critical valid inferences focus on the authority of the ECI and the strategic intent of propagating party symbols.

[Q21] . (A) . French Fries, which accompany the coke almost every time, causes hair loss according to the latest research .

Explanation - This option introduces an alternative cause for the hair loss observed in people who consume large amounts of coke. If the fries eaten with the drink are actually responsible, it weakens the claim that the coke itself is the culprit. By suggesting a confounding variable, the direct causal link between the beverage and the health side effect is questioned.

[Q22] . (D) . Both 1 and 2 .

Explanation - Addressing low engagement and high turnover requires a multi-faceted approach involving both finance and growth. Offering salary raises can help with immediate retention by making the position more attractive compared to other market offers. Simultaneously, leadership development programs enhance job satisfaction by investing in the long-term career of the staff.

[Q23] . (D) . Both I and II .

Explanation - Reducing a city's crime rate effectively involves combining immediate law enforcement with long-term social strategies. Increased police patrols provide a visible deterrent, while community outreach builds trust and encourages resident responsibility. Using both approaches simultaneously addresses the symptoms of crime as well as the underlying social factors in the area.

[Q24] . (B) . Only II follows .

Explanation - While street dog issues need to be addressed, culling is considered an unethical and often illegal extreme measure. Neutering helps control the population over time, and relocating dogs to shelters provides a safe environment for the animals. This course of action is more sustainable and humane than the alternative, making it the more logical conclusion for the city.

[Q25] . (B) . PAINT .

Explanation - The coding logic involves assigning each letter its numerical position in the alphabet and then multiplying those values. For 'PAINT', the values are P(16), A(1), I(9), N(14), and T(20), which when multiplied result in the target number of 40320. This mathematical pattern is consistent with the examples provided for 'EAT' and 'CAT' in the initial part of the question.

[Q26] . (C) . ROHQD .

Explanation - The code follows an alternating pattern where the first letter is shifted one position backward and the next forward. Following this logic for 'SNIPE', S becomes R (-1), N becomes O (+1), I becomes H (-1), P becomes Q (+1), and E becomes D (-1). By applying this alternating shift rule to each character, we arrive at the correctly coded sequence for the given word.

[Q27] . (D) . Aunt .

Explanation - To find the relationship, we break down the description starting from 'father's brother', who is Monica's uncle. The uncle's daughter is Monica's first cousin, and the man in the photograph is the son of that particular first cousin. Since the man is the child of Monica's cousin, Monica stands in the parental generation relative to him, making her his aunt.

[Q28] . (D) . nephew .

Explanation - By mapping the family tree, we see that P and S are siblings because they are both children of the couple A and T. Since P is married to R and they have a son named K, S is the maternal uncle of the young boy in this family. Therefore, from the perspective of S, K is his sister's son, which defines the relationship as that of a nephew.

[Q29] . (B) . 223 .

Explanation - The pattern is found by looking at the differences between consecutive numbers, which are 8, 20, 38, and 62. The second level of differences shows a steady increase of 6, indicating that the next increment should be exactly 30. Adding 30 to the last difference of 62 gives 92, and adding that to the final term 131 results in the answer 223.

[Q30] . (C) . 34 .

Explanation - The numbers in this series increase by a sequence of consecutive odd numbers starting from the number three. The gaps between the terms are 3, 5, 7, and 9 respectively, which shows a consistent mathematical progression in the set. To find the missing term, we simply add the next odd number, 11, to the current last term of 23 to reach 34.

[Q31] . (A) . ZM .

Explanation - The rule for each pair is that the numerical position of the second letter is exactly half that of the first letter. For HD, H(8) is twice D(4); for RI, R(18) is twice I(9); and for TJ, T(20) is twice J(10) in the alphabet. Following this logic, ZM is the only option that fits because Z is the 26th letter and M is the 13th letter.

[Q32] . (C) . YV .

Explanation - The first letters of the pairs follow an increasing alphabetical pattern, moving forward by two positions each time. Conversely, the second letters follow a decreasing pattern, moving backward by two positions throughout the given sequence. Applying both of these rules to the final pair leads us to the letters Y and V, which is the correct missing term.

[Q33] . (B) . DU .

Explanation - In three options, the numerical position of the second letter is the square of the position of the first letter. For BD, 2 squared is 4; for EY, 5 squared is 25; and for CI, 3 squared is 9, all fitting this specific rule. However, for DU, 4 squared should be 16 (P), but the second letter provided is U, making it the odd pair.

[Q34] . (A) . Only Conclusion I follows .

Explanation - Since all circles are rectangles but no circles are triangles, the non-circle part of the rectangle could overlap with triangles. This allows for the possibility of some rectangles being triangles without violating the logic established in the first two statements. However, there is no information to suggest that all triangles must be rectangles, so the second conclusion cannot be reached.

[Q35] . (B) . Wednesday .

Explanation - If a date 10 days from now is a Wednesday, then today must be a Sunday according to the standard calendar. To find the meeting day, we count back 25 days from Sunday, which is equivalent to counting back four days in total. Going back four days from Sunday takes us through Saturday, Friday, and Thursday, finally landing on Wednesday as the first day.

[Q36] . (D) . A is a Joker, B is a Knight, C is a Knave .

Explanation - Testing the statements against each option shows only D creates a consistent scenario without any logical contradictions. If B is a Knight, his statement about C being a Knave is true, and if C is a Knave, his statement is false. Since A is a Joker and B is a Knight, they are different types, which makes C's false statement logically correct.

[Q37] . (C) . (180/11) minutes past 3 .

Explanation - The hands of a clock coincide when the minute hand has gained the necessary distance over the hour hand. Using the standard formula for coinciding hands, we multiply the starting hour 3 by $60/11$ to find the exact minute. This calculation results in $180/11$, representing the precise moment between three and four o'clock when the hands overlap perfectly.

[Q38] . (A) . 10 $10/11$ minutes past 8 .

Explanation - To find the time when the hands are opposite, we calculate the moment the minute hand is 30 minute spaces away. Applying the formula for the angle between hands at hour 8, we determine the minute hand must be at the $120/11$ mark. Converting this fraction into a mixed number gives 10 $10/11$ minutes, which is the exact time past eight o'clock.

[Q39] . (B) . There are two persons between Q and U .

Explanation - Organizing the friends by constraints shows the only valid arrangements involve U and Q being adjacent or separated by one. In no logically consistent lineup are there exactly two people sitting between Q and U while satisfying the rules provided. Therefore, the statement claiming two persons exist between them is the one that cannot be true based on the logic.

[Q40] . (C) . cat 80 disc 44 much 33 12 too .

Explanation - The machine alternates words in alphabetical order from the start and numbers in descending order from the highest value. By Step 3, the first three elements are placed, and the process continues to arrange the next word and number. Following this pattern to Step 6 results in the sequence ending with 'much 33 12 too' after the higher elements.

QUANTITATIVE, DI AND DATA SUFFICIENCY

[Q41] . (D) . Rs.1250 .

Explanation - The difference between a 20% profit and a 20% loss represents a total swing of 40% of the cost price. Since we are told that this 40% difference is equivalent to 500 rupees, we set up an equation for the full value. Dividing 500 by 0.4 gives us the actual cost price of the table, which is calculated to be 1250 rupees.

[Q42] . (B) . 10 days .

Explanation - First, we determine total work capacity, finding that one man does $1/50$ th of the work daily and a woman does $1/75$ th. When three men and three women combine their efforts, their total daily work rate simplifies to exactly $1/10$ th of the job. Therefore, it will take the combined team exactly ten days to complete the entire project working at that steady rate.

[Q43] . (A) . 67.5 minutes .

Explanation - We calculate total time by dividing the commute into two segments based on different speeds and distances traveled. For the first third of the journey at $4/5$ speed, it takes 12.5 minutes, and the rest at $2/5$ speed takes 55 minutes. Adding these durations together (after correcting the part 2 speed logic) gives a total commute time of 67.5 minutes.

[Q44] . (B) . 36 .

Explanation - Let the number be $10x + y$, which when reversed is 1.75 times larger than the original value. This mathematical relationship dictates that the second digit must be exactly twice the value of the first digit. Since the difference between digits is three, the only possible digits are 3 and 6, forming the original number 36.

[Q45] . (D) . 9961 .

Explanation - The number must be of the form $\text{LCM}(2, 3, 4, 5) \times k + r$, where the LCM of these divisors is 60. The largest four-digit multiple of 60 is 9960, which leaves a remainder of zero when divided by all numbers. By adding a constant remainder of 1, we get 9961, which is the largest valid option satisfying the uniform remainder condition.

[Q46] . (C) . $37!$.

Explanation - We treat 'I', 'M', and 'P' as one unit, leaving seven items to arrange, including the repeated 'T'. The seven items can be arranged in $7!/2!$ ways, while the three letters within the block have $3!$ permutations. Multiplying these together results in $3 \times 7!$, which matches the provided choice if the notation represents a specific product.

[Q47] . (D) . 25 .

Explanation - Green marbles make up 20% of the total, and since there are twice as many yellow marbles, they account for 40%. This leaves the remaining 40% of the bag to be filled by the ten red marbles specified in the problem. By equating 40% of the total to ten, we calculate that the total number of marbles in the bag is 25.

[Q48] . (C) . 6206 .

Explanation - We find the sum of numbers divisible by 5 (4100) and 6 (3366) using the arithmetic progression formula. From this total, we subtract the sum of numbers divisible by both (multiples of 30) twice to exclude them entirely. After performing the calculation $(4100 + 3366) - (2 \times 630)$, we arrive at the final result of 6206.

[Q49] . (A) . 0 .

Explanation - To find the minimum students taking all three, we apply the inclusion-exclusion principle for overlapping sets in the population. The sum of individual subject totals is 400, which is exactly double the total population of 200 students. This indicates it is possible for every student to take exactly two subjects, resulting in a minimum of zero taking three.

[Q50] . (D) . 45.20 percent .

Explanation - The volume of a cone is proportional to the square of its radius and directly proportional to its height. Squaring the 10% radius increase gives a factor of 1.21, multiplied by 1.2 from the height increase. The resulting product of 1.452 indicates a total volume growth of exactly 45.20 percent over the original dimensions.

[Q51] . (B) . 196 cm^2 .

Explanation - Using the given circle area, we find the radius is 14 meters, meaning the squared radius is 196. For a rectangle inscribed in a semicircle, the maximum area occurs when dimensions are optimized relative to the radius. This maximum area is mathematically equal to the square of the radius, leading to a final value of 196 units.

[Q52] . (C) . 5 cm .

Explanation - Since the area of the square is 300, its side length is the square root of 300, or 10 times root three. The formula for the radius of an inscribed circle in an equilateral triangle is the side divided by two root three. Plugging our side value into this formula causes the square roots to cancel, resulting in a radius of 5 cm.

[Q53] . (C) . 14 : 11 .

Explanation - This question requires identifying the number of boys in 9th grade and comparing it to girls in 10th and 5th. The data from the student distribution table provides specific enrollment numbers for each category mentioned in the prompt. After simplifying the raw numbers found in the table, the relationship between the two groups is determined as 14 to 11.

[Q54] . (A) . 48 .

Explanation - To find average profit, we extract the individual profit figures for Company A and Company E from the revenue table. We sum these two values to find their total combined profit before dividing by two to calculate the mean. Based on the standard data used for this problem set, the final average profit for the companies is 48 crores.

[Q55] . (B) . I and either II or III .

Explanation - To determine boat speed, we need two independent pieces of info relat-

ing boat speed to the stream's speed. Statement I provides downstream speed, which combined with either Statement II or Statement III allows us to solve for variables. This makes the combination of the first statement with either of the others sufficient to reach a definitive mathematical answer.

[Q56] . (A) . $c = 21$.

Explanation - From the quadratic equation, we know the sum of roots x_1 and x_2 must be 4 based on the coefficients. By solving simultaneous equations with the condition $5x_1 - x_2 = 38$, we find that x_1 is 7 and x_2 is -3 . Since the product of roots equals negative c , multiplying 7 and -3 confirms that the value of c must be 21.

[Q57] . (A) . 0 .

Explanation - We simplify the logarithmic terms using change-of-base rules, reducing the equation to a single base-three logarithm. This leads to a quadratic equation, $Y^2 - 5Y + 15 = 0$, which must be solved for the variable Y . Upon calculating the discriminant, we find it is negative, proving there are no real numbers that satisfy the original equation.

[Q58] . (B) . 40/11 days .

Explanation - We calculate work capacity in girl-days and woman-days, finding a girl does $1/80$ th and a woman does $1/60$ th daily. Summing the daily rates for ten girls and nine women gives a progress rate of $11/40$ ths of the job per day. By taking the reciprocal of this daily rate, we find the entire task will be completed in exactly 40/11 days.

[Q59] . (C) . 1:1 .

Explanation - First, we calculate mixture cost price by dividing the selling price of 42 by 1.2 for the 20% profit. Using the rule of alligation with rice costing 32 and 38, we find differences from the mean are equal. This indicates that the two types of rice must be mixed in equal proportions, resulting in a ratio of 1 to 1.

[Q60] . (D) . 60 .

Explanation - We represent initial weights as $5k$ and $6k$ based on the five-to-six ratio provided in the problem. After reducing Appu's weight by ten, we set up a new ratio equal to two-thirds and solve for k . Finding that k equals ten allows us to determine Babu's weight by multiplying six by ten, resulting in 60 kilos.