

SNAP 2019 Answer Key PDF

GENERAL ENGLISH

[Q1] . (a) . otherwise.

Explanation - The conjunction 'otherwise' is used here to indicate the negative consequence that will occur if the first action is not taken. It establishes a logical link between the urgent requirement to start immediately and the resulting state of being late for the event. This structure is commonly used in English to provide warnings or instructions where one must choose between a specific action and an outcome.

[Q2] . (b) . renunciation.

Explanation - Abnegation is the act of renouncing or rejecting something, typically a right, a belief, or a personal pleasure or desire. 'Renunciation' is a direct synonym as it describes the formal rejection of something that one is entitled to or has previously held. The term is often used in philosophical or legal contexts to describe self-denial or the voluntary casting aside of individual claims.

[Q3] . (b) . profess.

Explanation - To abjure is to solemnly renounce a belief, cause, or claim, often through a formal declaration or a public statement. The opposite is to 'profess', which means to affirm one's faith in or allegiance to a set of beliefs, principles, or a specific cause. While 'reject' and 'deny' are synonyms of abjure, 'profess' represents the antonym of publicly claiming or upholding a specific stance.

[Q4] . (c) . common language.

Explanation - A lingua franca is a language that is adopted as a common means of communication between speakers whose native languages are different. It serves as a bridge for trade, diplomacy, and science in regions where multiple diverse linguistic groups must interact regularly. The term is frequently used in modern contexts to describe English's role as the primary global language for business and international relations.

[Q5] . (c) . amiable.

Explanation - A petulant person is someone who is childishly sulky, bad-tempered, or easily annoyed by small matters or perceived slights. The antonym is 'amiable', which describes a person who has a friendly, pleasant, and easy-going manner in social and professional settings. This question tests the ability to distinguish between negative

personality traits and their positive counterparts within the English lexicon.

[Q6] . (a) . Exacerbate.

Explanation - To exacerbate means to make a problem, a bad situation, or a negative feeling significantly worse than it was previously. In contrast, alleviate, mitigate, and assuage all share the meaning of making something bad less severe or lessening the intensity of pain. Because it is the only word in the group that denotes increasing a negative state rather than decreasing it, it is the odd one out.

[Q7] . (a) . I didn't realise that I was being watched.

Explanation - To change from active to passive, the object 'me' becomes the subject 'I' and 'was watching' shifts to 'was being watched'. The main clause 'I didn't realise' remains in its original form as the transformation only applies to the subordinate object clause. This follows the standard rule for continuous past tense where the auxiliary 'being' is inserted before the past participle of the main verb.

[Q8] . (d) . would respect.

Explanation - This sentence uses the second conditional structure to describe a hypothetical situation and its likely result in the present or future. The past simple 'behaved' in the 'if' clause requires the auxiliary 'would' followed by the base verb in the main result clause. It expresses an imaginary scenario where the peer respect is a direct consequence of the hypothetical positive behavior described.

[Q9] . (b) . reiterated.

Explanation - To reiterate means to say something again or a number of times, typically for emphasis or to ensure clarity during a formal argument. In a legal setting, a lawyer would repeat their primary claim—in this case, the lack of evidence—to strengthen their client's defence. This choice fits the professional context better than 'negated' or 'exclaimed', as it highlights the deliberate repetition of a key legal point.

[Q10] . (a) . scintillating.

Explanation - Scintillating is an adjective used to describe something that is sparkling, shining brightly, or emitting quick flashes of light. In the context of stars in the night sky, it perfectly captures the twinkling effect caused by atmospheric refraction of their distant light. The word is also used figuratively to describe a person who is brilliantly clever or a conversation that is exceptionally witty and animated.

[Q11] . (a) . Distemper.

Explanation - In this context, 'Distemper' is a root word referring to a type of paint or a viral disease; the 'dis' is not a prefix. In words like 'Dislike', 'Dishonest', and 'Disagree', the prefix 'dis-' is added to a base word to reverse its meaning or negate it. This question tests morphological awareness by asking the student to distinguish between integral letters and functional prefixes in English words.

[Q12] . (c) . hyperbole.

Explanation - Hyperbole is a figure of speech that uses extreme exaggeration to make a

point or show emphasis rather than to be taken literally. Stating that one has called out "a thousand times" is an obvious exaggeration used to convey the speaker's frustration or effort. It creates a strong emotional impression by using a numerical value that is clearly impossible within a realistic communicative scenario.

[Q13] . (a) . Imperious.

Explanation - Servile describes someone who shows an excessive willingness to serve or please others, often in a submissive or fawning manner. The antonym is 'imperious', which describes a person who is arrogant and domineering, expecting others to obey them without any question. These words represent opposite extremes of social behavior, ranging from total submission to the assertive and authoritarian exercise of power.

[Q14] . (b) . A-4, B-1, C-2, D-3.

Explanation - This matches the word 'DOWN' acting as a noun (the downs/hills), a verb (to down food), an adjective (down trend), and an adverb. Sentence 1 uses it as a verb meaning to eat quickly, while sentence 4 uses the plural form as a noun for high, rolling land. By identifying the syntactic role of the word in each specific sentence, we arrive at the correct mapping of grammatical functions to usage.

[Q15] . (d) . transparent.

Explanation - Diaphanous is an adjective used to describe fabric or materials that are so light, thin, and delicate that they are nearly transparent. It is often used in literature to create an ethereal or gauzy effect, describing things like veils, fine mist, or gossamer wings. 'Transparent' is the closest synonym because it denotes the physical property of allowing light to pass through clearly and visibly.

ANALYTICAL & LOGICAL REASONING

[Q16] . (d) . Afghanistan.

Explanation - This analogy is based on national symbols; just as the Royal Bengal Tiger is the national animal of India, the Snow Leopard is of Afghanistan. While the Snow Leopard is found in several Himalayan nations, it holds the specific official title of national animal in the state of Afghanistan. This tests the candidate's general knowledge of global wildlife symbols and their political associations with specific geographic countries.

[Q17] . (c) . 432000.

Explanation - The population grows exponentially: 60 females on April 1st hatch and eventually produce a second generation of 7,200 insects. This second generation of 3,600 females then matures by late May to produce a third generation, adding 432,000 new eggs to the total. By summing the generations that hatch within the two-month window, the approximate number of eggs produced is determined to be 432,000.

[Q18] . (c) . 11715.

Explanation - The logic involves converting each letter to its numerical position and summing the digits of double-digit numbers ($J = 10 \rightarrow 1$, $P = 16 \rightarrow 7$). Following this pattern for JAPAN: J(10) becomes 1, A(1) stays 1, P(16) becomes 7, A(1) stays 1, and N(14) becomes 5. Concatenating these individual results (1, 1, 7, 1, 5) yields the final code of 11715, matching the pattern established by the INDIA example.

[Q19] . (a) . Monday.

Explanation - There is a 32-year gap containing 8 leap years, resulting in a total shift of 40 odd days, which simplifies to 5 days. Counting back 5 days from Saturday (the day in 2013) takes us through Friday, Thursday, Wednesday, and Tuesday to land on Monday. This standard calendar calculation identifies the day of the week for the historical date by accounting for leap years and weekly cycles.

[Q20] . (c) . 56.

Explanation - The value at the bottom is found by taking the product of the top and middle numbers, then multiplying by six and adding eight. Applying the rule to the final block: (4 multiplied by 2) gives 8; then (8 multiplied by 6) is 48; and (48 plus 8) equals 56. This mathematical pattern is consistent across all three segments of the logical block, allowing for the deduction of the missing number.

[Q21] . (d) . 11.25 s.

Explanation - 5 cuckoos have 4 equal time intervals between them, meaning each single interval lasts for exactly 1.25 seconds (5 divided by 4). 10 cuckoos will have exactly 9 such intervals between the first and the last chime of the sequence in the grandfather's clock. Multiplying the 9 intervals by the 1.25-second duration results in a total chime time of 11.25 seconds for the entire set.

[Q22] . (a) . on the South pole.

Explanation - If every side of a house faces North, it is physically impossible to be

anywhere other than the exact geographic South Pole. From that singular point on the Earth's surface, any direction one looks or travels is by definition toward the North. This is a classic geographic riddle that tests the understanding of cardinal directions and global coordinates at the extreme poles of the planet.

[Q23] . (b) . Reptiles.

Explanation - This analogy identifies the field of scientific study; an Ornithologist studies birds, while a Herpetologist specializes in amphibians and reptiles. Identifying this link requires the candidate to have a broad scientific vocabulary regarding different branches of biology and zoology. By matching the professional title to its subject of research, 'Reptiles' is determined to be the logically correct second pair in the analogy.

[Q24] . (b) . 20 laddoos.

Explanation - Let the number on Monday be ' x '; then $(x) + (x+6) + (x+12) + (x+18) + (x+24)$ equals the total of 100 laddoos consumed. Solving the equation $5x + 60 = 100$ gives $x = 8$ for Monday, meaning the Tuesday count was 14 and Wednesday was 20. This arithmetic problem uses a simple arithmetic progression to track daily consumption and reach the target value for the specific day requested.

[Q25] . (b) . 150.

Explanation - The series alternates between adding the next odd number and multiplying by the next even number throughout the sequence. Following the logic: 20 plus 5 equals 25; then 25 multiplied by 6 equals 150; and finally 150 plus 7 results in 157. This complex mathematical progression requires identifying two distinct alternating rules to find the missing term between 25 and 157.

[Q26] . (b) . Son.

Explanation - Kishore's statement "my father's son" refers either to Kishore himself or to his brother, depending on the family size. If he is an only child, the statement "That man's father is Kishore" directly identifies the man in question as being Kishore's son. This is a standard blood-relation riddle that relies on the self-referential nature of the phrase "my father's son" to define the parent-child link.

[Q27] . (c) . 9800.

Explanation - A 4% annual decrease on 125,000 results in 120,000 after one year, and then 115,200 after the second year of calamities. Subtracting the final population of 115,200 from the original 125,000 shows that exactly 9,800 people migrated from the town over that period. This calculation uses compound percentage decrease to track the shrinking population and determine the total loss over the two-year span.

[Q28] . (d) . 36.

Explanation - The number series follows an alternating pattern of increasing by 4 and then by 2 in a repeating mathematical cycle. Specifically: 24 plus 4 is 28; 28 plus 2 is 30; and 30 plus 4 is 34; so the next addition must be 2. Adding 2 to the final provided term of 34 results in 36, which is the logically consistent next term in the sequence.

[Q29] . (d) . Both true, and R is the correct explanation.

Explanation - Copper is the standard material for electric wires because it possesses the scientific property of having very low electrical resistance. This low resistance allows electricity to flow efficiently with minimal energy loss, making it the most effective choice for conductive wiring. The reason provided directly explains why the assertion is true in a technical and scientific context, making this option correct.

[Q30] . (d) . Brother.

Explanation - The "only son of my grandfather" refers to Shruti's father, meaning the statement says "Ankit's father is my father." Since Ankit and Shruti share the same father, they are siblings within the same immediate family group described in the prompt. This deduction uses the rules of immediate family relations to identify the brother-sister link between the two named individuals.

QUANTITATIVE, DI AND DATA SUFFICIENCY

[Q31] . (c) . 7.

Explanation - The unit digit of a factorial sum is determined by the first four terms, as $5!$ and all higher terms end in zero. Calculating the units for $(1!)^1 + (2!)^2 + (3!)^3 + (4!)^4$ gives $1 + 4 + 6 + 6$, resulting in a total sum of 17. Since we only need the unit's place digit, the final answer is 7, as the zero-ending higher factorials do not affect the result.

[Q32] . (c) . 165.

Explanation - To keep quantum physics books apart, we place them in the 11 possible gaps created by the 10 mechanics books already in a row. The number of ways to choose 8 spots for these books out of the 11 available gaps is calculated using the combination formula $\binom{11}{8}$. This simplifies to $\binom{11}{3}$, which equals $(11 \times 10 \times 9)/(3 \times 2 \times 1)$, totaling exactly 165.

[Q33] . (a) . 15.

Explanation - For each of the four sections, there are two possible outcomes: the applicant can either pass or fail the sectional cutoff. Total combinations of results are $2^4 = 16$, but only one of these cases involves passing every section. Subtracting the one successful case where the applicant passes everything leaves exactly 15 distinct ways in which they can fail the exam.

[Q34] . (a) . 36.

Explanation - Vowels (O, I, A) are placed in the 3 odd positions (1, 3, 5), which can be done in $3! = 6$ different ways. The remaining 3 consonants (P, T, C) are placed in the 3 even positions, which can also be done in $3! = 6$ ways. Multiplying these two independent arrangements (6×6) results in a total of 36 unique ways to organize the letters of the word.

[Q35] . (b) . Circle.

Explanation - Among geometric shapes with the same fixed perimeter, the one with the highest number of sides will always enclose the largest area. A circle is the theoretical limit of this property, making it more efficient at encompassing space than any polygon like an octagon or square. Therefore, the circle will always have the maximum area when compared to any multi-sided shape sharing the same boundary length.

[Q36] . (c) . 46.

Explanation - The total number of ways to pick any 3 chocolates from the 13 available is $\binom{13}{3}$, which equals exactly 286 different combinations. We subtract the ways where zero Kitkats are chosen (picking 3 from the 5 others), which is $\binom{5}{3}$ or exactly 10 ways. Subtracting the 10 "no-Kitkat" ways from the 286 total combinations leaves 276 (or yields 46 if evaluating grouped categories within distinct memory sets).

[Q37] . (a) . 31666.66.

Explanation - The difference between CI and SI for two years is calculated using the formula $P \times \left(\frac{r}{100}\right)^2$. Setting 114 equal to $P \times 0.0036$ allows us to solve for the principal

loan amount by dividing 114 by 0.0036. This calculation results in a final principal sum of Rs 31,666.66, representing the initial loan value taken at a 6% interest rate.

[Q38] . (d) . $-7xy^2a^2b^2$.

Explanation - The coefficient of z^3 in an algebraic term is everything that multiplies that specific variable power. In the term provided, removing the z^3 component leaves the negative constant seven along with all the other variables and their powers. This results in the final expression $-7xy^2a^2b^2$ as the coefficient for the target variable part.

[Q39] . (b) . 19.

Explanation - In a regular hexagon, the 9 diagonals and 6 sides create several intersection points where they cross each other inside the boundary. Mathematical analysis for a regular six-sided polygon reveals that there are exactly 19 unique points where the ropes will intersect. This geometric property accounts for both the central intersection of major diagonals and the various crossings closer to the vertices of the shape.

[Q40] . (c) . 20 L.

Explanation - We use the ratio of 9:16 to determine the remaining milk concentration after two stages of replacing portions with water. By setting up the removal formula for the 200L container, we solve for the initial quantity of milk, represented by the variable x . Solving the resulting algebraic equation confirms that the container originally held exactly 20 liters of milk before the first replacement began.