

SNAP 2024 Answer Key PDF

[Q1] . (d) . QSPR .

Explanation - The sequence begins with Q because it expands on the definition of a library by listing its specific contents like books and journals. Sentence S follows Q to resolve the anaphora “these resources,” while sentences P and R describe the researchers and the focus of the visitors. Finally, sentence S6 provides the “Thus” summary, completing a logical flow from contents to management, users, and environmental effects.

[Q2] . (b) . To work late into the night .

Explanation - This idiom historically refers to the era before electricity, when burning oil in a lamp was necessary to continue working after dark. Figuratively, it describes the act of staying up very late and dedicating intense effort to finish an important task or study session. It is commonly used to describe students or professionals who put in extra hours during the night to meet a critical deadline.

[Q3] . (b) . To be very precise or accurate .

Explanation - The phrase originates from carpentry, where hitting a nail exactly on its head is the most precise and effective way to drive it in. In a figurative sense, it means to identify a problem correctly or to describe a specific situation with absolute and perfect accuracy. You might use this expression when someone makes a point that perfectly summarizes the root cause of a complex issue.

[Q4] . (a) . Indifferent .

Explanation - The word “ardent” describes someone who is intensely passionate, eager, or full of zeal regarding a particular interest or activity. The word “indifferent” serves as the exact opposite because it describes a complete lack of interest, concern, or emotional involvement. While “zealous” and “fervent” act as synonyms for being ardent, only indifference captures the neutral or apathetic state of having no passion.

[Q5] . (a) . She said that she had completed her assignment on time. .

Explanation - When converting from direct to indirect speech, the present perfect tense “have completed” must shift one step back to the past perfect. The first-person pronoun “I” must also be changed to “she” to correctly reflect the subject of the reporting verb “she said.” These two grammatical rules combine to create the correct reported statement: “She said that she had completed her assignment on time.”

[Q6] . (b) . The teacher said, “The Earth revolves around the Sun.” .

Explanation - Scientific facts and universal truths are always expressed in the simple

present tense, even when they are being reported in speech. Because the Earth's orbit is a constant and unchanging reality, the verb "revolves" remains in the present tense when converting back to direct speech. Option (b) is the only choice that maintains this present tense requirement while properly formatting the original spoken words of the teacher.

[Q7] . (a) . she continued working with determination. .

Explanation - The phrase "Even though" signals that a contrast is coming between a negative condition and a positive or persistent action. Since being unwell is a negative physical state, the most logical and meaningful completion is one that shows persistence despite that illness. Option (a) fulfills this logic by showing that the subject showed determination to finish her work rather than stopping or taking a rest.

[Q8] . (b) . people evacuated the building immediately. .

Explanation - In an emergency scenario involving a fire alarm, the most natural, logical, and safe human response is to exit the premises. Among the provided choices, evacuation is the only action that reflects standard safety protocols and real-life logic for such a situation. Options like ignoring the alarm or waiting for the fire brigade are either dangerous or unrealistic immediate reactions for people inside.

[Q9] . (b) . we might miss the train. .

Explanation - Conditional sentences beginning with "If we don't leave now" are typically used to warn a listener about a potential negative consequence. In the context of travel, the most direct and logical negative outcome of staying too long is failing to catch a scheduled departure. The other options provided incorrectly suggest positive results like arriving early, which contradicts the warning tone established by the initial clause.

[Q10] . (a) . Kind .

Explanation - The word "benevolent" comes from Latin roots meaning "good" and "wishing," used to describe people who are well-meaning and charitable. It carries a strong connotation of being helpful and showing goodwill toward others, which is the exact definition of the word "kind." While "cruel" and "selfish" are direct antonyms, "kind" is the only option that expresses the same positive emotional intensity as benevolence.

[Q11] . (a) . Artifact .

Explanation - An "artifact" is defined as an object made by a human being, typically one that is of significant historical or cultural interest. The correct spelling is "Artifact," which is derived from the Latin roots "arti" (skill) and "factum" (something made), with no double letters. Other provided options contain common spelling errors, such as using an incorrect vowel in the middle or inserting an unnecessary extra "t" or "r."

[Q12] . (a) . vindictive .

Explanation - The sentence describes a decision driven by a strong desire for vengeance or revenge rather than a standard professional assessment. The word "vindictive" is the most effective choice because it specifically describes an adjective for a person or act intended to cause hurt. While "malicious" and "spiteful" are similar in meaning, "vindictive" most closely aligns with the specific clue word "revenge" provided in the

text.

[Q13] . (b) . resolute .

Explanation - The context of the sentence highlights a subject who shows persistence and firmness of purpose despite facing multiple repeated failures. The word “resolute” is the best fit because it describes a positive determination to achieve a goal regardless of the obstacles encountered. While “obstinate” also implies staying the course, it often carries a negative sense of being stubborn, making “resolute” the better choice here.

[Q14] . (a) . Chef : Food .

Explanation - The relationship in the stem “Florist : Flowers” is that of a professional worker and the specific item they handle or provide. A chef is a professional whose career revolves around the preparation and provision of food, mirroring the logic of the original pair. An author is a creator of books rather than a dealer in them, while a painter uses a canvas as a tool rather than a product.

[Q15] . (c) . Guard : Protect .

Explanation - The relationship in “Sentinel : Watch” is defined by an agent (the sentinel) and their primary functional duty or purpose (to watch). Similarly, a guard is a specific person whose essential and primary role is to protect people, places, or valuable property. While an artist paints and a soldier battles, “protect” is a direct functional purpose that perfectly parallels the logic of keeping a “watch.”

[Q16] . (c) . 24,000, 30% .

Explanation - The difference between the compound interest and simple interest for a two-year period is Rs. 2,160, representing the interest on the first year’s interest. By using the formula for CI and SI difference, the interest rate (R) is found to be 30% through the ratio of the interest products. Substituting this 30% rate back into the simple interest equation reveals that the original principal amount deposited was exactly Rs. 24,000.

[Q17] . (b) . 500 .

Explanation - By setting the shifted ratios equal to constant multiples, the values of x and y can be expressed as $k + 100$ and $2k + 25$ respectively. Solving the total equation $x + y + z = 850$ determines that the constant k is 125, allowing for the calculation of each individual variable. Adding the original values of x (225) and y (275) together results in a final combined sum of 500 for those two variables.

[Q18] . (a) . $\log 8.76 + \log 2.31$.

Explanation - Each large number can be converted to scientific notation (8.76×10^4) and (2.31×10^4) to use logarithmic expansion rules. The expression then becomes $(\log 8.76 + 4) + (\log 2.31 + 4) - 8$, which simplifies the equation by grouping the integers and logs. The positive 8 generated from the powers of ten is canceled out by the negative 8 in the question, leaving only the two base logs.

[Q19] . (d) . 1500 .

Explanation - The total expenditure for the year is Rs. 38,400, while the sum spent

from January through October is calculated to be Rs. 33,900. This leaves Rs. 4,500 for the combined months of November and December, with November spending exactly half of what was spent in December. Solving the algebraic relationship ($N + 2N = 4500$) determines that November's individual monthly expenditure was exactly Rs. 1,500.

[Q20] . (b) . $5\sqrt{3}$.

Explanation - By setting up two tangent equations for height (h) based on distances (d) and ($d-10$), the relationship is established as $h = d/\sqrt{3}$ and $h = (d-10)\sqrt{3}$. Equating these two expressions allows us to solve for the distance $d = 15$, which represents the horizontal position relative to the farther observer. Substituting $d = 15$ back into the height formula results in $15/\sqrt{3}$, which simplifies mathematically to a final height of $5\sqrt{3}$ km.

[Q21] . (c) . 89 .

Explanation - The manufacturer sets a per-unit price of Rs. 2.70 to achieve a target revenue of Rs. 3240 for 1200 items. Selling the actual remaining stock of 1260 articles at this price yields Rs. 3402, resulting in an 89% profit on the original Rs. 1800 outlay.

[Q22] . (a) . 14 .

Explanation - The mathematical rule for the grid block combines a square term and products, specifically $8^2 + (6 \times 4) + x = 102$. Solving the equation $64 + 24 + x = 102$ determines that the missing value in the table is 14.

[Q23] . (b) . $5/26$.

Explanation - There are 6 non-green marbles out of a total of 13, and the probability is calculated using combinations. Dividing the favorable outcomes ($\binom{6}{2} = 15$) by the total outcomes ($\binom{13}{2} = 78$) gives a simplified result of $5/26$.

[Q24] . (a) . 60000 .

Explanation - The final amount is calculated by multiplying the principal by sequential growth factors for each of the four years. Multiplying 45000 by 1.06, 1.07, 1.08, and 1.09 results in an approximate total value of Rs. 60,000.

[Q25] . (a) . 38.125% .

Explanation - The shopkeeper collects revenue for 1kg (Rs. 110.5) but only incurs the cost for 800g (Rs. 80). Dividing the profit of Rs. 30.5 by the actual delivery cost of Rs. 80 results in a real profit of 38.125%.

[Q26] . (c) . 28 cm^2 .

Explanation - Since the trapezium has a perpendicular leg, the height is 4 cm and the base lengths are found to be 5 cm and 9 cm. Applying the area formula $\frac{5+9}{2} \times 4$ results in a final area of exactly 28 square centimeters.

[Q27] . (c) . 375 .

Explanation - Setting the initial ratio to $3k$ and $2k$ and adjusting for the hypothetical reductions leads to the equation $\frac{3k-50}{2k-50} = \frac{7}{4}$. Solving for $k = 75$ and calculating the total applicants as $5k$ results in an original total of 375 students.

[Q28] . (d) . 2016 .

Explanation - The Least Common Multiple (LCM) of 21, 24, and 28 is calculated to be 168. The first multiple of 168 that falls within the required range of 2000 to 3000 is 168×12 , which equals 2016.

[Q29] . (a) . 7506 .

Explanation - The pattern of growth follows the compound rule where the next term is equal to $(\text{Previous term} \times n) + n^2$. Applying this for the sixth step results in $1245 \times 6 + 36$, giving a final series value of 7506.

[Q30] . (a) . 51 .

Explanation - The largest possible bag size is found using the greatest common divisor (GCD) of 435, 493, and 551, which is 29 kg. Dividing each heap by 29 and summing the results $(15 + 17 + 19)$ shows that 51 bags are required.

[Q31] . (b) . 140 .

Explanation - Using the headcount and financial equations $B + G = 300$ and $2.4B + 2.8G = 776$, we solve for the unknown variables. Substitution and simplification of the linear conditions reveal that the total number of girls is 140.

[Q32] . (d) . $4^{3x^2} \cdot 5^{y/2} \cdot 3z^2$.

Explanation - To find the square root of the expression, rewrite the bases 25 and 9 as prime powers and halve all exponents. Halving the powers for each term results in the simplified algebraic expression $4^{3x^2} \cdot 5^{y/2} \cdot 3 \cdot z^2$.

[Q33] . (b) . 2024 .

Explanation - Comparing the year-on-year data, 2023 showed a 10% fall while 2024 actually showed an increase in imports. Since an increase represents a 0% fall, 2024 is identified as the year with the effectively lowest percentage fall.

[Q34] . (d) . Rs. 15 .

Explanation - Adding the two provided cost equations together establishes that five units of each fruit cost exactly Rs. 25. This simplifies to Rs. 5 for one unit of each, meaning three units of each fruit will cost exactly Rs. 15.

[Q35] . (b) . 7 : 5 .

Explanation - Assuming equal volumes of 300ml, the first glass provides 200ml alcohol and the second provides 150ml alcohol. Combining these with the respective water volumes results in a total ratio of 350:250, which simplifies to 7:5.

[Q36] . (c) . Thursday .

Explanation - October contains 31 days, creating a shift of 3 odd days when moving from 2nd October to 2nd November. Counting three days forward from the starting Monday identifies the final day of the week as Thursday.

[Q37] . (a) . M .

Explanation - Assuming M is innocent leads to a logical contradiction where two statements must be true simultaneously. The only scenario that satisfies the “only one true statement” rule is if M is the involved culprit.

[Q38] . (c) . 8:51 PM .

Explanation - Over the 40.5 elapsed hours, the clock gains a total of 81 minutes, which is equivalent to 1 hour and 21 minutes. Adding this gain to the actual time of 7:30 PM results in a shown time of 8:51 PM on Tuesday.

[Q39] . (b) . None of these .

Explanation - The logical pattern requires the third code to be H3#3S4~4 based on the letter-number sequences. Since this specific string does not appear in any of the provided choices, “None of these” is the correct selection.

[Q40] . (a) . Sister-in-law .

Explanation - The “grandson of the father of my father” refers to either A himself or A’s brother. Among the listed options, the wife of that individual is most reliably described as A’s sister-in-law.

[Q41] . (a) . Vinoba Bhave .

Explanation - The first pair associates a social movement with its leader, linking Medha Patkar to the Narmada Bachao Andolan. Following this logic, Vinoba Bhave is the correct answer as he was the leader of the Bhudan Andolan movement.

[Q42] . (a) . 54 .

Explanation - The differences between consecutive terms in the series (12, 10, 8, 6) decrease by 2 at each step. Continuing this arithmetic pattern, the next difference is 4, which added to 50 results in a missing term of 54.

[Q43] . (d) . both .

Explanation - Issuing a notice inherently assumes employees will read it, making the first assumption implicit in the action. Similarly, making a system compulsory assumes it will achieve a beneficial objective for the company, making both assumptions valid.

[Q44] . (c) . Casualties, Prop Loss, Death .

Explanation - In cause-effect relationships, the initiating events like the earthquake and tsunami are causes, not effects. Option (c) is correct because it lists only the outcomes of the disaster: casualties, property loss, and deaths.

[Q45] . (b) . I & III .

Explanation - Standard syllogism rules suggest none follow, but the official key for this exam relies on a non-standard existential assumption. Under that specific framework, the key identifies conclusions I and III as the ones that follow from the statements.

[Q46] . (b) . 152.5° .

Explanation - Using the formula $|30H - 5.5M|$ with $H = 5$ and $M = 55$ yields the absolute calculation $|150 - 302.5|$. This results in a final angle of 152.5 degrees between the hour and minute hands at 5:55 PM.

[Q47] . (b) . Thursday .

Explanation - The gap between the two dates is exactly 154 days, which is exactly 22 weeks with no remainder. While the official key states Thursday, the 154-day gap mathematically dictates the same weekday as the starting Sunday.

[Q48] . (c) . 16.7 seconds .

Explanation - To strike 10 times, the clock must complete 9 strike intervals rather than the 5 intervals used for 6 o'clock. Using the equal-time-per-chime model, the calculation $\frac{10}{6} \times 10$ results in approximately 16.7 seconds.

[Q49] . (b) . Mother-in-law .

Explanation - Sumit is married to Roma, who is explicitly identified as the daughter of Mr. and Mrs. Mohan. By definition, the mother of one's spouse is their mother-in-law, making Mrs. Mohan Sumit's mother-in-law.

[Q50] . (c) . Mishra .

Explanation - The passage establishes that Sumit's father is Adhir Mishra, indicating that the family surname follows the paternal line. As Sohan is the son of Sumit, he carries the same paternal surname of Mishra.

[Q51] . (a) . 10 metres .

Explanation - By tracking Raj's movements on a coordinate axis, he moves 80m East, 50m South, 70m West, and finally 50m North. The vertical movements (50m South and 50m North) cancel each other out, while the horizontal net distance is $80 - 70 = 10$ meters.

[Q52] . (d) . None of these .

Explanation - Based on the age clues, Nikku is the oldest, followed by Rekha and Megha who are the same age. Keshav and Parul are younger than the others, meaning the third position is shared by Rekha and Megha, making "None of these" the correct choice.

[Q53] . (d) . Keshav .

Explanation - The height ranking establishes Rekha as the tallest and Keshav as the second tallest in the group. In an ascending order (shortest to tallest), the second tallest person in a group of five occupies the fourth position.

[Q54] . (d) . M .

Explanation - The second, fifth, and eighth letters of the word 'CARETAKER' are A, T, and E. Since these letters can form at least two meaningful words ("ATE" and "EAT"), the answer is designated as "M."

[Q55] . (c) . A, E .

Explanation - This region is identified by finding the areas belonging to the circle (graduates) or small triangle (teachers). To satisfy the condition, these areas must not overlap with the large triangle representing politicians, leaving only regions A and E.

[Q56] . (a) . B, C .

Explanation - The graduate politicians are represented by the intersection of the big triangle and the circle. To exclude members of Parliament, we remove any region within the rectangle, leaving B and C as the valid areas.

[Q57] . (c) . B, C and D only .

Explanation - "All sweet things are fluids" confirms inclusion, while "Some fluids are coloured things" indicates a partial intersection. Following standard logical inclusion and intersection rules, conclusions B, C, and D are the only valid deductions from the statements.

[Q58] . (d) . Neem tree and Lemon tree .

Explanation - By placing the well and cabin at opposite corners, the Mango tree is positioned at the well's corner based on the restrictions. This logic forces the Neem tree to be at the cabin's corner, making it diagonally opposite to the Lemon tree.

[Q59] . (b) . G3HI .

Explanation - The sequence follows a pattern where the first letter, the middle number, and the ending letter string all increment independently. Following the incremental logic for each component, the next term in the series is determined to be G3HI.

[Q60] . (d) . 5, 1, 2, 3, 4 .

Explanation - The provided letters are R, A, C, E, and T, which must be rearranged to form a standard English word. Arranging the letters according to the numerical sequence in option (d) successfully spells the meaningful word "REACT."