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## NISA - NATIONAL ANALYTICAL APTITUDE TEST 2022

21 st Century Skills Test for Students to be Future ready I Initiative by NISA (National Independent Schools Alliance)

## DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Total Questions: 40
Time: 6D Minutes

## Instructions for the Candidate

(a) You have 40 multiple-choice questions in this Test Paper. Attempt each question and write answers that are most correct according to you. There is only one right answer for each question.
(b) Manage your time properly. Remember that, on average, you can spend upto 1.5 minute on each question.
(c) Start the test only when your Teacher / Invigilator gives you the permission to start and on completion of the test, please wait for her / his instruction before returning the OMR Sheet.
(d) Mark all your answers on the OMR sheet provided
(e) While marking on the OMR sheet, ensure that you are marking the appropriate option with a dark coloured pencil. The correct method is shown below:

| Correct Method |  |  |
| :--- | :--- | :---: |
| (C) (D) |  |  |

(f) If you need to change an answer that you have already marked - erase the first marking completely, before marking the new answer. Answers with multiple markings, different markings or incomplete markings will be scored as wrong.


National Independent Schools Alliance
We Are The Voice of 1 Lakh Budget Private Schools
65 State Associations | 20 Million Students | In 26 States of India

STUDENT NAME (IN CAPITAL LETTERS)

## SCHOOL NAME (IN CAPITAL LETTERS)

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## PART - I

SECTION 1 - MATH ABILITY

| 1) | If the price of petrol increases from Rs. 100 per litre to Rs. 120 per litre, what is the percentage increase in price? |  |
| :---: | :---: | :---: |
|  | A) $20 \%$ | C) $15 \%$ |
|  | B) $10 \%$ | D) $-20 \%$ |
| 2) | Identify the next term in the series : $1,1,2,3,5,8,13, \ldots$. ? |  |
|  | A) 18 | C) 19 |
|  | B) 21 | D) 17 |
| 3) | The sum of three integers is 20 , and their product is 84 . Identify the 3 integers. |  |
|  | A) $7,8,5$ | C) $12,7,1$ |
|  | B) $11,8,1$ | D) $12,3,5$ |
| 4) | If a basket contains 20 apples, 50 lemons and 30 peaches, what is the probability of drawing an orange? |  |
|  | A) $20 \%$ | C) $50 \%$ |
|  | B) $30 \%$ | D) $0 \%$ |
| 5) | If a basket contains 20 apples, 50 lemons and 30 peaches, what is the probability of drawing an apple. |  |
|  | A) $20 \%$ | C) $50 \%$ |
|  | B) $30 \%$ | D) 0 \% |
| 6) | In the following sequence the nth term can be calculated as ___ : 2, 4, 6, $8, \ldots$ |  |
|  | A) 2 n | C) $2 \mathrm{n}+1$ |
|  | B) $2 \mathrm{n}-1$ | D) n |
| 7) | If the demand for tyres rises with a rise in demand for automobiles, it can be said that their respective demands are $\qquad$ . |  |
|  | A) Inversely Proportional | C) Directly Proportional |
|  | B) Mutually Exclusive | D) Perfectly Proportional |
| 8) | If a person has Rs. 10,000/- with him today and chooses to keep it in cash without depositing it in the bank, what would be the value of the money 3 years from now (assuming inflation is $8 \%$ )? |  |
|  | A) 8753.27 | C) 7938.33 |
|  | B) 9000 | D) 10000 |
| 9) | Find the next term in the given series : $100,101,109,136,200$, |  |
|  | A) 225 | C) 275 |
|  | B) 300 | D) 325 |
| 10) | The average salary of unskilled workers is Rs. $25,000 /-$, while the average salary of skilled workers is Rs. $75,000 /-$. If the average salary of all the workers is Rs. $50,000 /-$ what percentage of workers are unskilled? |  |
|  | A) $40 \%$ | C) $25 \%$ |
|  | B) $20 \%$ | D) $50 \%$ |
| 11) | The following are the grades obtained by 3 students in. Find the Geometric Mean of the grades : 2,4,8 |  |
|  | A) 8 | C) 2 |
|  | B) 6 | D) 4 |


| 12) | A footballer runs from one end of the pitch to the other at the speed of $32 \mathrm{~km} / \mathrm{h}$ but jogs back the same distance at $10 \mathrm{~km} / \mathrm{h}$. what is his average speed for the total distance covered by him. |  |
| :---: | :---: | :---: |
|  | A) $17.87 \mathrm{~km} / \mathrm{h}$ | C) $21 \mathrm{~km} / \mathrm{h}$ |
|  | B) $15.24 \mathrm{~km} / \mathrm{h}$ | D) $16.32 \mathrm{~km} / \mathrm{h}$ |
| 13) | Mr. A speaks the truth $80 \%$ of the time while Mr. B speaks the truth $60 \%$ of the time. In what percentage of cases are they likely to contradict each other when stating the same fact? |  |
|  | A) $41 \%$ | C) $42 \%$ |
|  | B) $44 \%$ | D) $40 \%$ |
| 14) | The probability that a man will be alive in 25 years is $5 / 8$ and that of his wife being alive is $3 / 7$. What is the probability that at least one of them is alive after 25 years? |  |
|  | A) $5 / 8$ | C) $59 / 56$ |
|  | B) $11 / 14$ | D) $15 / 56$ |
| 15) | A bookie states that the odds of India winning the T20 Match are 1:2 and that of a tie are 1:5. What is the probability that India would lose the match? |  |
|  | A) $25 \%$ | C) $33 \%$ |
|  | B) $50 \%$ | D) $20 \%$ |
| 16) | If the fall in demand of PS5's is twice the percentage rise in their price, identify the initial demand of PS5's given the following data - Original Demand is 50,000 units, Price rises by $15 \%$ |  |
|  | A) 65,000 units | C) 35,000 units |
|  | B) 30,000 units | D) 15,000 units |
| 17) | In how much time would the simple interest (@10\% p.a ) be equal to 0.525 times the principal amount? |  |
|  | A) 5 years 3 months | C) 5 years 6 months |
|  | B) 5 years 9 months | D) 5 years 4 months |
| 18) | If India's GDP in 2022 was $\$ 2$ trillion and it grows @ $8 \%$ in 2023, $7 \%$ in 2024 and $10 \%$ in 2025, what would be India's GDP(approx) at the end of 2025 ? |  |
|  | A) $\$ 2.25$ trillion | C) $\$ 2.23$ trillion |
|  | B) $\$ 2.50$ trillion | D) $\$ 2.54$ trillion |
| 19) | A 60 litre mixture of milk and honey contains $10 \%$ honey. How much honey should be added to make honey $20 \%$ of the total mixture? |  |
|  | A) 8.5 litres | C) 9 litres |
|  | B) 7.5 litres | D) 5.5 litres |
| 20) | Three partners A, B \& C agree to share the profits from their business in the ratio 25:37:63. If the firm makes two lakh rupees of profits what would A's share be? |  |
|  | A) ₹55000 | C) ₹ 45000 |
|  | B) ₹50000 | D) ₹ 40000 |
|  |  |  |

## SECTION 2 - LOGICAL REASONING

| 21) | Identify the next term in this series: P,O,M,J, |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  | A) Armadillo | C) Albatross |  |  |
|  | B) Arctic Fox | D) Aardvark |  |  |
| 22) | If MAT is written as NBU, how will HOP be written? |  |  |  |
|  | A) IPQ |  |  |  |
|  | B) PQI | C) IQP |  |  |


| 23) | If Red is North, Black is West, Green is South and Blue is East, which colours would you use <br> to describe the location of Arunachal Pradesh on the India map ? |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  | A) Red and Black | C) Green and Black |  |  |
|  | B) Green and Blue | D) Red and Blue |  |  |
| 24) | If RAT is coded as 78, and BIT is coded as 62, how will RABBIT be coded? |  |  |  |
|  | A) 104 | C) 100 |  |  |
|  | B) 52 | D) 32 |  |  |
| 25) | A pedestrian facing north starts walking, after 10m he takes a left and walks for another 10m. <br> He then takes a right and stops after 5m. In which direction would he currently be at (relative to <br> his starting position)? |  |  |  |
|  | A) North-West | C) South-West |  |  |
|  | B) North-East | D) South-East |  |  |
| 26) | A is the daughter of C, and E is the son of B who is C's brother. How is E related to C? |  |  |  |
|  | A) Cousin | C) Nephew |  |  |
|  | B) Niece | D) Uncle |  |  |
| 27) | A is the father of B, B is the brother of C and C is the mother of D. How is A related to D? |  |  |  |
|  | A) Grandmother | C) Father |  |  |
|  | B) Grandfather | D) Uncle |  |  |
| 28) | A has 5 sons and each son has a sister, how many female members are there in the family? |  |  |  |
|  | A) 11 | C) 9 |  |  |
|  | B) 2 | D) 6 |  |  |
| 29) | Identify the nex term: ARSD, ASSC, ATSB, |  |  |  |
|  | A) AUSA | C) ASTA |  |  |
|  | B) ASUA | D) ATSA |  |  |
| 30$)$ | Find the odd one out: dictionary, atlas, thesaurus, lexicon. |  |  |  |
|  | A) atlas | C) thesaurus |  |  |
|  | B) lexicon | D) dictionary |  |  |
| 31$)$ | Find the odd one out : sun, wind, tides, coal. |  |  |  |
|  | A) coal | C) wind |  |  |
|  | B) sun | D) tides |  |  |
| 32$)$ | If BZQQNL is coded as CARROM, what would HORSE be coded as ? |  |  |  |
|  | A) ISTPF | C) ITSPF |  |  |
|  | B) IPSTF | D) IPTSF |  |  |

Questions 33 to 36: Read the following statements carefully and answer the questions given below.
In a floor there are five offices: $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D} \& \mathrm{E}$, in a straight line.
$A$ is to the immediate right of $B$.
$E$ is to the immediate left of $C$.
E is also to the immediate right of A .
$B$ is to the right of $D$.
Assume that all offices face north.

| 33$)$ | Which office is in the middle? |  |  |
| :--- | :--- | :--- | :--- |
|  | A) B | C) C |  |
|  | B) A | D) D |  |
| 34$)$ | Which office is on the left-most end? | C) C |  |
|  | A) B | D) D |  |
|  | B) A | C) C |  |
| 35$)$ | Which office is on the right-most end? | D) D |  |
|  | A) B | C) E |  |
|  | B) A | D) C |  |
| 36$)$ | Which office is second to the right of B? |  |  |
|  | A) D |  |  |
|  | B) A |  |  |

Questions 37 to 40: Read the following statements carefully and answer the questions given below.
$\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}, \mathrm{E}, \mathrm{F}, \mathrm{G} \& \mathrm{H}$ are sitting in a circle.
D sits third to the left of A
E sits to the immediate right of A
$B$ sits third to the left of D
$G$ is second to the right of $B$
C \& B sit next to each other
C is third to the left of H

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| 37$)$ | Who sits between F \& D? |  |  |
|  | A) E | C) B |  |
|  | B) H | D) G |  |
| 38$)$ | Who sits second to the left of H? | C) B |  |
|  | A) E | D) G |  |
|  | B) A | C) B and C |  |
| 39$)$ | Who are the immediate neighbors of G? | D) A and B |  |
|  | A) D and C |  |  |
|  | B) D and E |  |  |
| 40$)$ | Who sits third to the right of A? | C) E |  |
|  | A) C | D) |  |
|  | B) D |  |  |




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National Analytical Aptitude Test
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