

# SNUSAT Sample Paper

## Section : Logical Ability

Q.1 In the following question, select the related letters from the given alternatives.

BKPG : DNRJ :: CMOG : ?

1. DOQI
2. EPQJ
3. EQPJ
4. EQJP

Q.2 Select the related number from the given alternatives.

256 : 290 :: 961 : ?

1. 1011
2. 1017
3. 1025
4. 1023

Q.3 What is the related number from the given alternatives. 14 : 194 :: 19 : ?

1. 359
2. 256
3. 358
4. 360

Q.4 Find the odd word pair from the given alternatives.

1. Mumbai : President's House
2. Delhi : Parliament
3. Nagpur : Centre Point
4. Hyderabad : Charminar

Q.5 Arrange the given words in the sequence in which they occur in the dictionary.

1. Clone 2. Climate 3. Clutter 4. Create 5. Clapped
1. 52143
  2. 51234

3. 52134

4. 53124

Q.6 A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

AAA, BCD, CEG, ?

1. DGI

2. DFI

3. DGJ

4. DJG

Q.7 Find missing number from the given series.

2, 22, 198, 1386, ?

1. 2770

2. 3990

3. 6930

4. 9702

Q.8 If 'A + B' means 'A is father of B', 'A - B' means 'A is mother of B', 'A \* B' means 'A is brother of B' and 'A % B' means 'A is sister of B', then how is Q related to S in 'P + Q \* R - S'?

1. Husband

2. Uncle

3. Brother

4. Father

Q.9 Select the word which cannot be formed using the letters of the given word.

QUALIFICATION

1. LIAR

2. FIAT

3. LION

4. FICTION

Q.10 In a certain code language, "HAUNTED" is written as "4013592" and "RINGED" is written as "763892". How is "HINGE" written in that code language?

1. 36589

2. 57864

3. 40359

4. 46389

Q.11 In the following question, correct the equation by interchanging two numbers.

$$9 \times 3 - 8 \div 2 + 7 = 26$$

1. 3 and 7

2. 9 and 2

3. 7 and 9

4. 3 and 8

3. 7 and 9

Q.12 Find the number that can be placed at the sign of question mark (?) from the given alternatives.

|   |   |   |
|---|---|---|
| 7 | 8 | 2 |
| 2 | 3 | 3 |
| 4 | 1 | 7 |
| 5 | 6 | ? |

1. 1

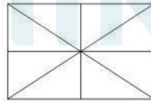
2. 2

3. 4

4. 6

4. 6

Q.13 Find the number of quadrilaterals in the given figure.



1. 13

2. 15

3. 17

4. 19

3. 17

Q.14 - In each of the following question below are given some statements followed by some conclusions. Decide which of the given conclusion logically follows.

Statements:

I. All pens are cups.

II. All glasses are cups.

Conclusions:

I. Some pens are glass.

II. Some glasses are cups.

III. Some glasses are pens.

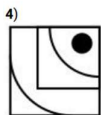
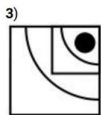
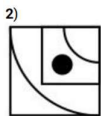
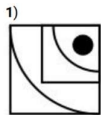
1. Only conclusion (I. and (III. follow

2. Only conclusion (I. follows

3. Only conclusion (II. follows

4. No conclusion follows

Q.15 Which figure will complete the question figure



Q.16 - In each of the following question below are given some statements followed by some conclusions. Read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

I. No pens are pencils.

II. No eraser is cup.

III. All pencils are erasers.

Conclusions:

I. Some pens are not erasers.

II. Some erasers are not pens.

III. No pencil is cup.

IV. Some erasers are cups.

1. Only conclusion (I. and (IV. follow

2. Only conclusion (I. and (III. follow
3. Only conclusion (II. and (III. follow
4. Only conclusion (II. and (IV. follow

Q.17- If  $9 \theta 11 \alpha 2 = 40$  and  $13 \theta 12 \alpha 3 = 75$ , then  $40 \theta 41 \alpha 5 = ?$

1. 340
2. 365
3. 320
4. 405

Q.18 In a certain code language, "RANGE" is written as "FIQEW" and "ARAGE" is written as "FIDVF". How is "PRANK" written in that code language?

1. MQEWV
2. LPDVU
3. UVDPL
4. VWEQM

Q.19 Which word cannot be formed using the letters of the given word?

POSSESSION

1. SESSION
2. POSE
3. POISE
4. OBSESS

Q.20 In the following question, select the related word from the given alternatives.

Chicken : Hen :: ? : ?

1. Horse : Mare
2. Rabbit : Goose
3. Bull : Doe
4. Boar : Foal

## Quantitative Reasoning

Q.1 - A boy added all natural numbers from 1 to 20, however he missed one number due to which the sum becomes 190. What is the number which the boy missed?

1. 5

2. 10

3. 15

4. 20

Q.2 -  $\frac{3}{4}$  part of a bushel is filled with oil. After taking out 6 litres of oil the tank is  $\frac{2}{3}$  part full. What is the capacity (in litres. of the bushel?

1. 24

2. 36

3. 60

Q.3 - Two inlet pipes can fill a cistern in 5 and 6 hours respectively and an outlet pipe can empty 24 gallons of water per hour. All three pipes working together can fill the empty cistern in 10 hours. What is the capacity of the tank?

1. 90

2. 180

3. 60

4. 120

Q.4- The ratio of the speed of A, B and C is 2 : 3 : 6 respectively. What is the ratio of the time taken by A, B and C respectively to cover the same distance?

1. 2 : 3 : 6

2. 6 : 3 : 2

3. 3 : 2 : 1

4. 1 : 2 : 3

Q.5 - If  $a : b : c : d = 2 : 3 : 5$ , then what is the value of  $c : (a + d)$ ?

1. 1 : 2

2. 2 : 1

3. 1 : 3

4. 1 : 4

Q.6 - Eleven friends spent Rs 19 each on a tour and the twelfth friend spent Rs 11 less than the average expenditure of all twelve of them. What is the total money (in Rs. spent by them?

1. 216

2. 227

3. 236

4. 247

Q.7- A trader gets 25% profit by selling an article. If he buys at half the rate and sells at the same selling price as before, then what will be his percentage profit?

1. 50
2. 100
3. 125
4. 150

Q.8 - A certain sum becomes 4 times in 7 years, at simple interest, then in how many years it will become 16 times?

1. 16
2. 21
3. 28
4. 35

Q.9: What is the curved surface area (in  $\text{cm}^2$ ) of a cylinder having radius of base as  $2\frac{1}{2}$  cm and height as 15 cm?

1. 935
2. 938
3. 946
4. 990

Q.10 - A cylindrical well of height 80 metres and radius 7 metres is dug in a field 28 metres long and 22 metres wide. The earth taken out is spread evenly on the field. What is the increase (in metres) in the level of the field?

1. 13.33
2. 26.66
3. 18.17
4. 28.17

Q.11- If  $x + y = 11$ , then what is the value of  $x^3 + y^3 + 33xy = ?$

1. 343
2. 1331
3. 294
4. 1221

Q.12 ABC is an isosceles triangle with such that  $AB = AC = 30$  cm and  $BC = 48$  cm. AS is a perpendicular bisector of the base BC. What is the length (in cm) of AS?

1. 18

2. 6

3. 12

4. 9

Q.13- A box contains 5 red, 4 blue, and 3 green balls. Two balls are drawn without replacement. What is the probability that both are of the same color?

1.  $\frac{23}{66}$

2.  $\frac{31}{66}$

3.  $\frac{19}{66}$

4.  $\frac{17}{66}$

Q.14- A fair die is rolled twice. What is the probability that the sum is greater than 9?

1.  $\frac{1}{6}$

2.  $\frac{5}{36}$

3.  $\frac{10}{36}$

4.  $\frac{7}{36}$

Q.15- A committee of 3 is formed from 4 boys and 3 girls. What is the probability it has at least 2 girls?

1.  $\frac{3}{7}$

2.  $\frac{4}{7}$

3.  $\frac{5}{7}$

4.  $\frac{6}{7}$

Q.16- How many 3-digit numbers can be formed using digits 1,2,3,4,5 without repetition, if the number must be even?

1. 12

2. 20

3. 24

4. 60

4. 60

Q.16- A password is 4 digits long (0–9., but the first digit cannot be zero. How many passwords are possible?

1. 9000

2. 8000

3. 7000

4. 6000

Q.17- A quantity increases by 20% and then decreases by 25%. What is the overall percentage change?

1. 0%

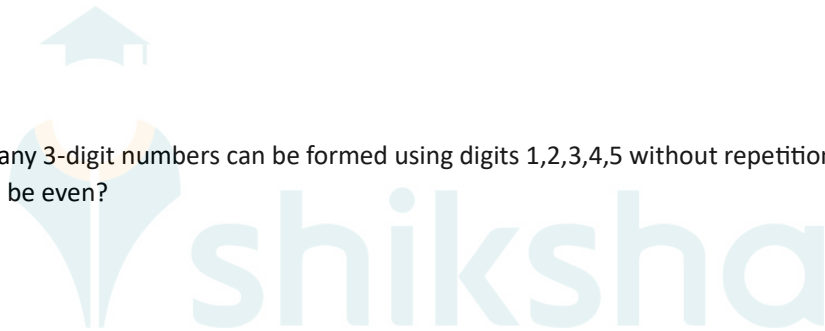
2. -10%

3. -5%

4. -15%

Q.18- The ratio of boys to girls is 7:5. If 12 more girls join, the ratio becomes 7:7. How many boys are there?

1. 42



- 2. 49
- 3. 35
- 4. 56

Q.19- A shopkeeper marks an item 40% above cost and gives 10% discount. What is the profit percentage?

- 1. 26%
- 2. 30%
- 3. 28%
- 4. 24%

Q.20- A cylinder of radius 7 cm and height 10 cm is filled to 60% of capacity. What is the volume of water?

- 1.  $308\pi$
- 2.  $420\pi$
- 3.  $294\pi$
- 4.  $264\pi$



## ANSWER KEY

| Q. Number- Answer | Logical Reasoning                   | Quantitative Reasoning |
|-------------------|-------------------------------------|------------------------|
| 1                 | 4.EPQJ                              | 4. 20                  |
| 2                 | 3. 1025                             | 4. 72                  |
| 3                 | 1. 359                              | 1. 90                  |
| 4                 | 1. Mumbai : President's House       | 3. 3 : 2 : 1           |
| 5                 | 4. 52134                            | 1. 1 : 2               |
| 6                 | 3. DGJ                              | 1. 216                 |
| 7                 | 3. 6930                             | 4. 150                 |
| 8                 | 2. Uncle                            | 4. 35                  |
| 9                 | 1. LIAR                             | 4. 990                 |
| 10                | 4. 46389                            | 2. 26.66               |
| 11                | 3. 7 and 9                          | 2. 1331                |
| 12                | 4. 6                                | 1. 18                  |
| 13                | 3. 17                               | 1. 23/66               |
| 14                | 1. Only conclusion I and III follow | 3. 10/36               |
| 15                | 2. option 2 figure                  | 1. 3/7                 |
| 16                | 3. Only conclusion I and III follow | 1.9000                 |
| 17                | 4. 405                              | 1. 0%                  |
| 18                | 2. LPDVU                            | 1. 42                  |
| 19                | 4. OBSESS                           | 1. 26                  |
| 20                | 1. Horse : Mare                     | 3. 294π                |