


Subject: Mathematics

Grade: 9th

SET 2

Q. N	Folder name & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)				
1	3_18 Mathematics 3415	Number system	<p>Starting with 0, a growing number sequence is generated by the rule given below. To get the next number: Substitute 0 with 01. Substitute 1 with 10.</p> <p>Accordingly, the first four terms of the sequence are 0---->01----->0110----- >01101001</p> <p>What is the next number in the sequence?</p>		B				
						Answer Options			
						Option A	Option B	Option C	Option D
						1100000000000000	0110100110010110	11010011001	11010010110
2	3_18 Mathematics 3419	Number system	<p>In Nirmal Public school, 28 students have joined the Chess Club and 32 have joined the Carrom Club. Among these, there are 5 students who have joined both the clubs. Altogether how many students have joined these two clubs?</p>		B				
						Answer Options			
						Option A	Option B	Option C	Option D
						50	55	60	65

Q. N	Folder name & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option - A,B,C,D)				
3	3_18 Mathematics 3422	Number system	A pathway in Manju's garden is made of 100 white tiles arranged in a single row. Manju decides to add some colour to her garden by painting some of the tiles. Starting from one end, she paints every second tile yellow. Still not happy with the result, she proceeds to paint every second one of the YELLOW tiles blue. How many yellow tiles are there in the pathway now?		C				
						Answer Options			
						Option A	Option B	Option C	Option D
						50	30	25	20
4	3_18 Mathematics 3423	Number system	A deck of playing cards consists of 52 cards. How many levels high would the highest (complete) card house that can be made with a SINGLE deck be?		B				
						Answer Options			
						Option A	Option B	Option C	Option D
						4	5	6	8
5	3_18 Mathematics 3424	Number system	How many cards would be needed to make a n-level high card house?		D				
						Answer Options			
						Option A	Option B	Option C	Option D
						$3n$	$4n - 1$	$3n/2 + 4$	$\frac{n}{2} (3n+1)$

Q. N	Folder name & Question Code	Topic	Question with Answer Options	Image (If Any)	Correct Answer (Option-A,B,C,D)	
8	3_18 Mathematics 3392	Number system	If the ratio of Ravi's age to John's age is 2 : 3, which of the following is true about their actual ages?		A	
		Answer Options				
			Option A	Option B	Option C	Option D
	John's age is $1\frac{1}{2}$ times Ravi's age	Ravi is a year younger than John	John is 3 times as old as Ravi	Ravi's age is half of John's age		
9	3_18 Mathematics 3396	Number system	If n is a rational number other than 0, which of the following is NOT necessarily a rational number?		D	
		Answer Options				
			Option A	Option B	Option C	Option D
	$13/n$	n^3	$3 - n$	\sqrt{n}		
10	3_18 Mathematics 3397	Number system	A number is called a perfect square if it is the square of a whole number. If m and n are two perfect squares, which of the following MUST also be a perfect square?		C	
		Answer Options				
			Option A	Option B	Option C	Option D
	$m + n$	$2m$	$4n$	$m^2 + n^2$		
11	3_18 Mathematics 3398	Number system	The fuel tank of Shailaja's car has a capacity of 37 litres. One day, when she goes to the petrol station, the fuel gauge of her car looks like this: About how many litres of petrol are required to completely fill the fuel tank of Shailaja's car?		B	
		Answer Options				
			Option A	Option B	Option C	Option D
	10	14	18	23		
Q.	Folder	Topic	Question with Answer	Image (If Any)	Correct	

N	name & Question Code		Options		Answer (Option-A,B,C,D)																		
12	3_18 Mathematics 3400	Number system	Bablu's height increased by 10% over the last year. What is the ratio of his last year's height to this year's?		A																		
						Answer Options																	
						Option A	Option B	Option C	Option D														
						10:11	9:10	11:10	1:10														
13	3_18 Mathematics 3403	Number system	A number N is increased by 100%. The result is then decreased by 100%. The final result will be		D																		
						Answer Options																	
						Option A	Option B	Option C	Option D														
						50N	N	N/2	0														
14	3_18 Mathematics 3404	Number system	Study the values in rows X, Y and Z below. If we choose numbers x, y and z from rows X, Y and Z respectively, what is the maximum possible value of $\frac{z-y}{x}$?	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>X</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> <tr><td>Y</td><td>3</td><td>5</td><td>7</td><td>9</td><td>11</td></tr> <tr><td>Z</td><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td></tr> </table>	X	2	4	6	8	10	Y	3	5	7	9	11	Z	5	10	15	20	25	D
					X	2	4	6	8	10													
					Y	3	5	7	9	11													
					Z	5	10	15	20	25													
Answer Options																							
Option A	Option B	Option C	Option D																				
1.4	5	7	11																				
15	3_18 Mathematics 3406	Number system	When written in decimal form, which of the following will be a non-terminating, non-recurring number?		B																		
						Answer Options																	
						Option A	Option B	Option C	Option D														
						$\frac{1}{9}$	$\frac{1}{2^9}$	2^{-9}	$\frac{1}{9^2}$														