- Select -

Number System 01

01. The number of common terms in the two sequences 17, 21, 25, ... , 417 and 16, 21, 26, ...,466 is ?

(a) 19 (b) 20 (c) 77 (d) 22

02. How many integers, greater than 999 but not greater than 4000, can be formed with the digits 0, 1, 2, 3 and 4, if repetition of digits is allowed ??

(a) 374 (b) 500 (c) 375 (d) 376

03. What is the number of distinct terms in the expansion of $(a + b + c)^{20}$?

(a) 231 (b) 253 (c) 242 (d) 210

04. What are the last two digits of 7^{2008} ?

(a) 21 (b) 61 (c) 01 (d) 41

05. The integers 1, 2, 3, ... 40 are written on blackboard. The following operation is then repeated 39 times. In each repetition, any two numbers, say a and b, currently on the blackboard are erased and a new number a + b – 1 is written. What will be the number left on the board at the end ?

(a) 820 (b) 821 (c) 781 (d) 819

06. An intelligence agency decides on a code of 2 digits selected from 0, 1, 2, ..., 9. But on the slip on which the code is hand written allows confusion between top and bottom, because there are indistinguishable. Thus, for example, the code 91 could be confused with 16. How many codes are there such that there is no possibility of any confusion?

(a) 25 (b) 75 (c) 80 (d) None of these

07. A young girl counted in the following way on the fingers of her left hand. She started calling the thumb 1, the index finger 2, middle finger 3, ring finger 4, little finger 5, then reversed direction, calling the ring finger 6, middle finger 7, index finger 8 and thumb 9 and then back to the index finger for 10, middle finder for 11 and so on. She counted up to 1994. She ended on her ?

(a) thumb (b) index finger (c) middle finger (d) ring finger

08. Let $U_{(n+1)} = 2U_n + 1$, (n=0, 1, 2, ...) $U_0=0$ then $U_{(10)}$ would be nearest to ?

(a) 1023 (b) 2047 (c) 4095 (d) 8195

09. The product of all integers from 1 to 100 will have the following numbers of zeros at the end ?

(a) 20 (b) 24 (c) 19 (d) 22

10. The number of positive integers not greater than 100, which are not divisible by 2, 3 or 5 is ?

(a) 26 (b) 18 (c) 31 (d) None of these

Answers :

1.	B	2.	D
3.	A	4.	C
5.	C	6.	C
7.	B	8.	A
9.	B	10.	A

Detailed Solution (http://www.elitmuszone.com/elitmus/number-system-solution-1/)

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8 Comments

Abhishek kumar @ ARRAh (http://www.elitmuszone.com/elitmus/number-system-set-1/#comment-78) July 15, 2015 at 8:45 AM

please provide answers for these questions.