Started on	Saturday, 3 July 2021, 6:02 PM
State	Finished
Completed on	Saturday, 3 July 2021, 6:27 PM
Time taken	24 mins 59 secs

Question 1

Complete

Marked out of 1.00

The multiplicative inverse of 5 in Z_{11} is ----------

Note: enter the direct value if it is a numeric value like 2. If there is no solution possible then only type none in small case

Answer: 9

Question 2

Complete

Marked out of 1.00

Determine whether 3|7 ?

Select one:

- True
- False

Question 3

Complete

Marked out of 1.00

Write the coefficient of $x^{10}y^{17}$ in the expansion of $(x+y)^{25}$.

Note: Enter only the numeric value like 2

Answer: 0

Question 4

Complete

Marked out of 1.00

The multiplicative inverse of 12 in Z_{26} is ----------

Note: enter the direct value if it is a numeric value like 2. If there is no solution possible then only type none in small case.

Answer: none

Question 5

Complete

Marked out of 1.00

2^{2004} mod 17 is ----------

Note: Enter only the numeric value like 2

Answer: 6

Question 6

Complete

Marked out of 1.00

How many committees of five people can be chosen from 12 men and 20 women if atleast three women must be on each committee?

Note: Enter only the numeric value like 3

Answer: 75240

Question 7

Complete

Marked out of 2.00

(1,723,345 * 2,124,954) mod 16 is----------

Note: Enter only the numeric value like 2

here * represents multiplication

Answer: 10

Question 8

Complete

Marked out of 2.00

(1,723,345 -2,124,954) mod 16 is----------

Note: Enter only the numeric value like 2

Answer: 7

Question 9

Complete

Marked out of 2.00

Determine the solution of the following congruence:

$3x \equiv 1 \pmod 6$

Note: enter the direct value of x if it is a numeric value like 2. If there is no solution possible then only type no in small case.

Answer: no

Question 10

Complete

Marked out of 1.00

If $a|b$ and $b|(-c)$, then $a|c$. (Here all the variables represent integers)

Select one:

- True
- False

Question 11

Complete

Marked out of 1.00

$2^{601} \bmod 17$ is----------

Note: Enter only the numeric value like 2

Answer: 2

Question 12

Complete

Marked out of 1.00

A man, woman, boy, girl, dog, and cat are walking down a long and winding roadone after the other. In how many ways can this happen if the dog comes first?

Note: Enter only the numeric value like 3

Answer: 48