

Started on	Wednesday, 27 December 2023, 4:45 PM
State	Finished
Completed on	Wednesday, 27 December 2023, 5:10 PM
Time taken	25 mins
Marks	12.00/25.00
Grade	4.80 out of 10.00 (48%)

Question 1

Incorrect

Mark 0.00 out of 1.00

How many natural numbers 'n' are there, such that 'n!' ends with exactly 30 zeroes?

Select one:

☒ 1

☐ 0

☐ 3

☐ 2

The correct answer is:

0

Question 2

Correct

Mark 1.00 out of 1.00

How many factors of 12 are there?

Select one:

☐ 5

☒ 6

☐ 4

☐ 2

The correct answer is:

6


Question 3

Incorrect

Mark 0.00 out of 1.00

What smallest number should be added to 4456 so that the sum is completely divisible by 6?

Select one:

- ☒ 4 
- ☐ 2
- ☐ 1
- ☐ 5

The correct answer is:
2

Question 4

Correct

Mark 1.00 out of 1.00

A number when divided by 296 leaves 75 as remainder. When the same number is divided by 37, the remainder will be:

Select one:

- ☒ 1 
- ☐ 3
- ☐ 2
- ☐ 4

The correct answer is:
1


Question 5

Correct

Mark 1.00 out of 1.00

Find the highest power of 24 in 150!

Select one:

- ☒ 48 
- ☐ 60
- ☐ 36
- ☐ 24

The correct answer is:
48

Question 6

Correct

Mark 1.00 out of 1.00

What is the largest power of 2 that can divide $269!$?

Select one:

- ☐ 250
- ☒ 265 ✓
- ☐ 275
- ☐ 272

The correct answer is:
265

Question 7

Incorrect

Mark 0.00 out of 1.00

Find the highest power of 30 in $50!$.

Select one:

- ☐ 12
- ☒ 10 ✗
- 16
- ☐ 14

The correct answer is:
12

Question 8

Correct

Mark 1.00 out of 1.00

Find the unit digits in $3 \times 38 \times 537 \times 1256$

Select one:

- ☐ 4
- ☐ 6
- ☒ 8 ✓
- ☐ 2

The correct answer is:
8

Question 9

Correct

Mark 1.00 out of 1.00

Find the unit's digits of $234!^{575}$.

Select one:

- ☐ 3
- ☐ 2
- ☒ 0 ✓
- ☐ 1

The correct answer is:

0

Question 10

Incorrect

Mark 0.00 out of 1.00

How many of the following numbers are divisible by 132?

264, 396, 462, 792, 968, 2178, 5184, 6336

Select one:

- ☐ 7
- ☐ 6
- ☒ 5 ✗
- ☐ 4

The correct answer is:

4

Question 11

Incorrect

Mark 0.00 out of 1.00

The number $2006!$ is written in base 22. How many zeroes are there at the end?

Select one:

- ☐ 450
- ☒ 200 ✗
- ☐ 500
- ☐ 199

The correct answer is:

199

Question 12

Incorrect

Mark 0.00 out of 1.00

What least number must be subtracted from 13601, so that the remainder is divisible by 87?

Select one:

- ☐ 29
- ☐ 31
- ☒ 23 ✖
- ☐ 33

The correct answer is:
29

Question 13

Correct

Mark 1.00 out of 1.00

If the number 517×324 is completely divisible by 3, then the smallest whole number in place of \times will be:

Select one:

- ☐ 3
- ☒ 2 ✔
- ☐ 4
- ☐ 1

The correct answer is:
2

Question 14

Incorrect

Mark 0.00 out of 1.00

Find the units digit of the expression $25^{6251} + 36^{528} + 73^{54}$.

Select one:

- ☐ 6
- ☒ 5 ✖
- ☐ 4
- ☐ 0

The correct answer is:
0

Question 15

Correct

Mark 1.00 out of 1.00

Find the digit in unit's place of the product $49237 \times 3995 \times 738 \times 83 \times 9$.

Select one:

- ☐ 5
- ☒ 0 ✓
- ☐ 6
- ☐ 7

The correct answer is:

0

Question 16

Correct

Mark 1.00 out of 1.00

Find the sum of all two digit numbers divisible by 5.

Select one:

- ☒ 945 ✓
- ☐ 568
- ☐ 439
- ☐ 874

The correct answer is:

945

Question 17

Correct

Mark 1.00 out of 1.00

Find the units digits of $1! + 2! + 3! + \dots + 99!$.

Select one:

- ☒ 3 ✓
- ☐ 2
- ☐ 4
- ☐ 0

The correct answer is:

3

Question 18

Correct

Mark 1.00 out of 1.00

476 ** 0 is divisible by both 3 and 11. The non zero digits in the hundred's and ten's places are respectively:

Select one:

- ☒ 8 & 5 ✓
- ☐ 8 & 2
- ☐ 6 & 2
- ☐ 6 & 5

The correct answer is:
8 & 5

Question 19

Incorrect

Mark 0.00 out of 1.00

If the product $4864 \times 9P2$ is divisible by 12, the value of p:

Select one:

- ☐ 1
- ☒ 4 ✗
- ☐ 2
- ☐ 3

The correct answer is:
1

Question 20

Incorrect

Mark 0.00 out of 1.00

A number when divided by 779 gives a remainder 47. By dividing the same number by 19, what would be the remainder?

Select one:

- ☐ 9
- ☒ 7 ✗
- ☐ 8
- ☐ 10

The correct answer is:
9

Question 21

Correct

Mark 1.00 out of 1.00

Find the last digit of 3^{40} .

Select one:

- ☒ 1 ✓
- ☐ 7
- ☐ 3
- ☐ 9

The correct answer is:
1

Question 22

Incorrect

Mark 0.00 out of 1.00

How many factors of $7^4 \times 3^2 \times 2^3$ are there?

Select one:

- ☒ 45 ✗
- ☐ 60
- ☐ 55
- ☐ 40

The correct answer is:
60

Question 23

Incorrect

Mark 0.00 out of 1.00

The difference between the squares of two consecutive odd integers is always divisible by?

Select one:

- ☐ 8
- ☒ 4 ✗
- ☐ 6
- ☐ 2

The correct answer is:
8

Question 24

Incorrect

Mark 0.00 out of 1.00

What is the rightmost non-zero digit in $15!$?

Select one:

- ☐ 8
- ☒ 5 ✖
- ☐ 7
- ☐ 6

The correct answer is:

8

Question 25

Not answered

Marked out of 1.00

Find the highest power of 72 in $100!$

Select one:

- ☐ 20
- ☐ 26
- ☐ 22
- ☐ 24

The correct answer is:

24