1. If the number 517*324 is completely divisible by 3, then the smallest whole number in the place of * will be?
A) 2
B) 3
C) 4
D) 5

2. For what values of P number 345472P34 is exactly divisible by 9.
A) 3
B) 4
C) 6
D) 7

3. If number 1792N is divisible by 2. How many values N can take?
A) 4
B) 5
C) 3
D) 6

4. If the number 97215*6 is completely divisible by 11, then the smallest whole number in place of * will be:
A) 3
B) 2
C) 1
D) 5

5. If the number 91876*2 is completely divisible by 8, then the smallest whole number in place of * will be:
A) 2
B) 1
C) 4
D) 3

6. If x and y are the two digits of the number 653xy such that this number is divisible by 80, then x + y =?
A) 4
B) 4 or 8
C) 2 or 6
D) 8

7. What should come in place x if 4857x is divisible by 88?
A) 2
B) 8
C) 4
D) 6

8. If the product 4864 x 9 P 2 is divisible by 12, then the value of P is:
A) 5
B) 8
C) 2
D) None

9. The unit digit in the product $(122)^{173}$ is:
A) 2
B) 4
C) 6
D) 8

10. Find the unit digit in the product $(4387)^{245} \times (621)^{72}$.
A) 1
B) 2
C) 5
D) 7

11. What is the unit digit in $(2538)^{212.}$
A) 8
B) 1
C) 6
D) 4

12. What is the unit digit in 2^{40}.
A) 0
B) 1
C) 2
D) 6

13. What is the unit digit in $(69!)^{646}$?
A) 1
B) 9
C) 0
D) None

14. What is the unit digit in $(7^{95} - 3^{58})$?
A) 0
B) -6
C) 4
D) 7

15. The unit digit in the sum of $(123)^{53!}$
A) 3
B) 9
C) 0
D) 1

16. The digit in the unit position of the integer 1! + 2! + 3! + …+99! Is
A) 3
B) 0
C) 1
D) 7

17. Find the number of factors of 144?
A) 15
B) 12
C) 8
D) None

18. Find the number of factors of 120?
A) 16
B) 15
C) 12
D) None

19. find the sum of factors of 98?
A) 161
B) 171
C) 160
D) None

20. How many factors of 360 are odd numbers?
A) 24
B) 6
C) 18
D) 12

21. Number N = $2^6 * 5^5 * 7^6 * 10^7$; how many factors of N are even numbers?
A) 1183
B) 1200
C) 1050
D) 840

22. Find no. of ways of writing 120 as a product of two numbers
A) 7
B) 8
C) 9
D) 4

23. How many zeros are there in 100!?
A) 24
B) 97
C) 121
D) None

24. Find the number of zeros in 75!
A) 16
B) 18
C) 20
D) 21

25. Find the number of zeros at end of 5 x 10 x 15 x 20 x 25 x 30 x 35…… x 240 x 245 x 250
A) 53
B) 62
C) 47
D) None

26. Find the number of zeros in 100! + 200!
A) 24
B) 49
C) 73
D) None

27. Find number of trailing zero in 100! X 200!
A) 24
B) 49
C) 73
D) None

28. What is the highest power of 2 that divides $10^{15} \times (10^{23} + 2048^2)$ completely?

A) 37
B) 38
C) 57
D) 15
29. What is the highest power of 12 that divides 54!?
A) 25
B) 26
C) 30
D) 4
30. Find the greatest power of 8 in 1 × 2 × 3 ×4 × 5…….24 × 25 × 26.
A) 5
B) 7
C) 10
D) 23
31. The H.C.F of two numbers is 8 and their L.C.M is 96. If one of the numbers is 32, then the other is
A) 24
B) 42
C) 16
D) None
32. The H.C.F of 9/10, 12/25, 18/35, and 21/40 is?
A) 3/1400
B) 5/1400
C) 7/1400
D) None
33. Three number are in the ratio of 3: 4:5 and their L.C.M. is 2400. Their H.C.F. is:
A) 40
B) 80
C) 120
D) 200
34. The ratio of two numbers is 3: 4 and their H.C.F. is 4. Their L.C.M. is: A) 12
B) 16
C) 24
D) 48
35. The least number which is exactly divisible by 8, 16, 40 and 80 is:
A) 16
B) 120
C) 80
D) None
36. The least number, which when divided by 12, 15, 20 and 54 leaves in each case a remainder of 8 is:
A) 504
B) 536
C) 544
D) 548
37. Find the smallest number, which when divided by 3, 4 and 5 leaves remainder 1, 2 and 3 respectively?
A) 60
B) 53
C) 58
D) None
38. Find the highest common factor of 36 and 84.
A) 4
B) 6
C) 12
D) 18
39. The greatest number which on dividing 1657 and 2037 leaves remainders 6 and 5 respectively, is:
A) 123
B) 127
C) 235
D) 305
40. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.
A) 4
B) 7
C) 9
D) 13
41. 6 bells of a Church toll at different intervals of 5seconds, 8 seconds, 10 seconds, 6 seconds, 12 seconds and 15 seconds respectively. If they toll together at 12 noon, how many times will they toll together till 1 pm?
A) 31
B) 15
C) 20
D) None
42. The product of two numbers is 2028 and their H.C.F. is 13. The number of such pairs is:
A) 1
B) 2
C) 3
D) 4
43. What is the remainder when 3 to the power 7 is divided by 8?
A) 3
B) 4
C) 5
D) 7
44. Remainder when 35^{113} is divided by 9?
A) 1
B) 8
C) 3
D) 4
45. Remainder when 2^{33} is divided by 9?
A) 1
B) 4
C) 8
D) 5
46. Remainder when 2^99 is divided by 10?
A) 1
B) 4
C) 2
D) 8
47. Remainder when 5^{500} is divided by 500?
A) 125
B) 1
C) 5
D) 250
48. Find the remainder when 234! is divided by 560.
A) 2
B) 1
C) 0
D) 13
49. What is the remainder when $(125^{10} + 3^{81} + 7^{26})$ is divided by 10?
A) 2
B) 5
C) 9
D) 7
50. What is the remainder left after dividing 1! +2! +3!.....+100! by 7?
A) 0
B) 5
C) 6
D) 14
51. Find the maximum power of 6 in 66!
A) 31
B) 29
C) 24
D) 33
52. Find the unit digit in the expression of $1!^{1!} + 2!^{2!} + 3!^{3!} + ….+ 99!^{99!}$
A) 7
B) 1
C) 6
D) 5
53. Find unit Digit of following expression?
1! +11! +111! +1111! +11111!
A) 0
B) 1
C) 9
D) 5