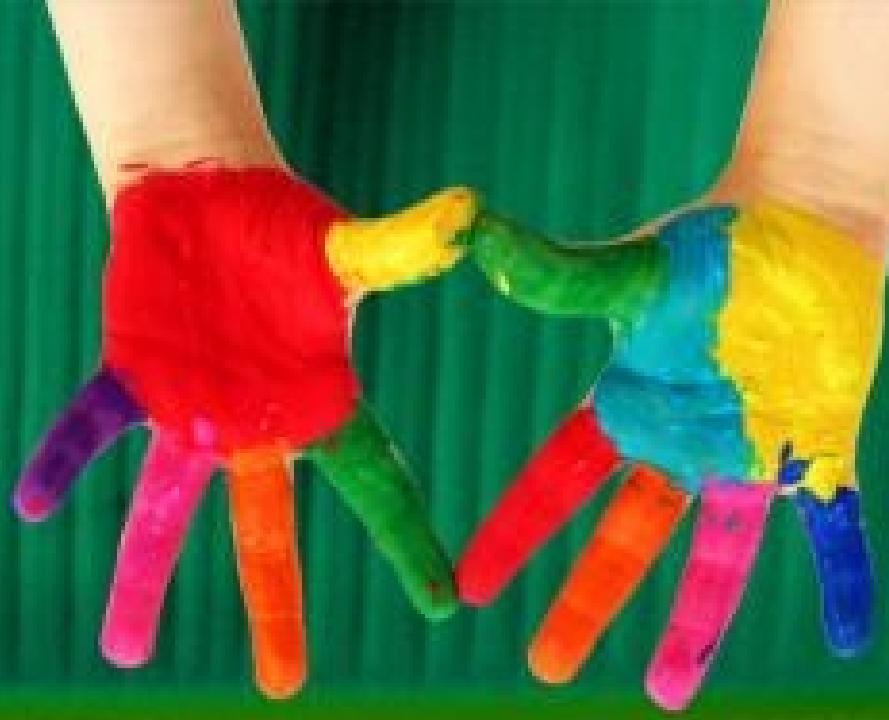
PART 1



Quantitative Analysis and Numerical Reasoning

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NUMBER SERIES AND SEQUENCE

- 1. 25, 23, 36, 34, 49, 47, 64, ___, ___
    - a. 62, 79
    - b. 60, 80
    - c. 62, 82
    - d. 60, 81
    - e. 62, 81

2. 721, 521, 711, 531, 701, 541, ____, ____

a. 691, 550

b. 690, 551

c. 692, 551

d. 691, 551

e. 691, 552

3. 10, 5, 20, 10, 60, 30, 240, 120, 1200, ___, ___

a. 600, 400

b. 120, 600

c. 600, 7200

d. 1200, 7200

e. 120, 580

4. 25, 150, 30, 240, 48, ___

   a. 280

   b. 380

   c. 480

   d. 580

   e. 680

5. 48, 48, 53, 43, 59, 37, ___, ___

   a. 65, 30

   b. 65, 31

   c. 66, 36

   d. 66, 31

   e. 66, 30

6. .06, .08, .12, .06, .36, .04, ___, ___

   a. 1.42, .02

   b. 1.42, .0

   c. 1.44, .04

   d. 1.44, .02

   e. 1.44, .0

7. 879, 768, 657, 546, ____, ____

   a. 437, 323

   b. 435, 324

   c. 547, 324

   d. 556, 768

   e. 438, 768

8. -4, -16, -64, -256, ____, ____

a. -1024, -4097

b. -1025, -4097

c. -1024, -4096

d. -1023, -4098

e. -1025, -4098

9. 4, 8, 5, 15, 6, 24, ___, ___

a. 7, 35

b. 7, 42

c. 7, 48

d. 7, 49

e. 7, 56

10. 306, 240, 182, 132, 90, ___

a. 52

b. 56

c. 64

d. 66

e. 82

11. 0.117, 0.365, 0.121, 0.371, 0.125, 0.377, 0.129, ___

a. 0.386

b. 0.385

c. 0.383

d. 0.382

e. 0.381

12. ½, 2, 7/2, 5, ___

a. 9/2

b. 11/2

c. 13/2

d. 15/2

e. 17/2

13. 50, 5, 55, 110, 11, 121, 242, ___

a. 24.2

b. 26

c. 32.2

d. 35

e. 38.2

14. ¼, 4, ½, 2, ¾, 4/3, 1, 1, ___

a. 1 2/3

b. 1 ½

c. 1 1/3

d. 1 ¼

e. 1 1/8

15. 50, 72, 98, 128, 162, 200, _____

a. 187

b. 209

c. 220

d. 242

e. 363

16. ¼ , 4/16 , 16/64, _____

a. 64/192

b. 64/256

c. 64/512 $\frac{4}{16}$

d. 60/102

e. 32/130

17. 9, 6, 18, 15, 45, 42, 126,_____

a. 123

b. 129

c. 375

d. 378

e. 420

18. 438, 698, 548, 588, 658, _____ , _____

a. 478, 768

b. 478, 868

c. 488, 768

d. 478, 878

e. 488, 778

19. AZ, CX, EV, GT, _____, _____

a. IR, KP

b. IS, KQ

c. IS, KP

d. IR, KQ

e. IS, KR

20. AC, BD, EG, FH, _____, _____

a. IL, HI

b. IK, JL

c. HI, JK

d. IJ, KL

e. IJ, KM

21. Write 3.4% as a fraction.

a. 3.4/100

b. .34/100

c. 34/100

d. 3.4/1000

e. 34/1000

22. Write ¾ % as a decimal.

a. 0.75

b. 0.0075

c. 7.5

d. 0.075

e. 0.00075

23. What number is missing in the series
6, 12, 20, 30, ___, 56, 72 ?

a. 38

b. 42

c. 44

d. 48

e. 52

24. If the following numbers are arranged in order from smallest to largest, what will be the correct order?

A. 9/13 B. 13/9

C. 70% D. 1/.70

a. BACD b. CBAD c. CDAB

d. BDCA e. ACDB

25. 3 is 6% of a certain number.

What is the number?

a. 53

b. 50

c. 48

d. 24

e. 18

26. What is the mean average of 0.6, 6.6, 0.4, and 2.4?

a. 1

b. 2

c. 2 ½

d. 10

e. 12

27. What percent of 16 is 40?

a. 2.5%

b. 2500%

c. ¼

d. 25%

e. 250%

28. 1 ¼ subtracted from its reciprocal is?

a. -9/20

b. .45

c. 2.25

d. 9/20

e. -1/5

29. What is the ratio of ¼ to 3/5?

a. 1:3

b. 3:20

c. 5:12

d. 3:4

e. 5:4

30. One-tenth is what part of three-fourth?

a. 3/40

b. 1/8

c. 2/15

d. 15/2

e. 40/3

31. Which of the following has the largest numerical value?

a. 39% x 120

b. 35% of 100

c. 0.35 x 120

d. ¼ of 160

e. 1/3 x 120

32. Given that a = ½, b = -1 and c = 3, solve for the following: (5c – b)a /6a

a. 1

b. 4/3

c. 5/4

d. 7/3

e. 8/3

33. What number must be added to each of the numbers 3, 4, 7 and 5 such that the sum of the square of the first two numbers is 65 less than twice the product of the last two numbers.

a. 7 b. 5

c. 4 d. 3

e. 2

34. What is the lowest term 0f 336/564?

a. 26/42

b. 28/47

c. 28/94

d.42/94

e. 56/94

35. Which of the following expression is equal to $m=(1/3)(xy)^2$?

a. $x=\sqrt{m}/(3y)$

b. $y = \sqrt{(3mx)}$

c. $x= \sqrt{(3m)} / y$

d. $3mx$

e. $m/(3x)$

36. The square root of the sum of 64 and 36 is _____

a. 6

b. 8

c. 10

d. 12

e. 14

37. What percent of decrease does a drop from 50 to 40 have?

a. 10%

b. 12%

c. 20%

d. 25%

e. 35%

38. If an ordinary dice whose faces are numbered from 1 to 6 is tossed, what are the chances of obtaining a number of at least 3?

a. 1/6

b. ¼

c. ½

d. 2/3

e. 5/6

39. Which of the following fractions is closest in value to 2/7?

a. 1/7

b. 3/10

c. 4/11

d. 3/8

e. 3/7

40. If 15 hours ago the time was 11:30 p.m., what time is it now?

a. 8:30 p.m.

b. 2:30 p.m.

c. 1:30 p.m.

d. 12:30 a.m.

e. 8:30 a.m.

Problem solving

41. Mr. Smith has three daughters who go to school. The two daughters aged 6 and 10 years old are given P90 and P150 allowance per day respectively. Applying the same ratio on the allowance, how much does he need to give to her 12 years old daughter?

a. P170
b. P180
c. P200
d. P210
e.P270

42. How many liters of alcohol must be added to 40 liters of a mixture which is 65% alcohol to obtain a mixture which is 80% alcohol.

a. 20

b. 24

c. 26

d. 28

e. 30

43. A folder is 25 ¼ cm wide. An employee wishes to place a fastener at the middle. If the holes of the fastener are 7 3/5 cm apart, how far from the left end of the folder will the first hole be bored?

a. 7 ½ cm

b. 8 33/40 cm

c. 9 ¼ cm

d. 9 7/40 cm

e. 12 13/20 cm

44. A boy is x inches tall now. If his height increased by 10% a year. Which of the following expressions represent his height three years from now?

a. .3x + .3

b. 1.331x

c. 1.1x

d. 3.1x

e. .3x

45. Line segment AB is 9 inches long. Point C is located between A and B so that line AC is 1 ½ inches shorter than twice line CB. What is the length of line AC?

a. 3 inches

b. 4 ½ inches

c. 5 inches

d. 5 ½ inches

e. 6 inches

46. Teacher Eden has 50 students. If she has 5 fewer female students than 4 times the number of male students, how many male students does she have?

a. 27

b. 23

c. 19

d.15

e. 11

47. Mrs. Santos invest P21,000 at 8% interest rate. How much more must he invest at 9 ½% interest to have an annual income of 9% of his total investments?

a. P25,000

b. P33,000

c. P36,000

d. P42,000

e. P47,000

48. Twenty percent of the 400 students at a certain high school has a family income which is below the poverty line. If 2/5 of these students are females, how many are males?

a. 32

b. 35

c. 45

d. 48

e. 52

49. At present, the number of government personnel in NCR is estimated at 450,000. If it gains 2.3% of this number by accession and loses 1.2% of this number by separation regularly each year for 5 years. How many government personnel are there in NCR at the end of period.

a. 474,659 b.474,683 c. 474,750
d. 474,824 e. 474,992

50. Jeko travels a distance of 20 kilometers at 60 kilometers per hour and then return to the same route at 40 kph. What is his average rate for the round trip in kph?

a. 50 kms

b. 48 kph

c. 47 kph

d. 46 kph

e. 45 kph

GOODLUCK!!!