

AP / GP (Test-01)

- Q.1** The sum of all natural numbers between 100 and 1000 which are multiple of 5 is:
(a) 98,450 (b) 96,450 (c) 97,450 (d) 95,450
- Q.2** The sum of an A P, whose first term is -4 & last term is 146 is 7171. Find the value of n.
(a) 99 (b) 100 (c) 101 (d) 102
- Q.3** Divide 30 into five parts in A.P., such that the first and last parts are in the ratio 2:3:
(a) 24/5, 27/5, 6, 33/5, 36/5 (b) 6, 36/5, 33/5, 24/5, 27/5
(c) 27/5, 24/5, 33/5, 36/5, 6 (d) 6, 24/5, 27/5, 33/5, 36/5
- Q.4** Find the sum of all natural numbers between 250 and 1,000 which are exactly divisible by 3
(a) 1,56,375 (b) 1,56,357 (c) 1,65,375 (d) 1,65,357
- Q.5** A person pays Rs.975 in monthly instalments, each instalment is less than former by Rs.5. The amount of first instalment is Rs.100. In what time will the entire amount be paid?
(a) 26 months (b) 15 months (c) both (a) & (b) (d) 18 months
- Q.6** If the sum of n terms of an A.P. is $(3n^2 - n)$ & its common difference is 6, then its first term is:
(a) 3 (b) 2 (c) 4 (d) 1
- Q.7** Find the sum of the series: $2+7+12+\dots+297$.
(a) 8970 (b) 8870 (c) 7630 (d) 9875
- Q.8** A contractor who fails to complete a building in a certain specified time is compelled to forfeit Rs.200 for the first day of extra time required and thereafter forfeited amount is increases by Rs.25 for every day. If he loses Rs.9,450, for how many days did he over-run the contact time?
(a) 19 days (b) 21 days (c) 23 days (d) 25 days
- Q.9** A man employed in a company is promised a salary of Rs.3,000 every month for the first year and increment of Rs.1,000 in his monthly salary every succeeding year. How much does the man earn from the company in 20 years?
(a) Rs.30,00,000 (b) Rs.27,50,000 (c) Rs.19,10,000 (d) Rs.7,90,000
- Q.10** On 1st January every year a person buys National Saving Certificates of value exceeding that of his last year's purchase by Rs.100. After 10 years, he finds that the total value of the certificates purchased by him is Rs.54,500. Find the value of certificates purchased by him in the first year:
(a) Rs.6,000 (b) Rs.4,000 (c) Rs.5,000 (d) Rs.5,500
- Q.11** $(x + 1)$, $3x$, $(4x + 2)$ are in A.P. Find the value of x
(a) 2 (b) 3 (c) 4 (d) 5
- Q.12** Divide 144 into three parts which are in AP and such that the largest is twice the smallest, the smallest of three numbers will be:
(a) 48 (b) 36 (c) 13 (d) 32

- Q.13** If sum (S_n) of 'n' - terms of an Arithmetic progression is $(2n^2 + n)$. What is the difference of its 10th and 1st term?
(a) 207 (b) 36 (c) 90 (d) 63
- Q.14** If each month Rs.100 increases in any sum then find out the total sum after 10 months, if the sum of first month is Rs.2000.
(a) Rs.24,500 (b) Rs.24,000 (c) Rs.50,000 (d) Rs.60,000
- Q.15** The sum of all two digit odd numbers is
(a) 2475 (b) 2575 (c) 4950 (d) 5049
- Q.16** The sum of the third and ninth term of an A.P. is 8. Find the sum of the first 11 terms of the progression.
(a) 44 (b) 22 (c) 19 (d) 11
- Q.17** If 8th term of an A.P is 15, then sum of its 15 terms is
(a) 15 (b) 0 (c) 225 (d) 225/2
- Q.18** The 4th term of an A.P. is three times the first and the 7th term exceeds twice the third term by 1. Find the first term 'a' and common difference 'd'.
(a) $a = 3, d = 2$ (b) $a = 4, d = 3$ (c) $a = 5, d = 4$ (d) $a = 6, d = 5$
- Q.19** In an A.P., if common difference is 2, sum of n term is 49, 7th term is 13 then n = ____
(a) 0 (b) 5 (c) 7 (d) 13
- Q.20** If the sum of n terms of an A.P. be $2n^2 + 5n$, then its 'nth' term is:
(a) $4n - 2$ (b) $3n - 4$ (c) $4n + 3$ (d) $3n + 4$

Measures of Central Tendency (Test-01)

- Q.1** Quartile can be determined graphically using:
(a) Histogram
(b) Frequency polygon
(c) Ogive curve
(d) pie chart
- Q.2** When all observations occur with equal frequency _____ does not exit.
(a) median (b) mode
(c) mean (d) None
- Q.3** If each item is reduced by 15 A. M is
(a) reduced by 15
(b) increased by 15
(c) reduced by 10
(d) none
- Q.4** Extreme values have _____ effect on mode.
(a) High (b) Low
(c) No (d) None
- Q.5** If x and related by $x - y - 10 = 0$ and mode of x is known to be 23 then the mode of y is:
(a) 20 (b) 13
(c) 3 (d) 23
- Q.6** A man travels at a speed of 20 km/hr and then returns at a speed of 30 km/hr. His average speed of the whole journey is:
(a) 25 km/ hr (b) 24.5 km/ hr
(c) 24 km/ hr (d) None
- Q.7** The median of the data 13, 8, 11, 6, 4, 15, 2, 18, is:
(a) 5 (b) 8
(c) 11 (d) 9.5
- Q.8** If in a moderately skewed distribution the values of mode and mean are 32.1 and 35.4 respectively, then the value of the median is
(a) 34.3 (b) 33.3
(c) 34 (d) 33
- Q.9** _____ is the reciprocal of the AM of the reciprocal of observations.
(a) HM (b) GM
(c) Both (a) and (b) (d) None
- Q.10** The sum of the squares of deviations of a set of observations has the smallest value, when the deviations are taken from their:
(a) A.M. (b) H.M.
(c) G.M. (d) None
- Q.11** If the A. M. and H.M. for two numbers are 5 and 3.2 respectively then the G.M. will be:
(a) 4.05 (b) 16
(c) 4 (d) 4.10
- Q.12** The mean salary for a group of 40 female workers is Rs.5,200 per month and that for a group of 60 male workers is Rs.6,800 per month. What is the combined salary?
(a) Rs.6,160 (b) Rs.6,280
(c) Rs.6,890 (d) Rs.6,920
- Q.13** The mean weight of 15 students is 110 kg. The mean weight of 5 of them is 100 kg. and of another five students is 125kg. then the mean weight of the remaining students is:
(a) 120 (b) 105
(c) 115 (d) None
- Q.14** Which of the following measures of central tendency cannot be calculated by graphical method?
(a) Mean (b) Mode
(c) Median (d) Quartile
- Q.15** Geometric mean of 8, 4, 2 is
(a) 4 (b) 2
(c) 8 (d) None

AP / GP (Test-02)

- Q.1 If the sum of n terms of an A.P be $3n^2 - n$ and its common difference is 6, then its first term is:
(a) 2 (b) 3 (c) 4 (d) 5
- Q.2 If the sum of the 4th term and the 12th term of an A.P.is 8, what is the sum of the first 15 terms of the progression?
(a) 60 (b) 120 (c) 110 (d) 150
- Q.3 An Arithmetic progression has 13 terms whose sum is 143. The third term is 5 so the first term is:
(a) 4 (b) 7 (c) 9 (d) 2
- Q.4 The arithmetic mean of the square of first $2n$ natural number is:
(a) $\frac{1}{6} (2n + 1) (4n - 1)$ (b) $\frac{1}{6} (2n - 1) (4n - 1)$
(c) $\frac{1}{6} (2n - 1) (4n + 1)$ (d) $\frac{1}{6} (2n - 1) (4n + 1)$
- Q.5 If the sum of first ' n ' terms of an A.P.is $6n^2 + 6n$, then the fourth term of the series:
(a) 120 (b) 72 (c) 48 (d) 24
- Q.6 If third term and seventh term of an A.P are 18 & 30 respectively, then sum of first twenty terms will be:
(a) 540 (b) 610 (c) 740 (d) 810
- Q.7 If the sum of ' n ' terms of an Arithmetic progression (A.P) is $3x^2 + 5x$ and its m th term is 164, then the value of m is:
(a) 27 (b) 28 (c) 24 (d) 26
- Q.8 If a, b, c are in Arithmetic progression (A.P.) then the value of $a - b + c$ is:
(a) a (b) $-b$ (c) b (d) c
- Q.9 If $\frac{1}{b+c}, \frac{1}{c+a}, \frac{1}{a+b}$, are in arithmetic progression then a^2, b^2, c^2 , are in
(a) Arithmetic Progression (b) Geometric Progression
(c) Both in arithmetic and geometric Progression (d) None of these
- Q.10 The income of a person is Rs.5,00,000 in the firm in the first year and he receives an increase of Rs.15,000 per year for next 10 years. The total amount he received in 10 years is:
(a) Rs. 56,75,000 (b) Rs. 72,50,000 (c) Rs. 15,67,500 (d) None of these
- Q.11 If the sum $50 + 45 + 40 + 35 + \dots$ is zero, then the number of terms is:
(a) 22 (b) 20 (c) 21 (d) 25
- Q.12 If $2 + 6 + 10 + 14 + 18 + \dots + x = 882$ then the value of x
(a) 78 (b) 80 (c) 82 (d) 86
- Q.13 If the sum of five terms of AP is 75. Find the third term of the series
(a) 35 (b) 30 (c) 15 (d) 20

- Q.14 The value C such that $a, -3, b, 5, c$ are in A.P. is:
(a) -7 (b) 1 (c) 13 (d) 9
- Q.15 The sum of all numbers between 100 and 1000 which are divisible by 11 will be:
(a) 44550 (b) 66770 (c) 55440 (d) 33440
- Q.16 A person pays Rs. 975 as monthly instalments, each instalment is less than former by Rs. 5 . The amount of 1^{st} instalment is Rs. 100 . In what time will the entire amount be paid?
(a) 26 months (b) 15 months (c) Both (a) & (b) (d) 18 months
- Q.17 If the sum of n terms of an AP is $(3n^2 - n)$ and its common difference is 6 , then its first term is:
(a) 3 (b) 2 (c) 4 (d) 1
- Q.18 The sum of the series $-8, -6, -4, \dots, n$ terms is 52 . The number of terms n is
(a) 11 (b) 12 (c) 13 (d) 10
- Q.19 The value of K , for which the terms $7K + 3, 4K - 5, 2K + 10$ are in A.P., is
(a) 13 (b) -13 (c) 23 (d) -23
- Q.20 If the ratio of sum of n terms of two APs is $(n+1) : (n-1)$, then the ratio of their m th terms is
(a) $(m+1) : 2m$ (b) $(m+1) : (m-1)$ (c) $(2m-1) : (m+1)$ (d) $m : (m-1)$

Measures of Central Tendency (Test-02)

Q.1 The mean of 20 items of a data is 5 and if each item is multiplied by 3, then the new mean will be

- (a) 5
- (b) 10
- (c) 15
- (d) 20

Q.2 The Geometric mean of 3, 6, 24 and 48 is

- (a) 8
- (b) 12
- (c) 24
- (d) 6

Q.3 For 899, 999, 391, 384, 390, 480, 485, 760, 111, 240 Rank of median is

- (a) 2.75
- (b) 5.5
- (c) 8.25
- (d) None

Q.4 If the mean of the following distribution is 6 then the value of P is

X:	2	4	6	10	P + 5
F:	3	2	3	1	2

- (a) 7
- (b) 5
- (c) 8
- (d) 11

Q.5 The AM of 15 Observation is 9 and the AM of first 9 Observation is 11 and then AM of remaining Observations is

- (a) 11
- (b) 6
- (c) 5
- (d) 9

Q.6 In a moderately Skewed distribution the values of mean & median are 12 & 8 respectively. The value of mode is

- (a) 0
- (b) 12
- (c) 15
- (d) 30

Q.7 If total frequencies of three series are 50, 60 and 90 and their means are 12, 15 and 20 respectively, then the mean of their composite series is

- (a) 16
- (b) 15.5
- (c) 16.5
- (d) 14.5

Q.8 For a symmetric distribution

- (a) Mean = Median = Mode
- (b) Mode = 3 Median – 2 Mean

(c) $Mode = \frac{1}{3} Median = \frac{1}{2} Mean$

(d) None

Q.9 Which of the following is positional average?

- (a) Median
- (b) GM
- (c) HM
- (d) AM

Q.10 Find mode of the following date

3-6	6-9	9-12	12-15	15-18	18-21
2	5	10	23	21	12

- (a) 25
- (b) 4.6
- (c) 14.6
- (d) 13.5

Q.11 If the AM & GM of two numbers are 30 and 24 respectively. Find the no.'s

- (a) 12 and 24
- (b) 48 and 12
- (c) 30 and 30
- (d) 40 and 20

Q.12 An aeroplane flies from A to B the rate of 500 km / hr and comes back from B to A at the rate of 700 km / hr. The average speed of aeroplane is:

- (a) 600 km / hr
- (b) 583.33
- (c) $100\sqrt{35}$ km / hr
- (d) 620km/hr

Q.13 For moderately skewed distribution, which of the following relationship holds?

- (a) Mean–Median = 3(Median– Mode)
- (b) Median–Mode = 3(Mean– Median)
- (c) Mean– Mode = 3(Mean– Median)
- (d) Mean– Median = 3(Mean– Mode)

Q.14 Which of the following result hold for a set of distinct positive observations?

- (a) $A . M. \geq G. M. \geq H. M.$
- (b) $G. M. > A. M. > H. M.$
- (c) $G. M. \geq A. M. \geq H. M.$
- (d) $A . M. > G. M. > H. M.$

Q.15 If there are two groups with 75 and 65 as harmonic means and containing 15 and 13 observations. Then the combined H.M. is given by:

- (a) 70
- (b) 80
- (c) 70.35
- (d) 69.48

Answer key

1. a
2. c
3. a
4. a
5. b
6. b
7. a
8. b
9. a
10. c
11. b
12. d
13. b
14. a
15. a
16. a
17. c
18. a
19. c
20. c

Measures of Central Tendency (Test Series)

Answer Key - Measures of Central Tendency (Test-01)

1. c

2. b

3. a

4. c

5. b

6. c

7. d

8. a

9. a

10. a

11. c

12. a

13. b

14. a

15. a

Answer key

1. a
2. a
3. d
4. d
5. c
6. d
7. a
8. c
9. a
10. a
11. c
12. c
13. c
14. d
15. a
16. b
17. b
18. c
19. d
20. d

Answer Key - Measures of Central
Tendency (Test-02)

1. c

2. b

3. b

4. a

5. b

6. a

7. c

8. a

9. a

10. c

11. b

12. b

13. c

14. d

15. a