MULTIPLE CHOICE QUESTIONS (MCQ'S)

1. An ordered Set of numbers formed according to definite rule is called a ________.
   (a) Universal Set (b) Sequence
   (c) Group (d) Groupoid

   Sequence is also called ________.
   (a) progression (b) Power Set
   (c) Universal Set (d) Matrix

3. The individual members of a sequence are known as ______.
   (a) Vector (b) Component (c) Terms (d) Matrix

4. If the Sequence has unlimited number of terms then it is called ______ sequence.
   (a) Finite (b) Limited (c) Definite (d) Infinite

5. The nth term is represented by ________.
   (a) T_n (b) T_2 (c) T_{n-1} (d) T_{n+1}

6. In Sequence 3, 7, 11 .... the nth term will be ________.
   (a) $2n-1$ (b) $4n-1$ (c) $4n+1$ (d) $1-4n$

7. In Sequence 2, 4, 8, ... the nth term T_n will be ______.
   (a) 2^{n+1} (b) 2^{n-1} (c) 2^n (d) $\frac{2}{n}$

8. In sequence 3, 6, 9, ... the nth term T_n will be ______.
   (a) 3^n (b) $3+n$ (c) $\frac{3}{n}$ (d) $3n$

9. Σ represents the ______ of Series.
   (a) product (b) Difference (c) Sum (d) Union

10. A Sequence in which each term is formed by adding fixed number to one proceeding is called ________ Sequence.
    (a) Geometric (b) Harmonic
    (c) permutation (d) Arithmetic

11. The formula for nth term i–e T_n of arithmetic Sequence is ________.
    (a) $a-(n-1)d$ (b) $a+(n+1)d$
    (c) $a+(n-1)d$ (d) $a+(1-n)d$

12. The formula for the sum of the terms of Arithmetic Sequence is ________.
    (a) $S_n = \frac{n}{2}\{2a+(n-1)d\}$ (b) $S_n = \frac{n}{2}\{2a+(n+1)d\}$
    (c) $S_n = \frac{n}{2}\{2a-(n-1)d\}$ (d) $S_n = \frac{n}{2}\{2a-(n+1)d\}$

13. The formula for the sum of the terms of the Arithmetic Sequence in terms of first and last terms are given ______.
    (a) $S_n = \frac{n}{2}(a-\ell)$ (b) $S_n = \frac{n}{2}(a+\ell)$
    (c) $S_n = 2n(a+\ell)$ (d) $S_n = 2n(a-\ell)$

14. When three terms are in A.P then the middle term is called ________.
    (a) Median (b) Mode
    (c) Geometric Mean (d) Arithmetic Mean

15. If A is A.M between the numbers a and b then A = ______.
    (a) $\frac{a+b}{2}$ (b) $\frac{a-b}{2}$ (c) $2(a+b)$ (d) $2(a-b)$

16. If A_1, A_2, A_3, ... A_n be the "n" Arithmetic mean between two given numbers a and b then d = ________.
    (a) $\frac{a-b}{n+1}$ (b) $\frac{b-a}{n+1}$ (c) $\frac{a+b}{n+1}$ (d) $\frac{n+1}{b-a}$

17. If three terms are in A.P then they are denoted by ______.
    (a) $a, a-d, a+d$ (b) $d-a, a, a-d$
    (c) $a-d, a, a+d$ (d) $a+d, a, a+2d$

18. If Five numbers are in A.P they are usually denoted by ______.
    (a) $a+2d, a+3d, a, a+2d, a-d$
    (b) $a-2d, a+d, a+3d, a+5d$
    (c) $a+d, a-d, a+2d, a-2d$
    (d) $a-2d, a-d, a, a+d, a+2d$.

19. A.M of $(a+b)$ and $(a-b)$ is ______.
    (a) b (b) a (c) 2a (d) 2b

20. $a, ar, ar^2, ar^3, \ldots\ldots\ ar^{n-1}$ represents.
    (a) Arithmetic sequence (b) Harmonic Sequence
    (c) Arithmetic series (d) Geometric Sequence

21. T_n i – e nth term of a G.P is ______.
    (a) ar^n (b) ar^{n-1} (c) ar^{n+1} (d) ar^{2n}

22. In case of G.P common ratio is obtained by ______ any term by pervious term.
    (a) Dividing (b) Adding
    (c) Subtracting (d) Multiplying

23. The formula for the sum of n terms of a geometric Series when r < 1 si given by ________.
    (a) $S_n = \frac{a(1+r^n)}{1-r}$ (b) $S_n = \frac{a(1-r^n)}{1-r}$
    (c) $S_n = \frac{a(1-r^{2n})}{1+r}$ (d) $S_n = \frac{a(1-r^n)}{1+r}$

24. The formula for the Sum of n terms of geometric Series when r > 1 is given by ________.

(a) $S_n = \frac{a(r^n+1)}{1-r}$ (b) $S_n = \frac{a(1-r^n)}{1+r}$

(c) $S_n = \frac{a(r^n-1)}{r-1}$ (d) $S_n = \frac{a(r^n+1)}{1-r}$

25. If a, G, b are in G.P then G is called ________.

(a) Average (b) Common Ratio

(c) Geometric Mean (d) Common difference

26. If G is Geometric mean between a and b then G = ________.

(a) $(ab)^2$ (b) $\pm\sqrt{\frac{a}{b}}$ (c) $\pm\sqrt{\frac{b}{a}}$ (d) $\pm\sqrt{ab}$

27. If $G_1, G_2, G_3, \ldots\ldots\ldots G_n$ are n geometric means between a and b then a, $G_1, G_2, G_3, \ldots\ldots\ldots G_n$, b is a G.P and Common ratio r = ________.

(a) $\left(\frac{b}{a}\right)^{\frac{1}{n+1}}$ (b) $(ab)^{n+1}$ (c) $\left(\frac{a}{b}\right)^{\frac{1}{n+1}}$ (d) $\left(\frac{b}{a}\right)^{\frac{1}{n-1}}$

28. Geometric mean between 15 and 60 is ________.

(a) 4 (b) ± 30 (c) 900 (d) 14

29. If three numbers are in G.P then they are generally written as ________.

(a) ar, a, ar^2 (b) $ar^2, \frac{a}{r}, ar$ (c) $\frac{a}{r}, a, ar$ (d) $a, \frac{a}{r}, ar^2$

30. G.M between $\sqrt{2}$ and $\frac{1}{\sqrt{2}}$ is ________.

(a) ±2 (b) $\pm\sqrt{2}$ (c) ± 1 (d) $\pm\frac{1}{\sqrt{2}}$

31. The formula for the Sum of the infinite Geometric Series is ________ when $|r| < 1$.

(a) $S_n = \frac{a}{1-r}$ (b) $S_n = a(1-r)$

(c) $S_n = \frac{1-r}{a}$ (d) $S_n = \frac{a}{1+r}$

32. Sum of the infinite geometric Series $\frac{1}{5} + \frac{1}{15} + \frac{1}{45} + \ldots\ldots$ is ________.

(a) $\frac{10}{3}$ (b) $\frac{3}{10}$ (c) 13 (d) 7

33. A Sequence is said to be a ________ sequence if the reciprocals of it's term are in Arithmetic progression.

(a) Geometric (b) Arithmetic

(c) Converging (d) Harmonic

34. If a and b are the first and second terms of an H.P then it's nth term i – e T_n will be ________.

(a) $T_n = \frac{ab}{b-(n-1)(a+b)}$ (b) $T_n = \frac{ab}{b+(n-1)(a-b)}$

(c) $Tn = \frac{ab}{b+(n+1)(a-b)}$ (d) $T_n = \frac{ab}{b+(n+1)(a+b)}$

35. If x is the pth, y is the qth and z is the rth term of an H.P

then $\begin{vmatrix} \frac{1}{x} & \frac{1}{y} & \frac{1}{z} \\ p & q & r \\ 1 & 1 & 1 \end{vmatrix}$ = ________.

(a) 1 (b) $\frac{x}{q}$ (c) $\frac{p}{x}$ (d) 0

36. If H is the Harmonic Mean between a and b then H = ________.

(a) $\frac{ab}{2(a+b)}$ (b) $\frac{2ab}{a+b}$ (c) $\frac{2ab}{a-b}$ (d) $\frac{ab}{2(a-b)}$

37. The Harmonic mean of $\frac{1}{3}$ and $\frac{2}{5}$ is ________.

(a) $\frac{11}{4}$ (b) 7 (c) $\frac{4}{11}$ (d) $\frac{7}{11}$

38. The relation between A (Arithmetic mean), G (geometric mean) and H (Harmonic Mean) is given by

(a) $\frac{G}{A} = \frac{G}{H}$ (b) $AG = \frac{G}{H}$ (c) $\frac{A}{G} = \frac{G}{H}$ (d) $GH = \frac{A}{G}$

39. A Series given by $a + (a+d)r + (a+2d)r^2 + \ldots\ldots$ is Known as ________.

(a) Arithmetic Series (b) Geometric Series

(c) Harmonic Series

(d) Arithmetico-geometric Series

40. A Series obtained by multiplying the corresponding terms of an A.P and a G.P is called ________ Series.

(a) Arithmetico-Geometric (b) Harmonic

(c) Geometric (d) Arithmetic

41. If 3, G, 27 are in G.P what is the value of G?

(a) ± 81 (b) ± 30 (c) ± 9 (d) 9

42. The Sum of the A.P 1, 5, 9, 13, ... to 40 terms is ________.
(a) 3160 (b) 8000 (c) –630 (d) 150

43. The Sum of the infinite Series $1+\frac{2}{3}+\frac{4}{9}+\ldots\ldots$ is ________.
(a) 5 (b) –20 (c) 3 (d) $\frac{2}{5}$

44. a, a + d, a + 2d, a + 3d, ... a + (n – 1)d is known as the Standard form of an ________.
(a) G.P (b) H.P (c) A.G (d) A.P

45. A function $f: N \longrightarrow R$ or C is called a ________.
(a) Series (b) Number
(c) Fundamental (d) Sequence

46. What term of the following A.P is 125? 5, 10, 15, 20, 25, ________.
(a) 30 (b) 25 (c) 40 (d) 50

47. Domain of Sequence is the Subset of the Set of ________.
(a) Natural Numbers (b) Odd Numbers
(c) Even Numbers (d) Prime Numbers

48. If all members of a Sequence are real, then Sequence is called ________.
(a) function (b) Real Series
(c) Real Sequence (d) Real fundamental

49. If $T_n = 2n-3$, 1[st] four terms of $\{T_n\}$ are ________.
(a) –3, –1, 1, 3 (b) –1, 1, 3, 5
(c) –1, 1, 3, 6 (d) –3, –1, 1, 5

50. If $T_n=\frac{1}{a+(n-1)d}$ then 1[st] three terms $\{T_n\}$ are ______.
(a) $1, \frac{1}{a}, \frac{1}{a+d}$ (b) $\frac{1}{a}, \frac{1}{a+d}, \frac{1}{a+2d}$
(c) $\frac{1}{a}, \frac{1}{a+2d}, \frac{1}{a+4d}$ (d) $\frac{1}{a}, \frac{1}{a}, \frac{1}{a+d}$

51. The difference of two connective terms of an A.P is called ________.
(a) Common Subtraction (b) Common Addition
(c) Common difference (d) Common ratio

52. The Sum of the first n natural numbers is ________.
(a) $\frac{n(n-1)}{2}$ (b) $\frac{n+1}{2}$ (c) $\frac{n^2}{2}$ (d) $\frac{n(n+1)}{2}$

53. The Sum of the first n even natural numbers is ________.
(a) $\frac{n(n-1)}{2}$ (b) n (n + 1) (c) $\frac{n}{2}$ (d) $\frac{n(n+1)}{2}$

54. The Sum of the first n odd natural numbers is ________.
(a) n (n + 1) (b) n^2 (c) $\frac{n}{2}$ (d) $\frac{n(n+1)}{2}$

55. By relation b/w A.P, G.P and H.P; A × H = ________.
(a) A^2 (b) G^2 (c) H^2 (d) HG

56. $H_1, H_2, H_3, \ldots\ldots$ Hn are called n Harmonic mean between a and b then $\frac{1}{a}, \frac{1}{H_1}, \frac{1}{H_2}, \ldots\ldots \frac{1}{H_n}, \frac{1}{b}$ are in ________.
(a) A.P (b) G.P (c) H.P (d) A.G

57. If a, b, c are in A.P then $\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$ are in ________.
(a) A.P (b) G.P (c) A.G (d) H.P

58. If a, b, c are in H.P then $\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$ are in ________.
(a) A.P (b) H.P (c) G.P (d) A.G

59. If a, b, c are in G.P then b^2 = ________
(a) a^2 (b) c^2 (c) ac (d) ab

60. If $\frac{G}{a}=\frac{b}{G}$ then G = ________
(a) ± ab (b) $\pm\sqrt{ab}$ (c) $\pm(ab)^{\frac{1}{3}}$ (d) $\pm(ab)^{\frac{1}{n}}$

61. No term of geometric Sequence can be ________.
(a) 0 (b) 1 (c) –1 (d) ∞

62. Each term after the first term is an r multiple of it's ________ term.
(a) Successive (b) preceeding (c) last (d) Middle

63. The Common ratio $r=\frac{a_n}{a_{n-1}}$ is defined only if ________.
(a) $a_{n-1}=0$ (b) $a_{n-1}\geq 0$ (c) $a_{n-1}\leq 0$ (d) $a_{n-1}\neq 0$

64. For sequence $\{a_n\}$ the quotient $\frac{a_n}{a_{n-1}}$ is called ________.
(a) Common difference (b) Common Ratio
(c) G.M (d) H.M

65. If r is common ratio of G.P $\{a_n\}$ and $a_3 = a_1r^2$ then it's preceeding term equal to ________.
(a) $a_4 = a_1r^3$ (b) $a_1 = a_2$ (c) $a_2 = a_1r$ (d) $a_n = a_1r^{n-1}$

66. If A, G, and H are respectively the arithmetic, the positive geometric and the Harmonic mean between any two real positive and Unequal numbers a and b then ________.
(a) $A > G > H$ (b) $A < G < H$ (c) $A > G < H$ (d) $A = G = H$

67. In given H.P a, H_1, H_2, ... H_n, b. How many terms ________.
(a) n + 1 (b) n + 2 (c) n − 1 (d) n

68. Find the 20^{th} term of an H.P of which the first two terms are $\frac{2}{39}$ and $\frac{2}{37}$.
(a) −2 (b) 1 (c) 0 (d) 2

69. Find the first term of a G.P whose second term is 2 and the sum to infinity is 8.
(a) −8 (b) 4 (c) −4 (d) 2

70. How Many terms of the geometric Series 1 + 4 + 16 + ... must be taken to have their sum equal to 341.
(a) −5 (b) 0 (c) 4 (d) 5

71. Find the sum of the first 7 terms of the G.P.
−4, 12, −36, ...
(a) −2187 (b) 2188 (c) 3000 (d) 2160

72. The Sum of the terms of a geometric Sequence is called a ________ series.
(a) Arithmetic (b) Harmonic
(c) Arithemetico geometric (d) Geometric

73. Which terms of the G.P. $\frac{1}{8}, \frac{1}{4}, \frac{1}{2}, 1, 2, 4, \ldots\ldots\ldots 32$?
(a) 8 (b) −9 (c) 0 (d) 9

74. The elements in the range of Sequence $\{a_n\}$ are called it's ________.
(a) Subsets (b) Terms
(c) power (d) None of these

75. A Sequence may be ________ according as the number of it's terms is ________.
(a) finite (b) Infinite
(c) 0 (d) None of these

76. A geometric Sequence cannot have ________ as common ratio.
(a) −1 (b) 0 (c) 1 (d) 2

77. The sum of an infinite geometric Series exists only if the common ratio "r" lies between ________.
(a) 0 and 1 (b) −1 and 0
(c) −1 and 1 (d) None of these

78. No. formula has been obtained for finding the sum of "n" terms of ________.
(a) A.P (b) H.P
(c) G.P (d) None of these

79. An H.P cannot contain a ________ term.
(a) Zero (b) 1
(c) ∞ (d) None of these

80. ________ are used to represent ordered lists of numbers.
(a) Sequence (b) Matrix
(c) permutation (d) None of these

81. The ________ derive it's name from the fact that musical string.
(a) A.P (b) H.P (c) G.P (d) A.G.P

82. Every recurring decimal number is a ________ number.
(a) Odd (b) Even (c) Prime (d) Whole

83. 1 + 1 + 1 + ... to n terms then S_n = ________.
(a) n (b) n^2 (c) n + 1 (d) n + 2

84. The reciprocal of the terms of geometric sequence forms an other ________.
(a) A.P (b) G.P (c) H.P (d) A.G.P.

85. $\frac{(n+1)ab}{a+nb}, \frac{(n+1)ab}{2a+(n-1)b}, \ldots\ldots\ldots\ldots \frac{(n+1)ab}{na+b}$ are the n ________ b/w two numbers a and b.
(a) H.M's (b) A.M's (c) G.Ms (d) A.G.M's

86. 1 − 1 + 1 − 1 + ... 2n times =
(a) 0 (b) a_1
(c) $\frac{a_1 - (-1)^n a_1}{2}$ (d) ∞

87. If a + b, b + c, c + d are in G.P then (a + b)(c + d) = ________.
(a) $(a+b)^2$ (b) $(b+c)^2$
(c) $(c+d)^2$ (d) $(a+b)(a+c)$

88. The geometric mean between −2i and 8i are ________.
(a) ±4 (b) ±3 (c) ±2 (d) ±1

89. Harmonic mean between 3 and 7 is ________.
(a) $\frac{5}{21}$ (b) $\frac{21}{5}$ (c) 15 (d) $\sqrt{21}$

90. The A.M between $1 - x + x^2$ and $1 + x + x^2$ is ________.
(a) $2 - x^2$ (b) $2 + x^2$ (c) $1 - x^2$ (d) $1 + x^2$

91. The A.M between $3\sqrt{5}$ and $5\sqrt{5}$ is ________.
(a) $\sqrt{5}$ (b) $2\sqrt{5}$ (c) $3\sqrt{5}$ (d) $4\sqrt{5}$

92. The fifth term of the Sequence $T_n = 2n + 3$ is ______.
(a) – 13 (b) 13 (c) –7 (d) 7

93. For geometric Sequence.
$2^{\frac{1}{2}} \bullet 4^{\frac{1}{8}} \bullet 8^{\frac{1}{24}} \bullet 16^{\frac{1}{64}} \bullet \ldots\ldots = $ ______
(a) 0 (b) 1 (c) 2 (d) 4

94. If the Sum of P terms of an A.P is q and the sum of q terms is P. Find the sum of (P + q) terms = ______.
(a) pq (b) p + q (c) – pq (d) – (p + q)

95. If four numbers are in A.P they are usually denoted by ______.
(a) a – 3d, a – d, a + d, a + 3d (b) a + 2d, a + 3d, a, a – d
(c) a – 2d, a + d, a + 3d, a + 5d
(d) a – 2d, a – d, a, a + d

96. If $\frac{a^{n+1} + b^{n+1}}{a^n + b^n}$ may become the A.M between a and b then the value of n = ______.
(a) 1 (b) 0 (c) 2 (d) –1

97. If $\frac{a^{n+1} + b^{n+1}}{a^n + b^n}$ may become the G.M between a and b then the value of n = ______.
(a) 0 (b) $-\frac{1}{2}$ (c) –1 (d) 1

98. If $\frac{a^{n+1} + b^{n+1}}{a^n + b^n}$ may become the H.M between a and b then the value of n = ______.
(a) 0 (b) $-\frac{1}{2}$ (c) –1 (d) 1

99. If the pth term of an H.P is q the qth term is p then the value of (p + q)th term is ______.
(a) $\frac{pq}{(p+q)}$ (b) $\frac{-pq}{(p+q)}$ (c) $\frac{p+q}{pq}$ (d) 0

100. Only convergent infinite G.P's have a ______.
(a) Sum (b) Difference
(c) Multiplication (d) None of these

101. a, G_1, G_2, G_3, ……… G_n, b are ______ numbers in G.P then G_1, G_2, G_3, …….. G_n are termed as n G.M's between a and b.
(a) n + 1 (b) n + 2 (c) n – 1 (d) n – 2

102. In a geometric Sequence a, G_1, G_2, G_3, …. G_n, b ; b as its ______ term.
(a) (n + 1)th (b) (n – 1)th (c) (n + 2)th (d) (n – 2)th

103. If a, b, c are three consecutive terms of an H.P then $\frac{a}{c} = \frac{a-b}{b-c}$ is known as ______ relation for the H.P.
(a) Characteristic (b) Empirical
(c) Proportional (d) None of these

104. If A > G > H i – e A, G, H are in ______ order of magnitude.
(a) Ascending (b) Descending
(c) Alternating (d) None of these

105. Recurring decimals are also known as ______ decimals.
(a) parametric (b) periodic
(c) functional (d) None of these

106. In evaluation of recurring decimals application of Series is used.
(a) Infinite geometric (b) finite geometric
(c) finite sequence (d) None of these

107. If A, G, H are the arithmetic, geometric and harmonic means ______ between a and b respectively then A, G, H are in ______.
(a) G.P (b) A.P (c) H.P (d) A.G.P

108. The Series Obtained by adding the terms of an harmonic sequence is called ______ Series.
(a) Arithmetic (b) Geometric
(c) Arithmetico & geometric (d) Harmonic

109. H_1, H_2, ……….. H_n are said to be n harmonic means between a and b if a, H_1, H_2, …….. H_n, b form
(a) H.P (b) A.P (c) G.P (d) A.G.P

110. A number H is said to be the harmonic mean between two numbers a and b if a, H, b form.
(a) A.P (b) H.P (c) G.P (d) A.G.P

111. If a and d are the first term and the common difference of the A.P respectively, then the nth term of the corresponding H.P is
(a) $T_n = a + (n-1)d$ (b) $T_n = \frac{1}{a + (n-1)d}$
(c) $T_n = \frac{a}{1 + (n-1)d}$ (d) $T_n = \frac{a}{a + (n-1)d}$

112. A number G is said to be the geometric mean between two numbers a and b if a, G, b is ________.
(a) a Sequence (b) not a Sequence
(c) G.P (d) A.P

113. If a = 3, r = 2 then the nth term of the G.P is ________
(a) 2.3^{n-1} (b) 3.2^{n} (c) 3.2^{n+1} (d) 3.2^{n-1}

114. If a, and r are the first term and the common ratio respectively then the (n + 1)th term of the G.P is ________
(a) ar^{n} (b) ar^{n+1} (c) ar^{n-1} (d) 0

115. A Sequence in which any term divided by it's immediate previous term gives a constant is called the ________ sequence.
(a) geometric (b) Arithmetic (c) real (d) Complex

116. A number A is said to be the arithmetic mean between two numbers a and b if a, A, b is ________.
(a) G.P (b) H.P (c) A.G.P (d) A.P

117. If a, b, c are in H.P then the relation $\frac{a}{c} = \frac{a-b}{b-c}$ is known as the characteristic relation for the ________.
(a) A.P (b) G.P (c) H.P (d) A.G.P

118. $2.\dot{5}$
(a) $\frac{15}{7}$ (b) $\frac{7}{15}$ (c) $2\frac{5}{9}$ (d) $\frac{9}{23}$

119. 0.97777 ....
(a) $0.9\dot{7}$ (b) $0.\dot{9}\dot{7}$
(c) $0.\dot{9}7$ (d) None of these

120. 2 + 0.5555 .... = ________.
(a) $2.0\dot{5}$ (b) $2.\dot{5}\dot{5}$ (b) $2.\dot{5}$ (d) $2+\dot{5}\dot{5}$

121. $0.\dot{3}\dot{4}\dot{8}$ = ________.
(a) 0.0348 + 0.0348 + ...
(b) 0.0048 + 0.000048 + ...
(c) 0.3484848 .... (d) None of these

122. Which rational number can be represented as a recurring decimal ________.
(a) $\frac{5}{3}$ (b) $\frac{3}{5}$ (c) $\frac{7}{2}$ (d) $\frac{2}{7}$

123. 1 + 1 + 1 + ... to n terms then S_{∞} = ________.
(a) 1 (b) n (c) n^2 (d) ∞

124. $1 + \frac{3}{2} + \frac{9}{4} + ...$ then S_{∞} = ________
(a) −2 (b) 2 (c) $\frac{3}{2}$ (d) ∞

125. If we convert the sequence 2 + 22 + 222 + ... in G.P then multiply and divide the sequence by ________
(a) 9 (b) 8
(c) 7 (d) any number

126. When some numbers are in G.P then all the numbers between the extreme numbers, are called ________.
(a) A.M's (b) G.M's
(c) H.M's (d) None of these

127. In A.P Coefficient of d in first term is ________.
(a) Zero (b) 1
(c) −1 (d) None of these

128. In A.P Coefficient of d (Common difference) in nth term is ________.
(a) n (b) n + 1 (c) n − 1 (d) n + 2

129. If a, A_1, A_2, ... A_n, b are in A.P then number of A.M's between a and b are ________.
(a) n − 1 (b) n (c) n + 1 (d) n + 2

130. $A_1, A_2, A_3,$ .... A_n are n A.M's between a and b then a, A_1, A_2, ... A_n, b are in ________
(a) A.P (b) G.P (c) H.P (d) A.G.P

131. If 7 is the A.M between 10 and 4, then common difference d = ________.
(a) 3 (b) ±3 (c) −3 (d) 0

132. If A, G, H be respectively the A.M, the G.M and the H.M between any numbers and Ax = Gy = Hz then x , y , z are in ________.
(a) A.P (b) H.P (c) G.P (d) A.G.P

133. If a, b, c be in A.P and b, c, a in H.P then c, a, b are in ________.
(a) A.P (b) H.P (c) G.P (d) A.G.P

134. When lim S_n does not exist when
(a) Series is Convergent (b) Series is divergent
(c) Series is Oscillatory (d) None of these

Answers

1.	*b*	2.	*a*	3.	*c*	4.	*d*	5.	*a*
6.	*b*	7.	*c*	8.	*d*	9.	*c*	10.	*d*
11.	*c*	12.	*a*	13.	*b*	14.	*d*	15.	*a*
16.	*b*	17.	*c*	18.	*d*	19.	*b*	20.	*d*
21.	*b*	22.	*a*	23.	*b*	24.	*c*	25.	*c*
26.	*d*	27.	*a*	28.	*b*	29.	*c*	30.	*c*
31.	*a*	32.	*b*	33.	*d*	34.	*b*	35.	*d*
36.	*b*	37.	*c*	38.	*c*	39.	*d*	40.	*a*
41.	*c*	42.	*a*	43.	*c*	44.	*d*	45.	*d*
46.	*b*	47.	*a*	48.	*c*	49.	*b*	50.	*b*
51.	*c*	52.	*d*	53.	*b*	54.	*b*	55.	*b*
56.	*c*	57.	*d*	58.	*a*	59.	*c*	60.	*b*
61.	*a*	62.	*b*	63.	*d*	64.	*b*	65.	*c*
66.	*a*	67.	*b*	68.	*d*	69.	*b*	70.	*d*
71.	*a*	72.	*d*	73.	*d*	74.	*b*	75.	*a*
76.	*b*	77.	*c*	78.	*b*	79.	*a*	80.	*a*
81.	*b*	82.	*c*	83.	*a*	84.	*b*	85.	*a*
86.	*a*	87.	*b*	88.	*a*	89.	*b*	90.	*d*
91.	*d*	92.	*b*	93.	*c*	94.	*d*	95.	*a*
96.	*b*	97.	*b*	98.	*c*	99.	*a*	100.	*a*
101.	*b*	102.	*c*	103.	*a*	104.	*a*	105.	*b*
106.	*a*	107.	*a*	108.	*d*	109.	*a*	110.	*b*
111.	*b*	112.	*c*	113.	*b*	114.	*b*	115.	*a*
116.	*d*	117.	*c*	118.	*c*	119.	*a*	120.	*c*
121.	*c*	122.	*a*	123.	*d*	124.	*d*	125.	*a*
126.	*a*	127.	*a*	128.	*c*	129.	*b*	130.	*a*
131.	*c*	132.	*c*	133.	*c*	134.	*b*		