9. The number of terms in the series is

(a) 25 (b) 28
(c) 30 (d) 20

10. If the term of an A.P. be and term be p, then its term will be **[RPET 1999]**

(a) (b)
(c) (d)

11. If , then the different values of will be in **[Karnataka CET 1998]**

(a) A.P. (b) G.P.
(c) H.P. (d) None of these

12. term of the series will be

(a) (b)
(c) (d)

13. The sum of integers from 1 to 100 that are divisible by 2 or 5 is **[IIT 1984]**

(a) 3000 (b) 3050
(c) 4050 (d) None of these

14. If terms of the series and be equal, then **[Kerala (Engg.) 2002]**

(a) 11 (b) 12
(c) 13 (d) 15

15. The sum of 24 terms of the following series is

(a) 300 (b)
(c) (d) None of these

16. If are in A.P., then the value of will be **[MP PET 1984]**

(a) 3 (b) 7
(c) 5 (d) – 2

17. If the sum of terms of an A.P. is , where are constants, then its common difference will be **[MNR 1977]**

(a) (b)
(c) (d)

18. If the term of an A.P. is 35 and is 75, then its terms will be **[RPET 1989]**

(a) 78 (b) 79
(c) 80 (d) 81

19. The term of the series will be **[MP PET 1983]**

(a) (b)
(c) (d)

20. If are in A.P., then **[Roorkee 1975]**

(a) 1 (b) 2
(c) 3 (d) 4

21. If and are in A.P., then is equal to **[IIT 1990]**

(a) (b)
(c) (d) None of these

22. If the and term of an arithmetic sequence are a , b and respectively, then the value of + **[MP PET 1985]**

(a) 1 (b)
(c) 0 (d) 1/2

23. If terms of two A.P.'s are and , then the ratio of their terms will be **[MP PET 1986]**

(a) 4/9 (b) 7/16
(c) 3/7 (d) 8/15

24. If , then is

(a) 1 (b)
(c) 0 (d)

25. If the numbers form an A.P., then the value of is

(a) 1 (b) 2
(c) 0 (d) None of these

26. The sixth term of an A.P. is equal to 2, the value of the common difference of the A.P. which makes the product least is given by

(a) (b)
(c) (d) None of these

27. If times the term of an A.P. is equal to times the term of an A.P., then term is **[MP PET 1997; Karnataka CET 2002]**

(a) 0 (b) 1
(c) 2 (d) 3

28. The sums of terms of two arithmatic series are in the ratio , then the ratio of their terms is **[MP PET 2004]**

(a) 53 : 155 (b) 27 : 77
(c) 29 : 83 (d) 31 : 89

29. If a_m denotes the m^{th} term of an A.P. then a_m =

(a) (b)
(c) (d) None of these

30. Let be the term of an A.P. for . If for some positive integers we have and , then equals **[IIT 1998]**

(a) (b)

(c) 1 (d) 0

31. If are in A.P. then x equals **[AIEEE 2002]**

(a) (b)

(c) (d)

32. If are in A.P. then the value of in terms of a, if possible is **[RPET 2002]**

(a) $4a$ (b) $2a$

(c) 3 (d) None of these

33. If the ratio of the sum of terms of two A.P.'s be , then the ratio of their terms will be **[AMU 1996]**

(a) (b)

(c) (d)

34. The sum of the series to 9 terms is **[MNR 1985]**

(a) (b)

(c) 1 (d)

35. The interior angles of a polygon are in A.P. If the smallest angle be and the common difference be 5^o, then the number of sides is **[IIT 1980]**

(a) 8 (b) 10

(c) 9 (d) 6

36. If the term of an A.P. be and term be , then the sum of its terms will be

(a) (b)

(c) (d)

37. The sum of first natural numbers is **[MP PET 1984; RPET 1995]**

(a) (b)

(c) (d)

38. The first term of an A.P. is 2 and common difference is 4. The sum of its 40 terms will be **[MNR 1978; MP PET 2002]**

(a) 3200 (b) 1600

(c) 200 (d) 2800

39. If be odd or even, then the sum of terms of the series will be

(a) (b)

(c) (d)

40. If the first, second and last terms of an A.P. be respectively, then its sum will be

(a) (b)

(c) (d)

41. The ratio of the sums of first even numbers and odd numbers will be

(a) (b)

(c) (d)

42. If are in A.P., where for all , then the value of **[IIT 1982]**

(a) (b)

(c) (d)

43. If are in A.P. with common difference , , then the sum of the following series is **[RPET 2000]**

(a) (b)

(c) (d)

44. If the sum of the series is 60100, then the number of terms are **[MNR 1991; DCE 2001]**

(a) 100 (b) 200

(c) 150 (d) 250

45. The sum of all natural numbers between 1 and 100 which are multiples of 3 is **[MP PET 1984]**

(a) 1680 (b) 1683

(c) 1681 (d) 1682

46. The sum of upto terms is **[MP PET 1984]**

(a) (b)

(c) (d)

47. If the sum of the series is 513, then the number of terms are **[Roorkee 1970]**

(a) 18 (b) 20

(c) 17 (d) None of these

48. If the sum of terms of an A.P. is , then the term will be **[RPET 1992]**

(a) (b)

(c) (d)

49. The term of an A.P. is .Choose from the following the sum of its first five terms **[MP PET 1983]**

(a) 14 (b) 35

(c) 80 (d) 40

50. If the first term of an A.P. be 10, last term is 50 and the sum of all the terms is 300, then the number of terms are **[RPET 1987]**

(a) 5 (b) 8

(c) 10 (d) 15

51. The maximum sum of the series is

(a) 310 (b) 300

(c) 320 (d) None of these

52. The sum of the numbers between 100 and 1000 which is divisible by 9 will be **[MP PET 1982]**

(a) 55350 (b) 57228

(c) 97015 (d) 62140

53. The ratio of sum of and terms of an A.P. is , then the ratio of and term will be **[Roorkee 1963; MP PET 1995; Pb. CET 2001]**

(a) (b)

(c) (d)

54. The value of is

(a) (b)

(c) (d)

55. The solution of the equation is

(a) 1 (b) 2

(c) 3 (d) 4

56. The sum of all two digit numbers which, when divided by 4, yield unity as a remainder is

(a) 1190 (b) 1197

(c) 1210 (d) None of these

57. If denotes the sum of terms of an arithmetic progression, then the value of is equal to

(a) (b)

(c) (d)

58. The solution of is

(a) (b)

(c) (d)

59. If denotes the sum of first terms of an arithmetic progression whose first term and common difference are and respectively, then be independent of if

(a) (b)

(c) (d) None of these

60. A series whose n^{th} term is the sum of r terms will be **[UPSEAT 1999]**

(a) (b)

(c) (d)

61. The sum of the integers from 1 to 100 which are not divisible by 3 or 5 is **[MP PET 2000]**

(a) 2489 (b) 4735

(c) 2317 (d) 2632

62. The sum of the first and third term of an arithmetic progression is 12 and the product of first and second term is 24, then first term is **[MP PET 2003]**

(a) 1 (b) 8

(c) 4 (d) 6

63. If the sum of the first $2n$ terms of is equal to the sum of the first n terms of , then n is equal to **[IIT Screening 2001]**

(a) 10 (b) 12

(c) 11 (d) 13

64. The sum of numbers from 250 to 1000 which are divisible by 3 is **[RPET 1997]**

(a) 135657 (b) 136557

(c) 161575 (d) 156375

65. term of an A.P. is 40, then the sum of first 13 terms is **[Karnataka CET 2003]**

(a) 53 (b) 520

(c) 1040 (d) 2080

66. If are in A.P., then is **[AMU 2002]**

(a) (b)

(c) (d)

67. If the sum of the first terms of a series be , then its second term is **[MP PET 1996]**

(a) 7 (b) 17

(c) 24 (d) 42

68. Let the sequence form an A.P. Then

(a) (b)

(c) (d) None of these

69. If sum of terms of an A.P. is and then **[RPET 1991, 95; DCE 1999]**

(a) 26 (b) 27

(c) 28 (d) None of these

70. If , where denotes the sum of the first terms of an A.P., then the common difference is **[WB JEE 1994]**

(a) (b)

(c) (d)

71. Let denotes the sum of terms of an A.P. If , then ratio **[MNR 1993; UPSEAT 2001]**

(a) 4 (b) 6

(c) 8 (d) 10

72. The first term of an A.P. of consecutive integers is The sum of terms of this series can be expressed as

(a) (b)

(c) (d)

73. The sum of the first four terms of an A.P. is 56. The sum of the last four terms is 112. If its first term is 11, the number of terms is

(a) 10 (b) 11

(c) 12 (d) None of these

74. The number of terms of the A.P. 3,7,11,15...to be taken so that the sum is 406 is **[Kerala (Engg.) 2002]**

(a) 5 (b) 10

(c) 12 (d) 14

75. There are 15 terms in an arithmetic progression. Its first term is 5 and their sum is 390. The middle term is **[MP PET 1994]**

(a) 23 (b) 26

(c) 29 (d) 32

76. If the sum of the 10 terms of an A.P. is 4 times to the sum of its 5 terms, then the ratio of first term and common difference is **[RPET 1986]**

(a) (b)

(c) (d)

77. Three number are in A.P. such that their sum is 18 and sum of their squares is 158. The greatest number among them is **[UPSEAT 2004]**

(a) 10 (b) 11

(c) 12 (d) None of these

78. If , then the value of is **[MNR 1983; Pb. CET 2000]**

(a) 35 (b) 36

(c) 37 (d) 40

79. If be two arithmetic means between and , then their values are

(a) (b)

(c) (d)

80. If be the A.M. of and , then **[MP PET 1995]**

(a) 1 (b)

(c) 0 (d) None of these

81. A number is the reciprocal of the other. If the arithmetic mean of the two numbers be , then the numbers are

(a) (b)

(c) (d)

82. If be an arithmetic mean between two numbers and be the sum of arithmetic means between the same numbers, then

(a) (b)

(c) (d) None of these

83. The arithmetic mean of first n natural number **[RPET 1986]**

(a) (b)

(c) (d)

84. The sum of arithmetic means between and , is **[RPET 1986]**

(a) (b)

(c) (d)

85. After inserting A.M.'s between 2 and 38, the sum of the resulting progression is 200. The value of is **[MP PET 2001]**

(a) 10 (b) 8

(c) 9 (d) None of these

86. The mean of the series is **[DCE 2002]**

(a) (b)

(c) (d) None of these

87. If then the arithmetic mean of and is **[AMU 2002, 05]**

(a) (b)

(c) 0 (d) 1

88. If and are in A.P., then n = **[MP PET 1998; Karnataka CET 2000; Pb. CET 2001]**

(a) 5/2 (b)

(c) (d) 3/2

89. If the sum of two extreme numbers of an A.P. with four terms is 8 and product of remaining two middle term is 15, then greatest number of the series will be **[Roorkee 1965]**

(a) 5 (b) 7

(c) 9 (d) 11

90. If the sides of a right angled traingle are in A.P., then the sides are proportional to **[Roorkee 1974]**

(a) 1: 2: 3 (b) 2: 3: 4

(c) 3: 4: 5 (d) 4: 5: 6

91. Three numbers are in A.P. whose sum is 33 and product is 792, then the smallest number from these numbers is **[RPET 1988]**

(a) 4 (b) 8

(c) 11 (d) 14

92. If are in A.P., then the value of will be **[Pb. CET 1989, 91]**

(a) (b)

(c) (d)

93. If the sum of three numbers of a arithmetic sequence is 15 and the sum of their squares is 83, then the numbers are **[MP PET 1985]**

(a) 4, 5, 6 (b) 3, 5, 7

(c) 1, 5, 9 (d) 2, 5, 8

94. The four arithmetic means between 3 and 23 are **[MP PET 1985]**

(a) 5, 9, 11, 13 (b) 7, 11, 15, 19

(c) 5, 11, 15, 22 (d) 7, 15, 19, 21

95. If the sum of three consecutive terms of an A.P. is 51 and the product of last and first term is 273, then the numbers are **[MP PET 1986]**

(a) 21, 17, 13 (b) 20, 16, 12

(c) 22, 18, 14 (d) 24, 20, 16

96. If are in A.P., then **[RPET 1995]**

(a) are in A.P. (b) are in A.P.

(c) are in A.P. (d) None of these

97. If are in A.P., then

(a) (b)

(c) (d)

(e) All the above

98. The difference between an integer and its cube is divisible by **[MP PET 1999]**

(a) 4 (b) 6

(c) 9 (d) None of these

99. If are in A.P., then equals **[Pb. CET 1999]**

(a) (b) abc

(c) $2abc$ (d) $4abc$

100. Four numbers are in arithmetic progression. The sum of first and last term is 8 and the product of both middle terms is 15. The least number of the series is **[MP PET 2001]**

(a) 4 (b) 3

(c) 2 (d) 1

101. If twice the 11^{th} term of an A.P. is equal to 7 times of its 21^{st} term, then its 25^{th} term is equal to **[J & K 2005]**

(a) 24 (b) 120

(c) 0 (d) None of these

102. If are in A.P. and and are also in A.P., then **[Kerala (Engg.) 2005]**

(a) (b)

(c) (d)

(e)

Geometric progression

1. If are in G.P., then

(a) (b)

(c) (d) None of these

2. term of the sequence is

(a) (b)

(c) 125 (d)

3. If the and terms of a G.P. be respectively, then the relation between is **[MNR 1995; Karnataka CET 1999]**

(a) (b)

(c) (d)

4. If the first term of a G.P. be 5 and common ratio be , then which term is 3125

(a) (b)

(c) (d)

5. The number which should be added to the numbers 2, 14, 62 so that the resulting numbers may be in G.P., is

(a) 1 (b) 2

(c) 3 (d) 4

6. If term of a G.P. be and term be , then the term will be **[RPET 1997; MP PET 1985, 99]**

(a) (b)

(c) (d) 0

7. The terms of a G.P. are positive. If each term is equal to the sum of two terms that follow it, then the common ratio is

(a) (b)

(c) 1 (d)

8. If are in G.P., then the fourth term is **[MNR 1981]**

(a) 27 (b)

(c) 13.5 (d)

9. If the ratio of the sum of first three terms and the sum of first six terms of a G.P. be 125 : 152, then the common ratio r is

(a) (b)

(c) (d)

10. If are in G.P. and , then **[IIT 1966, 68]**

(a) (b)

(c) (d) None of these

11. If the , and term of a G.P. are respectively, then is equal to **[Roorkee 1955, 63, 73; Pb. CET 1991, 95]**

(a) 0 (b) 1

(c) (d)

12. If the third term of a G.P. is 4 then the product of its first 5 terms is **[IIT 1982; RPET 1991]**

(a) (b)

(c) (d) None of these

13. If the term of a G.P. is and term is , then the term will be **[MP PET 1982]**

(a) (b)

(c) (d)

14. The term of the series will be **[Pb. CET 1988]**

(a) 1600 (b) 1680

(c) 420 (d) 840

15. If are and terms of a G.P., then is equal to

(a) 1 (b)

(c) (d)

16. The first and last terms of a G.P. are and respectively; being its common ratio; then the number of terms in this G.P. is

(a) (b)

(c) (d)

17. If and are in G.P., then

(a) (b)

(c) (d)

18. If the roots of the cubic equation are in G.P., then

(a) (b)

(c) (d)

19. If the term of a geometric progression is 9 and term is 4, then its term is **[MP PET 1996]**

(a) 6 (b) 36

(c) (d)

20. The 6^{th} term of a G.P. is 32 and its 8^{th} term is 128, then the common ratio of the G.P. is **[Pb. CET 1999]**

(a) – 1 (b) 2

(c) 4 (d) – 4

21. If the n^{th} term of geometric progression is , then the value of n is **[Kerala (Engg.) 2002]**

(a) 11 (b) 10

(c) 9 (d) 4

22. The third term of a G.P. is the square of first term. If the second term is 8, then the term is **[MP PET 1997]**

(a) 120 (b) 124

(c) 128 (d) 132

23. Fifth term of a G.P. is 2, then the product of its 9 terms is **[Pb. CET 1990, 94; AIEEE 2002]**

(a) 256 (b) 512

(c) 1024 (d) None of these

24. If the sum of an infinite G.P. be 9 and the sum of first two terms be 5, then the common ratio is

(a) 1/3 (b) 3/2

(c) 3/4 (d) 2/3

25. The sum of the first five terms of the series will be

(a) (b)

(c) (d)

26. The sum of 100 terms of the series will be

(a) (b)

(c) (d)

27. The value of is **[MNR 1986; UPSEAT 2000]**

(a) (b)

(c) (d)

28. If the sum of three terms of G.P. is 19 and product is 216, then the common ratio of the series is **[Roorkee 1972]**

(a) (b)

(c) 2 (d) 3

29. The sum of the series upto terms is **[IIT 1974]**

(a) (b)

(c) (d) None of these

30. If every term of a G.P. with positive terms is the sum of its two previous terms, then the common ratio of the series is **[RPET 1986]**

(a) 1 (b)

(c) (d)

31. The sum of first two terms of a G.P. is 1 and every term of this series is twice of its previous term, then the first term will be **[RPET 1988]**

(a) 1/4 (b) 1/3

(c) 2/3 (d) 3/4

32. If the sum of terms of a G.P. is 255 and terms is 128 and common ratio is 2, then first term will be **[RPET 1990]**

(a) 1 (b) 3

(c) 7 (d) None of these

33. The sum of terms of the following series will be **[IIT 1962]**

(a) (b)

(c) (d) None of these

34. If the sum of first 6 term is 9 times to the sum of first 3 terms of the same G.P., then the common ratio of the series will be **[RPET 1985]**

(a) (b) 2

(c) 1 (d) 1/2

35. The number (91 times) is a

(a) Even number (b) Prime number

(c) Not prime (d) None of these

36. For a sequence and . Then is

(a) (b)

(c) (d) None of these

37. The solution of the equation is given by is equal to

(a) 3 (b) 5

(c) 7 (d) None of these

38. If in a geometric progression and then the value of is

(a) 5 (b) 6

(c) 7 (d) 8

39. The sum of few terms of any ratio series is 728, if common ratio is 3 and last term is 486, then first term of series will be **[UPSEAT 1999]**

(a) 2 (b) 1

(c) 3 (d) 4

40. The product of positive numbers is unity. Their sum is **[MP PET 2000]**

(a) A positive integer (b) Equal to

(c) Divisible by (d) Never less than

41. Three numbers are in G.P. such that their sum is 38 and their product is 1728. The greatest number among them is **[UPSEAT 2004]**

(a) 18 (b) 16

(c) 14 (d) None of these

42. The sum of the series terms is **[RPET 2000]**

(a) (b)

(c) (d) None of these

43. The first term of a G.P. is 7, the last term is 448 and sum of all terms is 889, then the common ratio is **[MP PET 2003]**

(a) 5 (b) 4

(c) 3 (d) 2

44. The sum of a G.P. with common ratio 3 is 364, and last term is 243, then the number of terms is **[MP PET 2003]**

(a) 6 (b) 5

(c) 4 (d) 10

45. If geometric means be inserted between and then the geometric mean will be

(a) (b)

(c) (d)

46. If the geometric mean between and is , then the value of n is

(a) 1 (b) –1/2

(c) 1/2 (d) 2

47. If be the geometric mean of and , then

(a) (b)

(c) (d)

48. If three geometric means be inserted between 2 and 32, then the third geometric mean will be

(a) 8 (b) 4

(c) 16 (d) 12

49. If five G.M.'s are inserted between 486 and 2/3 then fourth G.M. will be **[RPET 1999]**

(a) 4 (b) 6

(c) 12 (d) – 6

50. The G.M. of roots of the equation is **[RPET 1997]**

(a) 3 (b) 4

(c) 2 (d) 1

51. The G.M. of the numbers is **[DCE 2002]**

(a) (b)

(c) (d)

52. The product of three geometric means between 4 and will be

(a) 4 (b) 2

(c) (d) 1

53. The two geometric means between the number 1 and 64 are **[Kerala (Engg.) 2002]**

(a) 1 and 64 (b) 4 and 16

(c) 2 and 16 (d) 8 and 16

54. If are in G.P., then **[RPET 1995]**

(a) are in G.P.

(b) are in G.P.

(c) are in G.P.

(d) None of the above

55. If x, be the consecutive terms of a G.P., then the value of will be

(a) (b)

(c) (d)

56. The sum of 3 numbers in geometric progression is 38 and their product is 1728. The middle number is **[MP PET 1994]**

(a) 12 (b) 8

(c) 18 (d) 6

57. If the product of three consecutive terms of G.P. is 216 and the sum of product of pair-wise is 156, then the numbers will be **[MNR 1978]**

(a) 1, 3, 9 (b) 2, 6, 18

(c) 3, 9, 27 (d) 2, 4, 8

58. The sum of infinity of a geometric progression is and the first term is . The common ratio is **[MP PET 1994]**

(a) 7/16 (b) 9/16

(c) 1/9 (d) 7/9

59. If , then the value of will be **[Pb. CET 1989]**

(a) 15/23 (b) 7/15

(c) 7/8 (d) 15/7

60. The sum can be found of a infinite G.P. whose common ratio is **[AMU 1982]**

(a) For all values of

(b) For only positive value of

(c) Only for

(d) Only for

61. If , then the value of r will be

(a) (b)

(c) (d)

62.

Then the value of is **[MNR 1980; MP PET 1985]**

(a) (b)

(c) (d)

63. The first term of a G.P. whose second term is 2 and sum to infinity is 8, will be **[MNR 1979; RPET 1992, 95]**

(a) 6 (b) 3

(c) 4 (d) 1

64. **[Roorkee 1961; IIT 1973]**

(a) (b)

(c) (d)

65. If , then value of x will be **[MNR 1975; RPET 1988; MP PET 2002]**

(a) (b)

(c) (d)

66. If , where , then

(a) (b)

(c) (d)

67. The sum of infinite terms of a G.P. is and on squaring the each term of it, the sum will be , then the common ratio of this series is **[RPET 1988]**

(a) (b)

(c) (d)

68. If the sum of an infinite G.P. and the sum of square of its terms is 3, then the common ratio of the first series is **[Roorkee 1972]**

(a) 1 (b)

(c) (d)

69. If is the sum to infinity of a G.P., whose first term is , then the sum of the first terms is **[UPSEAT 2002]**

(a) (b)

(c) (d) None of these

70. 0.14189189189…. can be expressed as a rational number **[AMU 2000]**

(a) (b)

(c) (d)

71. The sum of the series is **[AMU 2000]**

(a) 6.93378 (b) 6.87342

(c) 6.74384 (d) 6.64474

72. The sum of an infinite geometric series is 3. A series, which is formed by squares of its terms, have the sum also 3. First series will be **[UPSEAT 1999]**

(a) (b)

(c) (d)

73. Consider an infinite G.P. with first term a and common ratio r, its sum is 4 and the second term is 3/4, then **[IIT Screening 2000; DCE 2001]**

(a) (b)

(c) (d)

74. The value of , where

to is

(a) 1 (b) 2

(c) (d) 4

75. The value of is **[RPET 2003]**

(a) 2 (b) 3

(c) 4 (d) 9

76. If **[DCE 1999]**

(a) (b)

(c) (d) None of these

77. If sum of infinite terms of a G.P. is 3 and sum of squares of its terms is 3, then its first term and common ratio are **[RPET 1999]**

(a) 3/2, 1/2 (b) 1, 1/2

(c) 3/2, 2 (d) None of these

78. The sum of infinite terms of the geometric progression is **[Kerala (Engg.) 2002]**

(a) (b)

(c) (d)

79. Sum of infinite number of terms in G.P. is 20 and sum of their square is 100. The common ratio of G.P. is **[AIEEE 2002]**

(a) 5 (b) 3/5

(c) 8/5 (d) 1/5

80. If in an infinite G.P. first term is equal to the twice of the sum of the remaining terms, then its common ratio is **[RPET 2002]**

(a) 1 (b) 2

(c) 1/3 (d) – 1/3

81. If the sum of the series is a finite number, then **[UPSEAT 2002]**

(a) (b)

(c) (d) None of these

82. **[Karnataka CET 2004]**

(a) (b)

(c) (d)

83. The value of where, stands for the number 0.037037037..... is **[MP PET 2004]**

(a) (b)

(c) (d)

84. If is added to each of numbers 3, 9, 21 so that the resulting numbers may be in G.P., then the value of will be **[MP PET 1986]**

(a) 3 (b)

(c) 2 (d)

85. If s is the sum of an infinite G.P., the first term a then the common ratio r given by **[J & K 2005]**

(a) (b)

(c) (d)

86. The sum to infinity of the progression is **[Karnataka CET 2005]**

(a) 9 (b) 9/2

(c) 27/4 (d) 15/2

87. If , where are non-zero numbers. Then are in **[AMU 2005]**

(a) A.P (b) G.P

(c) H.P (d) None of these

88. The product $(32)(32)^{1/6}(32)^{1/36}$ ..... to is **[Kerala (Engg.) 2005]**

(a) 16 (b) 32

(c) 64 (d) 0

(e) 62

Harmonic progression

1. If the term of a H.P. be and be , then the term will be

(a) (b)

(c) (d)

2. Which number should be added to the numbers 13, 15, 19 so that the resulting numbers be the consecutive terms of a H.P.

(a) 7 (b) 6

(c) (d)

3. The fifth term of the H.P., will be **[MP PET 1984]**

(a) (b)

(c) 1/10 (d) 10

4. If are in H.P., then will be equal to **[IIT 1975]**

(a) (b)

(c) (d) None of these

5. If are in H.P., then the value of expression will be **[RPET 1985, 2000]**

(a) (b)

(c) (d)

6. If term of a H.P. is and term is , then its term will be **[RPET 1987, 97]**

(a) 1/89 (b) 1/85

(c) 1/80 (d) 1/79

7. The first term of a harmonic progression is 1/7 and the second term is 1/9. The term is **[MP PET 1994]**

(a) 1/19 (b) 1/29

(c) 1/17 (d) 1/27

8. If are three distinct positive real numbers which are in H.P., then is

(a) Greater than or equal to 10

(b) Less than or equal to 10

(c) Only equal to 10

(d) None of these

9. If are in H.P., then is equal to

(a) (b)

(c) (d) None of these

10. If the term of a harmonic progression is 8 and the term is 7, then its term is **[MP PET 1996]**

(a) 16 (b) 14

(c) (d)

11. If the term of a H.P. is and the term is , then the term is **[MP PET 1997]**

(a) (b)

(c) (d)

12. If sixth term of a H.P. is and its tenth term is then first term of that H.P. is **[Karnataka CET 2001]**

(a) (b)

(c) (d)

13. In a H.P., p^{th} term is q and the q^{th} term is p. Then pq^{th} term is **[Karnataka CET 2002]**

(a) 0 (b) 1

(c) pq (d)

14. The 4^{th} term of a H.P. is and 8^{th} term is then its 6^{th} term is **[MP PET 2003]**

(a) (b)

(c) (d)

15. If is the harmonic mean between and , then the value of is **[MNR 1990; UPSEAT 2000, 01]**

(a) 2

(b)

(c)

(d) None of these

16. If the harmonic mean between and be , then the value of is

(a) (b)

(c) (d)

17. H.M. between the roots of the equation is **[MP PET 1995]**

(a) (b)

(c) (d)

18. The harmonic mean of and is **[MP PET 1996; Pb. CET 2001]**

(a)

(b)

(c)

(d)

19. The sixth H.M. between 3 and is **[RPET 1996]**

(a) (b)

(c) (d)

20. If be the harmonic mean between and , then the value of is **[Assam PET 1986]**

(a) 1 (b)

(c) 0 (d) 2

21. If the harmonic mean between and be , then **[AMU 1998]**

(a) 4 (b) 2

(c) 1 (d)

22. If be in H.P., then

(a) (b)

(c) (d)

23. If are in H.P., then **[RPET 1991]**

(a) (b)

(c) Both (a) and (b) (d) None of these