ECAT Pre Engineering Entry Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	
3	Question Image	
4	Question Image	
5	If A, G, H are the arithmetic, geometric and harmonic means between a and b respectively then A, G, H are in	A. A. P. B. G. P. C. H. P. D. None of these
6	Question Image	
7	Question Image	B. x⁻²+ c D. not possible
8	Question Image	B. a^xln a + c C. a^x+ c D. x a^x+ c
9	H_1, H_2, H_3, ... $H_n$are called n harmonic means between a and b if a, H_1, H_2, H_3, ... H_nb are in	A. H.P. B. G.P. C. A.P. D. None of these
10	A number H is said to be the H.M. between a and b if a, H, b are in	A. A.P. B. G. P. C. H. P. D. None of these
11	Question Image	A. e^x+ c B. e^{-x}+ c C. x e^x+ c D. not possible
12	H.M. between 3 and 7 is	
13	Question Image	A. cosec x + c B. -cosec x + c C. -sec x + c D. sec x + c
14	The harmonic mean between a and b is	
15	Question Image	A. cosec x + c B. -cosec x + c C. -sec x + c D. sec x + c
16	Question Image	A. cot x + c B. tan x + c C. -cot x + c D. -tan x + c
17	Question Image	A. 1 + tan²x + c B. tan x + c C. -tan x + c D. cot x + c
18	Question Image	A. an A.P. B. a G.P. C. a H.P. D. None of these
19	Question Image	A. sin x + c B. -sin x + c C. cos x + c D. -cos x + c
20	Question Image	A. cos x + c B. -sin x + c C. -cos x + c

		D. sin x + c
21	No term of a harmonic sequence can be	A. 0 B. 1 C. 2 D. 3
22	A sequence of number whose reciprocals form an arithmetic sequence is called	A. Geometric sequence B. Arithmetic series C. Harmonic sequence D. Harmonic series
23	Question Image	
24	Find the sum of the infinite geometric series 2 + 1 + 0.5 + ...	A. 3.5 B. 3 C. 4 D. None of these
25	Question Image	
26	Question Image	
27	Question Image	A. 0 B. 1 C. 2 D. 3
28	The series obtained by adding the terms of a geometric sequence is called	A. Infinite series B. Arithmetic series C. Geometric series D. Harmonic series
29	The sum of an infinite geometric series exist if	A. | r | < 1 B. | r | > 1 C. r = 1 D. r = -1
30	If a_1, r are first term and the common ratio respectively then the sum of an infinite geometric series is	