ONE MARK TEST

P. ELANGOVAN, B.T. Assistant (Mathematics)

GOVERNMENT HIGHER SECONDARY SCHOOL

KOLIYANUR – VILLUPURAM DISTRICT

ENGLISH MEDIUM   **FULL PORTION**   **TEST - 1**

1   If $f(x) = 2x^2$ and $g(x) = \frac{1}{3x}$, then $f \circ g$ is

   (A) $\frac{3}{2x^2}$ (B) $\frac{2}{3x^2}$ (C) $\frac{2}{9x^2}$ (D) $\frac{1}{6x^2}$

2   An A.P. consists of 31 terms. If its 16th term is m, then the sum of all the terms of this A.P. is

   (A) 16 m   (B) 62 m   (C) 31 m   (D) $\frac{31}{2}$ m

3   The solution of $(2x - 1)^2 = 9$ is equal to

   (A) -1   (B) 2   (C) -1, 2   (D) None of these

4   If number of columns and rows are not equal in a matrix then it is said to be a

   (A) Diagonal matrix   (B) rectangular matrix   (C) square matrix   (D) identity matrix

5   Two poles of heights 6m and 11 m stand vertically on a plane ground. If he distance between their feet is 12 m, what is the distance between their tops ?

   (A) 13 m   (B) 14 m   (C) 15 m   (D) 12.8 m

6   (2, 1) is the point of intersection of two lines

   (A) $x - y - 3 = 0$; $3x - y - 7 = 0$
   (B) $x + y = 3$; $3x + y = 7$
   (C) $3x + y = 3$; $x + y = 7$
   (D) $x + 3y - 3 = 0$; $x - y - 7 = 0$

7   $tan\theta cosec^2\theta - tan\theta$ is equal to

   (A) $sec\theta$ (B) $cot^2\theta$ (C) $sin\theta$ (D) $cot\theta$

8   If the radius of the base of a cone is tripled and height is doubled then the volume is

   (A) Made 6 times   (B) made 18 times   (C) made 12 times   (D) unchanged

9   Variance of first 20 natural numbers is

   (A) 32.25   (B) 44.25   (C) 33.25   (D) 30

10   If a letter is chosen at random from the English alphabets { a, b, … , z } , then the probability that the letter chosen precedes x

   (A) $\frac{12}{13}$ (B) $\frac{1}{13}$ (C) $\frac{23}{26}$ (D) $\frac{3}{26}$