1. The value of k for which the system of equations $3x - y + 8 = 0$ and $6x - ky + 16 = 0$ has infinitely many solutions, is **1**

(A) -2 (B) 2

(C) $\frac{1}{2}$ (D) $-\frac{1}{2}$

2. Point P divides the line segment joining the points A(4, –5) and B(1, 2) in the ratio 5:2. Co-ordinates of point P are **1**

(A) $\left(\frac{5}{2}, \frac{-3}{2}\right)$ (B) $\left(\frac{11}{7}, 0\right)$

(C) $\left(\frac{13}{7}, 0\right)$ (D) $\left(0, \frac{13}{7}\right)$

3. The common difference of an A.P. in which $a_{15} - a_{11} = 48$, is **1**

(A) 12 (B) 16

(C) –12 (D) –16

4. The quadratic equation $x^2 + x + 1 = 0$ has _____ roots. **1**

(A) real and equal (B) irrational

(C) real and distinct (D) not-real

5. If the HCF (2520, 6600) = 40 and LCM (2520, 6600) = 252 × k, then the value of k is 1

(A) 1650 (B) 1600

(C) 165 (D) 1625

(a) Using graphical method, solve the following system of equations : **5**

$3x + y + 4 = 0$ and $3x - y + 2 = 0$

OR

(b) Tara scored 40 marks in a test, getting 3 marks for each right answer and losing 1 mark for each wrong answer. Had 4 marks been awarded for each correct answer and 2 marks been deducted for each wrong answer, then Tara would have scored 50 marks. Assuming that Tara attempted all questions, find the total number of questions in the test. **5**