Answer all the questions. (You may use calculators)

01) Simplify.

a) $4x + 3y + 5x - 7y$

b) $2(5x - 3y) - 7x + 2y$

c) $6ab - 4b^2 - 5ba + 7b^2$

d) $2(x + y) - 3(y - x)$

(4 marks)

02) Solve the following equations. (Show the Math Work)

a) $4t - 7 = 9$

b) $\dfrac{a}{2} + \dfrac{a}{3} = 5$

c) $2(7 - 5x) + 8 = 2(3x + 11)$

d) $\dfrac{2}{(5-3x)} = \dfrac{-3}{(4x-1)}$

(4 marks)

03) Solve the following equations.

a) $t^2 + 9 = 25$

b) $\dfrac{5}{y^2} = \dfrac{5}{9}$

(2 marks)

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04) Find the answer to nearest 2 d.p. (Trial and improvement method).   (2 marks)

$$n^3 + n = 100$$

n	$n^3 + n$

05) Make t the subject.

a) v= u-t   b) a = bt

c) s=$\frac{1}{2}at^2$ d) $\sqrt{\frac{h}{t}}$= 2c

(4 marks)

06) Factorise

a) $2x^2 - 8x$ b) $12ab^2 - 4ba$

c) $9cd - 18dc^2 + 6d^2c$ d) $4a^2 + 8a + 12a^3$

(4 marks)

(Total = 20 Marks)

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