## Art and Design Department

Mid-Summer 2020

Subject: Business Mathematics

Question 1: (4+6)
a) Given the sets $A=\{A, E, I, O, U\}$ and $B=\{I, J, K\}$, Draw a Venn diagram of $A$ and $B$ using the universal set $U=\{A, B, C, \ldots, Z\}$.
b) Define with examples;

- Equal Set
- Finite and Infinite Set
- Subset

Question 2: (4+6)
a) What are the four basic rules to solve an equation?
b) Find the solution to the equation

- $8(x-1)+17(x-3)=4(4 x-9)+4$
- $15(x-1)+4(x+3)=2(7+x)$

Question 3: (10)
Solve the following equation simultaneously using elimination method

$$
\begin{align*}
& 7 x+2 y=47  \tag{1}\\
& 5 x-4 y=1 \tag{2}
\end{align*}
$$

$\qquad$

