Subject: Mathematics-I   **Department: ECO (BS-I) A**

Assignment # 01   **Total Numbers: 10**   **Last Date of Submission: 26-11-21**

Q.1: Convert following fractions into Decimals.

$$(a) \ \frac{9}{12} \quad (b) \ \frac{16}{25} \quad (c) \ \frac{37}{5} \quad (d) \ \frac{25}{38} \quad (e) \ \frac{205}{18} \quad (f) \ \frac{19}{4}$$

Q.2: Convert following Recurring decimals into Fraction.

(a) 0.234234234 …. (b)0.777777 ….. (c) 0.6464646 …. (d) 0.09090909 …

Q.3: prove that The set A = { i , -i , 1 , 1} where $i^2 = -1$ satisfy all properties of Real numbers.

Q.4: if $Z_1 = 3 + 4i$ and $Z_2 = -5 - 2i$. Then find

$(a) \ \overline{z_1 + \overline{z_1}} \qquad (b) \ z_2 - 2\overline{z_1} \qquad (c) \quad z_1 - z_2$

Q.5: Find Power Sets of following sets

$A = \{1,2,3,4\} \qquad B = \{a,b,c,d,e\} \qquad C = \{\ \}$

Q.6: If $\ U = \{1,2,3,4, … … 10\} \ \ A = \{1,2,3,4\} \ \ B = \{a,b,c,d,e\}$. Then find

$(a) A^c - B^c \qquad (b) \ (A^c \cup B) \cap B^c \qquad (c) \ (A \cup B)^c \quad (d) \ (A^c)^c$

Q.7: Check whether the Relations are Function or not?

$A = \{0,1,2,3,\} \qquad B\{\ 1,2,5,10\}$

$(a) \quad R = \{xRx \mid x > y\} \qquad (b) \ R = \{xRx \mid y = \ x^2 + 1, \qquad x \in A, \qquad y \in B\}$