**MACHINE LEARNING – WORKSHEET 8 (REGRESSION)**

**(Solutions)**

**ANS 1)**

B) Є can be either or negative

C) Є is the error which is introduced because there may be some predictor variables apart from the given variable which are effecting the response variable.

**ANS 2)**

A) It covers up the errors introduced because of the variables which are not present in the given predictors set X but they are influencing the response variable.

B) It also covers up the measurement errors in the response variable.

C) It covers up the error introduced because we can never find the exact or true f(X).

**ANS 3)** D) The random will be independent of X.

**ANS 4)** A) To predict the sales of a product based on the marketing budget on different media like TV, Newspaper, Radio, etc.

B) To understand the relationship between the response variable sales and the predictor variables marketing budget on different media like TV, Newspaper, Radio, etc.

C) To predict the stock price of a company based on the previous stocks prices.

**ANS 5)** A) The random error can be reduced by Least squares method.

**ANS 6)** B) Least Squares Method

**ANS 7)** C) y1 = B\* Sin(x) + C, where B and C are parameters

**ANS 8)** B) Polynomial function of AGE with degree>1

**ANS 9)** C) -1 < P < 0

**ANS 10)** C) Spearman correlation coefficient = 1