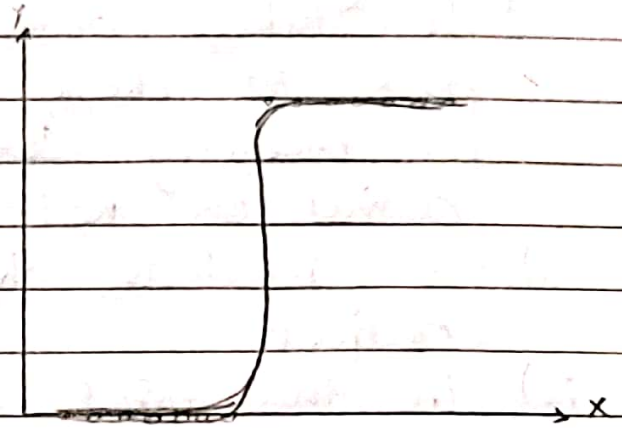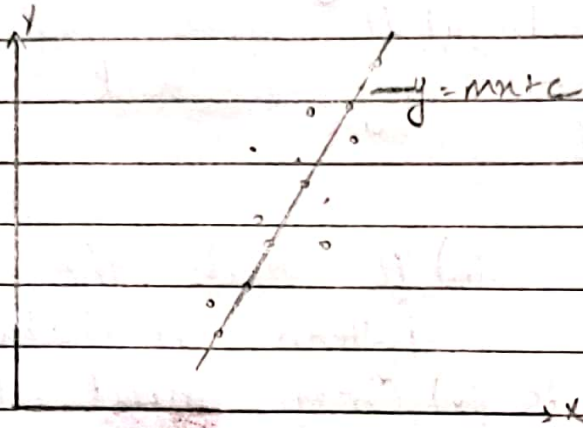(4)

Linear Regression	Logistic Regression
i) It is used to predict the continuous dependent variable using a given set of independent variables.	i) It is used to predict the categorical dependent variable using a given set of independent variables.
ii) It is used for solving regression problem.	ii) It is used for solving classification problem.
iii) In this, we predict the values of continuous variables.	iii) In this, we predict the values of categorical variables.
iv) In this, we find the best fit line, by which we can easily predict the output.	iv) In this, we find the S-curve by which we can classify the samples.
v) Least square estimation method is used for estimation of accuracy.	v) Maximum likelihood estimation method is used for estimation of accuracy.
vi) The output for linear regression must be a continuous value, such as price, age etc	vi) The output of logistic regression must be a categorical value such as 0 or 1, Yes or No etc
vii) In this, it is required that relationship b/w dependent variable and independent variable must be linear.	vii) In this, It is not required to have the linear relationship b/w the dependent and independent variable.
viii) In this, there may be collinearity b/w	viii) In this, there should not be collinearity b/w

the independent variable.

ix) The best fit line
is shown as.

$$y = mn + c$$

where y is the eqⁿ
of line , m is the
slope of line and
c is intercept.

The eqⁿ is

$$\log\left(\frac{y}{1-y}\right) = b_0 + b_1 n_1 + b_2 n_2 + \ldots$$