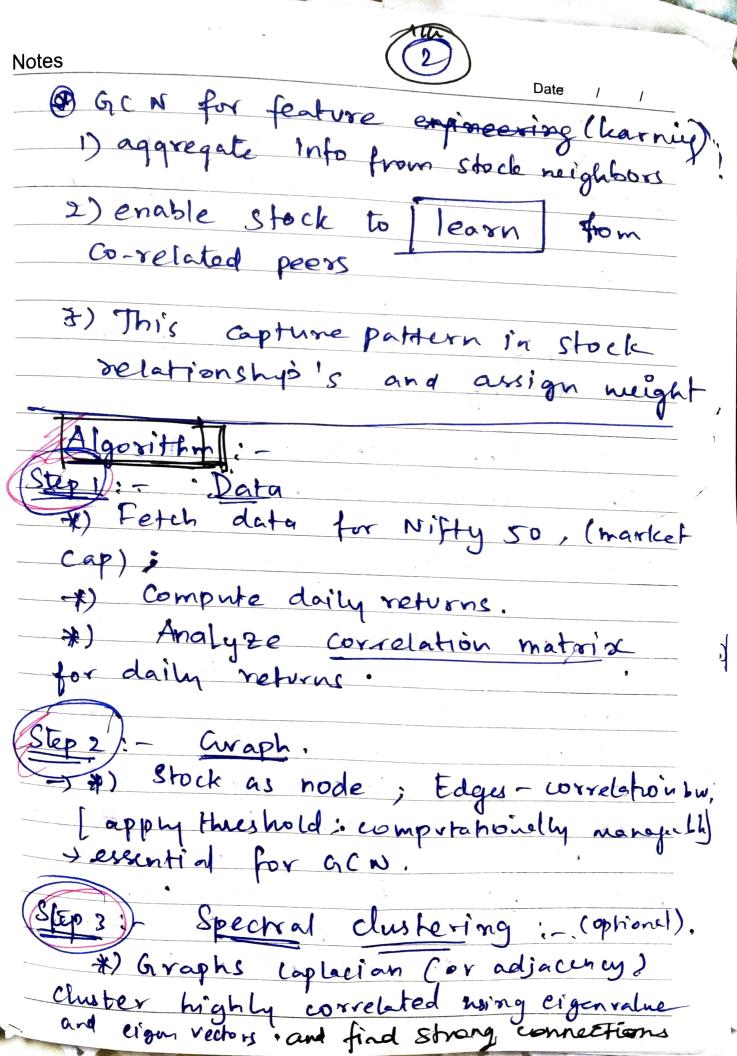
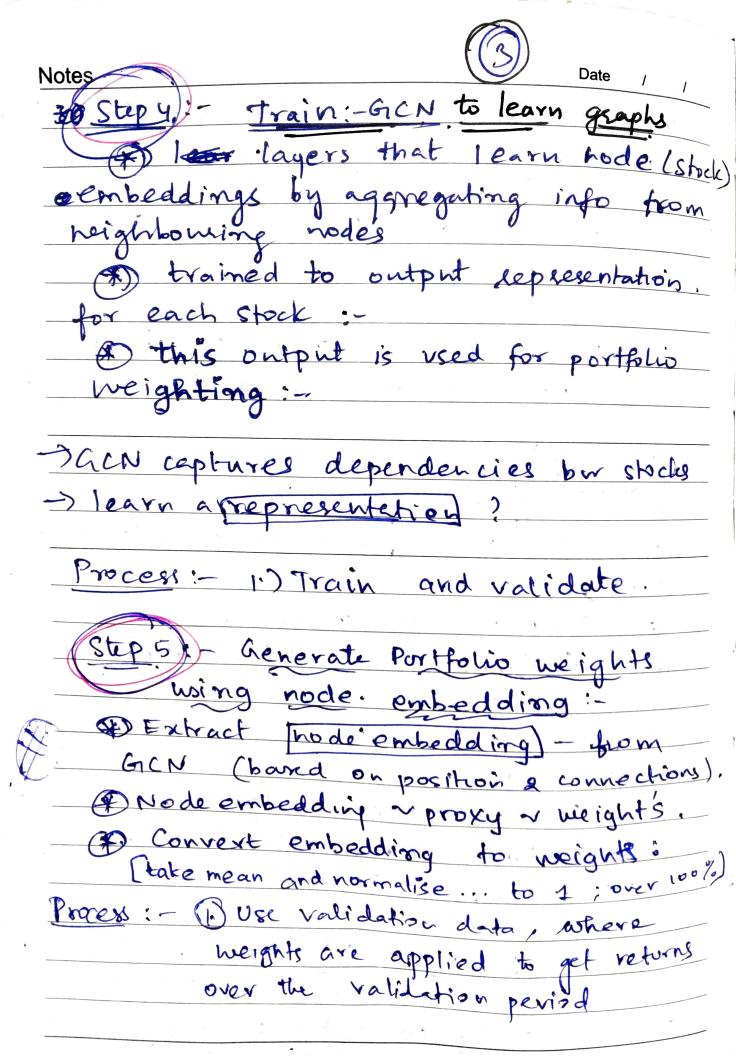
#\ <del> </del>
Notes Nifty fifty 1 - portfolio Date
Notes Nifty fifty 1 - portfolio Date  Ophynitation projed-
thoult Construct partfolio of Nifty 50  By leveraging GCN & Spectral Graph
by leveraging GCN & Spectral Graph
€ GCN - learn of selectionship of stock's and use it to allocate weights.
- optimite return and Hisla
GCN & Spectral Graph throng
) Stock market as network
# . Stocks - nodes
# · Correlation - edges.
Cluster (here simple k - mean's
Chustering) -> to get diversified

M





\*\*) Unsupervised Machine learning algo \*\*) Create k-clusters \*\*) Initial k-centroids; calculate closed Centroid using Euclidean distance and Repeat.

Notes Date / /
*) GCN
strained to learn individual characteristic
2 corelation relationship
Individual: Return, Volatility, Indicator Characteristics Settement Analysis.
characteristics Sitement Analysis.
(Node Harves).
-) Forward pass + Loss celeulation ning node embeddig nepten
node embeddig nepleni
Backpropogulion. + (Computegradients usion Adam).
(computegradients using Adam).
*After braining; each stock has a learned embedd
Ouse this embedding to assign meights by
normalising
*) Embedding: - Low dim - representation
of high dim data. capturing
(stock characteristic)
(Stock characteristic)
In this project: - vector form of self and
Correlations of stocks are embedding conter layer)
are embedding (onter leger)
(50 stodes) 8 nodes): output layer.
From here approgete (take mean) -