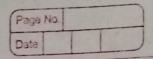
	Name: Akash. Al Banage.
	PRN! 202401120075 Roll No : C52 Page No. Date
	Batch ! C584
-	Unit -4
	Significance of Pandas
	a) evorking
	6) Data manipulation.
	d) Data expoladion & oralysis
	d) Handling missing data.
	e) Data Vintegeration
	FT time series analysis.
	gl Dato preparation For ML.
	In Octo loading -> csv/Json File.
	1
	Ex. Code / Sample code
	i) Data storage -> csv/json/ Excel File example
Ans.	a) working: Pandas provide a fast and efficient
	datoframe structure For handeling and monip-
	ulating data, making it easier to work
	with structured datasets. It supports
	now and column - based operations For
	structured datusets.
	6 Data Manipulation: Pandas allocus data
	cleaning, transformation and aggregation
	using power Ful Functions like Util Ferring.
	sorting, merging and grouping. It supports
	label-bosed indexing for structured manipor
	lation.
	e) Data exploration & analysis: - It enables
	expolatory data analysis (EDA) by providing
	descriptive statistics, visualization support
A STATE OF THE PARTY OF THE PAR	and querying cupabilities. It helps to identify
	patterns Vand trends in datasets.
	d) Handeling missing data: Pandas provides
	methods like J. Filling (), dropna () and
	· interpolate () to handle missing or nell
	values in dalasets efficiently. Missing



data handeling ensures better data integrity For analysis. e Data UIntegeration: It supports merging Joining, and concatenation of maltiple dated making it ensier to combine data from différent sources. Pandas con intégénate data from different sources like APIs and of Time series onalysis: Pondas has builting support for time Series data, including res ampling, shifting, rolling windows, and Hande ling doutetime Vindaca Time-based Filtering Vis possible with timestamps and ranges Pandas simplifies everking with Financial and temporal data. 9) Data preparation For Machine Learning: Pandas helps in preprocessing and Featonin converting new data into structured formals ouitable for ML models. Normalization and scaling of data can be done using bailt in functi ons. The . drop() Function removes irrelyent or redundant Features. Clean and Structured data improves ML model accuracy.