

Notice for submission of Project Report on Computerised Accounting and Introduction to Data Science [SEC (CADC)] of Semester III of B. Com. (3 year and 4 year, under CCF-2022) Examination, 2025

Date: 13.02.2026

Students appearing for the Semester III B.Com. (3-year and 4-year, under CCF-2022) Examination, 2025 are hereby informed to prepare the “**Computerised Accounting and Introduction to Data Science**”**(A) Practical Notebook and (B) Project Report** in hard copy format (either handwritten or computer-typed) in the prescribed format as per the guidelines of the University of Calcutta.

Students are further instructed to submit the complete **hard copies of (A) the Practical Notebook and (B) the Project Report, in separate channel files**, at the time of the examination. **The examination is tentatively scheduled between 06/03/2026 and 23/03/2026**. The detailed schedule, along with CU Roll Numbers and examination dates, will be published in due course.

Students must answer all the following questions in their

A. Practical Notebook

Module-I (Computerised Accounting)

Answer the following Questions

- i. What are the applications of computer in accounting? Write the advantages and disadvantages of computerized accounting systems. Differentiate between manual and computerised accounting systems.
- ii. Voucher (in Tally):
 - a. Define the various types of accounting vouchers: Sales Voucher, Purchase Voucher, Payment Voucher, Receipt Voucher, Contra Voucher, Journal Voucher, Credit Note Voucher, Debit Note Voucher
 - b. How do you create, edit and delete of a voucher?
- iii. Define the ‘short-cut keys’ in Tally-ERP-9 of the following:
 - a. Settings related to Inventory masters
 - b. Debit note and Credit Note Voucher
 - c. Calculator in Tally
 - d. To repeat the narration in the voucher
 - e. To save the changes in the alteration mode
 - f. Transactions related to deposits and withdrawals
 - g. To view report in detail
 - h. To toggle between the invoice and voucher screens
 - i. To delete a voucher type
 - j. For vertical balance sheet
- iv. Explain the procedure (steps only) in Tally: to create balance sheet, profit and loss account, trial balance and ratio analysis.
- v. Answer the following questions (steps only) with respect to Tally:
 - a. How to create, alter and delete of ledger account in Tally?
 - b. How to create, alter & deleting company?
 - c. How to create, alter & deleting of group?

d. How to show or display the Balance sheet, Profit & loss A/c, Ratio, Cash & Fund flow statements?

Module-II (Introduction to Data Science)

Answer the following Questions

- i. Write the following:
 - a. Database Management System in its role in business.
 - b. Creating table in MS-Access (steps only).
 - c. Define with suitable example of the data types: AutoNumber, Text, Memo, Number, Dte/Time, Currency, OLE Object, Hyperlink, and Lookup wizard.
 - d. Define the procedure of creating: Table, Relationship, Form, and Report in MS-Access.
 - e. Define keys of the Database table with suitable examples: Super key, Candidate Key, Primary key, Secondary Key, and Foreign Key
- ii. Write the step-by-step procedure of making: Create Make Table Query, Create Delete Query, Create Update Query, Create Append Query, Create Crosstab Query, and Create Parameterized Query.
- iii. Define working principles, parameters taken, and output of the following functions: PMT(), RATE(), MID(), TRIM(), CONCATENATE(), VLOOKUP(), HLOOKUP(), INT(), COUNTBLANK(), COUNTIF(), SLN(), SYD(), DB(), DDB(), FV().
- iv. Answer the following:
 - a. What type of issues may arise if primary key is not defined in Table?
 - b. What is referential integrity and how it is imposed?
 - c. Difference between properties of Super key, Candidate key and Primary Key.
 - d. Distinguish between traditional file systems and database management systems.
 - e. How to distinguish between Database view and Design view.

B. Project Report

Module-I (Computerised Accounting)

(Snapshots are to be attached)

- i. Creation of Ledger Accounts in Tally: M/s Bright Electronics commenced business on 1st April 2025. You are required to create the following Ledger Accounts only in Tally under appropriate Groups with correct opening balances (wherever applicable) with the given information.
Capital & Cash Details: Capital introduced in cash – INR 2,50,000, Cash in hand (Opening Balance) – INR 40,000, Bank balance in SBI – INR 1,20,000, Sundry Debtors (Customers), Ramesh Traders – INR 35,000, Sunil Electronics – INR 28,000, Kiran Stores – INR 22,000, Sundry Creditors (Suppliers), Mohan Distributors – INR 50,000, Gupta Suppliers – INR 32,000
Assets: Furniture – INR 45,000, Computer – INR 60,000, Office Equipment – INR 30,000
 - a. Expenses Accounts to be created: Rent Account, Salary Account, Electricity Charges, Telephone Expenses, Printing & Stationery
 - b. Income Accounts to be created: Sales Account, Interest Received,
 - c. Purchase Account: Purchase AccountRequired: a. Create all the above Ledger Accounts in Tally; b. Place each ledger under the correct Group: Capital Account → Capital Account Group, Cash → Cash-in-Hand, Bank (SBI) → Bank Accounts, Debtors → Sundry Debtors, Creditors → Sundry Creditors, Assets → Fixed Assets, Expenses → Indirect Expenses, Sales → Sales Account, Purchase → Purchase Account; c. Enter the opening balances where provided; d. Display the List of Ledgers after creation.
- ii. Create a Company in Tally: You are appointed as an accountant to create a new company in Tally with the following details (by entering all the necessary information correctly, no ledger creation or voucher entry is required).

Company Details- Company Name: Sunrise Manufacturing Pvt. Ltd.; Mailing Name: Sunrise Manufacturing, Address: 45 Industrial Area, Phase-II, City: Kolkata, State: West Bengal, Country: India, PIN Code: 700091, Phone No.: 033-24567890, Mobile No.: 9876543210, E-mail: info@sunrisemfg.com, Website: www.sunrisemfg.com

Financial Details- Financial Year Beginning From: 01-04-2025, Books Beginning From: 01-04-2025

Statutory & Taxation Details- Maintain Accounts with Inventory: Yes; Enable Goods and Services Tax (GST): Yes; GSTIN: 19ABCDE1234F1Z5; Registration Type: Regular; GST Applicable From: 01-04-2025

Security Details- Use Security Control: Yes; Administrator Name: Admin; Password: Admin@123; Use TallyVault Password: No

Required: Create the company with the above details in Tally; Enable inventory and GST features; Save the company successfully; Display Company Information screen after creation.

iii. ABC Enterprises has already created the company and necessary ledger accounts in Tally. You are required to record the following transactions using appropriate vouchers only in Tally.

Opening Balances (Already Entered: assume a relevant entry): Cash-in-Hand – INR 80,000; Bank (HDFC Bank) – INR 1,50,000; Capital Account – INR 2,30,000.

Transactions for April 2025: April 1 – Purchased goods for cash INR 25,000, April 3 – Sold goods for cash INR 40,000, April 5 – Purchased goods from R.K. Traders on credit INR 60,000, April 7 – Sold goods to M/s Star Agencies on credit INR 45,000, April 10 – Paid salary INR 12,000 in cash, April 12 – Paid electricity charges INR 5,000 through bank, April 15 – Received INR 43,000 from M/s Star Agencies by cheque in full settlement, April 18 – Paid INR 58,000 to R.K. Traders by cheque in full settlement, April 20 – Owner withdrew cash INR 15,000 for personal use, April 25 – Deposited INR 20,000 cash into bank, April 28 – Received commission INR 8,000 in cash.

Required (Record all transactions using appropriate vouchers): Contra Voucher, Payment Voucher, Receipt Voucher, Purchase Voucher, Sales Voucher, Journal Voucher (Use correct voucher types for each transaction. Ensure proper narration is entered for each voucher.)

After entry, display: Day Book, Cash Book, Bank Book

Module-II (Introduction to Data Science)

Solve the following Problems

Problem 1: Marketing Campaign Analysis

You are analyzing the effectiveness of a marketing campaign based on sales data before and after the campaign.

Sales Data:

Month	Sales Before Campaign (in Lakh)	Sales After Campaign (in Lakh)
January	2000	3000
February	2500	3500
March	2200	3200
April	1800	2900
May	2100	3100
June	2300	3300

Tasks:

1. Calculate the **average sales** before and after the campaign.
2. Determine the **percentage change** in sales from before to after the campaign for each month.
3. Create a **line chart** comparing the sales before and after the campaign for each month.
4. Perform a **t-test** to compare whether there is a statistically significant difference in sales before and after the campaign.

Problem 2: Daily Expenses Tracking

You want to track and categorize your daily expenses to see where most of your money goes.

Expense Data:

Date	Category	Amount (in Lakh)
2024-01-01	Groceries	50
2024-01-02	Dining	20
2024-01-03	Entertainment	100
2024-01-04	Groceries	30
2024-01-05	Utilities	60
2024-01-06	Dining	25

Tasks:

1. Calculate the **total amount spent** in each category (use **SUMIF**).
2. Find the **average amount spent per category**.
3. Create a **pie chart** to show the percentage of money spent in each category.
4. Calculate the **percentage change** in spending between two consecutive weeks.

Problem 3: Customer Demographic Analysis

You have data on customer demographics, and you need to analyze the distribution of customer age groups and their total spending.

Customer Demographic and Spending Data:

Customer ID	Age Group	Total Spend (in Lakh)
001	18-24	200
002	25-34	300
003	35-44	400
004	25-34	150
005	45-54	500
006	18-24	250
007	35-44	350
008	25-34	220
009	45-54	600
010	18-24	180

Tasks:

1. Calculate the **total spending** for each age group.
2. Find the **average spending** per age group.
3. Create a **pivot table** to summarize spending by age group.
4. Use **conditional formatting** to highlight the age group with the highest average spending.
5. Create a **bar chart** comparing the total spending across different age groups.

Problem 4: Exam Scores Analysis

You are analyzing exam scores for a class and want to calculate the overall performance.

Exam Score Data:

Student ID	Subject 1 Score	Subject 2 Score	Subject 3 Score	Subject 4 Score
001	85	78	92	88
002	90	80	85	91
003	75	85	90	78
004	80	82	88	84
005	88	90	93	86

Tasks:

1. Calculate the **average score** for each student across all subjects.
2. Find the **highest and lowest scores** for each subject.
3. Determine the **overall class average** for each subject.
4. Create a **pivot table** to summarize the scores by subject.
5. Use **conditional formatting** to highlight the highest and lowest scores in each subject.

Problem 5: Product Sales Analysis

You are analyzing product sales for a company over 6 months and want to identify trends in sales performance.

Product Sales Data:

Month	Product A Sales (Units)	Product B Sales (Units)	Product C Sales (Units)
January	200	300	150
February	220	330	160
March	250	350	180
April	300	400	200
May	280	390	190
June	270	370	210

Tasks:

1. Calculate the **total units sold** for each product over the 6 months.
2. Calculate the **average units sold** per month for each product.
3. Create a **line chart** comparing sales of all three products over the 6 months.
4. Calculate the **percentage change** in sales for each product from January to June.
5. Identify the **product with the highest growth rate**.

Problem 6: Stock Price and Volume Analysis

You have stock data and want to analyze the relationship between stock price and trading volume over a given period.

Stock Data:

Date	Stock Price (in Lakh)	Volume Traded
2024-01-01	100	150000
2024-01-02	102	120000
2024-01-03	105	130000
2024-01-04	110	140000
2024-01-05	108	135000

Tasks:

1. Calculate the **average stock price** and **average volume traded**.
2. Find the **highest and lowest stock price** and **highest and lowest volume traded**.
3. Use **correlation** to assess the relationship between stock price and trading volume.
4. Create a **scatter plot** to visualize the relationship between stock price and volume.
5. Calculate the **percentage change** in stock price and volume from January 1st to January 5th.

Problem 7: Budget vs. Actual Expense Analysis

You are analyzing monthly expenses against the planned budget and want to determine how well actual spending aligns with the budget.

Expense Data:

Month	Budgeted (in Lakh)	Actual Spending (in Lakh)
January	5000	5200
February	4800	4600
March	5100	4950
April	5400	5300
May	5000	4800

Month	Budgeted (in Lakh)	Actual Spending (in Lakh)
June	5500	5450

Tasks:

1. Calculate the **variance** (Actual - Budgeted) for each month.
2. Calculate the **total variance** for the entire 6-month period.
3. Find the **percentage variance** (variance as a percentage of the budget) for each month.
4. Create a **bar chart** to compare actual vs budgeted spending for each month.
5. Identify the month with the **highest and lowest variance**.

Other Important Information:

- A. Students must write the **Name of the subject, Subject code, Year and Semester, Calcutta University Registration Number & Calcutta University Roll Number** on the *front page* of both the **Practical Notebook** and the **Project Report**.
- B. The *second page (of the Practical Notebook and the Project Report)* should be the content page containing question numbers along with corresponding page numbers.
- C. Students must duly sign in Students' **Declaration page** (as *third page* of both the Practical Notebook and the Project Report) before submission.
- D. **Students are advised to check the college website from time to time for further updates.**
- E. **Without Practical Notebook and Project Report students will never be entertained in the CU-examination.**
- F. **Students will not be allowed to appear in the CU examination without submitting the Practical Notebook and Project Report.**
- G. **The above examination is tentatively scheduled between 06/03/2026 and 23/03/2026. The detailed schedule, along with CU Roll Numbers and examination dates, will be published in due course.**
- H. **Students must carry hard copies of (A) the Practical Notebook and (B) the Project Report (both in separate channel files), along with a hard copy of the Admit Card and a black ball pen, while appearing for the practical examination followed by viva voce.**
- I. **The format of the first three pages of both the Project Report and the Practical Notebook is attached below.**

Principal,
Prafulla Chandra College
23/49, Gariahat Road, Kolkata- 700029

Practical Notebook

on

Computerised Accounting and Introduction to Data Science

Subject Name :

Subject Code :

Year :

Semester :

Present Class :

CU registration number :

CU roll number :

Table of contents:

(Signature of Internal Examiner)

(Signature of External Examiner)

Declaration page of Practical Notebook

I hereby declare that this **Practical Notebook** on “**Computerised Accounting and Introduction to Data Science**” of Semester III of B.Com (3 year and 4 year, under CCF- 2022), contains my own efforts under the guidance of

I have answered all the questions given in the notice or discussed in the class room. All information in this document has been obtained and presented by me only.

Name :

CU reg. number :

CU roll number :

Signature :

Date :

Project Report

on

Computerised Accounting and Introduction to Data Science

Subject Name :

Subject Code :

Year :

Semester :

Present Class :

CU registration number :

CU roll number :

Table of contents:

(Signature of Internal Examiner)

(Signature of External Examiner)

Declaration page of Project Report

I hereby declare that this **Project Report** on “**Computerised Accounting and Introduction to Data Science**” of Semester III of B.Com (3 year and 4 year, under CCF- 2022), contains my own efforts under the guidance of

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Date :