

Computer Lab – Practical Question Bank

Department of Commerce

Osmania University

B.Com (Business Analytics)

Semester VI

Sub: Business Analytics for Emerging Technologies

Time: 60 Minutes

Record : 10

Skill Test : 15

Viva - Voce : 10

Total : 35

Marks

Excel, Tally, Ui Path, Python, C++

Excel Programs:

1. Prepare the financial modelling for the present values.

The future value of an investment in the US \$100 in 2026. The payment has been made yearly for three years. The interest rate is 10% p.a. What would be the PV as of now?

2. Prepare the NPV calculator in Excel.

Find the NPV of the project when cost of capital is 10%. Initial investment is Rs.12,00,000. The project has 6 years life. The cash flows are 4lakh, 5lakh, 3lakh, 2lakh, 3 lakh, 2 lakh.

3. Prepare the Internal Rate of Return calculator in Excel.

Find the IRR of the project when cost of capital is 10%. Initial investment is Rs.1,000. The project has 6 years life. The cash flows are 400, 500, 300, 200, 300, 200.

4. Prepare Loan EMI calculator.

Mr. X purchased a Car of Rs.15,00,000 taking a loan from bank with a down payment of Rs. 1,50,000 for 8 years @10%. Calculate the EMI.

5. Prepare the Future Value calculator on varied interest rates and maturity periods.

Find the future values of the monthly premium of Rs. 100 with interest rates 5%, 6%, 7%,10%,12% and for number of payments as 4months, 5months,6months etc.

(Two way calculator)

6. Prepare the Loan Amortisation Schedule in Excel.

XYZ Lts. Has borrowed an amount of Rs. 10,00,000 repayable in equated quarterly instalments over next 5 years together with interest at 15% per annum. Prepare the Loan Amortization Schedule.

7. Creating Ageing Analysis:
Create Aging analysis report for accounts receivable be generated in Tally Prime for all customers between April 1st, 2022 and July 31st, 2022, that shows the total outstanding due based on aging intervals of 0-30, 30-60, 60-90, 90-120, and over 120 days?
8. Use MS Word to Mail Merge “New Year Greetings” from a given excel sheet.
9. Prepare the scenario manager.
10. Prepare automatic invoice in excel.

Tally Prime:

11. Data Security:

Data Encryption:

1. Create an admin user for the company.
 2. Encrypt the company data to ensure data security.
 3. Set up the appropriate security levels for each user as follows:
 - a. Manager - Aman - Accounts/Inventory: Masters & Transactions.
 - b. Accountant - Karan - Accounts/Inventory/Payroll: Masters & Transactions
 4. Create the following users’ names & Passwords:
 - a. Manager - Aman, with the password "Aman".
 - b. Accountant - Karan, with the password "Karan".
12. Create the following with ADMIN User:

Recording Purchase & Sales with GST and generating Tax Invoice and Calculating Interest on Outstanding Due.

On 01-04-2022, Company has purchased following items from **Karan Supplier [36AABCB1518L2ZS]** on credit and company has agreed to pay 3 % interest on the total outstanding if the payment is not madewith 30 days.

[Interest Style on 365 Days and applicability: Past Due Date, Interest Appl from: Due Date of Invoice/Ref.]

Invoice No:101

Stock Item	Stock Group	GST	Units	Qty	Rate	Amount
LG Gen1 Basic	Mobile Phone	18%	Nos	500	1560	7,80,000
LG Gen4 Smart	Mobile Phone	18%	Nos	800	2400	19,20,000
LG Gen5 Smart	Mobile Phone	18%	Nos	780	1800	14,04,000
LG Gen2 Basic	Mobile Phone	18%	Nos	450	1200	5,40,000

- Check GST Tax Analysis & Print Preview of sales invoice

13. Interest Rate Calculation

Recording Credit Note & Debit Note voucher to bring Interest Payable/Interest Receivable amount into the books of the company.

- a. Company has not made the payment to Karan Supplier till 31st May 2022. Check Interest Payable till 31st May and record credit note voucher to bring the interest amount into the books. **[Use Credit Note voucher – Simple Interest]**
- b. Company didn't receive payment from Wilson Technologies till 31st July 2023. Check Interest Receivable till 31st July and record debit note voucher to bring the interest receivable amount into the books. **[Use Debit Note voucher – Simple Interest]**

14. **Credit Price Levels and Price List**

Create the following with User: Accountant (Karan)

Company trades mobile phones, and they sell the goods to wholesalers and retailers at different prices to each level of customers, company wants to fix the price of the products for different kinds of buyers based on time period and size of order also, the discount rate varies based on the size of the order. These requirements can be easily maintained using pricelist feature of Tally Prime.

1. Create price Levels – **Wholesaler**, Retailer, Customer A.
2. Company wants to create price list for **Wholesaler** applicable from 1- Apr-22 as follows:

Wholesaler Price Level – Price List					
Stock Group	Stock Item	Units		Rate	Discount
		From	Less than		
Mobile Phone	LG Gen1 Basic	0	100	1850	1%
		100	200	1800	2%
		200		1750	3%
Mobile Phone	LG Gen4 Smart	0	100	2550	2%
		100	150	2500	3%
		150		2450	4%
Mobile Phone	LG Gen5 Smart	0	50	2000	2%
		50	100	1900	4%
		100		1950	5%
Mobile Phone	LG Gen2 Basic	0	100	1300	2%
		100	200	1250	3%
		200		1200	4%

15. Creating Ageing Analysis:

Create Aging analysis report for accounts receivable be generated in Tally Prime for all customers between April 1st, 2022 and July 31st, 2022, that

shows the total outstanding due based on aging intervals of 0-30, 30-60, 60-90, 90-120, and over 120 days?

16. Bill of Material:

Company also manufactures Shirts:

1. On 01-05-2022, Company purchased the following Raw Materials from **RK Traders(36AABCR8939B1ZB)** on credit.

Raw materials (Components)	GST %	Quantity	Rate/Unit
Cloth	5%	1000 Meter	65
Buttons	5%	800 Nos	15
Thread	5%	500 Roll	48

Also Create **Finished Product Stock Item: Shirt**

The following are the Raw Materials required for 1 unit of Shirt.

Raw materials (Components)	Quantity
Cloth	2 Meter
Buttons	8 Nos
Thread	1 Roll

1. Create a Bill of materials to manufacture 40 shirts and also labour charges are 0.50%.

17. Banking:

1. Create a bank account **Axis Bank (36AAACU2414K1ZG)** and enter opening balance: 15,00,000. Configure the cheque book in Bank Ledger from 100001 to 100030.
2. On 01-04-2022, Company made a payment to Karan Supplier of Rs. 5,00,000 with cheque [Chq No: 100001.]
3. On 02-04-2022, Company received cheque [Chq No: 211200] from Wilson Technologies of Rs.65,000.
4. Company cancelled the Cheque No. 100002, as it is lost.
5. On 02-05-2022, Company made salaries through Cheque [Chq No: 100003] of Rs. 1,00,000.
6. On 02-05-2022, Company paid rent for the month of May of Rs. 50000 [Chq No: 100004]
7. On 01-08-2022, Paid towards Telephone Expenses of Rs. 42000 with [Chq No: 100005]
8. On 01-09-2022, Paid towards Travelling Expenses of Rs.240000 with [Chq No: 100006]
9. On 01-10-2022, Paid towards Printing Charges of Rs. 80000 with [Chq No: 100007]
10. On 01-11-2022, Paid towards Stationary of Rs. 72000 with [Chq No: 100008]
11. On 01-12-2022, Received cheque from Yash Technologies of Rs. 15,00,000 [Chq No: 331005]

Reconcile the statement with following dates given in list:

Bank Dates	Transaction Type	Cheque No.	Amount
01-04-2022	Cheque	100001	5,00,000
02-04-2022	Cheque	211200	65,000
02-05-2022	Cheque	100003	1,00,000
02-05-2022	Cheque	100004	50,000
01-08-2022	Cheque	100005	42,000
01-09-2022	Cheque	100006	2,40,000
01-10-2022	Cheque	100007	80,000
01-11-2022	Cheque	100008	72,000
01-12-2022	Cheque	331005	15,00,000

18. Preparing Budget

1. Create the following with User: admin
2. Company later compared the actual figures with Budget figures for further analysis.

Account Name	Type of Budget	Amount (Yearly)
Travelling Expenses	On Closing Balances	200000
Printing Charges	On Closing Balances	100000
Telephone Expenses	On Closing Balances	50000
Stationary	On Closing Balances	60000

19. Auditor is required to start with User wise Auditing to verify the vouchers made by every user.
20. Export into PDF - Financial Statements & Ratio Analysis & Cash Flow & Funds Flow Statements for the Analysis.

Ui Path

21. Write steps to install UiPath RPA.
22. Automate a program Saying “Hay, Name” in UiPath.
23. Automate a Program to collect 20 names from a Website.
24. Automate a program to find whether the given numbers are even or odd.
25. Automate a program to find whether the given year is a leap year or not.
26. Automate a program to collect the details of book name, author, publisher and year to collect in an excel file.

Python

27. Write a program to check the strength of the pass word.
28. Write a program to predict the future sales in Python.
29. Write a program to predict food delivery time.
30. Write a program to get the credit score.

C++ Programs for Cyber Security

31. Write the steps to transfer files between Wireless communication using Blue Tooth and FTP
32. Write the steps to protect a document or a file.
33. Write the steps for disk partitioning and perform operations like formatting.
34. Write the steps for shrinking, extending and deleting after partitioning.
35. What are the features of Firewall? Write the steps in providing network security and to set Firewall security in windows.
36. Write a program to check the strength of the password.
37. Write a program to search the given pattern using optimized algorithm.
38. What is Malware? Write the steps to remove the malware from your PC.
39. Create a presentation on “Ethical Hacking” with minimum 10 slides.
40. Create a presentation on “Cyber Security” with atleast 10 slides.

Block Chain Technologies

41. Write the steps to read E-mail Headers and identify them as SPAM.
42. Write the steps to check the devices connected to your internet and about the data usage.
43. Prepare a presentation of 5 slides on “How Block Chain impact Capital Markets”.
44. Prepare a presentation of 5 slides on “How Block Chain impact the global Payments and remittances”.
45. Prepare a presentation to explain “How Block Chain Impact Asset Management”.
46. Prepare a presentation to explain “How Block Chain impact banking and lending”.
47. Prepare a presentation to explain “How Block Chain impact trade and finance”.
48. Prepare a presentation to explain, “How Block Chain impact Insurance”
49. Prepare a presentation to explain “Challenges in the Fintech Industry that Blockchain Addresses”.
50. Prepare a presentation on “Block Chain and its real life applications”.