K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

Program: PGDM-IB First Tri (Batch 2016-2018)

Subject: IT in Management
(Trimester End Examination)

Maximum Marks: 50 **Duration: 3 hours** **Date : 22/09/2016**

Notes:

1. Answer any 3 questions from Question 1 to 4

2. Question No. 5 is compulsory

Question 1 (10 MARKS)

ABC Co. Ltd wants to analyze their net income. Use **ABC.XLSX** and use the following formulas to complete the spreadsheet to calculate net income. Do the further analysis using data table where copy volumes (Copies/Month/Copier) ranging from 22000 to 32000. You need to track how changes in copy volumes affect Net Income.

Cell	Formula
Fixed Expense per Copier (B7)	Monthly Lease Cost + Copier Service Cost + Other Fixed Costs
Revenue (B12)	No. Of Copier Leased x Copies/Month/Copier x Price Charged per Copy
Cost of Goods Sold (B13)	No. Of Copiers Leased x Copies/ Month/Copier x Variable Cost per Copy
Contribution Margine (B14)	Revenue – Cost of Goods Sold
General & Admin. Costs (B15)	No. Of Copiers Leased x (Fixed Expense per Copier + Space Rental Rate)
Net Income (B16)	Contribution Margin – General & Admin. Costs

Use the Scenario Manager to generate a summary of the below scenarios.

Scenario Name	Copy Volume (Copies/Month/Copier)
Expected Demand	35000
Very Low Demand	18,000
Very High Demand	55,000

The Scenario Manager should track the values for Revenue, Cost of Goods Sold, Contribution Margin, and General & Admin. Costs.

Question 2 (10 MARKS)

Greenland Bank Loan related data is available in **Bank.xlsx.** Do the following

- Using appropriate function display the Interest Rate in column "E" referring the chart below
- Using the chart below fill out column "F" with value of Down payment.
- Calculate the amount to be financed (Selling price – down payment) in column G
- Fill out the commission to be paid out to each agent. It should be calculated as follows. They get paid only on the amount to be financed. They actually get paid:
  2.5% if that amount is over or equal to $200,000
  1.5% if it is lower than $200,000
- Apply background color Green, if Commission value is greater than 10000; Apply background color Yellow, if Commission value is between 5000 and 10000; Apply background color Red, if Commission value is less than 5000.
- Create a pivot table showing how many sells each agent made.
- Display suitable chart to show % of down payment contribution of each customer.
- Create a combination chart showing loan term sold and amount to be financed for each customer. (Bar chart for loan term and line chart for amount to be financed)

Question 3 (10 MARKS)

[A] Create a Macro for calculating net salary for first month for all the employees. Run the same macro across all the worksheet to calculate net salary of other months.

- HRA is 35% of basic salary if not availed company quarters
- DA is 89% of basic salary.
- Performance pay should be calculated based as per performance band for the month. (For band 3 = 25000, for band 2 =15000 and for band 1 = 5500)
- Tax is calculated as 35% of gross salary.

Save this file as macro enabled workbook. [**Use file SALARY DATA.XLSX**]

[B] Eastman Publishing Company is considering publishing a paperback textbook on spread-sheet applications for business. The fixed cost of manuscript preparation, textbook design, and production setup is estimated to be $ 81,000. Variable production and material costs are estimated to be $ 5 per book. Demand over the life of the book is estimated to be 5000 copies. The publisher plans to sell the text to college and university bookstores for $20 each

1. What profit or loss can be anticipated with a demand of 5000 copies?
2. What is the breakeven point?

3. With a demand of 5000 copies, what is the minimum price per copy that the publisher must charge to break even?

Question 4 (10 MARKS)

[A] Use the file **Sales Data.xlsx** for analyzing following details. This worksheet contains Sales from the two categories including fruits and vegetables consisting of different products during the January to December 2012. Create a PIVOT TABLE to do the following:

- Number of products sold
- Display monthly sales across categories
- Number of orders country & product wise
- Display Chart for products sold in Germany
- Display Chart for different category sales in each country

[B] A company makes two kinds of leather belts. Belt A is a high quality belt, and belt B is of lower quality. The respective profits are Re. 0.40 and Re. 0.30 per belt. Each belt of type A requires twice as much time as a belt of type B, and if all belts were of type B, the company could make 1,000 per day. The supply of leather is sufficient for only 800 belts per day (both A and B combined). Belt A requires a fancy buckle, and only 400 per day are available. There are only 700 buckles a day available for belt B. What should be the daily production of each type of belt to maximize the profit?

Question 5 (20 MARKS)

1. Create database with name ACCIDENT_DATA
2. Create Following tables

Table: PERSON		
Driver_Id	Text	Primary Key Should start with 'D'
Driver_Name	Text	Should not be NULL
Age	Number	Should be greater than 18
City	Text	

Table: VEHICLE		
Vehicle_Id	Text	Primary Key Should start with 'V'
Vehicle_type	Text	Value List – Car, Bus, Truck, Two_wheeler, Tempo

Registration_Year	Text	Should not exceed 4 digit
Registration_city	Text	

Table: ACCIDENT		
Accident_Report_Id	Text	Primary Key Should start with 'AR'
A_date	Date	
Location	Text	

Table: ACCIDENT_DETAILS		
Accident_Report_Id	Text	Composite key
Vehicle_Id	Text	
Driver_Id	Text	
Damage_Amount	Number	Should be greater than 0

3. Create Relationships
   Note:
   For one accident report id multiple entries possible in accident details table - as many vehicles involved in accidents (Assume different scenarios- only one vehicle dashing on divider, two vehicle collide with each other, more than two vehicle collide with each other)

4. Enter data in all the tables

5. Create following queries [Any 10]

    1. Display the details of the driver/s and vehicle/s associated with accident report AR105.
    2. Increase the age of driver Ram by 7 years.
    3. Delete the records of all the drivers above the age 80.
    4. Display the total number of accidents took place each date.
    5. Display the details of the cars registered before year 2002.
    6. Display the details of vehicle registered in the city where city name will be provided at runtime.
    7. Display the total damage amount for each accident category.
    8. Create a report to show the count of vehicles of each type.
    9. Display the driver id list done more than 3 accidents
    10. Display the accident id, accident category, vehicle type, driver's name, driver's age of those accidents occurred on 18/09/2016
    11. Create a data entry form for the new accident entry along with accident details to be entered.

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