K. J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH

Program:PGDM A & B 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)

[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 & category wise
- Display Chart for products sold in United States
- Display Chart for different category sales in each country

[B] S & Kumar manufacturing company can make two products P1 and P2. Each of the products requires time on a cutting machine and a finishing machine. Relevant data are:

	Product	
	P1	P2
Cutting Hours (per unit)	2	1
Finishing Hours (per unit)	3	3
Profit (Rs. per unit)	6	4

Maximum sales (unit per week) including P1 and P2 possible is 200.The number of cutting hours available per week is 390 and the number of finishing hours available per week is 810. How much should be produced of each product in order to achieve maximum profit for the company?

Question 2 (10 MARKS)

Worldwide Sporting Goods order data is available in **Order data.xlsx.** Do the following
- Using appropriate function display the price of each part in column "C" referring table available in lookup table worksheet

- Calculate the amount of cost of parts in column E
- Using table available in lookup table worksheet fill out column "F" with value of shipping charges.
- As per company name different discount scales are decided. Pick up the discount scale value in column G referring table available in lookup table worksheet
- Calculate discount on cost of parts in column H using following rates:
  - If discount scale is 3 then rate is 11% of cost of parts
  - If discount scale is 2 then rate is 8% of cost of parts
  - If discount scale is 1 then rate is 5% of cost of parts
- Calculate total cost. Apply background color Green, if total cost value is greater than 10000; Apply background color Yellow, if total cost value is between 5000 and 10000; Apply background color Red, if total cost value is less than 5000.
- Display suitable chart to show % of contribution of each company.
- Create a combination chart showing quantity sold and total cost of each product. (Bar chart for quantity and line chart for total cost)

Question 3 (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	30000
Very Low Demand	15,000
Very High Demand	50,000

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

Question 4 (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 45% of basic salary if not availed company quarters
- DA is 119% of basic salary.
- Performance pay should be calculated based as per performance band for the month. (For band 3 = 30000, for band 2 =20000 and for band 1 = 7500)
- Tax is calculated as 25% 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 $ 4 per book. Demand over the life of the book is estimated to be 4000 copies. The publisher plans to sell the text to college and university bookstores for $22 each

1. What profit or loss can be anticipated with a demand of 4000 copies?
2. What is the breakeven point?
3. With a demand of 4000 copies, what is the minimum price per copy that the publisher must charge to break even?

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 AR101.
   2. Display the total number of accidents took place each date.
   3. Display the details of the cars registered before year 2000.
   4. Display the details of vehicle registered in the city where city name will be provided at runtime.
   5. Increase the age of driver Ram by 5 years.

6. Delete the records of all the drivers above the age 75.
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 2 accidents
10. Display the accident id, accident category, vehicle type, driver's name, driver's age of those accidents occurred on 15/09/2016
11. Create a data entry form for the new accident entry along with accident details to be entered.

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