ASSIGNMENT

MS-EXCEL

A. M/s Alpha Ltd pays to its employees the salary on the basis of Basic pay. The Gross salary of an employee consists of Basic Pay, Dearness Pay (D.P) and House Rent Allowance (H.R.A). The components of salary are computed according to the following terms of contract of service:

- Dearness Allowance is paid @10% of basic pay subject to a maximum of Rs. 5400
- HRA is computed as per the following scale:

Basic Pay	**HRA(Rs.)**
Up to 10,000	5,000
From 10,001 to. 25,000	7,000
More than 25,000	9,000

Required: Prepare payroll of 10 employees of *MIs* Alpha Ltd for the month of March 2017 , in the format given below according to above terms of contract .FiII information about Employee Identification (EmpId), Name of Employees and their Basic Pay on your own.

Payroll for the Month of March 2017.

EmpId	**Name of Employees**	**Basic**	**DA**	**HRA**	**Gross**
	Total				

B. M/s Beta Ltd pays to its employees the salary on the basis of Basic pay. The Gross salary of an employee consists of Basic Pay, Dearness Pay (D.P) and House Rent Allowance (H.R.A). The components of salary are computed according to the following terms of contract of service: Dearness Allowance is paid @ 10% of basic pay subject to a maximum of Rs. 5400. .

HRA is computed as per the following scale:

Category	HRA
A	25%
B	30%
C	35%

Required: Prepare payroll of 10 employees of *MIs* Beta Ltd for the month of April 2017, in the format given below according to above terms of contract .FiII information about Employee Identification (EmpId), Name of Employees and their Basic Pay on your own.

Payroll for the Month of April 2017.

EmpId	**Name of Employees**	**Category**	**Basic**	**DA**	**HRA**	**Gross**
	Total					

C. *M/s* Gamma Ltd pays to its employees the salary on the basis of Basic pay. The Gross salary of an employee consists of Basic Pay, Dearness Pay (D.P) and House Rent Allowance (H.R.A). The components of salary are computed according to the following terms of contract of service:

- Dearness Allowance is paid @ 10% of basic pay subject to a maximum of Rs. 5400.
- HRA is computed as per the following scale:

Basic Pay	HRA
Up to Rs.10,000	10%
Next up to RS.25,000	20%
Thereafter	30%

You are given Employee Identification (EmpId), Name of Employees and their Basic Pay for the month of April 2017.

Payroll for the Month of April 2017

EmpId	Name of Employees	Basic	DA	HRA	Gross

	Total				

Required: Prepare payroll of *M/s* Gamma Ltd for the month of Apr 2009 according to above terms of contract and layout.

D. Develop a spread sheet in MS EXCEL to compute the standard regression estimates for the set of eight observations where X is Rainfall in cms (values between 1and 9) and Y is Production of Sugarcane (values between 20 and 100 million tones).

Y (dependant) X (independent) Estimated Y

You are required to find the estimated values of Y series, given that $Y = a + b*X$, What shall be the value of Y when the value of X=10. Give an appropriate Graphical representation of the regression line.

E . Develop a spread sheet in MS EXCEL to compute the standard regression estimates for the following set of data

Y	**X**	**Estimate**
138	90	
129	76	
146	97	
149	109	
139	93	
136	85	
142	90	

You are required to find the estimated values of X series, given that $X = a + b * Y$, What shall be the value of X when the value of Y=152. Give an appropriate Graphical representation of the actual and estimated series of Y.

F. Develop a spread sheet to conduct the following trend series analysis by utilizing the standard technique of least square regression.

Years	Actual Output	Estimated Output
1996	72	
1997	77	
1998	82	
1999	91	
2000	85	
2001	97	
2002	104	
2003	110	
2004	117	
2005	127	

What shall be trend value of output for the year2007? Also draw a regression line.

G. Develop a spread sheet to conduct the following trend series analysis by utilizing the standard technique of least square regression.

Years	Actual Output	Estimated Output
1995	70	

1996	72
1997	79
1998	82
1999	81
2000	85
2001	97
2002	104
2003	110
2004	117
2005	120

What shall be trend value of output for the year 2009 Prepare a suitable graph to depict actual and estimated output year-wise?

H. Prepare a spread sheet in MS EXCEL to classify 50 given numbers (varying between 1 to 150, Generated at Random) according to the following class intervals:

Class Intervals			Frequency
1	-	20	
20	-	40	
40	-	60	
60	-	80	
80	-	100	
> 100			
TOTAL			

Required:
Prepare a pie chart for the above frequency distribution
Compute the statistical parameters such as mean and standard deviation both on the basis of discrete data and above frequency distribution. ·

I. Develop a generalized spread sheet in MS EXCEL to show the repayment with respect to a loan when the following basic input is given:

Amount of Loan:
Rate of Interest (p.a):
Period of Repayment: (in years)
Periodicity of payment: (Yearly/Bi-yearly/ Monthly/Quarterly)
Installment: (Computed)

You are required to prepare the Loan repayment Schedule in the following format

(Assume appropriate input. The worksheet should be generalized for all the four basic inputs.)

Loan Repayment Schedule

Period	Opening Balance	Interest Due	Closing Balance

J. You are required to prepare a generalized Loan repayment Schedule for all the four basic inputs in the following format

Amount of Loan	300000			Yearly
Rate of Interest	10%	pa		Half Yearly
Period of Repayment	5	years		Quarterly
Periodicity	Quarterly			Monthly
Installment Amount				

Loan Repayment Schedule

Period	Opening Balance	Interest Due	Installment	Closing Balance
1				
2				

You are also required to compute the following:

1. Compute the amount of interest to be paid for a given installment no. using a function.
2. Compute the amount of Principal to be paid for a given installment no. using a function.
3. Compute the Total amount of interest to be paid for installment nos. 5 to 10 using a function.
4. Compute the Total amount of Principal to be paid for installment nos. 5 to 10 using a function.

K. Generate 180 integers between 500 and 700 randomly. Freeze the numbers so generated in separate cells below the numbers generated. Classify the numbers in class intervals of 40 starting with 500-540 and ending with 661-700. Compute the statistical parameters such as mean and standard deviation both on the basis of individual observations and grouped data.

L. Generate 150 integers between 200 and 600 randomly. Freeze the numbers so generated in separate cells below the numbers generated. Classify the numbers in class intervals of 40 starting with 200-240 and ending with 561-600. Compute the statistical parameters such as mean and standard deviation both on the basis of individual observations and grouped data.

M. Prepare a payroll statement of a company in the format given below in a spreadsheet to compute net salary payable to TEN employees of the company:

S.No	Employee Name	Components of Salary			Gross Salary	TDS	Net Salary
		Basic Pay	D.A.	HRA			

The Gross salary consists of *Basic pay*, *Dearness allowance* (D.A), *House Rent Allowance* (H.R.A) The rules governing the payment of allowances are as enumerated below:

- *Dearness Allowance*: The D.A is calculated @ 39% of basic pay, subject to a minimum amount of Rs.2500.

- *House Rent Allowance*: The H.R.A is paid according to the following scales of basic pay:

Basic pay	**H.R.A**
Up to Rs 8,000	Rs 3,000
Next upto 15000	Rs 5,000
Thereafter	Rs 9000

- *Net salary* is calculated as gross salary *less* deductions, *rounded off to nearest rupee*.
- *Tax deduction at Source*: Tax is deducted at source @ 15% for each employee, rounded off to nearest ten rupees.

N. Prepare a payroll statement of a company in the format given below in a spreadsheet to compute *net salary* payable to **TEN** employees of the company:

S. No	Employee Name	Is PF Payable	Components of Salary			Gross Salary	P.F.	Net Salary
			Basic Pay	D.A.	HRA			

The **Gross salary** consists of *Basic pay*, *Dearness allowance* (D.A), *House Rent Allowance* (H.R.A) . The rules governing the payment of allowances are as enumerated below:

- *Dearness Allowance*: The D.A is calculated @ 39% of basic pay, subject to a minimum amount of Rs.2500.
- *House Rent Allowance*: The H.R.A is paid according to the following scales of basic pay:

Basic pay	**H.R.A**
Up to Rs 5,000	Rs 1,000
Next upto 10,000	Rs 2,000
Thereafter	Rs 3,000

- *Net salary* is calculated as gross salary *less* deductions, *rounded off to nearest rupee*.
- The deductions are:
    - *Provident Fund Contribution*: An employee is required to contribute 8% of his salary to P.F if the **Is PF Payable** condition is "Yes".

O. M/s Alpha Ltd pays to its employees the salary on the basis of Category. The Gross salary of an employee consists of Basic Salary + Dearness Pay + DA +HRA + TA+CCA. The GPF and IT

are the two Deductions. The components of salary are computed according to the following terms of contract of service:

Rules for payment of Basic Salary, TA, and CCA are as under:

Category	Basic Salary	TA	CCA
A	25000	5000	1000
B	20000	4000	800
C	15000	3000	500

Rules for payment of DP, DA, and HRA are as under:

DP	40% of Basic
DA	41% of (Basic +DP)
HRA	25% of (Basic +DP)

Rules for Deduction of GPF, and IT are as under:

GPF	12% of Gross
IT	8% of Gross

You are required to prepare a payroll statement for the financial year 2016-17 in the given format making maximum use of cell referencing facility

Month	**Name**	**Cat**	**Is HRA is to be Paid**	**Basic**	**DP**	**DA**	**HRA**	**TA**	**CCA**	**Gross**	**IT**	**GPF**	**Total Ded**	**Net**
			Y											
			N											
	Total													

P. Prepare a Spreadsheet in MS EXCEL which accepts Cost of Asset, Life of Asset, Rate of Depreciation and the as input and produces a comparative schedule of Depreciation as output in the following format:

Cost of Asset :
Life of asset :
Salvage Value :
Months :
Depreciation Method: [Select Method]

Fixed Asset Account

Year	**Opening**	**Depreciation**	**Closing**
	Balance		**Balance**

Choice of methods: Straight Line, Declining Balance

Q. Develop a spreadsheet to conduct the following regression analysis by utilizing the standard of regression technique.

Stats	68	70	75	78	79	73	82	86	87	89
Maths	69	78	79	79	83	86	88	89	90	98

1. Find out the projected marks in Maths from the data given above using Slope and Intercept.
2. Find out the Coefficient of Correlation between Stats and Maths.
3. What shall be projected marks in Maths if marks in Stats are 94?
4. Prepare a suitable graph to depict actual and estimated marks.

R. Given below are the particulars of a Plant and M/c purchased this year :

COST of Plant & M/c	200,000.00
SALVAGE Value	5,000.00
LIFE of Plant & M/c (1-40 years)	5
MONTHs in the first (year 1-12)	j12

You are required to prepare a generalized depreciation schedule in the given format

PERIOD	**DEPRICIATION SCHEDULE DB METHOD**	**SLN METHOD**
1		
2		
3		

4
5
Total

S. Develop a spread sheet in MS EXCEL to compute the standard regression estimates for the following set of data.Generate 10 values each for Y between 60 and 100 randomly and for X between 300 and 400 randomly.

X	**Y**	**Estimate**

Required:
- Find the estimated values of X series, given that X = a + b * Y.
- Give an appropriate graphical representation of the actual and estimated values.

T. Develop a spread sheet in MS EXCEL to compute the standard regression estimates for the following set of data.

Generate 10 values each for Y between 60 and 100 randomly and for X between 300 and 400 randomly.

Y	**X**	**Estimate**

Required:
- Find the estimated values of Y series, given that Y = a + b * X.
- Give an appropriate graphical representation of the actual and estimated values of Y.

U. It has been observed that the degree of rainfall determines the volume of Sugarcane which in turn effects the production of Sugar. Develop a spread sheet in MS EXCEL to compute the estimated output of Sugarcane and Sugar for a particular region for the following set of data:

Rainfall (in mm)	Sugarcane (in tons)	Production of Sugar (in tons)
176	1802	530
98	1526	365
110	1945	482
105	2102	624
99	1844	525
72	1665	396
102	1804	515

You required to find the estimated production levels of Sugar when the predicted values of rainfall is 120mm. Give an appropriate graphical representation of the estimated values of output of Sugarcane and Sugar.

V. Prepare a payroll statement of a company in the format given below in a spreadsheet to compute

net salary payable to **TEN** employees of the company:

	A	B	C	D	E	F	G	H	I	J	K
1	**S. No.**	**Employee Name**	**Is PF Payable**	**Components of Salary**				**Gross Salary**	*P.F*	*TDS*	**Net Salary**
2				Basic Pay	D.A.	H.R.A	C.C.A.				
3											
4											

The **Gross salary** consists of *Basic pay*, *Dearness allowance* (D.A), *House Rent Allowance* (H.R.A) and *City Compensatory Allowance* (C.C.A). The rules governing the payment of allowances are as enumerated below:

- *Dearness Allowance*: The D.A is calculated @ 39% of basic pay, subject to a minimum amount of Rs.2500.
- *House Rent Allowance*: The H.R.A is paid according to the following scales of basic pay:

Basic pay	**H.R.A**
Up to Rs 8,000	Rs 3,000
Next upto 15000	Rs 5,000
Thereafter	Rs 9000

- *City Compensatory Allowance*: The CCA is calculated and paid @10% of the sum of Basic pay and Dearness allowance, subject to a **maximum** amount of Rs 1,800.
- *Net salary* is calculated as gross salary *less* deductions, *rounded off to nearest rupee*.
- The deductions are:
    - *Provident Fund Contribution*: An employee is required to contribute 8% of his salary to P.F if the **Is PF Payable** condition is "Yes".
    - *Tax deduction at Source*: Tax is deducted at source @ 15% for each employee, rounded off to nearest ten rupees.

W. Develop a spread sheet in MS EXCEL to compute the standard regression estimates for the following set of data.Generate 10 values each for Y between 60 and 100 randomly and for X between 300 and 400 randomly.

X	**Y**	**Estimate**

Required:

- Find the estimated values of X series, given that X = a + b * Y.
- Find projected values of X assuming 3 different values of Y.
- Give an appropriate graphical representation of the actual, estimated and projected values of Y.