

कृषि मन्त्रालय

25

Practical Manual

on

Introduction to Computer Applications

Prepared by :

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Department of Agricultural Statistics & Social Sciences

College of Agriculture

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Citation: Ramole, Sweta and M.K. Pradhan. 2013. Practical Manual on Introduction to Computer Application. Pages : 52

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Course No. AST-221

Course title: Introduction to Computer Application

Published by :

College of Agriculture, IGKV, Raipur (C.G.)

Publication year: 2013

No. of copies printed: 2500

Course No. :

Credit

Course Name :

Name of Students

Roll No.

Batch

Session

Semester

College of Agriculture

CERTIFICATE

This is to certify that Shri./Ku.
Enrolment No./ID No..... has completed the practical of
Course No. as per that syllabus of B.Sc. (Ag.)
year..... semester in the respective lab/field of College.

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Course Teacher

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Practical No. 1

Title : Introduction to Computers

Objective : To introduce the basic structure, concepts and applications of a Computer

1. Draw the block diagram of a computer.

2. Define and draw the diagram of the following components of the computer

- CPU

- ALU

- HDD

- RAM

- ROM

3. State and classify the different memory units.

b. Function/Application

6. Mention the Category and Applications of the given I/O Devices

S.No.	Device	Input/Output	Applications
1.	Scanner		
2.	MICR		
3.	OCR		
4.	Joystick		
5.	Mouse		
6.	Bar code reader		
7.	Stylus		
8.	Graphical Tablet		
9.	Printer		
10.	VDU		

7. What is the difference between virus, worm and vaccine ? Name 5 viruses, worms and vaccines.

S. No.	VIRUS	WORM	VACCINE
1.			
2.			
3.			
4.			
5.			

6. State the various types of software with examples.

Practical No. 2

Title : Operating Systems
Objective : 1. To understand the importance and functions of Operating System.
2. To acquaint the environment of different operating system

1. What is command prompt? Write commands to change command prompt to your name.

2. Compare DOS and Windows on the following criterions

		DOS	WINDOWS
a	Ease of use		
b	Memory requirement		
c	Interface		
d	Number of tasks that can be performed		

3. Write the command/ steps to do the following tasks in

4. DOSWINDOWS

	Task to be performed	DOS Command	WINDOWS steps
1	Create a directory		
2	Create a text file		
3	Change date and time		
4	Delete a file		
5	Delete a folder		

6	Copy a file		
---	-------------	--	--

7	Rename a file		
8	Change the directory		
9	List the files		
10	Rename a file		

5. What do you mean by Desktop. Draw and explain its anatomy.

Practical No. 3

Title : Introduction to Word Processor (MS WORD)

Objective : To give hands on experience of the various tools of MS WORD

1. Write an application to The Dean of your college for grant of two days leave to attend a family function.
 - a) Insert date at the top right corner
 - b) Make the line spacing 1.5
 - c) Give the heading as Application
 - d) Centre and underline the heading

2. Invite all your classmates to your housewarming ceremony using mailmerge feature of MS WORD.

3. Create your Curriculum Vitae and insert your recent photograph with signature in the top right corner.



4. Create the following Table in MS WORD.

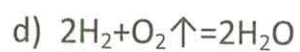
R.No	Name	Physics		Chemistry		Maths
		Prac	Theory	Prac	Theory	
101	Savita Kumari	35	32	46	44	98
102	Angela Phillips	44	44	43	38	76
103	Ritu Sinha	45	38	32	40	87
104	Charu Priya	43	40	44	49	88
105	Manoj Sharma	32	38	38	46	79
106	Punit Awasthi	44	38	40	43	90
107	Alka Mishra	38	40	45	32	97
108	Pawan Singh	40	49	37	44	76
109	Rohit Kapoor	49	46	44	38	86
110	Sanjana Kumar	46	43	45	40	77

5. Write steps to write the following expression in MS Word .

$$\text{a) } (1+x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + \dots$$

$$\text{b) } x_1, x_2 = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\text{c) } (a+b)^2 = a^2 + b^2 + 2ab$$



Practical No. 4

Title : MS Excel

Objective : 1. To study the various day to day tasks that can be performed using EXCEL
2. To introduce the concept of object linking and embedding (OLE)

1. Enter the following data in MS Excel (Copy it from the table created in question 4 of Unit 3)

RNo	Name	Physics		Chemistry		Maths
		Prac	Theory	Prac	Theory	
101	Savita Kumari	35	32	46	44	98
102	Angela Phillips	44	44	43	38	76
103	Ritu Sinha	45	38	32	40	87
104	Charu Priya	43	40	44	49	88
105	Manoj Sharma	32	38	38	46	79
106	Punit Awasthi	44	38	40	43	90
107	Alka Mishra	38	40	45	32	97
108	Pawan Singh	40	49	37	44	76
109	Rohit Kapoor	49	46	44	38	86
110	Sanjana Kumar	46	43	45	40	77

- a. Insert a sub column in the column Physics and Chemistry Calculate the total of Physics and Chemistry .
- b. Calculate the total and percentage.
- c. Arrange the data in order of merit.

e. Give the title Physics to the graph.

f. Draw a column graph to compare the total marks.

g. Give the title graph Result to the graph .

Objective: To acquaint the powerful formula feature of EXCEL

3. Mention the different categories of formulas that are inbuilt in Excel with some examples.

Objective: To performed statistical Operations on Data

4. Given the values of a and b

a : 2,3,4,5,6,7,8,9 b: 9,3,6,5,4,8,2,7

Calculate

a) $(a+b)^2$

b) $(a-b)^2$

c) a^2-b^2

d) $(a+b)^3$

e) $(a-b)^3$

f) a^3+b^3

g) a^3-b^3

5. The following table shows the grouped data, in classes, for the heights of 50 people.

height (in cm) - classes	frequency
120 <- 130	2
130 <- 140	5
140 <- 150	25
150 <- 160	10
160 <- 170	8

- a) Calculate the mean of the heights of the 50 people.

- b) Calculate the standard deviation of the heights of the 50 people.

6. Heights (in inches) of Fathers (X) and their sons(Y) is as follows

X: 65 66 67 67 68 69 70 72

Y: 67 68 65 68 72 72 69 71

a) Calculate r using following table format

b) Use absolute and relative address while calculating the values

	A	B	C	D	E
1	x	y	x^2	y^2	xy
2					
3					
.					
.					
12					
	Σx	Σy	Σx^2	Σy^2	Σxy

c) Use the following formula to calculate correlation coefficient r

$$r = \frac{\sum xy - \frac{(\sum x)(\sum y)}{n}}{\sqrt{(\sum x^2 - \frac{(\sum x)^2}{n})(\sum y^2 - \frac{(\sum y)^2}{n})}}$$

d) Draw a graph representing the correlation coefficient.

7. Enter the following data in MS Excel

Economics	65	45	52	60	62	70	55	45	49	59
Maths	75	70	55	65	60	69	80	65	59	61

N is 10 (Number of students)

a) Draw a graph showing regression curve

b) If marks in Maths is 89 what will the marks in Economics

Practical No. 5

Title : MS Access

Objective : To create update and use a database (MS Access)

1. Create a database in MS Access containing the following fields

Field name	Data Type	Length
a) Name	Text	25
b) Age	Number	3
c) Address	Text	50
d) Date of Birth	Date	
e) Percentage	Number	2.2
f) Division	Text	8
g) Personal information	Memo	

Practical No. 6

Title : MS Power point

Objective : To create and give an effective presentation using Power Point

1. Create a powerpoint presentation on operating systems containing ten slides.

a) Introduction

e) DOS Commands

g) Features of Windows

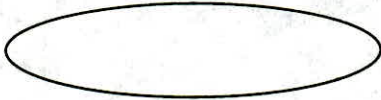
Practical No. 7

Title : Principles of programming

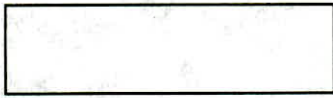
Objective : To teach the concepts of creation of algorithm and flowchart

1. Explain the different elements of the Flowchart given below:

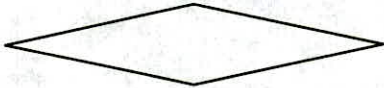
a.



b.



c.



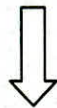
d.



e.



f.



2. Write an algorithm and draw the flowchart to find the sum of n numbers and calculate the average.

3. Write an algorithm and draw the flowchart to find the roots of a Quadratic equation.

4. Write an algorithm and draw the flowchart to find the 100th term of the given series

$$2+5+8+11+\dots\dots\dots$$

5. Draw the flowchart to find the minimum of three given numbers.

Practical No. 8

Title : Internet

Objective : To teach the concepts of internet

1. What is www? Explain web browsers and enumerate five commonly used web browsers.

2. Write steps to create an email account in Yahoo/Gmail.

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