

HIMALAYAN UNIVERSITY

B.Sc-IT 4th Semester

Assignment: Basics Computers & PC Packages

Part A

Q1: Types of an operating system. Explain?

Q2: Define word processor and types of word processor.

Q3: How to Create a new folder and change the look and feel of windows ?

Q4: Explain Installation of Software.

Q5: Define Calculator, Note Pad, Word Pad, and Address Book.

Part B

Q1. How to create and manage a text file in linux, cat and pwd.?

Q2: Explain creating document in MS word and formatting features of MS-word.

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Assignment: System Analysis and Design

Part A

Q1: Give a short introduction to systems analysis and design.

Q2: Explain and apply systems development methodologies.

Q3.Explain designing effective user and system interfaces considering human-computer interaction principles.

Q4.Explain project management in the context of systems development.

Q5.Describe Software testing in details.

Part B

Q1.How to store and exchange data in the system by considering database management and security issues, and creating database models and controls.

Q2. How to define, prioritise, and evaluate requirements of an information system

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Assignment: Visual Programming

Part A

Q1.How to build drop-down menus?Explain.

Q2.Explain the event procedure and function procedure.

Q3.How to enter the input data and display the output.?Explain.

Q4.Explain the Dynamic arrays with an example.

Q5.Explain the Elements of Visual Basic IDE.

Part B

Q1.Write short notes

1)Syntax error

2)Logical error

3)Pop-up menus

Q2.Write a Visual basic program to create a calculator using control array.

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Assignment: Operation Research Techniques

Part A

Q1. Solve the following transportation problem to maximize profit and give criteria for optimality :

Origin	Destination				Supply
	1	2	3	4	
A	40	25	22	33	200
B	44	35	30	30	60
C	38	38	28	30	140
Demand	80	40	120	60	

Q2: Following data regarding processing times of some jobs on three machines I, II and III. The order of processing is I, II, III. Determine the sequence that minimizes the total elapsed time required to complete the jobs. Also evaluate I and the idle time of II and III.

Jobs	A	B	C	D	E	F	G
I	3	8	7	4	9	8	74
II	4	3	2	5	1	4	3
III	6	7	5	11	5	6	12

Q3: Solve the following game :

Player A	Player B		
		I	II
	I	2	5
	II	2	3
	III	3	2
	IV	-2	8

Q4: Solve the following programming problem by graphical method:

$$\text{Max. } Z = 300X_1 + 400X_2$$

$$\text{s.to. } 5X_1 + 4X_2 \leq 200$$

$$3X_1 + 5X_2 \leq 150$$

$$5X_1 + 4X_2 \geq 100$$

$$8X_1 + 4X_2 \geq 80$$

$$\text{where as } X_1, X_2 \geq 0$$

Q5: Discuss Queuing Models and give some important applications.

Part B

Q1: Discuss basic characteristics of integer programming. Explain the Cutting Plane method for solve Integer Programming Problems.

Q2: What do you mean by assignment problem? Write down the Hungarian algorithm for solving assignment problem.