Old Question Papers of PGDCA 1<sup>st</sup> Semester

## H.K. Hi-Tech (College of IT & Management)

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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 01 (Introduction of IT) (Old Question Paper)

Note: Attempt any Five questions. All questions carry equal marks.

- Q.1 (a) What is a computer system? What are the various components of a CPU? Also explain its working.
  - (b) What are the things that computers can do? Also explain the various characteristics of computers?
- Q.2(a) What do you mean by operating system? Explain its various functions.
  - (b) Explain the main features of UNIX operating system.
- Q.3 (a) What do you mean by dial-UP internet accounts? Explain.
  - (b) What is Internet? How can a LAN by connected to Internet.
- Q.4 Explain the concept of encapsulation, inheritance, polymorphism, operator overloading, function overloading and data hiding in context of OOP.
- Q.5 What are the components of a LAN? Discuss the merits and disadvantages of the topologies in a LAN. How do protocols affects the efficiency of a chosen topology?
- Q.6(a) Differentiate between TCP an IP.
  - (b) Describe the World Wide Web. How is it different from in Internet?
- Q.7(a) What is a printer? What are the three types of Printers?
  - (b) What is plotter? What is its principal use?
  - (c) How is a light pen used? Is it an input or output device?
- Q.8 (a) Explain the software tools required for making the multimedia building blocks Text. Audio and Video.
  - (b) Explain the use of computer in scientific, business and education applications/ fields.



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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 01 (Introduction of IT) (Old Question Paper)

- 1. (a) Explain the terms 'DATA' and 'INFORMATION' with the help of suitable examples.
  - (b) What is meant by data processing?
  - (c) Explain the process of transforming data into information.
  - (d) What are the factors affecting processing speed?
- 2. (a) Draw a neat block diagram of a computer system. Also discuss functions of each unit.
  - (b) What do you understand by 'Software'? Differentiate between 'System-software and 'Application software'.
- 3. (a) Write about different generation of programming languages. Also discuss the reasons behind emergence of each generation of P.L.
  - (b) Justify the use of memory in computers. Write a short note on Secondary Memory.
- 4. (a) what is an operating system? Give ten functions that an operating system performs.
  - (b) What is graphical user interface? Identify some O.S. that use GUI. Also discuss advantages of GUI.
- 5. (a) Distinguish between LAN and WAN.
  - (b) Discuss the basic components of a communication system.
  - (c) What is HTML? Justify significance of HTML.
  - (d) Discuss the features of language JAVA.
- 6. (a) What are the threats to computer/information security? Discuss the preventive measures.
  - (b) What are the key factors do you believe make computers an essential part of our lives in today's world?
- 7. Discuss the applications of computers in the following areas:
  - (a) Business
- (b) Industry
- (c) Education
- (d) Remote Sensing
- 8. (a) Differentiate between object oriented programming and procedural programming. Also discuss the causes behind emergency of object oriented programming.
  - (b) Explain the terms 'Classes' and 'Object' in the content of OOPs, with the help of suitable example.
  - (c) What is 'Polymorphism'? Illustrate with the examples.



College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 01 (Introduction of IT) (Old Question Paper)

Note: Attempt any Five questions. All questions carry equal marks.

- Q.1. What are the basic operations performed by any computer? Explain clearly the difference between primary and secondary memory. Also explain the difference between a hard disk and a CD-ROM.
- Q.2. What is an Operating System? Why is it necessary for a computer system? Also explain the various functions normally performed by an operating system.
- Q.3 What is a Text Editor? Explain text editors available in DOS and UNIX and their various commands with the help of examples.
- Q.4 Explain different modes of connecting to Internet. Also explain ISPs and Internet address and standard address.
- Q.5 Explain different HTML formatting tags, tags for hyperlinks and image insertion.
- Q.6(a) Explain the basic concept of OOP with examples.
  - (b) How does OOP overcome the short-comings of traditional programming approaches?
  - (c) How is the data hidden and safe if encapsulation is implemented? Explain with example.
  - (d) Do you think OOP is more closer to real world problems? Why and how?
- Q.7 Explain the following: (a) Polymorphism (b) Inheritance (c) Multi-lingual applications.
- Q.8 What is a Computer Network? Explain various types of topologies used in a Network. How a LAN be connected to an Internet? Also explain the role of TCP/IP.

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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 01 (Introduction of IT) (Old Question Paper)

- Q.1. Define the following: (a) Persona Computers (b) Mainframes (c) Supercomputers (d) Client-Server Computing (e) Work Stations.
- Q.2(a) How does a static RAM differ from a Dynamic RAM? Which RAM would you prefer in your computer an why?
  - (b) What are the various types of optical disk? Discuss the advantages and limitations of optical disk. What are its various uses?
- Q.3(a) What do you mean by Output Devices? Discuss the structure, working and uses of the common output devices.
  - (b) Differentiate the following: (a) Compiler and Interpreter (b) Linker and Loader.
- Q.4 Write down the classification and generation of programming languages with examples. Also discuss the various characteristics of a good programming language.
- Q.5(a) What is a LAN? What are its main objectives? How does it differ from WAN?
  - (b) List out the relative advantages and disadvantages of asynchronous and synchronous modes of data transmission.
- Q.6 Define and distinguish between data processing and data processing system. Describe four important ways in which electronic data processing system differ from manual data processing systems.
- Q.7 Explain the following: (a) Data Hiding (b) Data Encapsulation (c) Operators Overloading (d) Inheritance (e) Polymorphism
- Q.8 Write short notes on any four of the following:
  - (a) Operating system as a resource manager
  - (c) Weather-Forecasting applications
  - (e) Gopher
- (f) Network Protocols
- (b) Multi-lingual applications
- (d) Switches, bridges and Routers
- (g) GUI-Windows



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- Q.1 (a) Define the terms data, information, knowledge and intelligence. Relate these terms with business activities.
  - (b) Write the name of five input devices and five output devices. Explain any four of them.
  - (c) Distinguish between micro-computers, mini-computers, mainframe computers and supercomputers. Write at least five differences. Also write on name for each category.
  - (d) What do you mean by Primary Memory Differentiate between SIMM, DIMM and RIMM.
  - (e) What are the units of speed of CPU, memory capacity, DASD capacity, data channels speed, input speed, output speed? You can write with examples.
- Q.2(a) What are the major components of a motherboard? How is it responsible for the performance of the computer systems? Write the name of four mother-board manufacturers. Also name the major motherboards.
  - (b) What is the major function of an operating system? How is operating system related with system software?
  - (c) Differentiate between batch processing, on-line processing and real-time processing. Write examples also.
  - (d) What are the basic features of CD-ROM? How is it different from CD-R and CD-RW?
- Q.3 (a) What is the difference between third generation and fourth generation languages? Write three names of each of
  - (b) What is Cache Memory? Differentiate between L1 and L2 Cache.
  - (c) What is the difference between and active matrix and passive matrix flat panel display? Write main features of
  - (d) Write five typical commands of DOS, UNIX, Windows 98 and Novell Netware.
- Q.4 Differentiate between four of the following: (a) Intranet, LAN, WAN and Extranet
  - (b) Peer-to-peer network and client server networking (c) DVD-ROM, DVD-R and DVD-ROM
  - (d) Gopher, Tel net and WWW
- (e) Command, Instruction and Icon

- Attempt any four parts: Q.5
  - (a) Explain the concept of priorities in relation to operating system.
  - (b) What are the different types of system softwares? Name two from each category.
  - (c) What does multimedia presentation software enable you to do? Write the name of at least three multimedia softwares.
  - (d) What is the difference in multi-programming and multiprocessing?
  - (e) What are the basic features of Novell Netware?
- Q.6(a) What are the reasons for networking among computers and computer related devices?
  - (b) What is GUI? What are the basic advantages of windows operating system over DOS and UNIX?
  - (c) List LAN technologies. Explain in detail Ethernet Technology.
  - (d) What are Network Protocols? Explain each of them by writing their major functions.
- Q.7(a) What are the information technology tools used in Scientific Research, Business operations such as Marketing and Inventory Management, Manufacturing, Planning and Forecasting? Write their applications for each field.
  - (b) What re various components of data communication security? What is the role of digital signature and encryption for data communication security?
  - (c) What is Firewall? How will you implement firewall in your organization?
- Q.8(a) What is Object Oriented Programming?
  - (b) Explain the concept of function overloading by writing a program in any object oriented language.
  - (c) Explain the process of operators loading by writing a program in any object oriented language.
  - (d) What is the meaning of inheritance in relation to object oriented programming? Explain with real life example.
- 0.9 Write short notes on any four of the following:
  - (a) Multilingual Software (b) Information Integrity (c) Graphic User Interface
  - (d) Switches and Bridges (e) Remote Sensing (f) TCP/IP
  - (g) Command Interpreter (h) Privacy and Security of Information

## Old Question Papers of PGDCA 1st Semester

### **H.K. Hi-Tech** (College of IT & Management)

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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 02 (Computer Programming and Problem Solving)

(Old Question Paper)

Note: Attempt any Five questions. All questions carry equal marks.

- Define the following with the help of examples:
  - (a) Identifiers (b) Variables (c) Constants
- (d) Operators
- (e) Expression
- (f) Keywords
- 0.2 Explain the various Problem Solving Techniques with the help of suitable examples.
- Q.3 (a) What are Data Types? What are data type modifiers? How do they affect base data type?
  - (b) Discuss the precedence of operator in C
- Q.4 (a) Write the syntax and purpose of the following statements:
  - (i) While (ii) Do While (iii) For
- (iv) Switch
- (v) If- Else
- (b) Discuss the console I/O functions in detail with suitable examples.
- O.5 How are strings manipulated in 'C'? Write a program to find the occurrence of a character in a given text.
- Q.6 (a) What to you mean by Storage Classes? Explain the various storage classes available in C with examples.
  - (b) How is call-by-value method of function invoking different from call-by-reference method? Explain with the help of suitable examples.
- Q.7 (a) Write a program in 'C' to sort a given sequence of N umbers in ascending order.
  - (b) What is a header file? What is its purpose? Why is it necessary to include header file in program? Explain their benefits also.
- Write short notes on the following: (a) Structure and Union 0.8 (b) Malloc () and Calloc () functions (d) File operations
  - (c) Address of (&) and valve at (\*) operators in case of pointers. (e) Pre - Processor Commands.

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PGDCA 1<sup>st</sup> Semester, MS – 02 (Computer Programming and Problem Solving) (Old Question Paper)

Note: Attempt any *Five* questions. All questions carry equal marks.

- What is the significance of algorithm and flow charts in solving problems? Are algorithm steps written using a computer language? Justify using a suitable example and draw a flow chart for the same.
- 0.2 (i) Sketch the structure of a 'C' program for finding out the average of n numbers.
  - Distinguish between identifiers and data types in 'C' languages. Give examples of both.
- 0.3 Explain the purpose of each of the following:
  - (i) Library functions
- (ii) C pre-processor
- (iii) Logical operator
- 0.4 Compare the following control structures with examples:
  - (i) If-else and Switch (ii) While and Do-While (iii) For loop and Nested for loop
- 0.5 What is the advantage of using functions? Describe the following in the context of functions:
  - (i) Local and global variables
- (ii) Arguments
- (iii) Recursive functions
- 0.6 What is an array? Write a program in 'C' to check whether a given number is prime or not. Show the usage of arrays in the program by taking an input of n numbers. the program should stop execution if the number entered is '999' and print all prime numbers detected so far. Show the usage of 'break' statement if possible.
- How can array of pointers be used to minimize the amount of data swapping required when sorting an array Q.7 (i) of strings?
  - Give an example program to show when an array of structures would be needed.
- Q.8 Describe the usage of the following functions:
- (i) Strepy and stremp
- (ii) Fopen and fclose

(iii) Fseek and ftell

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- (iv) Getchar and putchar (v) Printf and scanf

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PGDCA 1<sup>st</sup> Semester, MS – 02 (Computer Programming and Problem Solving)

(Old Question Paper)

Note: Attempt any Five questions. All questions carry equal marks.

- Explain flow charts and algorithms. Also write flowchart and algorithm for comparing 3 numbers and display the largest number.
- Q.2 Explain different data types in 'C'.
- Q.3 Explain loops and control statements in 'C'.
- Q.4 Explain the different operators available in 'C'. Explain user defined and library functions of 'C'. Q.5
- Explain array and Multidimension array in 'C'. Q.6
- Write a program in 'C' to store the roll no. and marks of 5 subjects of a class in a file. Then read the contents of file and display Q.7 the roll no. and total marks obtained by each roll no. of class.
- 0.8 Explain pointers in 'C'. Also explain operations on pointers and array of pointers.

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PGDCA 1<sup>st</sup> Semester, MS – 02 (Computer Programming and Problem Solving)

(Old Question Paper)

Note: Attempt any *Five* questions. All questions carry equal marks.

- Q.1 (a) In what way does flowcharts and algorithms contribute in Problem solving? Explain with an example.
  - (b) Enumerate the various methods of solving problems.
- 0.2 What are the rules for naming variables in 'C'? What are the various data types with which a variable can be defined? Give the distinction between integers and floating point numbers.
- Q.3 (a) Explain the following C functions:
  - (i) Scan f and Pint f (ii) Get char and Put char (iii) Get s and Put s
- Q.4 (a) Give the various forms which an 'IF' statement in C can have. Explain with examples.
  - (b) Explain with example where a 'for' loop is suitable and where a 'do-while' loop is suitable.
- 0.5 What is a 'Function'? How is a value returned from a function? Write a recursive function in C that generates Fibonacci series.
- "Pointers are intimately associated with arrays." Comment. Can the use of array of pointers minimize the amount of Q.6 data swapping when sorting an array of string? Justify.
- Q.7 What is the difference among arrays of structures, arrays within structures and pointers to structures? Explain with examples.
- Q.8 Explain the following with suitable examples:
  - (a) Str cat
- (b) Str cpy
- (c) Malloc
- (d) Str cmp
- (e) Fopen



#### H.K. Hi-Tech

College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 03 (Digital Electronics)

(Old Question Paper)

- Q.1 (a) Prove the following:
  - (i) A positive logic AND operation is equivalent to a negative logic OR operation and vice versa.
  - (ii) A positive logic NAND operation is equivalent to a negative logic NOR operation and vice versa.
  - (b) Prove the following using De Morgan's Theorems:

(i) AB + CD = AB.CD 
$$\overline{AB}.\overline{CD}$$

(ii) (A+B).(C+D) = 
$$\overline{(A+B)}$$
 +  $\overline{(C+D)}$ 

- (i) Convert (247)<sub>10</sub> into Octal (c) Do the following: (iii) Convert (3287.5100098)<sub>10</sub> into Octal
- (ii) Convert (0.6875)<sub>10</sub> into Octal (iv) -48 - 23 using 2/s complement

- (v) Convert (A72E)<sub>16</sub> into binary.
- Q.2 (a) Discuss the following IC characteristics
  - (i) Power Dissipation
- (ii) Fanout
- (iii) Noise Immunity (iv) Operating Temperature Range
- (b) Draw the circuit diagram for active pull up or totem pole output and discuss it in detail.
- Q.3 (a) Minimize the following expression using K Map and realize it using NAND gates only:

$$F = AB + AC + C + AD + A\overline{B}C + ABC$$

- (b) Design full subtractor circuit.
- O.4 (a) Draw the circuit diagram for one digit BCD subtractor and explain it.
  - (b) Draw the circuit of 32: 1 MUX using two 16:1 MUX and one 2:1 MUX and explain it.
- O.5 (a) State and explain the common uses of flip-flops.
  - (b) Draw the block diagram of bidirectional shift register and explain it.
- Q.6 (a) Draw the circuit diagram of 3 bit binary ripple counter using J-K flip-flops and explain its working with the help of
  - (b) Design a 3 bit synchronous counter. Use T flip-flops.
- Q.7 (a) Obtain  $2048 \times 8$  memory chips. Draw the diagram also.
  - (b) Draw the diagram for 16 bit ROM array and explain it.
- 0.8 Discuss the following in detail:
  - (a) R-2R ladder D to A converter
- (b) Successive Approximation A to D converter



College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 03 (Digital Electronics) (Old Question Paper)

Note: Attempt any *Five* questions. All questions carry equal marks.

- Q.1 (a) Explain various logic gates.
  - (b) Design a 4-bit adder using half adder.
- Q.2 (a) Design a gate circuit of 4:1 Mux.
  - (b) Design a full subtractor using 3: 8 decoder and required logic gates.
- Q.3 (a) Design a 7-Segment LED Display.
  - (b) Explain Tristate Buffer
- Q.4 (a) Design a 2 bit comparator circuits.
  - (b) Explain Fan-in/Fan-out properties of logic gates.
- Q.5 (a) Design a D-flip-flop using J-K flip-flop.
  - (b) Design a 3-bit counter.
- Q.6 (a) Explain R-2R DAC.
  - (b) Explain successive approximation ADL.
- Q.7 Write short notes on any *two* of the following:
  - (a) ROM
- (b) TTL
- (c) CMOS



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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 03 (Digital Electronics) (Old Question Paper)

- Q.1(a) Why universal and basic gates are so? Also realise all the basic gates from only NAND gate and then with only NOR gates.
  - (b) Realise X-OR gate with only four NAND gates.
- Q.2(a) Realise y = (A + B.C)(C + D).A.
  - (b) Minimize the following expression using K-map and realise with NAND gates.

$$f(A, B, C, D) - \sum_{m} m (1,2,4,8,9,12,13) + d(0,2,5)$$

- (c) Differentiate between latch and flip-flop.
- Q.3(a) What is full adder? Draw its truth table and logic diagram. Also explain the concept of look ahead carry.
  - (b) Explain the concept of seven segment display.
- Q.4(a) Explain the different characteristics of Digital IC's.
  - (b) Realize NAND gate with the help of TTL logic with its circuit diagram.
- Q.5(a) What is Master Slave flip-flop? Why do we require it? What is the significance of race around condition?
  - (b) Differentiate with examples between synchronous and synchronous counters.
- Q.6(a) What is the different between Multiplexer and Encoder?
  - (b) Ho is BCD subtraction done? Explain with circuit diagram.
- Q.7(a) What is Ring Counter? How is it implemented?
  - (b) Draw and explain the working of bi-directional shift register.
- Q.8 Write short notes on the following:
  - (a) A/D converter (any one type)
- (b) Nine's complementor circuit
- (c) Tri state buffer

### Old Question Papers of PGDCA 1<sup>st</sup> Semester

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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 03 (Digital Electronics) (Old Question Paper)

Note: Attempt any Five questions. All questions carry equal marks.

- Draw and explain universal and basic gates with their truth table.
- Q.2 Solve the expression and draw its circuit diagram using NAND gates only:  $f(A, B, C, D) - \Sigma (1, 3, 6, 9, 14, 15) + d (4, 10, 13)$
- Differentiate between decoder and demultiplexer and encoder and multiplexer. 0.3
- Q.4 (a)  $(101010)_2 + (011101)_2 =$  $(010110)_2 + (010101)_2 =$ 
  - (b) Draw and explain 7 Segment LED display.
- Q.5 (a) Enumerate the different characteristics of IC's.
  - (b) Draw and explain MOS: (i) NAND (ii) NOR gates
- Q.6 (a) What is JK flip-flop? Why is it required when SR flip-flop is there?
  - (b) Draw and explain bidirectional shift register.
- Q.7 (a) What is a Ring Counter? Draw and explain its working.
  - (b) Draw and explain tri-state buffer.
- 0.8 Write short notes on any two of the following:
  - (a) ROM cell organization (b) D/A Converter (any one)

(c) BCD Adder



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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 04 (SAD) (Old Question Paper)

- Q.1 Explain in detail the activities performed each phase of systems development life-cycle.
- Q.2 "Feasibility study is the compressed capsule version of the entire system development process." Elaborate.
- Q.3 (a) Discuss the key strategies for eliciting information about the user's requirements. Which strategy would you consider the best and why?
  - (b) What is a Data Flow Diagram (DFD) Explain the various symbols and conventions used in the DFD with an
- Q.4 What methods does the designer consider in file organization? What factors determine the method chosen?
- Define Quality Assurance. What levels of quality assurance must a system meet? What are the factors that affect the Q.5 quality of a system?
- Q.6 (a) Discuss the design process in detail. What is the role of documentation tools in system design?
  - (b) What is the significance of modularization in design phase? What are module specifications? Explain.
- 0.7 What are the activities undertaken during system implementation phase? What is post-implementation review?
- Q.8 Write short notes on the following:
  - (a) Business system
- (b) Fact finding techniques
- (c) Audit trails (d) Cost/benefit analysis



College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 04 (SAD) (Old Question Paper)

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Note: Attempt any *Five* questions. All questions carry equal marks.

- Q.1 (a) What is System? Explain different types of Information System.
  - (b) Who are the participants in the Software development team? Discuss the role of system analyst in detail.
- Q.2 What are the common methods for performing cost-benefit analysis? What are the inputs and outcomes of each method?
- Q.3 (a) List the common traditional methods of collecting information system requirements. Compare and contrast different methods.
  - (b) Write short notes on the following:
    - (i) Data Flow Diagram
- (ii) Data Dictionary
- (iii) Decision Trees
- (iv) Decision Tables

- Q.4 Explain the following:
  - (a) Input Design
- (b) Process Design
- (c) User Interface Design
- (d) File/Database Design
- Q.5 (a) What is Software Quality Assurance? Discuss the activities of SQL.
  - (b) Explain the role of Documentation Tools in System Engineering. What are various documentation tools?
- Q.6 (a) Explain the following:
  - (i) Sources of Projects Request
- (b) Project Selection
- (b) Explain the technical and economical feasibility of system.
- Q.7 (a) Why are training and support critical for the success of an information system?
  - (b) Describe the various ways software vendors provide customer support.
- Q.8 Write short notes on the following:
  - (a) System Controls
- (b) Audit Trials (c) Reliability of Software
- (d) Implementation of System



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College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 04 (SAD) (Old Question Paper)

- Q.1 (a) What is fact finding? What are the various techniques of fact finding? Explain briefly.
  - (b) What is data dictionary? What is the use of it?
- Q.2 (a) What is feasibility study? Why and when is it required for system development? Explain the various types of feasibility study.
  - (b) What is Cost/Benefit analysis? Explain its importance in system development briefly.
- Q.3 (a) What do you understand by file designing? Discuss important considerations involved in file design activity.
  - (b) What are principles of effective input and output designing? What are the essential requirements of such forms?
- Q.4 (a) What is modularization? Discuss the importance of modularization in system design.
  - (b) Draw a DFD of a library system?
  - (c) How does conversion plan differ from operational plan? Illustrate the purpose of each.
- Q.5 (a) What is project management? Explain various techniques of project management briefly.
  - (b) What are the steps involved in maintenance and review? Explain.
- Q.6 (a) What is Software Documentation? Illustrate various types of software documentation and their purpose.
  - (b) What are the design objectives? Briefly explain each of these.
  - (c) Differentiate between verification and validation.
- Q.7 (a) What do you mean by System Requirement Specifications? Decide SRS of a general payroll system.
  - (b) What is software quality? What are the various quality attitudes? Also outline the factors that affect software quality.
- Q.8 (a) Write short notes on the following:
  - (a) Audit Trials
- (b) Decision Table
- (d) System Control Process
- (b) What does the word 'System' mean? Give at least five examples of common systems.



College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 04 (SAD) (Old Question Paper)

Note: Attempt any *Five* questions. All questions carry equal marks.

- Q.1(a) What are the main steps involved in system study cycle? Describe in brief.
  - (b) Explain the following: (i) Data flow diagram (ii) Structured approach
- Q.2(a) What is feasibility analysis? Explain its role in computer-based projects. Also explain types of feasibility studies briefly.
  - (b) Explain the concept of decision tree through an example.
- Q.3(a) What is data dictionary? What is the use of it? Discuss.
  - (b) What is application prototyping? Discuss.
- Q.4(a) What do you mean by data validation? What are various methods of implementing data validation checks?
  - (b) What do you understand by auditing a system? How will you implement various audit controls in the system?
- Q.5 Write short notes on the following:
  - (1) Cost and Benefit Analysis (2) Decision Table (3) Fact Finding (4) Project Review
- Q.6(a) What is the importance of education and training in system implementation? How is Human Relations considerations important in system implementation?
  - (b) Explain good qualities of a system analyst.
- Q.7(a) What do you mean by system maintenance? Why is it so costly? How can we reduce maintenance cost? Describe briefly.
  - (b) Differentiate between sequential and random file organization. Also discuss the advantages and disadvantages of each.
- Q.8(a) What are the steps involved in system changeover, maintenance and review? Explain.
  - (b) Give detailed account of various characteristics of a business organization.



H.K. Hi-Tech

College of IT & Management PGDCA 1<sup>st</sup> Semester, MS – 04 (SAD) (Old Question Paper)

- Q.1 Define System. What do you mean by system life-cycle? Name and describe each phase of system life-cycle in brief.
- Q.2(a) What is candidate system? How does it relate to the feasibility analysis?
  - (b) What are the elements of project control that aid in the management of an initial investigation?
- Q.3 What are the different fact finding techniques? Explain each of them in brief. Also discuss the pros and cons of each technique.
- Q.4(a) What is a form? What are the different types of forms? What factors do you consider while designing a form?
  - (b) What are the objectives of input design? Describe the various data validation controls.
- Q.5(a) What is a structured walk through? What is its purpose?
  - (b) Distinguish between implementation, conversion and changeover.
- Q.6(a) Define quality assurance. What levels of quality assurance must a system meet? Explain.
  - (b) What is the role of the audit control trail in conversion?
- Q.7 Write short notes on the following: (a) Decision tables (b) Maintenance
- Q.8 Distinguish between the following:
  - (a) Break-even analysis and net present value
- (b) Procedure Design and User Interface Design