

## Database Systems - Section 1

---

A report generator is used to

- A. update files
- B. print files on paper
- C. data entry
- D. All of the above
- E. None of the above

---

2. Which of the following is not a logical data-base structure?

- A. tree
- B. relational
- C. network
- D. chain
- E. All of the above

---

3. Which of the following is a database administrator's function?

- A. database design
- B. backing up the database
- C. performance monitoring
- D. user coordination
- E. All of the above

---

4. Primitive operations common to all record management systems include

- A. Print
- B. Sort
- C. Look-up
- D. All of the above
- E. None of the above

---

5. Each of data files has a \_\_\_\_\_ that describe the way the data is stored in the file.

- A. File structure
- B. Records

- C. Fields
- D. Database
- E. None of the above

### Management Information Systems - Section 1

---

1. Which of the following is(are) true of the EDP auditors?
  - A. they should have computer expertise
  - B. they will be replaced by traditional auditors in the near future
  - C. two of the above
  - D. currently, there is a very high demand for them, particularly from firms that use personal computers
  - E. None of the above

---
2. Controls of data communication deal with
  - A. the communication channel
  - B. the computer
  - C. terminals
  - D. All of the above
  - E. None of the above

---
3. A lockbox service is used for
  - A. depositing cash when bank is closed
  - B. paying bank customer bills automatically
  - C. storing papers in a bank vault
  - D. depositing payments to bank customers
  - E. None of the above

---
4. Critical path of the PERT chart is:
  - A. path which takes the longest time to complete the project
  - B. the shortest path
  - C. both of the above
  - D. path which takes the shortest time to complete the project
  - E. None of the above

---

5. Inventory is also referred to as:

- A. stock
- B. warehouse capacity
- C. materials
- D. materials in hand
- E. None of the above

#### System Analysis and Design - Section 1

---

1. System Study involves

- A. study of an existing system
- B. documenting the existing system.
- C. identifying current deficiencies and establishing new goals
- D. All of the above
- E. None of the above

---

2. The primary tool used in structured design is a:

- A. structure chart
- B. data-flow diagram
- C. program flowchart
- D. module
- E. None of the above

---

3. In a \_\_\_\_\_ one module of the new information system is activates at a time.

- A. System Development Life Cycle
- B. CASE tool
- C. Phased Conversion
- D. Success factors
- E. None of the above.

---

4. In Prototyping

- A. BASIC is used
- B. COBOL is used

- C. 4GLs are used
- D. system is documented
- E. None of the above

---

- 5. The step-by-step instructions that solve a problem are called \_\_\_\_\_.
  - A. An algorithm
  - B. A list
  - C. A plan
  - D. A sequential structure
  - E. None of the above

#### Automation System - Section 1

---

- 1. A program language:
  - A. defines the form of the instruction
  - B. is always machine dependent
  - C. is never machine dependent
  - D. All of the above
  - E. None of the above
- 2. Which of the following symbol modes are used to input of graphics to General CAD system?
  - A. Live and Rectangle mode
  - B. Arc and Circle mode
  - C. Dimension and Alphanumeric mode
  - D. All of the above
  - E. None of the above
- 3. Which technique enables the designer to mold and shape, rather than construct on object using a series of lines?
  - A. Solid modeling
  - B. Wire-frame modeling
  - C. Surface modeling
  - D. FEM (Finite Element Modeling)
  - E. None of the above

---

4. Computer-based controllers:

- A. should be built in a modular fashion wherever possible
- B. are very difficult to change
- C. are very flexible
- D. (a) and (c) above
- E. None of the above

---

5. Flood guns bombard the phosphor surface of the tube in which one of the following types of CRT technology?

- A. Direct view storage tube
- B. Raster scan CRT
- C. Refresh-vector CRT
- D. Stroke CRT
- E. None of the above

### Digital Computer Electronics - Section 1

---

- 1. Conversion of decimal number  $61_{10}$  to it's binary number equivalent is
  - A.  $110011_2$
  - B.  $11001110_2$
  - C.  $111101_2$
  - D.  $11111_2$
  - E. None of the above

---

- 2. An OR gate can be imagined as
  - A. switches connected in series
  - B. switches connected in parallel
  - C. MOS transistors connected in series
  - D. All of the above
  - E. None of the above

---

- 3. Address 200H contains the byte 3FH. What is the decimal equivalent of 3FH
  - A. 63

- B. 32
- C. 16
- D. 38
- E. None of the above

---

4. Conversion of an octal number  $112_8$  to hexadecimal number is

- A.  $4A_{16}$
- B.  $5A_{16}$
- C.  $15_{16}$
- D.  $20_{16}$
- E. None of the above

---

5. The functional difference between SR flip-flop and JK flip-flop is that

- A. JK flip-flop is faster than SR flip-flop
- B. JK flip-flop has a feed back path
- C. JK flip-flop accepts both inputs 1
- D. JK flip-flop does not require external clock
- E. None of the above

---

### Electronic Principles - Section 1

---

In an intrinsic semiconductor, the number of free electrons

- A. Equals the number of holes
- B. Is less than the number of holes
- C. Is greater than the number of holes
- D. Impossible to say
- E. None of the above

---

2. A device that converts mechanical into electrical energy is?

- A. solar cell
- B. thermocouple
- C. chemical cell
- D. generator

E. None of the above

---

3. Which one of the following kinds of materials has the lowest permeability?

- A. A diamagnetic material
- B. A paramagnetic material
- C. A ferromagnetic material
- D. All of the above
- E. None of the above

---

4. The total impedance of a parallel RLC circuit:

- A. always increases as the applied frequency increases
- B. is equal to the sum of the values of resistance, inductive reactance and capacitive reactance
- C. always decreases as the applied frequency increases
- D. is maximum at the resonant frequency
- E. None of the above

---

5. The rise time of a pulse waveform is the time required for the voltage to rise:

- A. from zero to its rms value
- B. from zero to its peak value
- C. from 10% of the peak value to 70.7% of the peak value
- D. from 10% of the peak value to 90% of the peak value
- E. None of the above

### Language Processors - Section 1

---

Which of the following functions is/ are performed by the loader?

- A. Allocate space in memory for the programs and resolve symbolic references between object decks
- B. Physically place the machine instructions and data into memory
- C. Adjust all address dependent locations, such as address constants, to correspond to the allocated space
- D. All of the above

---

2. Convert the 11014B machine language instructions into assembly language, assuming that they were not generated by pseudo-ops:

- ASRA
- LOADA h#OD4E, i
- STOREA h#014B, d
- ADDA h#01FE, i

---

3. The advantage(s) of incorporating the macro processor into pass 1 is/ are:

- many functions do not have to be implemented twice
- Functions are combined and it is not necessary to create intermediate files as output from the macro processor and input to the assembler
- more flexibility is available to the programmer in which he/she may use all the features of the assembler in conjunction with macros
- All of the above

---

4. In which addressing mode, the effective address of the operand is generated by adding a constant value to the contents of register?

- absolute mode
- indirect mode
- immediate mode
- index mode

---

5. A self-relocating program is one which

- cannot be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
- consists of a program and relevant information for its relocation
- can itself perform the relocation of its address-sensitive portions
- All of the above

### Object Oriented Programming Using C++ - Section 1

You can use C++ as a procedural, as well as an object-oriented, language

- True
- False

---

2. A default catch block catches

- all thrown objects

- B. no thrown objects
- C. any thrown object that has not been caught by an earlier catch block
- D. all thrown objects that have been caught by an earlier catch block

---

- 3. Adding a derived class to a base class requires fundamental changes to the base class
  - A. True
  - B. False

---

- 4. Format flags may be combined using

---

- 5. The use of the break statement in a switch statement is
  - A. optional
  - B. compulsory
  - C. not allowed. It gives an error message
  - D. to check an error
  - E. None of the above