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Printed Pages : 8

**Degree (Part-I) (Vocational)  
Examination, 2020**

**(Honours)**

**BCA**

**[ Paper : Second ]**

**[ PPU-D-I (V) H-BCA-2 ]**

**Time : Three Hours]**

**[Maximum Marks : 75**

**Note :** Attempt **any five** questions in all. All the questions are of equal value. **Question No. 1 is compulsory.**

1. Choose the correct answer of the following :

(i) What is the ready state of a process ?

(a) when process is scheduled to run after some execution

(b) when process is unable to run until some task has been completed

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- (c) when process is using the CPU
  - (d) none of the mentioned
- (ii) The address of the next instruction to be executed by the current process is provided by the \_\_\_\_\_ :
- (a) CPU registers
  - (b) Program counter
  - (c) Process stack
  - (d) Pipe
- (iii) When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called :
- (a) dynamic condition
  - (b) race condition
  - (c) essential condition
  - (d) critical condition

- (iv) The interval from the time of submission of a process to the time of completion is termed as \_\_\_\_\_:
- (a) waiting time
  - (b) turnaround time
  - (c) response time
  - (d) throughput
- (v) Semaphore is a/an \_\_\_\_\_ to solve the critical section problem.
- (a) hardware for a system
  - (b) special program for a system
  - (c) integer variable
  - (d) none of the mentioned
- (vi) Which one of the following is the deadlock avoidance algorithm ?
- (a) Banker's algorithm
  - (b) Round-robin algorithm
  - (c) Elevator algorithm
  - (d) Karn's algorithm

(vii) Input : A="11/05/1983" Choose the right function to get Output : 198

(a) ?SUBSTR (A,7,2)

(b) ?STUFF (A,7,3)

(c) ?SUBSTR(A,8,3)

(d) ?SUBSTR(A,7,3)

(viii) Decision Table is a :

(a) Tabular representation of a program logic

(b) Symbolic representation of a program logic

(c) Graphical representation of a program logic

(d) All of the above

(ix) The command to create a new database file based on two open database files is :

(a) SET RELATION

(b) UPDATE

- (c) JOIN
- (d) None of the above

(x) The ??? Indicates :

- (a) Print text to output screen
- (b) Print text directly to printer
- (c) Comment
- (d) Logical Operation

2. Write short notes on **any three** out of the following **four** terms/keywords :

(i) Process switching

(ii) Binary semaphore

(iii) Deadlock condition

(iv) External fragmentation

3. What is Process Control Block (PCB) ? Describe the various attributes of a PCB.

4. A single processor system has three resource types X, Y and Z, which are shared by three processes. There

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are five units of each resource type. Consider the following Allocation and Request (Claim-Allocation) matrixes. Identify the given system state is safe or not. Show the state of the system after each process completion. Which of these processes will finish last ?

Allocation			
	X	Y	Z
P0	1	2	1
P1	2	0	1
P2	2	2	1

Request			
	X	Y	Z
P0	1	0	3
P1	0	1	2
P2	1	2	0

5. Consider a main memory with five page frames and the following sequence of page reference : 3, 8, 2, 3, 9, 1, 6, 3, 8, 9, 3, 6, 2, 1, 3. Calculate the number of page faults by using First, In, First Out (FIFO) page replacement policy.
6. What is File Allocation method ? Describe the various types of File Allocation methods.
7. What are the main functions of DBMS and how will you differentiate it from File Management System ?
8. Describe briefly the various types of fields supported in FoxPro.

9. Describe the following data displaying and monitoring commands with syntax and example :

(i) Display

(ii) List

(iii) Browse

(iv) Recall

10. Write a procedure in FoxPro to reverse the first and last names of employee, which is separated by a space. Assume the field name to be NAME in a database called EMPLOYEE.

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