BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – MCA-2020/MCA-2021
Course Name – Operating Systems
Course Code - MCA202
(Semester II)

Full Marks : 60   **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)   1 x 15=15

1. *Choose the correct alternative from the following :*

(i)   Explain Dynamic loading

    a) loading multiple routines dynamically   b) loading a routine only when it is called
    c) loading multiple routines randomly   d) none of the mentioned

(ii)   Explain the _____ must design and program the overlay structure

    a) programmer   b) system architect
    c) system designer   d) none of the mentioned

(iii)   Explain the _____ swaps processes in and out of the memory.

    a) Memory manager   b) CPU
    c) CPU manager   d) User

(iv)   Identify which information is recorded magnetically on platters.

    a) magnetic disks   b) electrical disks
    c) assemblies   d) cylinders

(v)   Define the platform OS provides to run

    a) System Software   b) Appliaction Software
    c) System Software and Appliaction Software   d) None of these

(vi)   Define DOS

    a) Frame bit   b) Page number
    c) System Software   d) None of these

(vii)   Identify an application software

    a) OS   b) MS WORD
    c) DOS   d) None of these

(viii) select the answer,Hard real time operating system has _____ jitter than a soft real time operating system

    a) Less   b) more
    c) equal   d) none

(ix) Focus The size of a page is typically _____

    a) varied   b) power of 2
    c) power of 4   d) none of the mentioned

(x) Explain the thing paging there is no _____ fragmentation.

    a) nternal   b) external
    c) either type of   d) none of the mentioned

(xi) Identify To recover from failures in the network operations _____ information may be maintained.

    a) operating system   b) ip address
    c) stateless   d) state

(xii) Express a program in execution

    a) Process   b) Instruction
    c) Procedure   d) Function

(xiii) Estimate one of the following approaches that do not require knowledge of the system state?

    a) Deadlock detection.   b) Deadlock prevention.
    c) Deadlock avoidance   d) None of these

(xiv) Choose the correct answer,A ____ a set of wires and a rigidly defined protocol that specifies a set of messages that can be sent on the wires.

    a) port   b) node
    c) bus   d) none of the mentioned

(xv) Choose the correct answer,In rate monotonic scheduling _____

    a) shorter duration job has higher priority   b) longer duration job has higher priority
    c) priority does not depend on the duration of   d) none of the mentioned
      the job

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Illustrate Contiguous memory allocation   (3)
3. Explain mutual exclusion   (3)
4. Explain CPU Scheduling.   (3)
5. Describe Multi program   (3)
6. Justify how we prevent Deadlock   (3)

OR

  Compare different types of semaphore.   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. Compare between logical address and physical address   (5)
8. Explain Internal and external fragmentation.   (5)
9. Explain Turn around time and Response time   (5)
10. Explain Gnatt chart with example   (5)
11. Compare between page hit and page miss   (5)

12. Define Main Function of Operating system (5)

OR

Define Multitasking Operating system with an example (5)

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