2 0 2 1

Full Marks : 50

Time : 3 hours

The figures in the right-hand margin indicate marks

Answer **all** Parts as directed

Part—A

(Objective Type Questions)

1. *(a)* Select the most suitable answers of the following : 5×1

    (i) Which one of the following is heart of any OS ?

        (1) Hardware

        (2) Kernel

        (3) Software

        (4) Users

    (ii) Operating system

        (1) enables the programmer to draw a flow chart

        (2) provides a layer, user friendly interface

(3) links a program with subroutine it references

(4) All of these

(iii) Unix is written in

(1) 'C' language

(2) EDA language

(3) perl

(4) None of these

(iv) The command used for comparing two files is

(1) comp

(2) uniq

(3) compare

(4) deff

(v) Shell is a

(1) hardware component

(2) command interpreter

(3) compiler

(4) CPU scheduling

(b) Fill in the blanks of the following :   5×1

(i) Kernel is part of ————.

(ii) mkdir command is used to ———.

(iii) ——— command is used to search pattern in file.

(iv) An operating system acts as a/an ——— between hardware and software.

(v) pwd command is used to ———.

Part—B

(Short Answer Type Questions)

Answer *any two* questions (not more than *200* words each) :   2×5

2. What is operating system? Explain the formation of OS.

3. Differentiate between multitasking and multiprocessing.

4. What is system call? How is it handled by an OS ?

5. Why do we need of scheduling in OS ?

Part—C

(Long Answer Type Questions)

Answer *any three* questions of the following :

3×10

6. What is protection and security? Explain the various types of protection and security method.

7. Explain the structure of UNIX system.

8. What is segmentation? Explain the advantages of segmentation.

9. (a) Write a shell script to input a number and find its factorial value.

   (b) Write a shell script to print the Fibonacci series up to 25.

10. (a) Write a shell script to print the even number from 1 to 100.

    (b) Write a shell script to input two numbers and swap them.

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