

**2023**

*Time : 3 hours*

*Full Marks : 50*

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Answer from all the Groups as directed.*

**Group – A**

**(Objective Type Questions)**

1. Choose the correct answer of the following : 1×5 = 5
- (a) \_\_\_\_\_ are system software that help maintain and run the computer properly.
- (i) Hardware                      (ii) Software
- (iii) Utility programs      (iv) None of these
- (b) Which statement is True for file management ?
- (i) Keep track of information
- (ii) Allocates the resources



- (iii) De-allocate the resources
- (iv) All of these
- (c) Which of following is not the OS ?
  - (i) Windows 95      (ii) MAC
  - (iii) Windows 7      (iv) None of these
- (d) Locate the OS :
  - (i) Post      (ii) Bootstrap loader
  - (iii) Bios Driver      (iv) Bios setup
- (e) Which command is used to change the permission mode of a file ?
  - (i) chmod      (ii) ch
  - (iii) chown      (iv) ps

2. Fill in the blanks of the following :  $1 \times 5 = 5$

- (a) \_\_\_\_\_ is pre-emptive scheduling.
- (b) The data on a Bios chip can be updated if it is a \_\_\_\_\_.
- (c) chmod command can be used in \_\_\_\_\_ ways.
- (d) \_\_\_\_\_ command is used to remove the file.
- (e) \_\_\_\_\_ command is used with vi editor to delete a single character.



## Section – B

### (Short-answer Type Questions)

3. Answer any **two** questions of the following :

5×2 = 10

- ✓ (a) Explain the following UNIX Command :
  - (i) chmod                      (ii) Cat
  - (iii) head and tail          (iv) grep
- (b) What is BIOS and CMOS ? What are the advantages of BIOS ?
- ✓ (c) Describe the SJF and FCFS Scheduling ? Give example.
- (d) What is Authentication and Authorization ?

## Section – C

### (Long-answer Type Questions)

4. Answer any **three** questions of the following :

10×3 = 30

- ⓐ (a) Write short notes on the following :
  - (i) Batch processing
  - (ii) Round Robin Scheduling
- ⓑ (b) What is the difference between while loop and untill loop ? Give example.



(c) What is memory partition ? Describe it with example.

(d) (i) Write a program to input two numbers and swap it without using the third variable.

(ii) Write a program to print sum of numbers from 1 to 50.

(e) Write a shell script to input decimal number and convert into binary number.

(f) (i) Print the following Pyramid :

```
*  
* *  
* * *  
* * * *  
* * * * *
```

(ii) Write a program to input any number and print its table.

( e.g.  $2 \times 1 = 2$   
 $2 \times 2 = 4$  )

