

UNDERGRADUATE FOURTH SEMESTER (HONOURS) EXAMINATIONS, 2022

Subject: Mathematics

Course ID: 42115

Course Code: SH/MTH/405/SEC-2

Course Title: Operating System : Linux

Time: 2 hours

Full Marks: 40

The figures in the margin indicate full marks

Notations and symbols have their usual meaning

1. Answer *any five* of the following questions: (2×5=10)

- a) Mention some Linux Operating system.
- b) What is dual booting?
- c) What is the main difference between Linux and Unix?
- d) Write full form of GUI and CLI?
- e) What is Linux Kernel?
- f) What is system call?
- g) What is 'init' process in Linux?
- h) What is inter process communication?

2. Answer *any four* of the following questions: (5×4=20)

- a) Explain different system calls in Linux.
- b) Why Linux considered as more secured than other OS.
- c) What are the purposes of following commands in Unix: chmod, grep, cat, date, who.
- d) What is CLI? Write advantages and disadvantages of it. (3+2)
- e) Explain the main characteristics of Linux kernel.
- f) Explain about creating the 'Ext2' file system with their default options.

3. Answer *any one* of the following questions: (10×1=10)

- a) Describe various APIs of Message queues that are used for inter process communication.
- b) Explain Briefly different Linux File systems.
