

SH-III/Com. Sc.-302C-6/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20

COMPUTER SCIENCE

Course ID : 31512

Course Code : SH-CSC-302/C-6

Course Title: Operating System

Time: 1 Hour 15 Minutes

Full Marks: 25

*The figures in the right hand side margin indicate marks.
Candidates are required to give their answers in their own words
as far as practicable.*

The questions are of equal value.

- 1. Answer any five questions:** 1×5=5
- (a) Distinguish between kernel and shell of an operating system.
 - (b) Name some computing resources in connection with operating system.
 - (c) State an application of real-time operating system.
 - (d) What do you mean by synchronization?
 - (e) What do you mean by nonpreemptive process scheduling?
 - (f) Distinguish between physical and virtual address space.
 - (g) Write the full form of IPC.
 - (h) What is device driver?
- 2. Answer any two questions:** 5×2=10
- (a) Write a short note on various categories of operating systems.
 - (b) Discuss the life cycle of a process with a suitable block diagram.
 - (c) Describe address translation during paging in brief.
 - (d) Discuss various issues associated to device management by operating system.
- 3. Answer any one question:** 10×1=10
- (a) Write a short note on critical section problem. Discuss the Round-Robin CPU scheduling in brief with a suitable example. 5+5=10
 - (b) Describe various methods for file allocation with their merits and demerits. 10
-