GBGS Scheme

			_	,			
TICAL							16/17SFC22
USN							
		1 1				property to the second	

Second Semester M.Tech. Degree Examination, June/July 2018

Operating System Security Max. Marks: 80 Time: 3 hrs. Note: Answer FIVE full questions, choosing one full question from each module. What is an operating system? explain its block diagram along with the ideal security goals. (08 Marks) Differentiate between the threat model and trust model. (08 Marks) b. OR Explain the reference monitor in detail. (08 Marks) List and explain the assessment criteria to evaluate the extent to which an operating system b. satisfies the reference monitor. (08 Marks) Module-2 Explain different interacting model used in multics protection system. (08 Marks) a. (08 Marks) Explain multics protection system policies. (08 Marks) Explain the basic principles of multics operating system. a. Explain: b. i) Multics process segment Addressing ii) Multics structures of segment Descriptor. (08 Marks) Module-3 Explain classical unix protection system. (08 Marks) Explain UNIX vulnerabilities. (08 Marks) b. OR Write a note on Clark – Wilson integrity model. (08 Marks) a. Define covert channels. Explain different types of channels with example. (08 Marks) b. Module-4 Explain SCOMP Hardware. (08 Marks) a. (08 Marks) Explain SCOMP Trusted operating system. b. Explain retrofitting of commercial OS's in UNIX era. (08 Marks) 8 a. Explain Domain and type enforcement. (08 Marks) b. Module-5 List and explain the trusted extension mulitlevels services of Solaris 10 operating system. a. (08 Marks) Explain four ways of defining SELINUX object's label. (08 Marks) b.

OR

- Write a short note on SELINUX reference monitor and SELINUX protection state. 10 a. (08 Marks)
 - Discuss SELINUX protection state labeling state and transition state.

(08 Marks)

* * * * *

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice. Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.