

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2181106****Date:09/05/2019****Subject Name:Device Driver & Writing****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Explain role of The Device Driver.	03
	(b) Differentiate the function printf and printk.	04
	(c) Draw and explain split view of kernel.	07
Q.2	(a) Explain Kernel Symbol Table in detail.	03
	(b) List and Explain the functions used to register and unregister device number.	04
	(c) Write short note: Design of scull.	07
	OR	
	(c) Explain the steps to register device in scull.	07
Q.3	(a) Write short note on “inode structure”.	03
	(b) Explain scull_write() function in detail.	04
	(c) List out different Debugging Techniques. And discuss printk function in detail.	07
	OR	
Q.3	(a) Write a short note on ioctl method.	03
	(b) What is Rate Limiting? Discuss in brief.	04
	(c) Explain /proc file system. Also discuss implementation of files in /proc.	07
Q.4	(a) Write short note on SBus.	03
	(b) Explain function in detail: init_rwsem.	04
	(c) Write short note on Concurrency and its management.	07
	OR	
Q.4	(a) Explain call_rcu () function in detail.	03
	(b) What is Spinlock? Discuss spin_lock in detail.	04
	(c) Explain the prototype for kmalloc.	07
Q.5	(a) Write short note on kernel timers.	03
	(b) Write short note on sysfs.	04
	(c) Write short note on Interrupt-Driven I/O.	07
	OR	
Q.5	(a) Explain function usb_control_msg.	03
	(b) Explain the use of jiffies counter.	04
	(c) Write short note on Registering a USB Driver.	07
