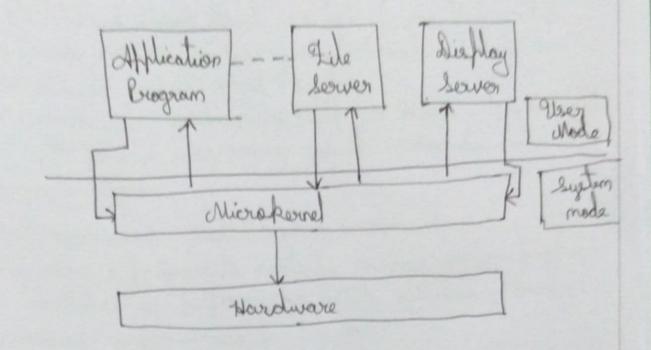
Year /sem	Seat No.	Sulject	Date	Sign	lage No.			
SE/TV R2019	SE/TV RWM4181 Operating 08/06/21 King 1/7							
Juestion No.: Q. 2 (A)								
ii) Being a kourel it marager all system resources. iii) But in a microkernel, the user services and bornel services are inflemented in different address space. iv) The user services are kept in user address space, and kernel services are kept under kernel address space, Thus also reduces the size of kernel and size of operating system as well. v) The microkernel is solely responsible for the most infartant services of operating system they are named as follows:								
a Inter process - Communication. b] Memory Management. c] CPU Scheduling.								
Advantages of Microhernel 3- 1) The architecture of this kernel is small and isolated honce it can function better. ii) Expansion of the system is easier; It is sinhly added in the system afflication without disturbing the kernel.								

Edipse IDE is a good example of Microberred architecture

(P.7.0.)

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SE/IV R2019	RWM4181	System	08/06/21	Kuri	3/7

- Thread: A thread thread is a fath of execution within a forecess. There are two types of threads. i.e. i) User level threads and (ii) Hernel thread. The benefits of multi threaded programming can be broken down into four major categories:
- 1 Responsiveness: Multithroading is an interactive application may allow a program to continue running evenit a hart of it is blocked or is ferforming a lengthy operation, thereby increasing responsiveness to the user.
- Resource sharing: brocesses may share resources only through techniques such as: a Message housing and I shared chemory.

 Such techniques must be explicitly organized by brogrammer. However threads share the memory and the resources of the process to which they belong by default
- 5] Economy: Allocating memory and resources for process creation is a coeffy job in terms of time and shace. Since, threads share memory with the process it belongs, it is more economical to preate and contest switch threads.

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increase in case of multiprocessors architecture, where throads may be surring farallel on multiple processors. If there is only one throad then it is not possible.

Chulti-threading on a multiple CPU machine increases harallelism.

SE/IX RWM4181 Oberating 08/06/21 Kuri 5/7 Guestian no. © Q.2(C) Ji) of Semathere S is integer recovable whose value can be accessed and charged only by two operations wait (POR accessed and charged only by two operations wait (POR signal are storic operations). Waitland sleep or down) and signal (V or wakeup or up). Waitland signal are storic operations. Jenory Sematheres does not assume all the integer values. Jenory Sematheres does not assume all the integer counting sematheres (general sematheres) can assume only non-negative values. Jenory on negative values. Jenory of P(S), operates as follows: Wait (S) OF P(S), operates as follows: Wait (S) OF P(S), operates as follows: THEN ST = S - I ELSE (waters) THEN (let one of these processaforces) Single individuals atomic aperation. It means, one a single individuals atomic aperation. It means, one a single individuals atomic aperation. It means, one a	01- 1			Date	Sign	logedo.
Question no. © Q. 2(C) The semathere is integer reconcile whose value can be accessed and charged only by two observations wait (Por accessed and charged only by two observations wait (Por sleef or down) and signal (V or wakesh or wh). Woutand signal are atomic oferations. Signal are atomic oferations. The wait of sematheres does not assume all the integer radiues. The wait of sematheres (general sematheres) can assume counting sematheres (general sematheres) can assume only non-regative values. The wait of oferation on sematheres is written as wait (s) on P(s), oferates as follows: Then signal of oration on semathere is written as exignal (s) on V(s), otheretes as follows: Signal (s) on V(s), otheretes as follows: Then (let one of these processations on its processations of its processations on its processations of its processations on its processations on its processations on its processations on its processations of its processations on its processations on its processations of its processations of its processations of its processations of its processations on its processations of its processations of its processat	year/sem		Subject	The same of the sa	and the same of th	
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V) The two operations, wait and signal are done as single individule atomic operation. It means, once a senathoro operation has initiated, no other process can access		THE	EN (let one	of these for	rocessoporoe	
v) The two operations, wait and signal are done as single individule atomic operation. It means, once a senathore operation has initiated, no other process can access		ELS	E & Sr = S-	É		
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senathore operation has initiated, no other process can access	sing	le individile	stonic of	eration. 2	t means, or	we a
	Gense	sitarefo arah	has initiated	, no other	process ce	o accese

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the semaphore until operation to has finished.
Mutual exclusion on the semaphore s is enforced within wait (s) and signal (s).

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son who cr	ealed to fil	2 .
n of the file		
al; 1 for	do not disfle	y
pad/write;	1 for read on	ly.
locked; no	n-zero for lo	ched
	se of the file reeded for who or who or ad / write; locked; now bytes in the	