S.NO	LEVEL	QUESTION	A	B	C	D	E	ANSWERS
1		What is operating system?	collection of programs that manages hardware resources	system service provider to the application programs	link to interface the hardware and application programs	all of the mentioned		D
2		To access the services of operating system, the interface is provided by the:	system calls	API	library	assembly instructions		A
3		Which one of the following is not true?	kernel is the program that constitutes the central core of the operating system	kernel is the first part of operating system to load into memory during booting	kernel is made of various modules which can not be loaded in running operating system.	kernel remains in the memory during the entire computer session		C
4		Which one of the following error will be handle by the operating system?	power failure	lack of paper in printer	connection failure in the network	all of the mentioned.		D
5		The main function of the command interpreter is:	to get and execute the next user-specified command	to provide the interface between the API and application program	to handle the files in operating system	none of the mentioned		A
6		By operating system, the resource management can be done via:	time division multiplexing	space division multiplexing	both (a) and (b)	none of the mentioned		C
7		If a process fails, most operating	log file	another running process	new file	none of the mentioned		A

		system write the error information to a:						
8		Which facility dynamically adds probes to a running system, both in user processes and in the kernel?	DTrace	DLocate	DMAPD	Add		A
9		The part of machine level instruction, which tells the central processor what has to be done, is	Operation code	Address	Locator	Flip-Flop		A
10		To avoid the race condition, the number of processes that may be simultaneously inside their critical section is	8	1	16	0		B
11		A system program that combines the separately compiled modules of a program into a form suitable for execution	assembler	linking loader	cross compiler	load and go		B
12		Which of the following refers to the associative memory?	the address of the data is generated by the CPU	the address of the data is supplied by the users	there is no need for an address i.e. the data is used as an address	the data are accessed sequentially		C
13		The LRU algorithm	pages out pages that have been used recently	pages out pages that have not been used	pages out pages that have been least used recently	pages out the first page in a given area		C

				recently				
14		Environment for execution of programs is provided by	inputs	outputs	operating system	memory		C
15		One that is not a type of user interface of the operating system is	command line interface	graphical user interface	batch interface	device interface		D
16		For communication, operating system moves	processes	packets	programs	Modules		B
17		For web based computing system, computer used are normally	personal computers	servers	network computers	tablets		A
18		A service not provided by operating system is	networking	user interface	program execution	error detection		A
19		CPU scheduling depends on	speed	cost	Register	Both a and b		C
20		System calls of operating system provides interface to	programs	processes	services	utilitites		C
21		One that is not a system call category of program is	process control	file generation	protection	communication		B
22		For avoiding programs of operating system to get stuck, system users use	trap	timers	process	Programs		B
23		Getting device attributes of computer system is a	process control	file management	device management	information maintenance		D
24		Dump of memory of the	programmer	Designer	Debugger	Engineer		C

		computer system is examined by the						
25		CloseHandle() call function in windows operating system is a UNIX's function called for	Fork()	Open()	Read()	Close()		D
26		Programs of the operating system usually ends	Normally	Interruptedly	Intervally	Erroneously		A
27		Getting time and date of the computer system is	Process control	File management	Device management	Indormation maintainence		D
28		Memory protection is normally done by	the processor and the associated hardware	the operating system	the compiler	the user program		A
29		In real time OS, which is most suitable scheduling scheme	Round robin	fcfs	Pre-emptive scheduling	Random scheduling		C
30		*Size of virtual memory depends on*	size of data bus	size of address bus	size of main mmemory	none of above		B
31		For multiprogramming operating system	special support from processor is essential	special support from processor is not essential	cache memory is essential	none of above		B
32		Which is single user operating system	MS-DOS	UNIX	XENIX	LINUX		A
33		Which operating system reacts in the actual time	Batch system	Quick response system	Real time system	Time sharing system		C
34		*Macintosh computer uses*	System 7.0	AU/X	Xenix	none of above		B
35		Problem of thrashing is affected significantly by	program structure	program size	primary storage size	all of above		A

36		*What is the name given to the values that are automatically provided by software to reduce keystrokes and improve a computer user's productivity?*	defined values	Fixed values	Default values	None of the above		C
37		Multiprogramming systems	Are easier to develop than single programming systems	Execute each job faster	Execute more jobs in the same time	Are used only on large main frame computers		C
38		Operating system is	collection of hardware components	A collection of input output devices	A collection of software routines	All of above		C
39		*Which operating system use write through catches*	Unix	Xenix	Ultrix	Dos		D
40		Which process is known for initializing a microcomputer with its OS	cold booting	boot recording	booting	warm booting		C

UNIT-2

Q. NO	LEVEL	QUESTION	A	B	C	D	E	ANSWERS
1		1. The systems which allow only one process execution at a time, are called _____	uniprogramming systems	uniprocessing systems	unitasking systems	none of the mentioned		A
2		In operating system, each process has its own _____	address space and global variables	open files	pending alarms, signals and signal handlers	all of the mentioned		D
3		3. In Unix, Which system call creates the new process?	fork	create	new	none of the mentioned		A
4		4. A process can be terminated due to _____	normal exit	fatal error	killed by another process	all of the mentioned		D
5		What is the ready state of a process?	when process is scheduled to run after some execution	when process is unable to run until some task has been completed	when process is using the CPU	none of the mentioned		A
6		What is interprocess communication?	communication within the process	communication between two process	communication between two threads of same process	none of the mentioned		B
7		A set of processes is deadlock if _____	each process is blocked and will remain so forever	each process is terminated	all processes are trying to kill each other	none of the mentioned		A
8		8. A process stack does not contain _____	Function parameters	Local variables	Return addresses	PID of child process		D

9		. Which system call returns the process identifier of a terminated child?	wait	exit	fork	get		A
10		. The address of the next instruction to be executed by the current process is provided by the _____	CPU registers	Program counter	Process stack	Pipe		B
11		A Process Control Block(PCB) does not contain which of the following?	Code	Stack	Bootstrap program	Data		C
12		The number of processes completed per unit time is known as _____	Output	Throughput	Efficiency	Capacity		B
13		The state of a process is defined by _____	the final activity of the process	the activity just executed by the process	the activity to next be executed by the process	the current activity of the process		D
14		Which of the following is not the state of a process?	New	Old	Waiting	Running		B
15		What is a Process Control Block?	Process type variable	Data Structure	A secondary storage section	A Block in memory		B
16		The entry of all the PCBs of the current processes is in _____	Process Register	Program Counter	Process Table	Process Unit		C
17		What is the degree of multiprogramming?	the number of processes executed per unit time	the number of processes in the ready queue	the number of processes in the I/O queue	the number of processes in memory		D
18		A single thread of control allows the process to perform	only one task at a time	multiple tasks at a time	only two tasks at a time	all of the mentioned		A

		_____						
19		What is the objective of multiprogramming?	Have some process running at all times	Have multiple programs waiting in a queue ready to run	To minimize CPU utilization	None of the mentioned		A
20		Which of the following do not belong to queues for processes?	Job Queue	PCB queue	Device Queue	Ready Queue		B
21		When the process issues an I/O request _____	It is placed in an I/O queue	It is placed in a waiting queue	It is placed in the ready queue	It is placed in the Job queue		A
22		What will happen when a process terminates?	It is removed from all queues	It is removed from all, but the job queue	Its process control block is de-allocated	Its process control block is never de-allocated		A
23		What is a long-term scheduler?	It selects which process has to be brought into the ready queue	It selects which process has to be executed next and allocates CPU	It selects which process to remove from memory by swapping	None of the mentioned		A
24		What is a medium-term scheduler?	It selects which process has to be brought into the ready queue	It selects which process has to be executed next and allocates CPU	It selects which process to remove from memory by swapping	None of the mentioned		C
25		What is a short-term scheduler?	It selects which process has to be brought into the ready queue	It selects which process has to be executed next and allocates CPU	It selects which process to remove from memory by swapping	None of the mentioned		B
26		The primary distinction between the short term scheduler and the long term scheduler is _____	The length of their queues	The type of processes they schedule	The frequency of their execution	None of the mentioned		C
27		The only state transition that is	block	wakeup	dispatch	none of the		A

		initiated by the user process itself is _____				mentioned		
28		In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the running state to the _____	Blocked state	Ready state	Suspended state	Terminated state		B
29		In a multiprogramming environment _____	the processor executes more than one process at a time	the programs are developed by more than one person	more than one process resides in the memory	a single user can execute many programs at the same time		C
30		Suppose that a process is in “Blocked” state waiting for some I/O service. When the service is completed, it goes to the _____	Running state	Ready state	Suspended state	Terminated state		B
31		The context of a process in the PCB of a process does not contain _____	the value of the CPU registers	the process state	memory-management information	context switch time		D
32		Which of the following need not necessarily be saved on a context switch between processes?	General purpose registers	Translation lookaside buffer	Program counter	All of the mentioned		B
33		Which of the following does not interrupt a running process?	A device	Timer	Scheduler process	Power failure		C
34		Which process can be affected	cooperating process	child process	parent process	init process		A

		by other processes executing in the system? a) cooperating process b) child process c) parent process d) init process						
35		When several processes access the same data concurrently and the outcome of the execution depends on the particular order in which the access takes place, is called?	dynamic condition	race condition	essential condition	critical condition		B
36		If a process is executing in its critical section, then no other processes can be executing in their critical section. This condition is called?	mutual exclusion	critical exclusion	synchronous exclusion	asynchronous exclusion		A
37		The major objective of process cooperation is	information sharing	modularity	all the above	computation speedup		
38		A process is more than Program code which is Sometimes known as	text section	contents of processors's registers	Stack	data section		A
39		_____ section isallocated dynamically memory to a	Stack	text	data	Heap		D

		process during its run time						
40		Each process is represented in an OS by	Process control block	printed circuit block	program control block	Problem control block		A

UNIT-3

Q.NO	LEVEL	QUESTION	A	B	C	D	E	ANSWERS
1		Which process can be affected by other processes executing in the system?	cooperating process	child process	parent process	init process		A
2		Which one of the following is a synchronization tool?	thread	pipe	semaphore	socket		C
3		Process synchronization can be done on _____	hardware level	software level	both hardware and software level	none of the mentioned		C
4		To enable a process to wait within the monitor _____	a condition variable must be declared as condition	condition variables must be used as boolean objects	semaphore must be used	all of the mentioned		A
5		If a process is executing in its critical section, then no other processes can be executing in their critical section. This condition is called?	mutual exclusion	critical exclusion	synchronous exclusion	asynchronous exclusion		A
6		When high priority task is indirectly preempted by medium priority task effectively inverting the	priority inversion	priority removal	priority exchange	priority modification		A

		relative priority of the two tasks, the scenario is called _____						
7		Concurrent access to shared data may result in _____	data consistency	data insecurity	data inconsistency	none of the mentioned		C
8		The segment of code in which the process may change common variables, update tables, write into files is known as _____	program	critical section	non – critical section	synchronizing		B
9		Which of the following conditions must be satisfied to solve the critical section problem?	Mutual Exclusion	Progress	Bounded Waiting	All of the mentioned		B
10		Mutual exclusion implies that _____	if a process is executing in its critical section, then no other process must be executing in their critical sections	if a process is executing in its critical section, then other processes must be executing in their critical sections	) if a process is executing in its critical section, then all the resources of the system must be blocked until it finishes execution	none of the mentioned		A
11		A minimum of _____ variable(s) is/are required to be shared between processes to solve the critical section problem	one	two	three	four		B
12		n the bakery algorithm to solve the critical section problem _____	each process is put into a queue and picked up in an ordered	each process receives a number (may or may not be	each process gets a unique number and the one with the highest	each process gets a unique number		B

			manner	unique) and the one with the lowest number is served next	number is served next	and the one with the lowest number is served next		
13		A critical section is a program segment	which should run in a certain specified amount of time	which avoids deadlocks	where shared resources are accessed	which must be enclosed by a pair of semaphore operations, P and V		C
14		What is the advantage of Spinlocks?	context switch is required	no context switch is required	no starvation	no deadlock		B
15		Which of the following is a hardware based solution to critical section problem?	Peterson's solution	Dekker's Solution	Monitors	Swap() instruction		D
16		Semaphore is a _____ based solution	software	hardware	Both software and hardware	None		A
17		In binary semphore what is the value given to the semaphore variable when the resource is free?	0	1	2	3		B
18		A counting semaphore was initialized to 10. Then 6 P (wait) operations and 4V (signal) operations were completed on this semaphore. The resulting value of the semaphore is	0	8	10	12		B
19		An un-interruptible unit	single	atomic	static	none of the mentioned		B

		is known as _____						
20		TestAndSet instruction is executed _____	after a particular process	periodically	atomically	none of the mentioned		C
21		Semaphore is a/an _____ to solve the critical section problem.	hardware for a system	special program for a system	integer variable	none of the mentioned		C
22		What are the two atomic operations permissible on semaphores?	wait	stop	hold	none of the mentioned		A
23		What are Spinlocks?	CPU cycles wasting locks over critical sections of programs	Locks that avoid time wastage in context switches	Locks that work better on multiprocessor systems	All of the mentioned		D
24		What is the main disadvantage of spinlocks?	they are not sufficient for many process	they require busy waiting	they are unreliable sometimes	they are too complex for programmers		B
25		The bounded buffer problem is also known as _____	Readers – Writers	problem Dining – Philosophers problem	Producer – Consumer problem	None of the mentioned		C
26		In the bounded buffer problem, there are the empty and full semaphores that _____	count the number of empty and full buffers	count the number of empty and full memory spaces	count the number of empty and full queues	none of the mentioned		A
27		In the bounded buffer problem _____	there is only one buffer	there are n buffers (n being greater than one but finite	there are infinite buffers	the buffer size is bounded		B
28		To ensure	readers	writers	readers and	none of the		B

		difficulties do not arise in the readers – writers problem _____ are given exclusive access to the shared object.			writers	mentioned		
29		The dining – philosophers problem will occur in case of _____	5 philosophers and 5 chopsticks	4 philosophers and 5 chopsticks	3 philosophers and 5 chopsticks	6 philosophers and 5 chopsticks		A
30		A deadlock free solution to the dining philosophers problem _____	necessarily eliminates the possibility of starvation	does not necessarily eliminate the possibility of starvation	eliminates any possibility of any kind of problem further	none of the mentioned		B
31		A monitor is a type of _____	semaphore	low level synchronization construct	high level synchronization construct	none of the mentioned		C
32		. A monitor is characterized by _____	a set of programmer defined operators	an identifier	the number of variables in it	all of the mentioned		A
33		A procedure defined within a _____ can access only those variables declared locally within the _____ and its formal parameters.	process, semaphore	process, monitor	semaphore, semaphore	monitor, monitor		D
34		The monitor construct ensures that _____	only one process can be active at a time within the monitor	n number of processes can be active at a time within the monitor (n being greater than 1)	the queue has only one process in it at a time	all of the mentioned		A

35		What are the operations that can be invoked on a condition variable?	wait & signal	hold & wait	signal & hold	continue & signal		A
36		Which is the process of invoking the wait operation?	suspended until another process invokes the signal operation	waiting for another process to complete before it can itself call the signal operation	stopped until the next process in the queue finishes execution	none of the mentioned		A
37		If no process is suspended, the signal operation _____	puts the system into a deadlock state	suspends some default process execution	nothing happens	the output is unpredicta ble		C
38		In monitor, local data variables accessible only by	Procedures	Monitor's Procedures	Monitor	None		B
39		After every interrupt ISR is	executed	stopped	interpreted	compiled		A
40		Trap that is executed during program is caused by	error	division by zero	interrupt	both a and b		D