Program: SE Information Technology

Curriculum Scheme: Revised 2016

Examination: Second Year Semester IV

Course Code: SEITC403   **Course Name: Operating systems**

Time: 1 hour   Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	The system call to create new process in Unix is:
Option A:	Create
Option B:	mkdir
Option C:	fork
Option D:	rmdir
Q2.	For cache, main memory is divided into lines, each of _____ bytes.
Option A:	8
Option B:	16
Option C:	32
Option D:	64
Q3.	The system calls are issued by _____.
Option A:	Kernel
Option B:	User program
Option C:	Hardware
Option D:	OS
Q4.	A process state, in which the process is waiting for some external event to occur, is _____.
Option A:	Waiting
Option B:	Ready
Option C:	New
Option D:	running
Q5.	The type of scheduler which decides the process to run next is called as _____.
Option A:	Long term scheduler
Option B:	Short term scheduler
Option C:	Medium term scheduler
Option D:	OS
Q6.	When to put a new item in cache?
Option A:	On cache hit
Option B:	On cache miss
Option C:	Whenever required

Option D:	Everytime
Q7.	The interval of time between submission of a process and its completion is called _____.
Option A:	Response time
Option B:	Dispatch time
Option C:	Waiting time
Option D:	Turnaround time
Q8.	While implementing threads at user level, thread table is managed by _____.
Option A:	OS
Option B:	Kernel
Option C:	Run time system
Option D:	Process table
Q9.	If process A arrives at 4sec. and stared execution at 10sec., then waiting time for A is _____ seconds.
Option A:	0
Option B:	4
Option C:	6
Option D:	10
Q10.	SRTN is a preemptive version of _____.
Option A:	FCFS
Option B:	SJF
Option C:	RR
Option D:	FIFO
Q11.	Which scheduler manages blocked processes?
Option A:	Long term scheduler
Option B:	Short term scheduler
Option C:	Medium term scheduler
Option D:	OS
Q12.	In _____ state , a process is waiting for processor.
Option A:	Waiting
Option B:	Ready
Option C:	New
Option D:	running
Q13.	When thread finishes its execution, it calls _____ system call to let the other thread run.
Option A:	Thread join
Option B:	Thread yield
Option C:	Thread create
Option D:	Thread delete

Q14.	A _____ points to address of next instruction .
Option A:	Index register
Option B:	Stack pointer
Option C:	Accumulator
Option D:	Program counter
Q15.	_____ are useful in thread packages that are implemented entirely in user space.
Option A:	Semaphore
Option B:	Monitor
Option C:	Mutex
Option D:	Critical section
Q16.	To attack _____ condition, a process should request all resources initially.
Option A:	Preemption
Option B:	Hold and wait
Option C:	Circular wait
Option D:	Mutual exclusion
Q17.	_____ loads first instruction of program at address x, and add x to every subsequent address during loading.
Option A:	Static relocation
Option B:	Dynamic relocation
Option C:	Paging
Option D:	Segmentation
Q18.	The memory management technique where variable partitions are used:
Option A:	Relocation
Option B:	Swapping
Option C:	Paging
Option D:	Segmentation
Q19.	Consider page frame size as 3 And page sequence: 2,3,2,1,5,2,4,5,3,2,5,2. What are the no. of page faults using Optimal algorithm?
Option A:	5
Option B:	6
Option C:	4
Option D:	7
Q20.	Allowing program to run even if only part of it is in main memory is called as
Option A:	Relocation
Option B:	Swapping
Option C:	Virtual memory
Option D:	Segmentation

Q21.	Bankers algo. is used for deadlock _____.
Option A:	detection
Option B:	prevention
Option C:	avoidance
Option D:	recovery

Q22. How many resources of type A, B, C, D are there?

Processes	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

Option A:	3 22 21 16
Option B:	1 5 2 0
Option C:	2 9 10 12
Option D:	3 14 12 12

Q23.	A _____ is a collection of procedures , variables and data structures that are all grouped together in a special kind of module or package.
Option A	Semaphore
Option B	Monitor
Option C	Mutex
Option D	Critical section

Q24. Calculate the need matrix?

Processes	Allocation				Max				Available			
	A	B	C	D	A	B	C	D	A	B	C	D
P0	0	0	1	2	0	0	1	2	1	5	2	0
P1	1	0	0	0	1	7	5	0				
P2	1	3	5	4	2	3	5	6				
P3	0	6	3	2	0	6	5	2				
P4	0	0	1	4	0	6	5	6				

Option A:

	A	B	C	D
P0	1	0	0	0
P1	0	7	5	0
P2	1	0	0	2
P3	0	2	2	0
P4	0	6	4	2

Option B:

	A	B	C	D
P0	0	0	0	0
P1	0	7	5	0

		A	B	C	D
	P2	1	0	0	2
	P3	0	2	2	0
	P4	0	6	4	2
Option C:		A	B	C	D
	P0	0	1	0	0
	P1	1	7	5	0
	P2	1	0	0	2
	P3	0	0	2	0
	P4	0	6	4	2
Option D:		A	B	C	D
	P0	0	0	0	0
	P1	0	7	5	0
	P2	1	0	0	2
	P3	0	0	2	0
	P4	0	6	4	2

Q25.	This technique suffers from internal fragmentation.
Option A:	Paging
Option B:	Segmentation
Option C:	Relocation
Option D:	Partitioning