University of Mumbai

Examination 2020 under cluster 4 (PCE)

Program: BE Information Technology
Curriculum Scheme: Rev 2012
Examination: Third Year Semester V
Course Code:ITC502 and 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.	Which of the following scheduling algorithm is the average waiting time for the process to start execution is often quite long
Option A:	Shortest Job First
Option B:	First come, First Serve
Option C:	Priority
Option D:	Round robin
Q2.	Which is not OS?
Option A:	VxWorks
Option B:	Windows CE
Option C:	RTLinux
Option D:	Palm OS
Q3.	Threads shares with other threads belonging to the same process, its _____ is same
Option A:	thread ID
Option B:	Program counter
Option C:	register set and a stack
Option D:	code section and data section
Q4.	The circular wait condition can be prevented by _____
Option A:	Defining a linear ordering of resource types
Option B:	Using pipes
Option C:	Using thread
Option D:	using semaphores
Q5.	Multithreading on a multi-CPU machine
Option A:	decreases concurrency
Option B:	increases concurrency
Option C:	doesn't affect the concurrency
Option D:	can increase or decrease the concurrency
Q6.	The main disadvantage of mutex lock is
Option A:	No waiting
Option B:	bounded waiting
Option C:	Mutex lock cannot be used for synchronization
Option D:	starvation
Q7.	What is the minimum number of disks required for RAID1?
Option A:	1

Option B:	2
Option C:	4
Option D:	5
Q8.	In FIFO page replacement algorithm, when a page must be replaced _____
Option A:	newest page is chosen
Option B:	oldest page is chosen
Option C:	random page is chosen page
Option D:	second oldest page
Q9.	The protection bit is 0/1 based on _____
Option A:	write only
Option B:	read only
Option C:	read – write
Option D:	copy only
Q10.	Android operating system is based on?
Option A:	Mac
Option B:	Windows
Option C:	Linux
Option D:	Solaris
Q11.	The _____is read by the host to get input
Option A:	data-in register
Option B:	data-out register
Option C:	status register
Option D:	control register
Q12.	In which of these file organization does the record hold a sequence based on key field
Option A:	pile
Option B:	sequential
Option C:	indexed sequential
Option D:	indexed
Q13.	To enable a process to wait within the monitor
Option A:	condition variables must be used as boolean objects
Option B:	a condition variable must be declared as condition
Option C:	turn variable must be used
Option D:	semaphore must be used
Q14.	In context of Banker's algorithm which of the statements is not correct
Option A:	An unsafe state may not always lead to deadlock
Option B:	A safe state avoids deadlock
Option C:	this algorithm works for single instance of resource type
Option D:	allocates resources to all process

Q15.	In which of these free space management techniques, it is easy to find a block of continuous free space.
Option A:	Bit tables
Option B:	Chained Free Portions
Option C:	Indexing
Option D:	Free Block List
Q16.	Which of the following multithreading models maps each user thread to kernel thread ?
Option A:	Many to One Model
Option B:	One to Many Model
Option C:	Many to Many Model
Option D:	One to One Model
Q17.	For an effective operating system, when to check for deadlock?
Option A:	every time a resource request is made
Option B:	at fixed time intervals
Option C:	every time a resource request is made at fixed time intervals
Option D:	as a new process enters
Q18.	The page table contains _____
Option A:	page number
Option B:	page offset
Option C:	page size
Option D:	base address of each page in physical memory
Q19.	Which state of the process defined "The process is waiting to be assigned to a processor"
Option A:	New
Option B:	Running
Option C:	Ready
Option D:	Terminate
Q20.	The process that are residing in main memory and are ready and waiting to execute are kept on a list called the
Option A:	device queue
Option B:	ready queue
Option C:	job queue
Option D:	execution queue
Q21.	The bounded buffer problem is also known as
Option A:	Readers – Writers problem
Option B:	Dining – Philosophers problem
Option C:	Producer – Consumer problem
Option D:	buffer problem
Q22.	To initiate a DMA transfer,the host writes DMA command block into_____
Option A:	Register

Option B:	bus
Option C:	port
Option D:	memory
Q23.	Which one of the following can not be scheduled by the kernel?
Option A:	kernel level thread
Option B:	user level thread
Option C:	process
Option D:	multi-thread
Q24.	A FIFO replacement algorithm associates with each page the _____
Option A:	time it was brought into memory
Option B:	size of the page in memory
Option C:	page after and before it
Option D:	second page
Q25.	What is a trap/exception?
Option A:	hardware generated interrupt caused by an error
Option B:	software generated interrupt caused by an error
Option C:	user generated interrupt caused by an error
Option D:	Kernel generated interrupt

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	B
Q2.	D
Q3.	D
Q4	A
Q5	B
Q6	A
Q7	B
Q8.	B
Q9.	C
Q10.	C
Q11.	A
Q12.	C
Q13.	B
Q14.	C
Q15.	A
Q16.	D
Q17.	C
Q18.	D
Q19.	C
Q20.	B
Q21.	C
Q22.	D
Q23.	**B**
Q24.	A
Q25.	B