	Na Caraca
1 o Maleur	y Japan
Operating System	
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Onis-1	
UN 3-1	
C	
Solution of last five	lear
Questions afeed in AKTI	<i>J</i> .
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	Operating	
	1 1 1	
	Unit-1	The second of the second
· Nest 1	Charges to bles groups in	asked in
	Solution of Last 5 y AKTU, external Examin	ear question
	AKTU , external chamin	auom.
	Cart - Anger Palate	P / P /
0.1	Describe the difference bed	1. INF 15715 Market
()	asymmetric multiprocessing	1,
side i	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	11. 25.61 5.19 [1.17]
.,	800	
	Symmetric	Asymmetric
	Mulliprocessing	Mulliprocessing
DJ de	oran di diamal alda	COMPACTOR SECRETARIAN SECTION OF COMPACTOR SECTION
	· All the processors are	· The processors are
- · · · · · · · · · · · · · · · · · · ·	treated equally	nat treated equally
	· Fask of the operating	· Jask of the operating
	system au done	system are done b
1000	in dividual processor	master processor
habacza,	grand to make a fractation	are of Irrada)
	· All processor communicaly	· No communication
	with another processor	between processors as
, J.	by a shared memory	they are contralled b
1./2	init t since 2 of itali	the master processo
03715		1 13
	· It is not cheeper as	"It is "cheaper os
J 11=1	Compaine to asymmetric	compare to symmets
	multiprocessing.	multiprocessing
-		100/1009
. /	i Al i con a	CION MANAGE 1
J 15	· It is complen to	· it is easier to
	design.	design.
	1 N 2 N 2 N 2 N 1 N 1 N 1 N 1 N 1 N 1 N	The state of the s

14 (\$H)	
1 van 4 · ·	
0.2.	Discuss the various operating system
1,1	Components. [2014-15][5 monks] [2017-18][7 mars
!	[2014-13][3 Mary] (2011-18][4 Mary
Sec. 15	Sol Operating system have the following components-
1	- Jacobing Components
	1- Process Management
	1- Proces Management 2- Main momory management
	3- file management
42007	4- Secondary momory management
	I - I/D system monagement
	6 - Networking
	7 - Protection system
	8- Command interpreter system
-	. All the above mentioned is a important
	component of operating system. Process
	managemet is concern about process execution
	or syncronigation where as main memory
/	management is all about RAM management
	and secondary storage management is all
	about Disk management.
9,3.	Emplain the layered architecture of Operating System also emplain the odvantage and disadvantage of layered design.
	System also emplain the advantage and disadvantage
	of lagered denign.
	[2014-15] [5 Manh] [2017-18] [7 manh
100	
Figure (Bol This approach (layered) breaks up the
Marie I	8010. This approach (layered) breaks up the operating system into different layers.
	· This allows implementers to change the
	V

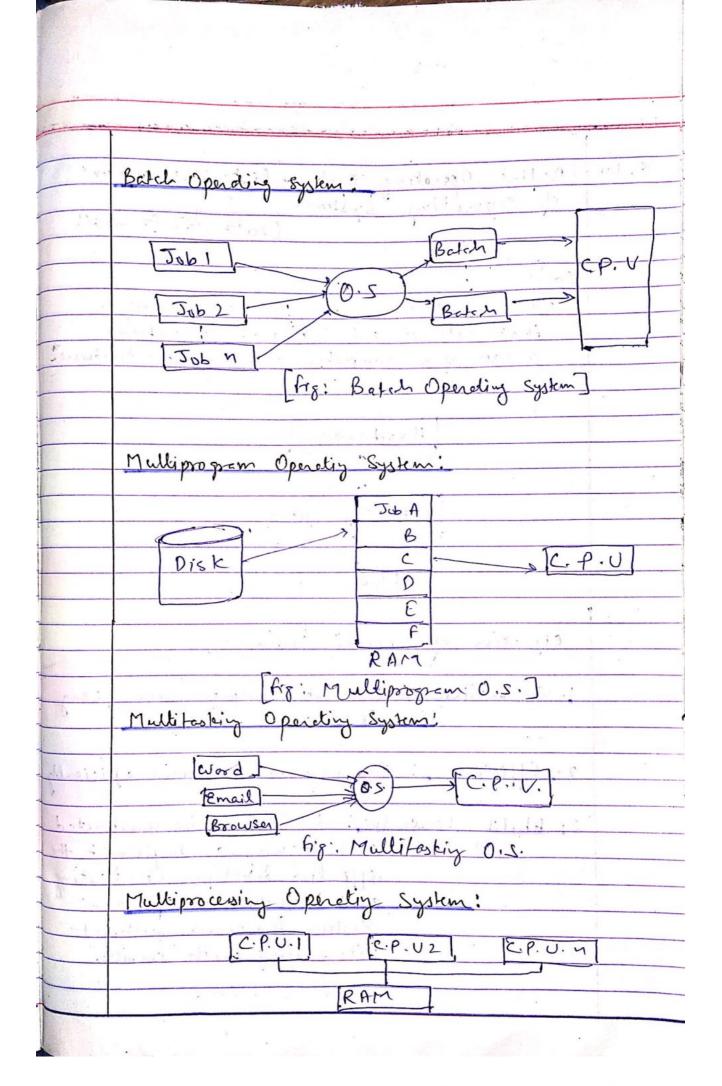
	inner working, and increases modularity.
C.F.	110 180 100 12 100 100 100 100 100 100 100 100
	· As long as the enternal interface of the routines don't change, developers have more
	treedom to chance the inner working of
	freedom to change the inner working of the routines.
	1 4 3 4 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	· With the layed approach, the bottom
	· With the layed approach, the bottom layer is the hardware, while the highest layer is the VSer interface.
	lager is the User interface.
	, , , , , , , , , , , , , , , , , , ,
	Vsers J van mode
10	file system
1	Interprocess Communication
	Flo managent Kernel mode
11-1	virtual memory mode
1	process managent
1,	Hard ware
	fig: layered approach]
	· The main advantage - simplicity of constrution
N 131 1	and debugging
e = -	the second secon
za (*)	· The main disadvantage - O.S. tends to be
	less officient than
* 1	ofher implementation.
	and the pick outline there is
34	The said of the standards of the said of t

0.4.	What is spooling. [2014-15] [5marks] [2015-16] [2
	Ladiones Comment
<u> </u>	63
110000	Sn(G)
	Spooling! Spooling stands for "Simultaneous Peripheral Operations Online"
	Peripheral Operations Online.
1 1	
- 1	· so, in a spooling, more than one 1/0
	operations can be performed symmetrices
	lie at the lime when C. F.U. is executing
	some process then were the
	operations can also be done at the
14 my 100	same lime.
	•
	The following diagram image will helps us in understanding the concept in a better
	vs in indenstanding the concept in a better
	way -
	System
	the state of the second terms of the second te
	C.P. U
	and the state of t
	- Main - Main
	[Olo] memory (Olp
	Devices Devices
	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	and at we call the
	Disk
	[tig: Spooling]

0.5.	Write a brief mulliprocessor scheduling: [2015-11] [2 marls]
1701	[2015-11] [2 marls]
-	81/9
4000	In the multiprocessor schedling there are
-57	multiple Cpu's which share the load
	so that various process run simulfaneously.
- 91 1	In general, the multiprocessor scheduling
ستمعد	is complar as compared to single processor
21173	Scheduling.
r 1	2 3/1
3.7	
0.6.	Define multithreading. [2015-11] [2 mars]
Mary 1	S 10
-14	· Multithreading is the phenomenon
	system, where the execution of
	these threads can be two
	different types, as concurrent and
	different types, as concurrent and parallel mullithread executions.
	· Mullithreading models-
	0,
	-> Many h many
-	-> Many to one
	Lo One 10 one
	1 g = 1 t 000 0 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

9 2		
0. 7.	What do you mean board microkernel structure	June of operating system.
	[2011-17] [10 Marls] [2015-16]	[2 Mants][2018-19][7 mants]
-	301 [©] .	
•	Kernel: A Kernel	is the central part of an
37	Operating	System. It manages the
50	most notably memory	emputer and the hardware
4.1	Applicati	on
	[kernel	
		The land still part A
,	[CPU] Me	mark)
	[hg: Ker	
	[ng. Ken	~~~ <u></u>
	in the second se	
	Mono lithic	Mirokennel
	Kernel	
+	off is larger than	· Microlanel is
	micro kernel	smaller in size
	1 - 12 - 11 - 12 Leave	see althought the
	· fast enection	· Slow execution
	and and and and	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	· If the service crashes,	· If the service crashes,
1	· If the service crashes,	is does not effect whole System.
	· To write monolithic	· To write microturnel,
	kernel less code is required	more code is required
	poquired	

61 0	
A- A.	Enplain thread. [2016-17] [2 marts]
	Solo
173	Thread: Thread is the smallest mit of
	Thread: Thread is the smallest mit of executable code that performs
	a particular task.
gent de la	one less at the a transfer a throne
4.32	multiple took and each task can be assigned to a thread.
march :	mulliple took and each task can be
	assigned to a thread.
	· It is also define as light weight
	process.
0.9.	Mrite down different types of operating 8ptem. [2016-17] [10 marks]
	System. [2016-17] [10 Marks]
	676
	System - system
	system -
	.14,000 1
	0 . 0 . 0
•	Batch Operating System
- :	- Multiprogrammed Operating Systems
	Fruttiprogrammia generity System
<u>View i</u>	- Multifosking Openeding System
	Thereforeng spring
131 July	2 31 VI 18: 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	- Mulliprocessing Operating system
Dark	1
Ost .	0 00
dan a c	Lealline Operating system,



0,10.	Define Operating System. List the objetine of Operating system.
	of operating system.
	[2017-18] [7 marks]
	a series of the
V V I .	801°.
	· An operating system is a program
	that acts as an intermediate between
	a user of a computer and computer hardwere.
	maker yell as tell talk tilly
	flard war
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1	Operating System
1 10	User
	Objective of Operating System -
	1. Course in law and in the course have
	1. Convenience: Os make computer morre easy
	10 000
	2. Efficienz: O.S. vses ell resources efficiently
	2. Efficienz: O.S. vses all resources efficiently
	3. Philip to expluse: U.S. Should be cause but 1
	3. Ability to evolve: U.S. should be constructed
	such a way as to permit the effective development, testing
	and introduction of new
	Soutem functions
	system functions without interfering with services.
	Jen vices.
	13th A

	The same of the sa
8.11	Secolar U Donner College Colle
<u> </u>	Explain the Batch Operating System with example. [2018-19] [7 marks]
Fm .	enample. [2018-19] [+ mars]
	.(50)
	Sol (6)
144	Batch Operating System: This type of O.S. does not interact
	ough the computer directly. There is an
	Operator which takes similar jobs having
	same requirement and group them into
	batches.
	1 10 0 2 2 3
	Vsn 1 July 7661
	305Z (CP.V)>0
	Usu 2 Jose 1 Process
	Jeb \$1-1 /21p
	Mison M Sobn Selenz
	V ac.
	Fig: Batch Operating System
-	Advantages of Batch O.S.
	· Multiple vsers can share the Batch system. • The 1ste time for Batch system is very less.
	. The 1 the time gos baten system is very ten
	. 1 0 - 1 - 1 - 50 - 5 - 1
	Disadvantages of Batch O.S.
	O 1.1. 2.1144 O Dodg to day
	· Baten system are state to debug
	. Batch system are hard to debug . It is sometime cosfly
	· · · · · · · · · · · · · · · · · · ·
	istinguist Courangs
	Seattle season of the season o

0.12	Define Operating System. Describe the Operating System functions. [2018-19] [7 manks]
2 C 1:	An openeting system is program that act as an intermediate
	between a user of a computer and computer handware.
	Opending System
	Hardware
	Afonction of Operating System:
	Operating System have following functions—
!:	-> Resource Management
14.40	→ Memory Management
	Flp, D/p Management File Management
	-> Security Management