Pair Almed N)ughal 1812-0179 Section-C
Operating Systems - 65220
Assignment No.1 Date_05/04/2020
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Q3.1, 01 and Q2.
PARENT: value = S.
Because the Child process was not created, so the
value was not changed.
$Q3\frac{1}{2}$
$\sqrt{3}$
and in I is maken or dildern.
d'is the formula for number of
and is the formula for number of children. where N= number of fork() called.
11 A 1 7
Here N=3
Here N=3 3=8 dildern
3=8 dildern
3 = 8 dildern 3 = 8 dildern 3 = 8 dildern 3 = 8 dildern
3=8 dildern
3 = 8 childern int num [size] = [0,1,2,3,4]: Lane X: (child) operation = nums[i] *=-i]
3 = 8 dildern 3 = 8 dildern 3 = 8 norm [812e] = {0,1,2,3,4}
3 = 8 dildern 3 = 8 dildern 3 = 8 dildern 2 = 10,1,2,3,4; Lane X: (child) operation = nums [i] $\neq = -1$] output = E Child: 0,-1,-4,-9,-16
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Q4.13,
Ans: First lets understand what is concurrency
and Parallelism.
When has a more larly an Mark
and complete in overlapping time periods.
It desent necessarily men they'll ever both be summing at the same instant.
tor example multifactive -
for example multitasking on a multituse. Single-core Processor, with help of scheduling.
Parallelism:
It means when two tasks are
literally running at a same time, enample.
on a multiple processor, using pipelining
Or multi-threading,
It depends on systems.
Jes, we can have concurrency of processes
or threads but at the same time they
are not parallel.

Date	
94 to 099	
19.4. Ly made I naved ordoren space	
29.4 >64 pages Logical address space > page size = 1024 words. > 32 frames Physical address space.	
39 former Dhimed address space.	v - 20
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
@ 64 pages = 26	- 'Y
May words all	
Bits of logical Address = 6+10 = 16 Bits.	
6) 32 frames = 8 b	¥. ₩
Bits of Physical Address = 8+10 = 18 Bits.	· 4
1876 of Days Cay Footons & 3410 = 13 1043.	
1. A 9. L	
Q re	in the
First-Pit	· · · · · · · · · · · · · · · · · · ·
1-115 KB in 300 KB. partition.	
a-sookB in bookB partition	
3-358 kB in 730 kB Partition.	
4-800 KB in 350 KB Partron.	1
5-375kbmust wait.	
	. , ,
Best-fit	***
112 10 ·	
1-115 KB in 125 KB partition	
2-SOO KB in 600 KB Partition	1
3-358 KB in 750 KB partition	
4-200 KB in 200 KB partition.	
5-375 KB must coait.	
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11 Jack	17:1
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			20	\wedge \prime
1-	118 KB	m	750 KB	Pashition

2-000 kB in 600 kB partition
3-358 kB must wait
4-900 kB in 350 kB partition
5-375 kB must wait.

Size IKB (1024 Bytes).

		- 363	76	0.4	Attress % Dage tize.	offsets
*	Alloess	Address	/ Page Size	P.#		
Q-	3085	3085	1024	3	3085% 1024	13
b-		42095		41	42095% 1024	111
Z-	215201	215201	11024	210	2152017.1024	161
d-	650000	650000		634	650000 % 1024	784
e-	2000001		1/1024	1953	8/000001%1024	128
	0(0					

1- 200 MB	ìu	205 MB	Partition	
2 1C MB	ù	100 MB	Partition	
3-185 MB	`m	300 MB	partition	
4-75 M/B		190 MB	partition	
5-175 MB		185 MB	partition	
6-30 MB	must	wait	\$ 1800	· · · · · · · · · · · · · · · · · · ·

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Best	Ω
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10 200 040					
1-200 MB in	203 MB	patition			
3 110 10	GO MB	paulitron	الم المالي	. 12.1	
11	185 MB	partition	2000	1:0	
4-75 MB in	100 MB	partition		\	
5-175 MB in	307 MB	paulities			
6-80 MB in	no mb	Paulition			

Work-fit

1- 200	MB	m	300 MB	Pallition.
2- 10	A# 0	•	O DT MAD	Delle

15	MB	m	208	MB	Pauloi from
3-181	Mn	•	1217	110	0-1111

5-M5 MB must wait 6-80 MB in 100 MB MB in 100 MB

9.21

812e 1-KB (1024 Bytes).

				1 - 7 1/2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, S.
#	Address.	Adbess / Page size	P#	Address % Page 812c	offset
ar	81805	81805/1024	20	81205% 1024	725
b-	164250	164250/1024	160	164250 % 1024	410
c -	121357	121357/1024	118	121357%1024	525
d-	16479315	16479315/1024	16093	16479315%1024	83
e-	27253187		26614	878 53187% 1024.	451

	Date
•	
Q9.23	71
→ Page fize 4-KB	pages
-) Page fize 4-KB	
* Physical memory of 5/2 fram	es. Company
9	100 A
9048 pages = 3" Page 8ize = 4-16B = 2.20 = 912 Bits of logical Address = 11+12 =	Old William Color
page 8/20 = 4-18 = 2 · 2 = d	98 216
DIFS of Cognical Markeys = 11+12=	Q > 10/131
age of a long of the same	is scoring in see Mi
B and the second	West of the second
S12 frames = 23	My The a 195 Miles
Dage 5020 = 912	Call in My Jun 21
Daysical memory bits = 9+12=2	Bits my
10 and the co	the the state of the state of
	124
20 huseal Manager as mulas	177
 ⇒ Page bize = 9¹² bytes → Logical address = 8²⁰ pages. 	Lyd mills
Lacron address and Dec Dages.	
2 (og trag ader es = a pages	11/21 6 11/2
Ological address Bibs = 12+20 = 32 Bil	S :
D'Bytes of frame = A frame hows	to be same age 812 Bytes.
stre as a f	sage 812 Bytus.
·	U

Da	te_
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- Address Bits= 12+32= 44 Bits.

(4) Number of entries in the Page texte?

Page table entries = Logical Altress Brits = 2 = 2 extries.

Page 872e An

(B) 32-toit CPU each page-balok is 4 toythes long. 22 2 Biles.