	Date :	./
	CSE340 - Computer Architecture Assignment 1 Name: Mehnaz Ara Fazali (2x00008) = 2060 No.0 10: 20301295 Sec: 12 0000088	
21.	Class A BE C OD 0036 = TO 90000 PS 7 2 3 6 2 CPIs Xbox 50 4.42=1. $3 = 000000$ Instruction Court for $A = 1 \times 10^6 \times 30 = 300000$	
	$\frac{11}{100} = \frac{11}{100} = 1$	
2	Average CPT For PS. Fac. $t = 2.8 \times 301 \times 1 = 100000$ Pol \times F. \times	C
	Clock cycles = $\sum_{i=1}^{n} (-CPI_i) \times Anstruction Count)$ = $(300000 \times 7) + (5000000 \times 2) + (100000 \times 3) + (1000000 \times 3)$	0000×6)
62	= 4000000 Average CPT = Total clockilaydes = 29 4000000 = 34 Latrotal Temil milusoxa 1 x 106	

	Date:
	For Xboxxx: srubostident restagnes - Ose 200
	Clock cycles = $(300000 \times 5) + (500000 \times 4) + (100000 \times 2) + (100000 \times 2)$ = 3800000
	Average CPI = 3800 000 = 3.8 A
	$1 \times 10^{6} \text{ s}$ $\therefore CPT \text{ difference} = 4-3.8 = 0.2 \text{ (Ans)}$
	(between PS & Xboxx)
	b) Execution Time = 0.CPUNTime A 11
	Execution Time for PSx.30 TC x CPI (Average CPI) Clock rate
	01 × = 1×1×106 × 4 = 1.481ms 2.7 × 109
	For $Xbox$: $1\times10^6\times3.8 = 1.267$ ms 3×10^9
	Difference between Execution Time = 1.481-1.767 = 0.214 ms (Ans)
	e) Reference Time = 0120ms: (F. 2000)
	SPEC Ratio = Reference Time = 120 = \$1.026 (Ans). Execution Time 1.481
20.0	

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	a) Algorithm determines the number of operations executed and the compiler and TSA determines the number of machine instruction	ms
2.0	executed per operation. Hence it an algorithms instructions	***********
1	executed per operation. Hence it an algorithm to instructions and the compiler and ISA have less number of instructions per operation then the performance will be better or fas	te
2.	> = 1: C: = - CP1) Time = 540s	,e,ze,ze,
	a) Execution time = Cro time = 1.35×10^{12} or 1.35×10^{12} or 1.35×10^{12} or 1.35×10^{12} or 1.35×10^{12} clock cycle Time = 0.22 ns or 1.35×10^{12} or $1.35 $	**********
	2005 × Clark cucle Time	
1) => 540 = 1×3 1·35×10×2 xichi	ma contrato
	$\frac{CPT = 540}{4.35 \times 10^{12} \times 0.22 \times 10^{-9}} = 1.8818 = 11$	*****
	$4.35 \times 10^{-2} \times 0^{-2}$ $10^{-81} = 1.35 \times 10^{-12} \times 112 \times 10^{-12}$ B) New $10^{-1} = 1.35 \times 10^{-12} \times 10^{-12}$	
	D) New IC	
(New CPI - 100 New CPU Time = 1.512 × 10 ¹² × 1.927 × 0.22 × 10-9	
\	New CPU 1lime = 1.512 = 640.997s	
	SPEC Ratio = Reference Time = 1394 = 2.175 (Ans). Execution Time 640.997	

	Date :
00	Execution Time to 2100 at a second Time 1 6 2100
W3.	a) Execution Time = 2100s 1 Timproved = 2100 Taffected = 2100 x 90 = 1890s
Apagar	100 = 1370s = 420s
	Tunaffected = 2100 - 1890 = 21050 000 000 bas
	Toper openation them the partiermence unSU= 1x bet
	According to Am dahl's Law,
<u> </u>	Q2 a) Execution Time = CPU Time - 540s
/	Timproved = Toffected + Tunaffected 38.1 = 97
$\langle \rangle$	Clock Engle Rose = 0.22 hr
	=> 420 = 1890 + 210
	CPU Time = TO × CPT × Clock cyclo Time
4	=> 420n = (1890 + 210n stor x 35.1 8x1 = 0+2 <=
	=> 210n = 1890
	$n = 81890 = 9 \text{ (Ans)} \qquad 042 = 199$
	$n = \times 1890 = 9 \text{ (ms)}$
	$n = \frac{1890}{210} = 9 \text{ (MS)}$ $210 \qquad P = 01 \times S = 01 \times 3 \times $
	$n = \frac{1890}{210} = 9 \text{ (MS)}$ $210 P = 01 \times 5 \times 01 \times 3 \times 11$ b) New time for generation operation = 1890
0 12	b) New time for generation operation = 1890 ASER = (NSEL) SEE × SEOF × 28.E = 97 MSM C4
0,42	b) New time for generation operation = 1890
0 12	b) New time for generation operation = $\frac{1890}{9}$ ASERT = (NSEL) SEE × SEOF × 28.E = 9 T MAN (4) $\frac{1}{100}$
0.42	b) New time for generation operation = 1890 $\times 12 \times 12$
0 42	b) New time for generation operation = 1890 $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 200 \times 200 \times 200 \times 200 \times 200$ $210 \times 100 \times 200 \times 2$
0.42	b) New time for generation operation = 1890 $\times 12 \times 12$
0.42	b) New time for generation operation = 1890 $210 \times 510 \times 510 \times 350 \times$
0 42	b) New time for generation operation = 1890 (Ans) = 210
0.42	b) New time for generation operation = 1890 $210 \times 100 \times$
0.12	b) New time for generation operation = 1890 (Action = (Note) St. X St. Ot X 28.1 = 9 T www (4 - 210.5 Cans). (Ans).
0.42	b) New time for generation operation = 1890 (Action = (Note) St. X St. Ot X 28.1 = 9 T www (4 - 210.5 Cans). (Ans).
0.12	b) New time for generation operation = 1890 (Ans) = 210