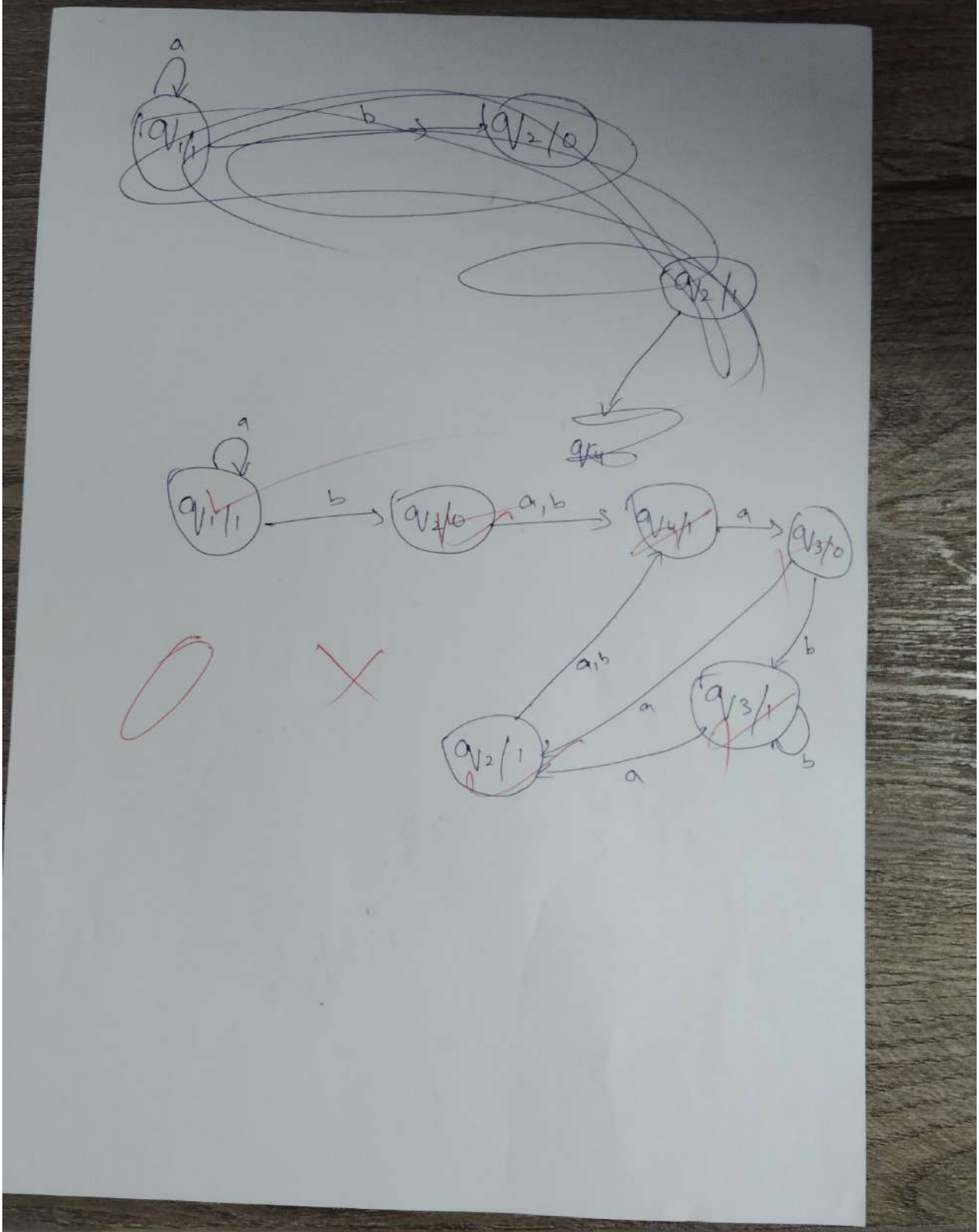

a
b
a
b
a,b
a
b
a,b
a
a
b

UNIVERSITY OF MANAGEMENT & TECHNOLOGY, LAHORE CAMPUS
SST, Department of Computing (CS)

Quiz# 2 – Theory Paper: Theory of Automata V3

Instructor: Rana Marwat Hussain

Name # Azhar Munir SID # F-2020/6 657 Signature# _____

Total Marks: 10

Note: (A) Attempt all Questions.

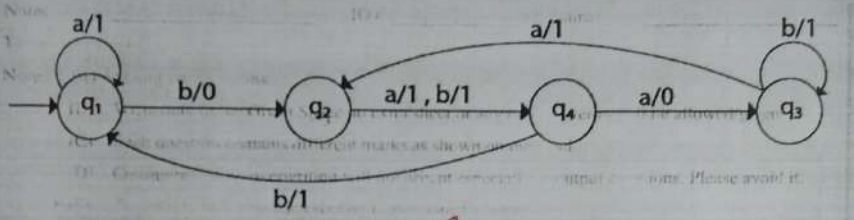
(B) Write only in the Given Space no extra sheet or any other material will be allowed/given.

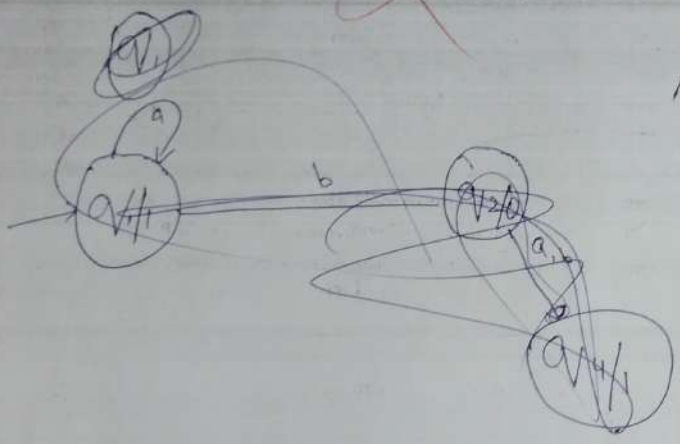
(C) Each question contains different marks as shown on the label.

(D) Cutting/rewriting/overwriting will not accept especially in output questions. Please avoid it.

(E) Time for completing each section is mentioned separately.

Q1. Convert the following Mealy machine into equivalent Moore machine.





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UNIVERSITY OF MANAGEMENT & TECHNOLOGY, LAHORE CAMPUS
SST, Department of Computing (CS)

Quiz# 2 – Theory Paper: Theory of Automata V3

Instructor: Rana Marwat Hussain

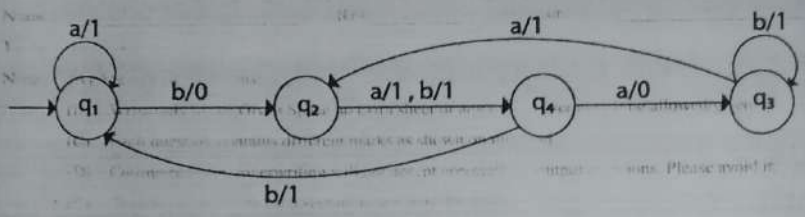
Name # MUSAMA JAVED SID # F2020266137 Signature#

Total Marks: 10

Note: (A) Attempt all Questions.
(B) Write only in the Given Space no extra sheet or any other material will be allowed/given.
(C) Each question contains different marks as shown on the label.
(D) Cutting/rewriting/overwriting will not accept especially in output questions. Please avoid it.
(E) Time for completing each section is mentioned separately.

5

Q1. Convert the following Mealy machine into equivalent Moore machine.

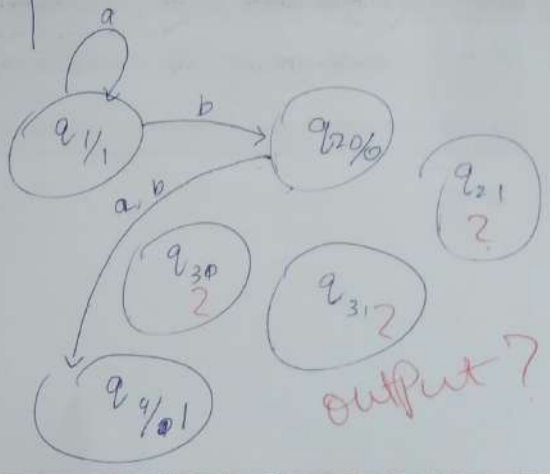


States	a	b
q_1	$q_1 = 1$	$q_2 = 0$
q_2	$q_4 = 1$	$q_4 = 1$
q_3	$q_2 = 1$	$q_3 = 1$
q_4	$q_3 = 0$	$q_1 = 1$

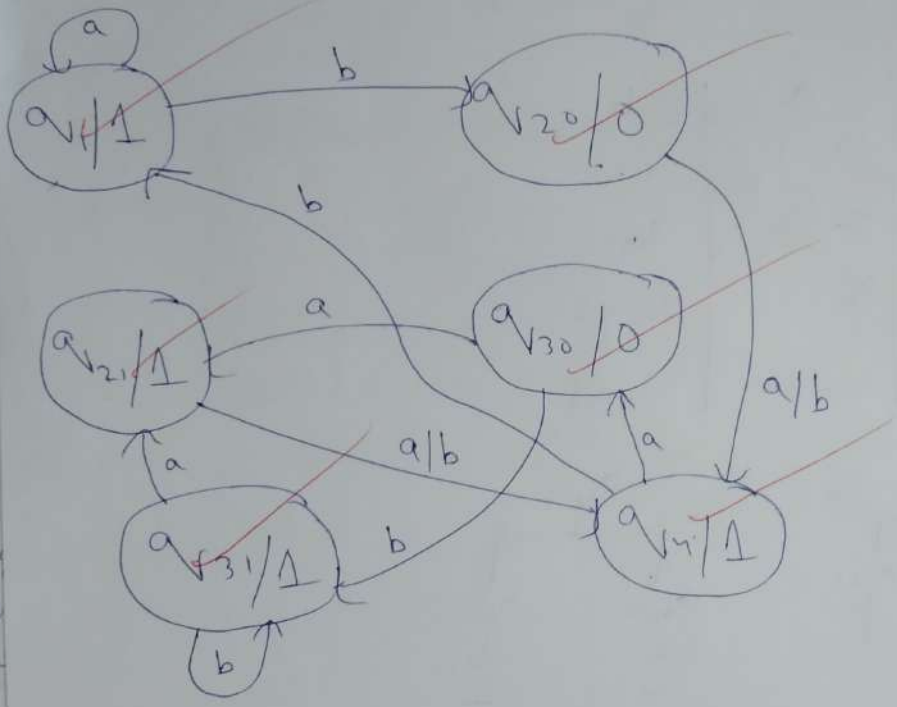
q_{20}, q_{21}

q_{30}, q_{31}

States	a	b
q_1	$q_1 = 1$	$q_{20} = 0$
q_{20}	$q_4 = 1$	$q_4 = 1$
q_{21}	$q_4 = 1$	$q_4 = 1$
q_{30}	$q_{20} =$	



Q	a	b	λ
q_1	$q_1=1$	$q_{20}=0$	1
q_{20}	$q_4=1$	$q_4=1$	0
q_{21}	$q_4=1$	$q_4=1$	1
q_{30}	$q_{21}=1$	$q_{31}=1$	0
q_{31}	$q_{21}=1$	$q_{31}=1$	1
q_4	$q_{30}=0$	$q_1=1$	1



UNIVERSITY OF MANAGEMENT & TECHNOLOGY, LAHORE CAMPUS
SST, Department of Computing (CS)

Quiz# 2 – Theory Paper: Theory of Automata V3

Instructor: Rana Marwat Hussain

Name # Ahmad Ashfaq SID # F2022066102 Signature#

Total Marks: 10

Note: (A) Attempt all Questions.

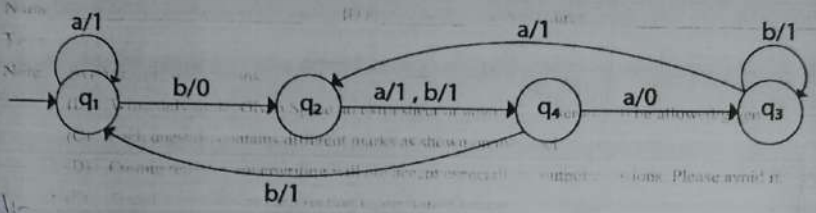
(B) Write only in the Given Space no extra sheet or any other material will be allowed/given.

(C) Each question contains different marks as shown on the label.

(D) Cutting/rewriting/overwriting will not accept especially in output questions. Please avoid it.

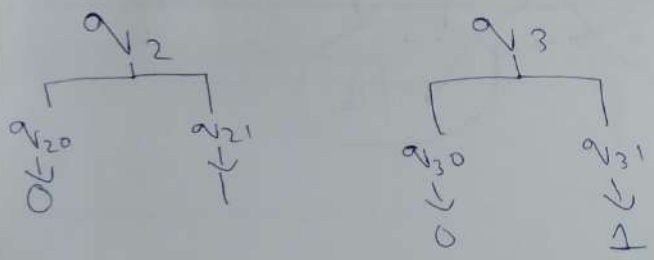
(E) Time for completing each section is mentioned separately.

Q1. Convert the following Mealy machine into equivalent Moore machine.



Sol:-

Q	a	b
q_1	$q_1 = 1$	$q_2 = 0$
q_2	$q_4 = 1$	$q_4 = 1$
q_3	$q_2 = 1$	$q_3 = 1$
q_4	$q_3 = 0$	$q_1 = 1$



UNIVERSITY OF MANAGEMENT & TECHNOLOGY, LAHORE CAMPUS
SST, Department of Computing (CS)

Quiz# 2 – Theory Paper: Theory of Automata V3

Instructor: Rana Marwat Hussain

Name # _____ SID #_____ Signature#_____

Total Marks: 10

Note: (A) Attempt all Questions.

(B) Write only in the Given Space no extra sheet or any other material will be allowed/given.

(C) Each question contains different marks as shown on the label.

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Q1. Convert the following Mealy machine into equivalent Moore machine.