Course No: MUL 2302	University of Palestine	Instructor Name: Mr. Ahmed	
Course Title: Digital Logia Design		AbuMsameh	
Datas 0(/0(/2017	UP	Student No.:	
Date: 00/00/2017	Final Exam	Student Name:	
No. of Questions: 6	Second semester	College Name:	
Time: 2 hours	2016/2017	Section No.:	
Using Calculator (Yes)	Total Grade: 60	Dep. / Specialist:	
Using Dictionary (No)			

First Question

(10/60)

Decide whether the following sentences are TRUE or FALSE :

1.	The basic difference between a full-adder and a half-adder is that the full-adder accepts an input carry.	()
2.	A multiplexer selects one data line from two or more input lines and routes data from the selected line to the output.	()
3.	The truth table for an exclusive-OR gate is Notice that the output is HIGH whenever A and B agree.	()
4.	In K-map adjacency is defined by a two-variable change.	()
5.	In SOP standard form, one or two variable in the domain must appear in each term.	()
6.	In Sum-of-Products (SOP) form, basic combinational circuits can be directly implemented with AND-OR combinations	()
7.	In inverter gate When the input is low the output is low.	()
8.	The Karnaugh map (K-map) is a tool for simplifying combinational logic with 3 or 4 variables.	()
9.	DeMorgan's 1st Theorem say The complement of a product of variables is equal to the sum of the complemented variables	()
10.	ASCII has 128 characters and symbols represented by a 8-bit binary code.	()

Course No: MUL 2302 Course Title: Digital Logic Design Date: 06/06/2017 No. of Questions: 6 Time: 2 hours Using Calculator (Yes) Using Dictionary (No)

University of Palestine
UP

Final Exam Second semester 2016/2017 Total Grade: 60

Instructor	Name:	Mr.	Ahmed
AbuMsameh	l		
Student No.	:		
Student Nar	ne:		
College Nan	ne:		
Section No.:			
Dep. / Speci	alist:		

Second Question

(10/60)

Convert Decimal number 650 to Hexadecimal by using repeated division method

Convert the Gray code 10101111 to binary number

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No. of Questions: o	Second semester	College Name:		
Time: 2 nours	2016/2017	Section No.:		
Using Calculator (Yes)	Total Grade: 60	Dep. / Specialist:		
Using Dictionary (No)		I I		

Third Question

(10/60)

Implement the following expression



Determine the output waveform



Course No: MUL 2302 Course Title: Digital Logic Design Date: 06/06/2017 No. of Questions: 6 Time: 2 hours Using Calculator (Yes) Using Dictionary (No) University of Palestine

Final Exam Second semester 2016/2017 Total Grade: 60 InstructorName:Mr.AhmedAbuMsamehStudent No.:Student Name:College Name:Section No.:Dep. / Specialist:

Forth Question

(10/60)

Simplified using KARNAUGH MAP

 $(A + B + C)(A + B + \overline{C})(A + \overline{B} + C)(A + \overline{B} + \overline{C})(\overline{A} + \overline{B} + C)$

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Fifth Question

(10/60)

Simplify the following Boolean expression using Boolean algebra

AB + A(B + C) + B(B + C)

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Using KARNAUGH MAP implement the minimized POS expression

1			
	1	1	1
	1	1	1
1		1	1

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Course Title: Digital Logic Design	Title: Digital Logic DesignImage: Constraint of the second semester06/06/2017Final ExamConserved Constraint of the second semesterSecond semester2 hours2016/2017Calculator (Yes)Total Grade: 60Dictionary (No)Second semester	Student No.:		
No. of Ouestions: 6		Student Name:		
Time: 2 hours		College Name:		
Using Calculator (Yes) Using Dictionary (No)		Dep. / Specialist:		

Sixth Question

(10/60)

Talk about encoder (Define, Application with Draw)

End of Questions Good Luck