Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2019

Course: MBA Business Analytics Semester: I
Programme: Business Modeling with Spreadsheets Time: 03 hrs.

Sub Code: DSBA 7001 Max. Marks: 100

Instructions:

SECTION A

S. No.	Describe in Short								
Q 1	Blue Ridge Hot Tubs manufactures and sells two models of hot tubs: the Aqua-Spa and the Hydro-Lux. Howie Jones, the owner and manager of the company, needs to decide how many of each type of hot tub to produce during his next production cycle. Howie buys prefabricated fiberglass hot tub shells from a local supplier and adds the pump and tubing to the shells to create his hot tubs. (This supplier has the capacity to deliver as many hot tub shells as Howie needs.) Howie installs the same type of pump into both hot tubs. He will have only 200 pumps available during his next production cycle. From a manufacturing standpoint, the main difference between the two models of hot tubs is the amount of tubing and labor required. Each Aqua-Spa requires 9 hours of labor and 12 feet of tubing. Each Hydro-Lux requires 6 hours of labor and 16 feet of tubing. Howie expects to have 1,566 production labor hours and 2,880 feet of tubing available during the next production cycle. Howie earns a profit of \$350 on each Aqua-Spa he sells and \$300 on each Hydro-Lux he sells. He is confident that he can sell all the hot tubs he produces. The question is, how many Aqua-Spas and Hydro-Luxes should Howie produce if he wants to maximize his profits during the next production cycle? In a college, students get points based on their participation level and their role and event/activity. Following is the reference grid for the points: Participation, Organizing & Awards are the Roles. Class, Department, College, University & External are the various levels of participation. Participation Organizing Awards								
Q 2									
	Class	10	15	20					
	Department	15	22.5	30					
	College	20	30	40					
	University	25	37.5	50		10			
	External 30 45 60 Suggest an excel formula/expression to get the points, if the Role and Level of any student in an activity is known.								
Q 3	A motorist buys a new car for £12,000 and intends to keep it for six years. If the resale value at the of that time is expected to be £4000, and the annual running costs (apart from depreciation) are 20 what is the NPV of the car's costs over the six-year period? Take interest as 7%.								
						10			

							Amount					
	Customer	Seller	Selling Price	Loan	Interest Rate	Down Payment	to be	Commission	Penus			
	Customer Sterfield	Agent Allan	\$258,900	Term 30	Kale	raymem	Financed	Commission	Bonus			
	Sceria	John	\$328,950	15							CO	
	Subensklee	Allan	\$198,000	15								
	Sritzen	John	\$178,350	30								
			\$333,000	30								
	Sango	Allan										
	Satt	John	\$768,650	20								
	Sro Sweit-se	Allan	\$358,000	15								
	Sweitzer	John	\$458,000	20								
	Ster Allan \$168,900 30											
L	Loan Term Interest Rate		% Re	% Required Down Pmt								
	15	4	.50%	15%								
	20	5	5.00%		20%							
	30	5	5.25%		25%	ı						
**(**Chart 2											
	a. Using Chart 2, Get the correct Interest Rate and Down Payment in respective columns .											
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Q 6	Names	Age	Marks				
	Manav	25	34				
	Rahul	27	42				
	Jatin	23	62				
	Harshit	23	34				
	Rakesh	28	66				
	Ramesh	22	49				
	Suresh	24	59				
	Jignesh	24	38				
	Lokesh	26	84				
	Using COUNTIF function: - Count the number of students with marks above 50 - Count the number of students who have "Failed" Using COUNTIFS & SUMIFS functions Find the average age of students who have "Passed", and have marks <=60 Using VLOOKUP function find the "Age" & "Marks" of 'Ramesh' and 'Suresh' Using INDEX and MATCH functions, find the "Age" & "Marks" of 'Ramesh' and 'Suresh'.						