UNIVERSITY OF PETROLEUM & ENERGY STUDIES
End Semester Examination, December 2021

Program: BBA EPRCC+Mktg+HRM **Semester: 3**
Subject/Course: Spreadsheet Modeling **Duration: 03 Hours**
Course Code: DSQT 2005 **Max. Marks: 100**

Q.No	Section A (Type the answers in the text box)	10QX2M=20 Marks	COs
1	In a spreadsheet , letters are used to represent: a. Columns b. Blocks c. Rows d. Cells	2	1
2	In a computer spreadsheet, absolute Cell reference can be represented as: a. B3 b. B3 c. B$3 d. $B3	2	2
3	In a computer spreadsheet, Cell's address that is included in range C5:E7 is a. C8 b. D6 c. E4 d. D9	2	1
4	Write the range to include all cells in row 9.	2	1
5	Which of these is the correct row address? a. AA b. 25 c. 3B d. C5	2	1
6	In a computer spreadsheet what will be the value of the formula "=(7-3)*(1+6)/4" a.7 b. 1.5 c. 2 d. 12	2	2
7	In a computer spreadsheet, Cell range A3 through G3 should be keyed in as: a. A3-G3 b. A3:G3 c. A3?.G3 d. A3 to G3	2	1
8	In a computer spreadsheet, function used to count number of entries in a given range is: a. LENGTH b. COUNTER c. COUNTA d. COUNT	2	1
9	What will be the output for the formula "=SUMPRODUCT({2,3,4},{5,6,7})".	2	3
10	What will be the output of "=COUNT(A1:F1).	2	3

	A	B	C	D	E	F
1	34	2X	67	BQ	44	43

Q.No	Section B (Scan & Upload)	4QX5M=20 Marks	COs
1	Discuss IF function and nested IF functions giving example?	5	2
2	How are the spreadsheet functions "COUNT" and "COUNTA" different?	5	3
3	Demonstrate how SUMPRODUCT can be used to calculate the total bill at a supermarket.	5	3
4	What are 'Wildcard Characters'? How can they be used in conditional spreadsheet functions (Like SUMIFS, COUNTIFS, etc) ?	5	3

Q.No	Section C (Scan & Upload)	3QX10M=30 Marks	COs
1	(grid below)	10	3

	L	M	N	O	P	Q	R	S
1				TO				
2				Gurgaon	Varanasi	Nagpur	Bhopal	Shillong
3		Delhi	125	167	209	251	293	335
4		Mumbai	250	345	440	535	630	725
5		Kolkata	100	123	146	169	192	215
6		Chennai	130	763	1396	2029	2662	3295
7	FROM	Aurangabad	175	741	1307	1873	2439	3005
8		Dehradun	200	897.6	1595.2	2292.8	2990.4	3688
9		Panaji	212	1054.2	1896.4	2738.6	3580.8	4423
10		Lucknow	180	1210.8	2241.6	3272.4	4303.2	5334
11		Patna	95	1367.4	2639.8	3912.2	5184.6	6457
12		Hyderabad	112	1524	2936	4348	5760	7172

Write the spreadsheet formula to find courier price from Lucknow to Nagpur based on the above grid.

2	(table below)	10	3

	A	B	C
1	Names	Age	Marks
2	Manav	25	34
3	Rahul	27	42
4	Jatin	23	62
5	Harshit	23	34
6	Rakesh	28	66
7	Ramesh	22	49
8	Suresh	24	59
9	Jignesh	24	38
10	Lokesh	26	84

Using VLOOKUP function find the "Age" & "Marks" of 'Ramesh' and 'Suresh'

OR

Using INDEX and MATCH functions, find the "Age" & "Marks" of 'Ramesh' and 'Suresh'.

3	What do you understand by Spreadsheet Modeling?	10	2

Q.No	Section D (Scan & Upload)	2QX15M=30 Marks	COs

1		A	B	C	D	E	F	G		15	3
	1		Student	Marks	Status	Age	City	Bank Balance			
	2		Asha	45	Passed	23	Dehradun	500			
	3		Ritesh	76	Passed	25	Chennai	200			
	4		Shobhit	33	Failed	22	Bhubaneshv	250			
	5		Anchal	26	Failed	27	Dehradun	350			
	6		Lata	84	Passed	25	Chennai	300			
	7		Kunal	65	Passed	24	Kolkata	200			
	8		Lalit	56	Passed	27	Bhubaneshv	350			
	9		Rashi	89	Passed	24	Kolkata	250			
	10		Ramesh	45	Passed	25	Agra	400			

Write the spreadsheet formula to find total bank balance of students whose names have 5 letters.

OR

Write the spreadsheet formula to find the average age of students who have "PASSED" and are of age greater than or equal to 24.

| 2 | 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?

To solve this problem on spreadsheet, what would be the Objective function, Variables and the Constraints? | 15 | 3 |