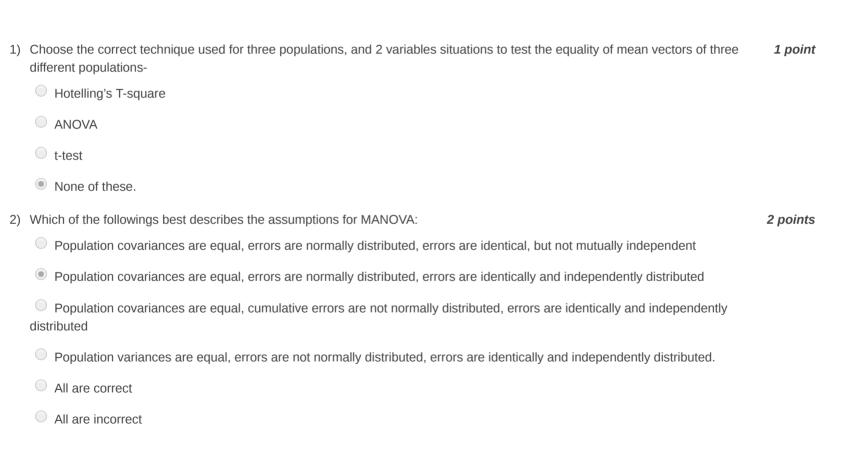
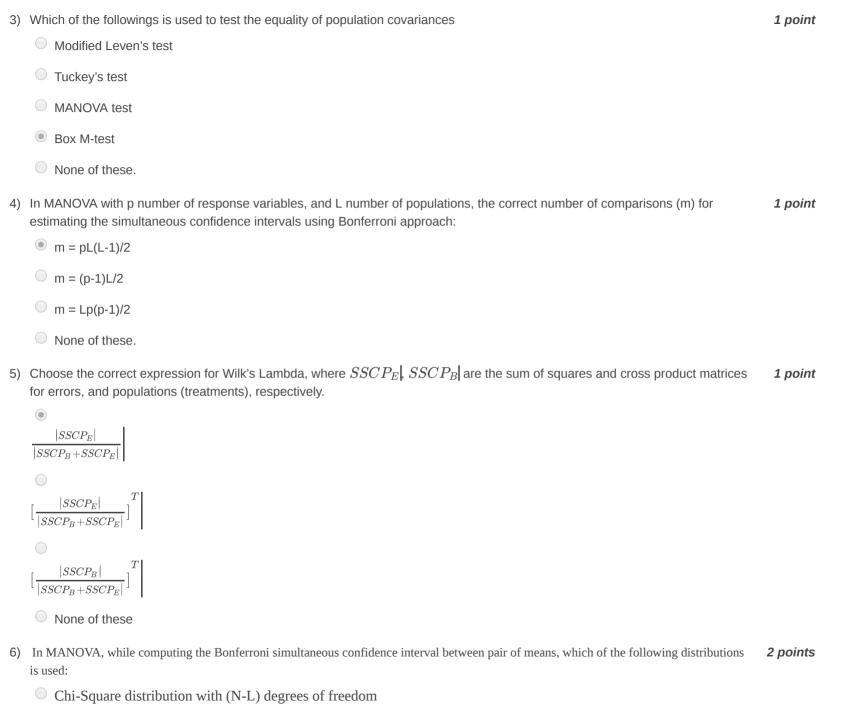
## **Assignment 7 (Week 7)**

## Due on 2016-03-14, 19:29 IST

## **Submitted assignment**





$CI \cdot C$	distribution	*.1 /	ATT A	1 .	C	C 1
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CIII-Juuuic	distribution	AA TITT A	11-11	ucerco	OI	IICCUOIII

- F-distribution with (N-L) degrees of freedom
- t-distribution with (N-L) degrees of freedom
- None of these
- 7) In MANOVA, for L number of populations involving P number of response variables, the correct degrees of freedom to test the hypothesis of equality of population mean vectors for is:

1 point

- P(L-2)
- L(P-2)
- L(P-1)
- None of these
- 8) Answer the following questions (8 to 10).

2 points

The recent growth of automobiles consumption in towns and small cities has led a major car manufacturing company to expand its service centres. In order to facilitate it, the company has made a survey on the service provided by three different types of service centres namely A, B and C so that a comparative analysis will help in creating better service centres to meet the recent demand. The two important response variables are delivery time (DT) and quality of services (QS) provided. A random sample of 30 feedbacks is collected for each of the three service centres. The sample statistics computed are given below. Take  $\alpha = 0.05$ .

$$ar{X_A} = egin{bmatrix} 10 & 50 \end{bmatrix}^T ar{X_B} = egin{bmatrix} 8 & 60 \end{bmatrix}^T ar{X_C} = egin{bmatrix} 5 & 50 \end{bmatrix}^T ar{X_C}$$

$$S_A = \left[egin{array}{ccc} 25 & -20 \ -20 & 81 \end{array}
ight] S_B = \left[egin{array}{ccc} 36 & -30 \ -30 & 64 \end{array}
ight], ext{ and } S_C = \left[egin{array}{ccc} 49 & -25 \ -25 & 81 \end{array}
ight]$$

Based on the given data, compute the value of the test statistics T<sup>2</sup>-

- 12.01
- 22.49
- 15.85
- 18.46

	O None of these.	
9)	Service centre A claims that on an average they serve their customers within 10 hours of DT with QS of 70. Justify the claim.	2 points
	O Yes	
	No	
	Insufficient data.	
10)	Using data at Q8, choose the correct value of Wilk's lambda	2 points
	-3.86	
	O -7.22	
	3.86	
	O 7.22	
	None of these.	