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**SARDAR PATEL UNIVERSITY**  
**M.com ( II sem.) Examination**  
**Saturday, 8 April 2017**  
**10:00 A.M to 1:00 P.M.**

PB02ECOM08: BUSINESS RESEARCH METHODS

MARKS:70

**SECTION:1**

**QUE.1**

- (a) Explain: 1. Statistical Inference, Point estimation and Interval estimation . (8)  
 2. Null hypothesis, Alternative hypothesis and Composite hypothesis.
- (b) The mean of a random sample of 1000 units is 19.6 and the mean of another random sample of 800 units is 20. Can it be concluded that both the samples come from the same population with standard deviation 2.6? ( At 5% level of significance table value is 1.96). (9)

O.R

**QUE.1**

- (a) Explain in short properties of a good estimator. (8)
- (b) In a sample of 1000 men from one city 400 were found to be smokers. From another city 400 men are smokers out of 800 men. Do the data indicate significantly difference of smoking habit among men? ( At 5% level of significance table value is 1.96). (9)

**QUE.2**

- (a) Differentiate between Small Sample tests and Large Sample Tests (6)
- (b) The sales data of an item before and after advertisement are as under. Can the advertisement effect on sales? ( At 9 d.f and 5% level of significance table value of t is 2.262) (7)

Before advertisement	80	30	20	40	60	80	50	80	70	90
After advertisement	70	50	70	50	30	90	50	100	60	100

- (c) Explain any one use of t-distribution. (5)

O.R

**QUE.2**

- (a) What is meant by Analysis of Variance? Write assumptions of it. (6)
- (b) The following yields were obtained by using three fertilizers in different plots. (7)  
 Test the hypothesis that there is no significant difference between the Fertilizers.  
 ( At 2,9 d.f and 5% level of significance table value of F is 4.26 )