

Seat No. \_\_\_\_\_

No. of printed pages: 2

43  
Eng

### SARDAR PATEL UNIVERSITY

M.com ( II sem.) Examination

2<sup>nd</sup> April 2019, Tuesday

10:00 A.M to 1:00 P.M.

PB02ECOM27: BUSINESS RESEARCH METHODS

MARKS: 70

#### SECTION: 1

##### QUE. 1

- (a) Explain in short Confidence interval, Null hypothesis, Alternative hypothesis and level of significance. (8)
- (b) A coin is tossed 10 times and if it turns 8 or more times head then the Null hypothesis  $H_0: P=1/2$  is rejected and the alternative hypothesis  $H_1: P=2/3$  is accepted. Find type one error and type two error. (9)

O.R

- (a) Explain in short properties of a good estimator. (8)
- (b) The information regarding marks of boys and girls is given below: (9)

Sample	Mean	Standard deviation	Sample size
Boys	83	10	121
Girls	81	12	81

Test whether the difference in standard deviation is significant. (At 5% level of significance table value of  $Z=1.96$ ).

##### QUE. 2

- (a) What is mean by Analysis of variance? Explain one way classification. (9)
- (b) The sales data of an item in six shops before and after a special promotion campaign are as under. Can the campaign be judged as success? (9)

Shops	1	2	3	4	5	6
Before campaign	53	28	32	48	50	42
After campaign	58	32	30	50	56	45

(At 5 d.f and 5% level of significance table value of  $t$  is 2.571)

O.R

- (a) State various uses of  $t$  tests and explain any one of it. (9)
- (b) The following table gives the yields on 15 sample fields under three varieties of seeds A, B and C. Test at 5% level of significance whether the average yields under different varieties of seeds show significant differences. Use coding method subtracting 530 from each data value. Given  $F_{(2,12)}=3.88$  (9)

P.T.O

page.1

①

(P.T.O.)