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SEAT No. _____

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SARDAR PATEL UNIVERSITY
M.Sc. (III Semester) Examination
2019

Tuesday, 19th March
2:00 p.m. to 5.00 p.m.

STATISTICS COURSE No. PS03CSTA01 (Design of Experiments)

Note: Figures to the right indicate full marks of the questions. (Total Marks: 70)

- 1 Attempt all, write correct answers 08
- In usual notations for general block designs, $1'R$ equals
- (i) a) k b) r
c) r' d) none of these
- (ii) The number of zeros in an incidence matrix of a GBD is
a) vb b) less than vb
c) more than vb d) $vb-vr$
- (iii) A Youden square design is a row column design consisting of the following pair of block designs
a) CRD, BIBD b) RBD, BD
c) BD, BIBD d) RBD, BIBD
- (iv) In context of a two associate class PBIBD the sum of P-matrix elements is
a) n_1 b) n_1-1
c) n_1+n_2-1 d) n_2-1
- (v) To accommodate 2^3 design and analysis in BIBD we need it with treatments, ... Block size and replications.
a) 8, 7, 4 b) 8, 4, 7
c) 7, 8, 4 d) 8, 4, 8
- (vi) To confound AB interaction in 2^2 factorial the blanks should respectively be filled with _____, _____
is

a	
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ab	
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a) b, a b) b, 1
c) 1, b d) None of these
- (vii) The number of degrees of freedom for three factor interactions sum of squares in case of factorial experiments in A, B, C, D, E factors are _____
a) 5 b) 2^5
c) 25 d) 10

(1)

(P.T.O)

