

THAKUR COLLEGE OF

ENGINEERING & TECHNOLOGY Autonomous College Affiliated to University of Mumbai Approved by All India Council for Technical Education(AICTE) and Government of Maharashtra(GoM)

Conferred Autonomous Status by University Grants Commission (UGC) for 10 years w.e.f. A.Y 2019-20 Amongst Top 200 Colleges in the Country, Rankęd 193^d in NIRF India Ranking 2019 in Engineering College category

• Institute Accredited by National Assessment and Accreditation Co.

In Semester Assessment-1 **SE (Semester-IV) Statistical Decision Making**

Branch: AI ML Date: 14/02/2022

Timing: 10:30 am to 11:00 pm

Duration: 30 min Maximum Marks: 10

Instructions -

- 1. All questions are compulsory
- 2. Assume suitable data wherever necessary and state the assumptions made.
- 3. Diagrams / sketches should be given wherever necessary.
- 4. Use of logarithmic table, drawing instruments and non-programmable calculators is permitted.
- 5. Figures to the right indicate full marks.
- 6. Scan the answer sheet in sequence and upload the Pdf. Pdf should be named as SE_Branch_Division_ Roll No_Subject abbreviation_Student Name

Subjective Questions:

Q2 (a) A manufacturer claims that only 2% of his products supplied by him are destroyed. A consignment of 200 products contained 36 destroyed pieces. Test the claim of manufacturer at 5% level of significance (L.S.). [5 marks]

OR

(b) In two large populations there are 15% and 12% respectively of fair headed people. Is this difference likely to be hidden in samples of 1,000 and 400 respectively from the two population? [5 marks]

Q3 (a) From the data given below find out if the two means significantly differ at 5% level of significance. [5 marks]

	No. of items	Mean	Standard deviation
Group I	50	170	3.0
Group II	75	160	2.0

OR

(b) Intelligent test of two groups of boys and girls gives the following result: [5 marks]

	Mean	Standard deviation	Sample size
Girls	80	9	64
Boys	71	10	49

Is the difference between the standard deviation significant at 5% level of significance?