PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2017
(Sixth Semester)

Branch- **STATISTICS**

STATISTICAL QUALITY CONTROL - II

Time : Three Hours   " Maximum : 75 Marks

SECTION-A (20 Marks!
Answer **ALL** questions
ALL questions carry **EQUAL** marks   (10 x 2 = 20)

1   Define quality.
2   What are the uses of TQM?
3   When do you say that a process is out of control?
4   Give the control limits for x chart.
5   Distinguish between p - chart and c - chart.
6   What is a u-chart?   -
7   Define process capability.
8   What is the purpose of SPC?
9   Define failure rate.
10   What do you meant by DFR?

SECTION - B (25 Marks!
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

11 a Explain the fundamentals for TQM.
                    OR
    b Explain in details the need for quality improvement.

12 a Explain the chance and assignable causes of variation.
                    OR
    b Derive the control limits for R chart.

13 a Explain tolerance limits.
                    OR
    b Discuss the role of c chart in SQC.

14 a Explain the process capability index.
                    OR
    b   What are the benefits of quality improvement?

15 a Explain the concept of IFR.
                    OR
    b Explain the failure distribution in reliability.

SECTION - C (30 Marks!
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16   Briefly explain the elements of TQM.

17   When you recommend x, R charts to monitor the quality of manufactured items? Describe the construction and application of such charts.

18   Give any five situations in which'c - charts can be used.

19   Describe process capability ratio for an off center process.

20   Explain the relevance of exponential distribution in reliability.