PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2018
(Fifth Semester)

Branch- **STATISTICS**

STATISTICAL QUALITY CONTROL -1

Time : Three Hours Maximum : 75 Marks

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

1 What is meant by Quality?
2 Define Statistical Quality Control.
3 What is OC Curve?
4 Define Produce Risk.
5 Write the advantages of acceptance sampling plan by variables.
6 Write the expression for n and k of unknown sigma single sampling plan by variables.
7 What are sequential sampling plan?
8 Give the advantages of sequential sampling plan.
9 Define Just-in-time production.
10 Give the components of JIT.

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

11 a Explain process control and product control.
OR
b Write short notes on Process capability.

12 a Define (i) AQL (ii)LTPD.
OR
b Explain the procedure of single sampling plan for attributes.

13 a State the assumptions of variable sampling plan.
OR
b Write the operating procedure of variable sampling plan.

14 a Explain Normal Reduced and Tightened plans.
OR
b Find ASN function for sequential samplihg plan.

15 a Explain the concept of Sig Sigma.
OR
b Write the benefits of JIT..

SECTION - C 130 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

16 What are the important functions of SQC? Explain its uses.

17 Describe double sampling plan. Compare single and double sampling plan.

18 Derive n and k for known sigma single sampling plan by variables with one sided specification.

19 Obtain five point OC curve for sequential sampling plan.