

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2017 \ A S V (J / 7
(Fifth Semester)

Branch- STATISTICS

STATISTICAL QUALITY CONTROL - I

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 control.
- 2 Define process capability.
- 3 What is double sampling plan?
- 4 Define consumer risk.
- 5 State any two limitations of acceptance sampling for variables.
- 6 Write the expression for n and k of unknown sigma plan.
- 7 What are the three types of inspection?
- 8 Write any two advantages of sequential sampling plan.
- 9 Define JIT.
- 10 What are the objectives of JIT?

SECTION - B (25 Marks)

Answer ALL Questions

' ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Distinguish between quality of design and quality of conformance.
OR
b What are the benefits of SQC?
- 12 a What is ASN? Explain the method of calculation for single sampling plan.
OR
b Differentiate between AQL and AOQL.
- 13 a State the advantages of acceptance sampling for variables.
OR
b Write the assumptions of acceptance sampling for variables.
- 14 a Explain the concept of normal and reduced plans.
OR
b Find ASN function for sequential sampling plan.
- 15 a Describe the elements of JIT in brief.
OR
b Explain the concept of six sigma.

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Explain the concept of process control and product control.
- 17 What is O.C curve? Explain the characteristics of O.C. Curve.
- 18 Derive n and K for known sigma single sampling plan.
- 19 Obtain OC curve for sequential sampling plans.
- 20 Describe the rules for Kanban operation.