ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27

B.SC. STATISTICS – V SEMESTER

MID-SEMESTER TEST – AUGUST 2019

ST 5217- STATISTICAL METHODS FOR QUALITY MANAGEMENT

Time: 1 Hour Max: 30 marks

This question paper has **THREE** parts and **ONE** printed page

PART – A

I Answer any FIVE of the following: **5 x 2= 10**

1. What is quality control?
2. Define assignable variation and chance variation.
3. Differentiate between defect and defective.
4. Distinguish between action limit and warning limit.
5. Why 3- σ control limits are popular among all control charts?
6. Define average run length
7. Define Process Capability Ratio

PART – B

II Answer any TWO of the following: **2 x 5 = 10**

8. Describe the procedure for construction of 3-sigma control limits for S –Chart
9. Write a note on six sigma quality
10. Explain stabilized p-chart.

PART – C

III Answer any ONE of the following: **1 x 10 = 10**

11. Derive OC function for $\bar{X}$ chart and also derive ARL function.
12. Mention various tools in statistical quality control and explain any four of them in detail