

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018  
(Third Semester)

Branch - APPLIED ELECTRONICS

CORE ELECTIVE-I : SENSORS AND SIGNAL CONDITIONING

Time : Three Hours

Maximum : 75 Marks

SECTION -A (30 Marks!

Answer ALL questions

ALL questions carry EQUAL Marks ( 5 x 6 = 30)

- 1 a Define the general concepts and terminology of measurement systems.  
OR  
b Define (i) Accuracy and (ii) Precision.
- 2 a What is potentiometer and explain the use of it?  
OR  
b Define how the wheat stone bridge is constructed with diagrams.
- 3 a What is a capacitive sensor and how it is used?  
OR  
b Write a note on about AC bridges.
- 4 a What is Thermo electric sensor and explain its working?  
OR  
b Write five points on working of offset amplifier.
- 5 a Explain the construction and working of position encoders.  
OR  
b What is fiber optic sensor and explain about it?

SECTION -B (45 Marks!

Answer any THREE questions

ALL questions carry EQUAL Marks (3 x 15 = 45)

- 6 Explain briefly about the classification of sensors with suitable diagrams.
- 7 Describe in detail about the operation of light dependant resistors.
- 8 With the help of diagram, describe the working of LVDT.
- 9 Discuss in detail about how the signal conditioning is done for self generating sensors.
- 10 Explain briefly about the vibrating cylinder sensors and where it is used?