

Total No. of Questions : 4]

SEAT No. :

**P8491**

[Total No. of Pages : 1

**Oct-22/BE/Insem-79**

**B.E. (Electronics Engineering)  
ELECTRONICS SYSTEM DESIGN  
(2019 Pattern) (Semester-VII) (404203)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Figures to the right indicate full marks.
- 3) Assume suitable data, if necessary.

**Q1) a)** With the help of neat block diagram explain different stages of electronic Product design. [8]

b) What is necessity of Bath Tub Curve? Explain the Bath Tub Curve in detail with its various region. [7]

OR

**Q2) a)** Define the following terms: [8]

- i) Reliability R (t)
- ii) MTBF
- iii) MTTF
- iv) FR

b) Compare consumer, industrial & military product for cost/performance ratio, reliability & temperature rating. [7]

**Q3) a)** Explain need of instrumentation amplifiers in analog signal conditioning also explain different error occurs in instrumentation amplifire. [8]

b) List out & compare different types of ADC with applications. [7]

OR

**Q4) a)** List out different types of DAC & Explain any one with applications. [6]

b) Explain following terms: [9]

- i) Differential Non-linear error. (DNL)
- ii) Integral Non-Linear error. (INL)
- iii) Missing code error.

