

**School of University Polytechnic**

**Diploma in Electrical Engineering  
Semester End Examination - Jun 2024**

**Duration : 180 Minutes  
Max Marks : 100**

**Sem IV - N1DI402B - Electrical and Electronics Instrumentation***General Instructions*

*Answer to the specific question asked*

*Draw neat, labelled diagrams wherever necessary*

*Approved data hand books are allowed subject to verification by the Invigilator*

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|-----|--|--------|
| 1)  | Define stroboscope.  | K1(2)  |
| 2)  | Explain accuracy and precision in terms of transducers.  | K2(4)  |
| 3)  | Explain the working of pyrometer.  | K2(6)  |
| 4)  | Illustrate the various categories of electrical transducers.   | K3(9)  |
| 5)  | Illustrate the classification of temperature measuring devices, highlighting their principles of operation.  | K3(9)  |
| 6)  | Examine the various categories of classification of recorders. Provide examples for each classification.   | K5(10) |
| 7)  | Analyze in detail the necessity and significance of recorders in modern industrial processes and scientific research.  | K4(12) |
| 8)  | Examine the challenges and considerations in vibration and shock measurement, analyzing the impact of various factors.   | K5(15) |
| 9)  | Examine the operating principles and applications of three different types of transducers: Mechanical Transducers, Electrical Transducers and Optical Transducers.                   | K5(15) |
| 10) | Discuss the classification of transducers based on the following: a) on the basis its output b) on the basis of energy source requirement c) on the basis of transduction phenomenon | K6(18) |