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T.Y.B.Sc. (Electronics) (Sem. VI) Examination March - 2025

Electronics Paper 09: Electronic Instrumentation

सूचना : / Instructions

(१)

नीचे दशांशविले निशानीवाणी विगतो उत्तरवही पर अवश्य लपववी.
Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. (Electronics) (Sem. VI)

Name of the Subject :

Electronics Paper 09: Electronic Instrumentation

Subject Code No.: **2103000206020094**

Seat No.:

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Student's Signature

- (2) Figure on the right indicates full marks.
- (3) All symbols and abbreviations have their usual meaning.
- (4) Non-programmable calculators are allowed.
- (5) Q. 1 is compulsory.
- (6) Assume data if necessary.

Q.1. Answer in brief.

08

- A) State three types of preventive maintenance
- B) Define distortion factor
- C) What is the resolution of a 3½ digit DVM
- D) Draw Wave form of a Time base (sweep) signal.

Q.2 A) Explain spectrum analyzers in details.

14

B) Draw the block diagram of *harmonic distortion analyzer* and explain.

OR

Q-2 A) Draw the block diagram of Square wave Function Generator and explain each block in detail.

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B) Draw the block diagram of Function Generator and explain each block in detail.

RAN-2103000206020094]

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- Q-3.** A) Explain *how sweep signal is generated in a CRO*. Describe the simple Block diagram of CRO. **14**
B) Find expression the deflection sensitively of CRO.

OR

- Q.3** A) Explain working of digital storage oscilloscope **14**
B) The Lissajus pattern on the CRO is stationary and has 4 horizontal and two vertical Tangencies. The frequency of horizontal input is 500 Hz. Determine the frequency of vertical input.

- Q.4. Write Short Note (Any TWO) 14**
A) Digital Multimeter (DMM)
B) Digital Phase meter
C) Half split-method.
D) Random noise generator
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