



- (b) (i) Discuss the different types of standards of measurement. (8)  
(ii) Describe the static and dynamic characteristics of measuring instruments. (8)
12. (a) (i) Describe the basic magnetic measurement using B-H curve. (8)  
(ii) Explain the operating principle of instrument transformer. (8)

Or

- (b) (i) Explain the methods of turns compensation used in Current transformers to reduce ratio error. (8)  
(ii) Explain the term 'loading' in voltmeter and give the method to remove the adverse effect of the same. (8)
13. (a) Explain the procedure of measuring a low resistance with help of Kelvin's double bridge. Derive the relation to finding unknown resistance. (16)

Or

- (b) Describe in detail about :
- (i) Interference and screening. (8)  
(ii) Multiple earth and earth loops. (8)
14. (a) (i) Explain the segmental display and dot matrices display for numeric and alpha numeric displays. (12)  
(ii) Write short notes on data logging. (4)

Or

- (b) (i) Draw and explain the Block diagram of digital CRO. (12)  
(ii) Describe different types of sweeps used in CRO. (4)
15. (a) Write short notes on the following :
- (i) Seeback effect.  
(ii) Piezo electric transducer.  
(iii) Resistance thermometers. (16)

Or

- (b) (i) Explain the basic operation of A/D converter utilizing D/A Converter. (8)  
(ii) Explain the concept of Smart sensors. (8)