Day:	**Tuesday**	S-2018-2353	Time: **10.00 AM TO 01.00 PM**
Date:	**22/05/2018**		Max. Marks: 60

N.B.:
1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Use of non-programmable **CALCULATOR** is allowed.
4) Assume suitable data, if necessary.

Q.1 a) A person using an ohmmeter reads the measured value as 470Ω, when the actual value is 47Ω. What kind of error does this represent? **[04]**

b) State and describe the three major categories of error. **[06]**

OR

Q.1 The expected value of the voltage across a resistor is 80V. However, the measurement gives a value of 79V. Calculate (i) Relative accuracy (ii) Absolute error (iii) % Error (iv) % of accuracy. **[10]**

Q.2 a) State the advantages of a DVM over an analog meter. **[05]**
b) Draw schematic diagram of direct current probe and describe its function. **[05]**

OR

Q.2 Draw the block diagram of vector voltmeter and describe the function of each block in detail **[10]**

Q.3 a) What is the function of a gate control flipflop in universal counter? How does it operate? **[05]**

b) Describe the operation of period measurement. **[05]**

OR

Q.3 a) How signal is generated by using audio frequency signal generator? Describe it with neat block diagram. **[05]**
b) State the specifications of universal Counter. **[05]**

Q.4 a) Write the applications of CRO and DSO. **[05]**

b) Write the short note on curve tracer. **[05]**

OR

Q.4 For DSO describe following terms: **[10]**
i)Sampling Speed   ii) Memory Depth   iii) Math Function

Q.5 What are 's' parameters? How 's' parameters are measured using vector network analyzer **[10]**

OR

Q.5 a) What is co-channel interference? How it should be avoided? **[05]**

b) Write the note on EMI/EMC standards. **[05]**

Q.6 Discuss the operation of FFT Analyzer with its block diagram **[10]**

OR

Q.6 a) Write a note on Labview software. **[05]**

b) Discuss working principle of Distortion factor meter. **[05]**

*   *   *   *   *