

BE/In Sem-45

BE E&TC Pattern 2012

Subject : Multirate & Adaptive Signal Processing
(Elective-II)

Marks: 30

Marking Scheme -

- Q.1. a) Statement — (2)
Explanation with example — (3)
- b) Heisenberg's Principle - Statement — (2)
Examples — (3)

- Q.2 i) Projection Solution — (2)
Projection diagram — (3)
- ii) Time Variance / — Mathematical Expression — (2)
Frequency Variance Derivation — (3)

- Q.3. a) Multirate sampling - Need — (1) (01)
Upsamplers — (02)
Downsamplers — (02)
- b) Block schematic — (2)
Explanation — (2)
Example — (1)

- Q.4. a) Solution — (5)
- b) formula — (02) Solution — (03)

- Q.5 a) STFT - mathematical eqⁿ — (02)
Comment on Time & Frequency with diagram — (04)
- b) Comparison — (04)

- Q.6 a) Solution — (4) Formula — (2)
- b) $\hat{\phi}(\omega)$ — (2) $\hat{\psi}(\omega)$ — (2)