



(c) Explain the structures for realization of FIR systems. **07**

**OR**

**Q.5** (a) For the system described by  $y(t) = x(2t)$ , determine whether the system is **03**

(i) Stable (ii) causal

(b) Find the Z-transform and ROC of  $x(n) = (a)^n u(n)$ . **04**

(c) Discuss the concept of zero input limit cycle oscillation. How this can be eliminated? **07**

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