Jansons Institute of Technology
Karumathampatti, Coimbatore – 641 659

CIA - III

R/13-EC6014-Cognitive Radio

16.10.2019

B.E - ECE

Semester : VII

Time: 90 Min

Max Mark: 50

Instructions

1. Answer all the questions in Part – A, B & C

Part A	**Mark: 5 x 2 = 10**

1. Give the ontology structure for SDR subsystem components?
2. Comment on prayer behaviour and waking behaviour?
3. Enumerate the challenges of spectrum sensing?
4. Mention the upper layer issues in XG Networks?
5. Relate spectrum handoff latency with spectrum mobility.

Part B	**Mark: 2 x 13 = 26**

6.a i) Briefly explain the JTRS SCA version 1.0 with neat diagram   (10)

  ii) Write short notes on SDR design Space   (3)

(Or)

6.b i) Draw and explain the "Architecture maps" of cognitive radio   (13)
   with neat diagram

7.a i) Classify the concept of spectrum sharing and explain the details.   (13)

(Or)

7.b i) Discuss in detail the cross layer design of XG network.   (13)

Part C	**Mark: 1 x 14 = 14**

8.a i) Explain the various non-cooperative spectrum sensing techniques and   (14)
   compare their features.

(Or)

8.b i) Write short notes on the upper layer issue in XG networks   (4)

  ii) Compare the inter network and intra network sharing in XG network.   (10)

Dr.G.Vetrichelvi/ECE

HOD/ECE