

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May 2019

B.Tech VIII Semester

COURSE CODE: 14B1WEC733

MAX. MARKS: 35

COURSE NAME: Cognitive Radio Networks

COURSE CREDITS: 03

MAX. TIME: 2 hr.

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q1. Compare various transmitter based spectrum sensing techniques. (4)
- Q2. Differentiate among single band and multiband-OFDM technology. Which technology under what circumstances is suitable for cognitive radio user? Explain with examples. (5)
- Q3. Why OFDM is suitable technology for implementing CR system. What are various components of CR-OFDM system? (5)
- Q4. What is UWB technology? What are its important features helping CR system? (5)
- Q5. Explain in detail various adaptive features of IR-UWB. How CR can be implemented with IR-UWB? (5)
- Q6. Brief about the work of various standards and international activities going on in the field of cognitive radio. (5)
- Q7. Write a short note on following: (6)
- (i) Spectrum pruning algorithm
 - (ii) Spectrum shaping technique in CR-OFDM
 - (iii) NBI immunity
 - (iv) IR-UWB mask