JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2023

M.Tech-I Semester (ECE)

COURSE CODE(CREDITS): 21M1WEC137 (3)   MAX. MARKS: 15

COURSE NAME: Advance Cognitive Radio

COURSE INSTRUCTORS: Dr. Alok Kumar   MAX. TIME: 1 Hour

Note: (a)All questions are compulsory.

(b)Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for

solving problems

Q.1   Explain Cognitive cycle in cognitive radio network (CRN).What research challenges
       occurs at different stages of Cognitive cycle ?   [CO2]   [4]

Q.2   How Software Defined Radio (SDR) is employed in next generation of communication
       system? What are the limitations of SDR? How it is different from Cognitive Radio?
                                                                           [CO2]   [4]

Q. 3   Discuss the various attributes which must be employed in future generation of wireless
       networks.   [CO1, CO2]   [3]

Q.4   What are the different spectrum allocation policy? What are the pros and cons of each
       spectrum allocation policy?   [CO1]   [2]

Q.5   What are the frequency range of ISM Band 1 and ISM Band 2? Also write down the usage
       of these bands.   [CO2]   [2]