

### **DECLARATION BY THE CANDIDATE**

I, "*Mansi Upadhyay*", certify that the work embodied in this thesis is my own bonafide work and carried out by me under the supervision of "*Prof. Brahmeshwar Mishra*" from "*July 2014*" to "*January 2019*", at the "**Department of Pharmaceutical Engineering & Technology**", Indian Institute of Technology (BHU), Varanasi. The matter embodied in this thesis has not been submitted for the award of any other degree/diploma. I declare that I have faithfully acknowledged and given credits to the research workers wherever their works have been cited in my work in this thesis. I further declare that I have not willfully copied any other's work, paragraphs, text, data, results, *etc.*, reported in journals, books, magazines, reports, dissertations, theses, *etc.*, or available at websites and have not included them in this thesis and have not cited as my own work.

Date:

Place: Varanasi

*Mansi Upadhyay*

### **CERTIFICATE BY THE SUPERVISOR**

It is certified that the above statement made by the student is correct to the best of my knowledge.

**Prof. Brahmeshwar Mishra**  
(Supervisor)

**Head of the Department**