National Institute of Technology Hamirpur (H.P.)
Department of Computer Science & Engineering
End Term Examination DD-CSE 9th Semester

Max. Marks: 50   Security in Wireless & Mobile System (CSE-733)   Time: 3 Hrs.

Note: (i) Do not write anything on the question paper except your roll no.

(ii) Wherever possible try to validate your answers with examples.

(iii) Assume the data wherever necessary.

Q.1 (a) How SSL protocols encounter the following attacks: **(5)** Replay attack and password sniffing.

(b) Explicate various vulnerabilities involved in the mobile system. Also, discuss the counter-measuring **(5)** methods to address those vulnerabilities.

Q.2 (a) Discuss the various security attacks specific to the **(5)** wireless networks one may encounter. What are ways you can suggest making wireless networks less susceptible to security attacks?

(b) Explain the security issues associated with WSN. What **(5)** is a Sybil Attack and describe the defensive mechanism of a Sybil attack?

Q.3 (a) Classify the threats that a misbehaving node can **(5)** perpetrate to jeopardize the network operation in Ad hoc network security. Also explain the functioning of **S**ecure **R**outing **P**rotocol **(SRP)**, highlighting the kind of attacks to which SRP is immune.

(b) Comment on the advantages and disadvantages **(5)** associated with SSL and TSL. Also, discuss the alternatives to SSL and TSL.

Q.4 Describe how a man-in-the-middle attack may be **(10)** performed on a Wi-Fi network and the consequences of such an attack. Also, explain how a man-in-the-middle attack on a Wi-Fi network can be defeated.

Q.5 (a) What is mobile IP? What are security issues related **(5)** to mobile IP?

(b) Illustrate various services provided by IPsec in detail. **(5)**