M.Sc IT Sem-III

Paper / Subject Code: 90933 / Information Tech.: Offensive Security

(Time: $2\frac{1}{2}$ hours)

[Total Marks: 60]

N. B.: (1) **All** questions are **compulsory**.
(2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculator is **allowed**.

1. **Attempt *any two* of the following:** 12
   a. Explain the Cloud Computing Fault Model in detail.
   b. Discuss how do you define threats to web services.
   c. Explain Security Assertion Markup Language Protocol in detail.
   d. Discuss privacy requirements highlighted by ITU-T.

2. **Attempt *any two* of the following:** 12
   a. How will you counter social engineering attacks?
   b. What id the need for vulnerability assessment? Explain.
   c. What are the different motivators for insider threat actors? Explain.
   d. Discuss some security regulations and laws.

3. **Attempt *any two* of the following:** 12
   a. Enlist and discuss the scenarios where Metasploit maybe used.
   b. Explain the components of Metasploit.
   c. Explain the variables in Metasploit.
   d. Discuss Metasploit payloads in detail.

4. **Attempt *any two* of the following:** 12
   a. What is a meterpreter? Explain in detail.
   b. What is a shellcode? Explain reverse shell and blind shell?
   c. How do we perform social engineering with Metasploit? Explain.
   d. What is the msfvenom utility? Explain.

5. **Attempt *any two* of the following:** 12
   a. Discuss in detail modelling threats.
   b. What is the Intelligence Gathering and Reconnaissance Phase? Discuss in detail.
   c. Discuss the pre-interactions phase of a penetration test in detail.
   d. What is Metasploit? Discuss the basics of Metasploit.
