

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: M.TECH  
BRANCH: IS**

**SEMESTER : I  
SESSION : MO/18**

**SUBJECT: IT502 FUNDAMENTALS OF INFORMATION SECURITY**

**TIME: 3 HRS.**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) What do you mean by Information system security and Describe the Tenets of information System Security? [5]
- Q.1(b) Explain Briefly the Seven domains of IT infrastructure and mention the roles and responsibility along with diagrammatic work flow? [5]
- Q.2(a) What is a security breach and mention the activities that cause security breach? Explain DOS attack and DDOS attack? [5]
- Q.2(b) What are risk, threats, and vulnerabilities and define the relation between them? List out some common threats and vulnerabilities of each domain in IT infrastructure? [5]
- Q.3(a) Define risk register? Describe the role of business impact analysis (BIA) and it's critical functions in risk management? [5]
- Q.3(b) Differentiate between BCP and DRP? Explain different DRP tests in Disaster recovery? [5]
- Q.4(a) What do you mean by access control and mention four parts of access control? Describe access control policies and its components? [5]
- Q.4(b) What is cloud computing? Explain different categories of cloud available in the market and mention different types of cloud services? [5]
- Q.5(a) What do you mean by malicious software or malware? Briefly discuss different types hiding programs that effect the system? [5]
- Q.5(b) Discuss two key principles of risk management? Briefly explain Risk management process along with diagrammatic work flow? [5]

**:::::03/12/2018:::::M**