

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Seventh Semester B.Tech Degree Examination (Regular and Supplementary), December 2020

Course Code: AE465**Course Name: INFORMATION SECURITY**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer any two full questions, each carries 15 marks.*

Marks

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| 1 | a) Explain the goals of security. | (6) |
| | b) Compare symmetric key encryption and asymmetric key encryption. | (3) |
| | c) Explain the models of PKI with neat diagrams. | (6) |
| 2 | a) Explain the RSA algorithm. | (8) |
| | b) What is a malicious program? Give any two examples. | (7) |
| 3 | a) Explain the methods used to protect security goals. | (4) |
| | b) What are the countermeasures against the vulnerabilities in information security? | (4) |
| | c) Explain the Diffie-Hellman key exchange. | (7) |

PART B*Answer any two full questions, each carries 15 marks.*

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| 4 | a) Explain the SSL architecture with neat diagram. | (7) |
| | b) Explain IPSec cookies. | (4) |
| | c) Explain the two modes of operation of IPSec. | (4) |
| 5 | a) Explain the four protocols used by SSL to accomplish its task. | (8) |
| | b) Explain the ESP protocol. | (7) |
| 6 | a) Explain the authentication service exchange in Kerberos version4. | (8) |
| | b) What are the different fields in AH protocol? | (5) |
| | c) Compare AH and ESP. | (2) |

PART C*Answer any two full questions, each carries 20 marks.*

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| 7 | a) Explain the function and the configuration of firewall. | (10) |
| | b) What are the security procedures in information security? | (6) |
| | c) What are the four phases of data recovery? | (4) |
| 8 | a) What is IDS? What are the different types of IDS? | (10) |
| | b) What is managed security services and its types? | (5) |
| | c) Explain security audit. | (5) |
| 9 | a) What are the functions of NAT? | (5) |
| | b) Explain the configuration of firewall. | (5) |
| | c) What are the security policies and procedures? | (10) |
