

No. of Printed Pages : 5

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

00879

June, 2012

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note : *Section (A) - Answer all the objective type questions.*

Section (B) - Answer all the very short answer type questions.

Section (C) - Answer any two out of three short answer type questions.

Section (D) - Answer any two out of three long answer type questions..

SECTION - A

(Attempt all the questions)

1x10=10

1. TLS stands for _____.
 - (a) Transport Layer Superior
 - (b) Transport Layer Security
 - (c) Transport Layer Supervisor
 - (d) Transport Layer Secure
2. _____ is beneficial for securely storing sensitive data, such as hiding system password keys with other files.

3. _____ stands for SSL.
4. PKI stands for _____ it enables user of a basically unsecure public network such as the internet to securely and privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority.
5. ISPF is a virus :
(a) True (b) False
6. Data Encryption is a process of hiding data.
(a) True (b) False
7. SPF stands for _____ and DAC stands for _____.
8. HTML, XML and Flash are testing configurations.
(a) True (b) False
9. CSS stands for Cascading Style Sheet
(a) True (b) False
10. _____ log file records error generated by an SMTP mail server.

SECTION-B

(5 very short answer type Questions)

(Attempt all the questions)

11. What is the difference between UTF-7 and UTF-8 ? 2
12. What are the rules define for "rule based access control mechanisms" ? 2
13. What is the difference between http and https ? 2
14. Define character encoding. 2
15. What is the difference between authorization and access control ? 2

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SECTION-C

(Attempt 2 out of 3 short answer type questions)

16. How to prevent SQL Injection attacks ? 5
17. What do you understand by Authorization and Authentication ? Why Authorization is necessary ? 5
18. Define cryptography with examples and diagrams. 5



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SECTION-D

(Attempt 2 out of 3 long questions)

19. What is the difference between network security and cryptography ? How crypton is used with Internet ? 10
20. Explain the working of firewall with diagram. 10
21. Write short notes on the following : 5x2=10
- (a) SQL Injection
 - (b) Cookie Injection
 - (c) Logging
 - (d) Error Suppression
 - (e) Network Security

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No. of Printed Pages : 5

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2012

00192

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note : Section (A) - Answer all the objective type questions.

Section (B) - Answer all the very short answer type questions.

Section (C) - Answer any two out of three short answer type questions.

Section (D) - Answer any two out of three long questions.

SECTION - A

(Attempt all the questions)

1. ABAC stands for _____. 1
 - (a) Attribute Base Access Control
 - (b) Attribute Basic Access Control
 - (c) Attribute Belong Access Control
 - (d) Attribute Based Access Control
2. _____ is an important part of any real world application. This provides a number of mechanism that can be used to handle error, both during the development process and once your application is in a production environment. 1

3. _____ stands for PKI. 1
4. _____ it enables user of a basically unsecure public network such as the internet to securely and privately exchange data and money through the use of a public and a privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority. 1
5. Virtualization is a virus. 1
(a) True (b) False
6. Data Encryption is the process of hiding data with in a file. 1
(a) True (b) False
7. CSRF stands for _____ and IETE stands for _____. 1
8. HTML, XML and PHP are the headers of C-programming languages. 1
(a) True (b) False
9. In cryptography, a _____ is a short piece of information used to authenticate a message. A above defined algorithm, sometimes called a keyed hash function. 1
10. _____ log file records for startup message and errors for Cold Fusion MX. 1

SECTION - B

(5 very short answer type questions)

(Attempt all the questions)

- | | | |
|-----|---|---|
| 11. | How to secure communication channel ? | 2 |
| 12. | Define the term Authentication. | 2 |
| 13. | What is the difference between http and https ? | 2 |
| 14. | What is LCMQ Entity Authentication Protocol ? | 2 |
| 15. | What is non repudiation ? | 2 |

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SECTION - C

(Attempt 2 out of 3 short answer type questions)

16. What is the difference between threat, vulnerabilities and a risk ? 5
17. How spyware are dangerous threat than viruses ? 5
What make spyware so destructive ? Explain.
18. Define Cryptography with examples and figures. 5



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SECTION - D

(Attempt 2 out of 3 long questions)

19. Explain the various database server configuration categories. 10
20. Define the following : 2x5=10
- (a) Key Establishment
 - (b) ECC Entity Authentication Protocol
21. Write a short note on the following : 5x2=10
- (a) Various Security aspects of MAC
 - (b) Debug Error
 - (c) Application Maintenance activities
 - (d) Procedural language
 - (e) Network Security.

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No. of Printed Page : 1

MSEI-025 (P)

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

December, 2012

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt any two out of three carrying 40 marks each.

(ii) Viva - voce carries 20 marks.

1. Implement any 5 security techniques to secure your system from application attacks, Trojans attacks, web attacks, operating system attacks, virus attacks etc. **40**
2. Implement Denial of service attack to a particular IP address in the network and generate the final report. **40**
3. Do the penetration Testing on [http:// sedulity. Groups. org](http://sedulity.groups.org) and find out the login page and check out whether it is vulnerable to SQL Injection attack or not and Finally generate the report. **40**

No. of Printed Pages : 5

MSEI-025

P.G. DIPLOMA IN INFORMATION SECURITY (PGDIS)

Term-End Examination

01048

June, 2013

MSEI-025 : APPLICATION AND BUSINESS SECURITY DEVELOPMENTS

Time : 2 hours

Maximum Marks : 50

Note : Section (A) - Answer all the objective type questions.

Section (B) - Answer all the very short answer type questions.

Section (C) - Answer any two questions out of three.

Section (D) - Answer any two questions out of three.

SECTION - A

Objective type questions

(Attempt *all* the questions)

1. ACE stands for _____. 1
 - (a) Access Control Entries
 - (b) Access Control Enemy
 - (c) Access Control Entity
 - (d) None of these

2. _____ is a process of keeping track of user's 1
activity of interaction with a computer system or
website.

3. _____ process is a step-by-step and repetitive procedure where software is simulated according to the requirements. 1
4. In JRD Session, 'JRD' stands for "Joint Requirements Development". 1
(a) True (b) False
5. KDC stands for Key Distribution Center. 1
(a) True (b) False
6. KTC stands for _____. 1
(a) Key Translator Center
(b) Key Transport Center
(c) Key Transistor Center
(d) None of these
7. SMTP is a acronym for _____. 1
8. The purpose of _____ test is to determine the speed, scalability and confidence in performance testing. 1
9. Authentication Attack is one of the web Application Attack. 1
(a) True (b) False
10. XSS stands for _____. 1

SECTION-B

Very short type questions

(Attempt *all* the questions)

11. What is the web based application security assessment process ? 2
12. What are the steps involved in developing on interface design ? 2
13. What do you mean by the application security accessment ? 2
14. Difference between authorization and access control. 2
15. What do you mean by Time Stamp ? 2

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SECTION-C

Short answer type questions.

(Attempt 2 out of 3 questions)

- | | | |
|-----|---|---|
| 16. | What are the different types of web attacks ? | 5 |
| 17. | What do you mean by cookies in session management ? | 5 |
| 18. | How to secure communication channel ? | 5 |



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SECTION-D

Long answer type questions

(Attempt 2 out of 3 questions)

19. Explain the following terms : 2x5=10
- (a) IP Sec
 - (b) Input Validation
 - (c) Auditing
 - (d) Confidentially
 - (e) Vulnerabilities
20. Explain Securing Application Server and Database Server. 10
21. Write short notes on the following : 5x2=10
- (a) File-level Security
 - (b) Disk Encryption
 - (c) Steganography
 - (d) Ports
 - (e) Buffer Overflow Attack
-

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MSEI-025 (P)

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

June, 2013

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

*Note : (i) Attempt **any two** questions out of **three**. Each carries **40** marks.*

*(ii) Viva - voce carries **20** marks.*

-
1. Write a program to pass the pass phrase key to encrypt and decrypt the data and generate the final report. 40
 2. Do the Penetration Testing / Information Gathering on <http://AnupGirdhar.net> finally generate the list of information gathering / vulnerabilities in the form of report ? 40
 3. Try to install any web server, access the webpage from any node in the network and demonstrate and explain the concept of phishing page. 40
-

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MSEI-025 (P)

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December, 2013

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

- Note :** (i) Attempt *any two* questions out of *three*. Each carries **40** marks.
- (ii) Viva - voce carries **20** marks.

1. Write a program to check whether a string is palindrome or not by using any programming language (preferred C language). Generate the report to explain the syntax written in program. **40**
2. Try to install any web server, access the web page from any node in the network and demonstrate and explain the concept of phishing page. **40**
3. Use any tool and try to hide the data behind the image using steganography. **40**

No. of Printed Pages : 3

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
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Term-End Examination

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**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note : Section (A) - Answer all the objective type questions.

Section (B) - Answer all the very short answer type questions.

Section (C) - Answer any two questions out of three.

Section (D) - Answer any two questions out of three.

SECTION-A

Objective type questions.

(Attempt all the questions)

1. DES stands for _____. 1
 - (a) Data Encryption Standard
 - (b) Digital Encoding Standard
 - (c) Decode Encryption Standard
 - (d) None of these

2. _____ is a process of keeping track of user's activity of interaction with a computer system or website. 1

3. _____ process is a step - by - step and repetitive procedure where software is simulated according to the requirements. 1

4. AEC is a Cryptography Algorithm. 1
(a) TRUE (b) FALSE
5. MTA stands for Mail Transport Agent. 1
(a) TRUE (b) FALSE
6. ASCII stands for _____. 1
7. RAD stands for _____. 1
8. _____ test are end to end performance test 1
undernormal and anticipated peak production load.
9. STA stands for System Testing Architecture. 1
(a) TRUE (b) FALSE
10. Authentication Attack is a type of Malware 1
Attack.
(a) TRUE (b) FALSE

SECTION-B

(Attempt all the questions)

11. What are the interface Design elements ? 2
12. What are two forms of error handling ? 2
13. Define Ethical Hacking. 2
14. Difference between authorization and access 2
control.
15. Explain " Fraud Reduction " in Impacts of 2
Business Organization.

SECTION-C

Short answer type questions.

(Attempt 2 out of 3 questions.)

16. Explain structured coding Techniques with the examples of if else statements. 5
17. What are " Application Maintenance Activities " and " Digest Access Authentication"? 5
18. Explain TLS, SSL, XML and Plaintext. 5

SECTION-D

Long Answer type questions.

(Attempt 2 out of 3 questions)

19. Explain Securing Application server and Database Server. 10
 20. Explain Black box testing and also mention advantages, disadvantages and techniques of Black box Testing. 10
 21. Write a short note on the following : 5x2=10
 - (a) File - level Security
 - (b) Web Base Application
 - (c) Steganography
 - (d) AES
 - (e) Buffer Overflow Attack
-

No. of Printed Pages : 1

MSEI-025 (P)

POST GRADUATE DIPLOMA IN INFORMATION SECURITY (PGDIS)

00167

Term-End Practical Examination

June, 2014

MSEI-025 (P) : APPLICATION AND BUSINESS SECURITY DEVELOPMENTS

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt any **two** questions out of three. Each question carries 40 marks.

(ii) Viva-voce carries 20 marks.

-
1. Write a program to create the User Authentication System (username and password) by using any server side script (recommended PHP/ASP.NET). After the login, access any web page by using the Session Management. 40
 2. Implement the functions for Data Encryption and Decryption program by using any algorithm, in any programming language. (preferred C/C++, PHP, ASP.NET, etc.) 40
 3. Perform the Vulnerability Assessment of any website. Also list any top 10 security countermeasures/precautions, which have to be evaluated during the Audit. 40
-

No. of Printed Pages : 3

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2014

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note : *Section (A) - Answer all the objective type questions.*

Section (B) - Answer all the very short answer type questions.

Section (C) - Answer any two out of three short answer type questions.

Section (D) - Answer any two out of three long questions.

SECTION-A

(Answer all the objective type questions)

1. An application design and programming language should support specification and realization of _____ data types. 1
2. SMTP stands for : 1
 - (a) Simple mail transfer protocol
 - (b) Simple mail transit protocol
 - (c) Simple mail two protocol
 - (d) Simple mail translate protocol

3. To speed up connectivity and reduce performance loads at the server end, _____ validation of input and manipulation of data is often required. 1
4. TLS stands for _____. 1
5. _____ is the HTTP error code for page not found. 1
6. _____ is the process of safely keeping track of the creation and modification time of a document. 1
7. _____ is a process of changing information using an algorithm to convert it into a form that is not readable to anyone except those possessing special knowledge referred to as key. 1
8. _____ is the term used to describe the action taken by a program as it browses from page to page on a website. 1
9. Ethical hacking is also known as the intrusion testing, penetration testing or red teaming. 1
(a) True (b) False
10. _____ is probably the most common web client side scripting language in use today. 1

SECTION - B

(5 very short answer type question)

(Attempt all the questions)

11. Define a Audit trail. 2

12. Which strategy should be used for complex real life application ? 2
13. What is 3PAKE Entity authentication protocol ? 2
14. Is it safe to send sensitive information over the internet ? Describe. 2
15. Define black box testing. 2

SECTION - C

(Attempt 2 out of 3 short answer type questions)

16. What are the different types of web application attacks ? 5
17. What is the importance of time stamp ? And how it works ? 5
18. How to securely send E-mails and transfer files ? 5

SECTION - D

(Attempt 2 out of 3 long questions)

19. What types of challenges are faced by web application scanners ? 10
20. Define the following : 2x5=10
 - (a) Digest access authentication
 - (b) Application security assessment
21. Write short note on the following : 5x2=10
 - (a) Brute Force
 - (b) Cookie
 - (c) Cross-site scripting
 - (d) Procedural languages
 - (e) ECC entity authentication protocol.

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MSEI-025 (P)

POST GRADUATE DIPLOMA IN INFORMATION SECURITY (PGDIS)

00464

Term-End Practical Examination

December, 2014

MSEI-025 (P) : APPLICATION AND BUSINESS SECURITY DEVELOPMENTS

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt any **two** out of three questions carrying 40 marks each.

(ii) Viva-voce carries 20 marks.

-
1. Write a program to create the "HIT COUNTER" (the counter value increased by one on every hit on the page) by using any server side script (recommended PHP/ASP.NET). Implement the concept of Cookies, by transferring and retrieval of the data from the Client Machine. 40
 2. Do the Vulnerability Audit of any website, try Crosssite script, DDOS attack, Input Validation Attacks and also generate the Report. 40
 3. By using the Steganography tool try to hide the file behind the Image, and Reveal the file also from the same. Write a program to implement the Data Encryption Algorithm in the function by using any language. (Recommended C/C++, PHP, ASP.NET) 40
-

No. of Printed Pages : 4

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

00084

December, 2014

**MSEI-025 : APPLICATION AND BUSINESS SECURITY
DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note :

Section A – Answer all the objective type questions.

Section B – Answer all the very short answer type questions.

*Section C – Answer any **two** questions out of three short answer type questions.*

*Section D – Answer any **two** questions out of three long answer type questions.*

SECTION A

Answer all the objective type questions.

1. _____ is the recommended best practice for input validation. All input may only pass, if it is validated as known good input. 1

2. CSS stands for _____. 1

3. MTA stands for _____ . 1
4. RFID stands for _____ . 1
5. _____ testing is also known as clear box testing. 1
6. _____ attacks are aimed at application components that take data as input and pass it to memory buffer for later use and manipulation. 1
7. ECB, CBC, CFB and OFB are four block cipher functions. 1
 - (a) True
 - (b) False
8. _____ security allows individual user or organisation to secure traffic for all applications without having to make any notifications to the applications. 1
9. To secure the channel from the application server to SQL server use _____. 1
10. For _____, well documented coding standards will aid the creation of "Test Scripts". 1

SECTION B

Answer all the very short answer type questions.

11. How does web allocation work ? 2
12. Define buffer overflow attacks. 2
13. Write a short note on securing the server operating system. 2
14. How does time stamping work ? 2
15. Write a note on automated source code analysis. 2

SECTION C

Answer any 2 questions out of the 3 short answer type questions.

16. What is OCTAVE ? What are the limitations of using OCTAVE ? 5
17. What necessary steps should be taken for securing the Web server ? 5
18. Write pros and cons for both the testing techniques. 5

SECTION D

Answer any 2 questions out of 3 long answer type questions.

19. Define the following : **2×5=10**

- (a) File-level security
- (b) Application security
- (c) Physical security
- (d) Disk encryption
- (e) Taking backup

20. What are the major types of Web application attacks ? **10**

21. Explain the methods of Encrypting data. **10**

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MSEI-025 (P)

00651

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

June, 2015

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

-
- Note :** (i) *Attempt any two questions out of three. Each carries 40 marks.*
- (ii) *Viva voce carries 20 marks.*
-
-

1. Write a program to generate the fibonacci series. **40**
Generate report to explain the syntax written in program.
2. Install the web server on the network. Access the **40**
web page from other node in the network.
Demonstrate and explain the concepts of
add-ons on the web page.
3. Explain any one encryption algorithm to encrypt **40**
and decrypt the data.

No. of Printed Pages : 5

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2015

00376

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

-
- Note :** (i) *Section A - Objective type questions.*
(ii) *Section B - Very short answer type questions.*
(iii) *Section C - Short answer type questions.*
(iv) *Section D - Long answer type questions.*
-

SECTION - A

(Attempt all the questions)

10x1=10

1. In an HTML document where is the correct place to refer to an external style sheet ?
 - (a) At the top of the document
 - (b) In the <body> section
 - (c) In the <Head> section
 - (d) At the end of the document

2. What does XML stand for ?
 - (a) X - Markup Language
 - (b) Example Markup Language
 - (c) Extra Modern Link
 - (d) Extensible Markup Language

3. SMTP utilizes _____ as the transport layer protocol for electronic mail transfer.
- (a) TCP
 - (b) UDP
 - (c) DCCP
 - (d) SCTP
4. The study of secret codes associated with classified information and intelligence gathering is called :
- (a) Cryptography
 - (b) Secure socket layer
 - (c) Scripting
 - (d) Encryption
5. PKI is based on which of the following encryption scheme ?
- (a) Symmetric
 - (b) Quantum
 - (c) Asymmetric
 - (d) Elliptical curve
6. Which of the following pays most of the cost for spam activity ?
- (a) Recipient
 - (b) Carrier
 - (c) Sender
 - (d) Service provider

7. Asymmetric encryption : Why on a message encrypted with PKI only be decrypted with receiver's appropriate private key ?
- (a) Not true, message can also be decrypted with public key.
 - (b) One way function with back door is applied for encryption.
 - (c) PKI contains special function used to encrypt message and which can be reversed by appropriate private key.
 - (d) None of the above
8. What worm emailed people with words 'I LOVE YOU' in year 2000 ?
- (a) Love Bug
 - (b) Love letter
 - (c) Valentine connection
 - (d) Darling link
9. What is a person called when he hurts group of people with use of computer ?
- (a) White hat intruder
 - (b) Cracker
 - (c) Social Engineer
 - (d) Cyber terrorist
10. Which computer virus records every movement you make on your computer ?
- (a) Malware
 - (b) Keylogger
 - (c) DOS
 - (d) Trapper

SECTION - B

(Attempt all the questions)

11. What is authorization and access control ? 2
12. What is the difference between HTML and XML ? 2
13. Differentiate Hacker and Cracker. 2
14. What is root based access control mechanism in providing security ? 2
15. Explain data encryption technique. 2

SECTION - C

(Attempt 2 out of 3 questions)

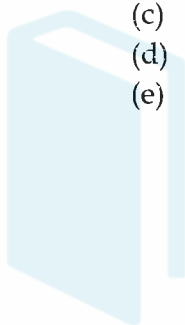
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16. Explain SMTP, DES and TLS. 5
17. What do you understand by business maintenance activities and providing security ? 5
18. What are interface design elements ? Explain with example. 5

SECTION - D

(Attempt 2 out of 3 questions)

19. What is SQL injection attack and how to prevent from it ? 10
20. Explain white box testing and its advantages and disadvantages over the black box testing. 10
21. Write short notes on the following : 5x2=10
- (a) PKI
 - (b) Ethical Hacking
 - (c) Fraud Reduction
 - (d) Mail Transport Agent
 - (e) Data Encryption Standard



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No. of Printed Page : 1

MSEI-025 (P)

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

December, 2015

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt **any two** questions out of **three**. Each carries **40** marks.
(ii) Viva voce carries **20** marks.

1. Write a program to check whether entered number is Armstrong number or not. Generate the report to explain the syntax written in program. **40**
2. Install Apache server and access the web page from the network. Demonstrate and explain the concept of clone phishing. **40**
3. Use any steganography tool to hide the data behind the image. Explain step by step. **40**

No. of Printed Pages : 4

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2015

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

-
- Note :** (i) *Section A - Objective type questions.*
(ii) *Section B - Very short answer type questions.*
(iii) *Section C - Short answer type questions.*
(iv) *Section D - Long answer type questions.*
-

SECTION - A

(Attempt all the questions) **1x10=10**

1. Encryption is the process of encoded the data in another form.
(a) True (b) False
2. HTML, XML and Flash are the header of C programming language.
(a) True (b) False
3. Firewalls are designed to perform all the following except :
 - (a) Limiting security exposures
 - (b) Logging Internet activity
 - (c) Enforcing organization security policy
 - (d) Protecting against viruses

4. What does CSS stands for ?
(a) Cascadding Style Sheets
(b) Computer Style Sheets
(c) Creative Style Sheets
(d) Colourful Style Sheets
5. Which one of the following protocol is used to receive mail messages ?
(a) SMTP
(b) Post Office Protocol
(c) Internet message access protocol
(d) All of the above
6. One of the most widely used Public Key algorithm today is called :
(a) PKI (b) RSA
(c) SSL (d) Hash Code
7. In a _____ infrastructure, a system of server that freely distribute key to anyone would be established and maintained.
(a) Asymmetric key (b) Public key
(c) PGP key (d) Private key
8. John is a network administrator. He advise server administrator of company to implement blacklisting, closing open relays and strong authentication which threat he is addressing ?
(a) Viruses (b) Adware
(c) Spam (d) Spyware
9. Which of the following standard applies to e-mail as a message handling protocol ?
(a) X.800 (b) X.509
(c) X.500 (d) X.400

10. TLS stands for :

- (a) Transport Layer Superior
- (b) Transport Layer Security
- (c) Transport Layer Supervisor
- (d) Transport Layer Secure

SECTION - B

(Attempt **all** the questions)

11. Explain Structured Coding Technique used in application. 2

12. What is difference between SMTP and POP ? 2

13. What are two forms of error handling ? 2

14. Define Transport Layer Security. 2

15. What is impact of fraud on business organization ? 2

SECTION - C

(Attempt **2** out of **3** questions)

16. What do you understand by authorization and authentication ? Why they are necessary ? 5

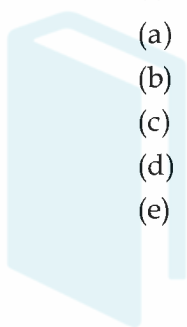
17. Define cryptography with suitable example. 5

18. How network security is provided on network ? Explain. 5

SECTION - D

(Attempt 2 out of 3 questions)

19. Explain characteristics of firewall. How it is helpful in providing security in network ? 10
20. Why we need to secure application server and database server ? What are the roles to protect from the outside attack ? 10
21. Write short notes on the following : 5x2=10
- (a) SQL Injection Attack
 - (b) Network Security
 - (c) Log File
 - (d) Hacking
 - (e) White Hacker



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No. of Printed Pages : 1

MSEI-025 (P)

00430

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

June, 2016

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) *Attempt any two questions out of three. Each carries 40 marks.*
(ii) *Viva-voce carries 20 marks.*

1. Write a program of RSA algorithm to encrypt and decrypt the data. **40**
2. Install the web server on the network. Access the web page from other node in the network. Explain the concepts of add-ons on the web page. **40**
3. What is vulnerability ? How can one assess the vulnerability of web application through tools ? Give the demonstration of any one tool. **40**

No. of Printed Pages : 4

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2016

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

- Note :** (i) *Section A - Objective type questions.*
(ii) *Section B - Very short answer type questions.*
(iii) *Section C - Short answer type questions.*
(iv) *Section D - Long answer type questions.*

SECTION - A

(Attempt all the questions)

10x1=10

1. Which statement is true ?
 - (a) An XML document can have one root element.
 - (b) An XML document can have one child element.
 - (c) XML elements have to be in lower case.
 - (d) All of the above
2. Choose the correct HTML tag for the largest heading ?
 - (a) <H1>
 - (b) <H6>
 - (c) <H10>
 - (d) <HEAD>

3. In computer security _____ means that computer system assets can be modified only by authorized parties.
- (a) Confidentiality (b) Integrity
(c) Availability (d) Authenticity
4. Which of the following malicious program do not replicate automatically ?
- (a) Trojan Horse (b) Virus
(c) Worm (d) Zombie
5. The types of threats on the security of a computer system or network are :
- (i) Interruption
(ii) Interception
(iii) Modification
(iv) Creation
(v) Fabrication
- (a) (i), (ii), (iii) and (iv) only
(b) (ii), (iii), (iv) and (v) only
(c) (i), (ii), (iii) and (v) only
(d) All
6. IP Sec is designed to provide the security at the :
- (a) Transport layer
(b) Application layer
(c) Network layer
(d) Session layer
7. Which of the following is/are protocol/s of Application ?
- (a) FTP (b) DNS
(c) Telnet (d) All of the above

8. Which of the following does not use a cryptographical technique to protect data ?
- (a) The use of digital signatures
 - (b) Data Encryption
 - (c) The use of stored encrypted password files
 - (d) Using asymmetric keys at sender and receiver nodes
9. PGP encrypts data by using a block cipher called :
- (a) IDEA
 - (b) Private data encryption algorithm
 - (c) Internet data encryption algorithm
 - (d) None
10. Gathering information by what users enter on their keyboards, especially login names and passwords is known as :
- (a) Dumpster Diving
 - (b) Shoulder Surfing
 - (c) Piggy Backing
 - (d) Password Hashing

SECTION - B

(Attempt all the questions)

11. Write the difference between White Hacker, Black Hacker and Grey Hacker. 2
12. What is CIA (Confidentiality, Integrity and Availability) ? 2
13. Explain symmetric cryptography algorithm. 2
14. Write the difference between XML and HTML. 2
15. What is XSS ? 2

SECTION - C

(Attempt 2 out of 3 questions)

16. Explain HTTP, HTTPS and TCP. 5
17. Define Buffer overflow attack and how to prevent from it ? 5
18. Explain Black Box Testing and White Box Testing. 5

SECTION - D

(Attempt 2 out of 3 questions)

19. Explain the flow of transaction in SCT with diagram. 10
20. What is malicious program ? Write the types of malicious programs and explain them. 10
21. Write short notes on the following : 5x2=10
- (a) IP spoofing
 - (b) PKI
 - (c) Phishing
 - (d) Dumpster Diving
 - (e) Keyloggers
-

No. of Printed Pages : 4

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2016

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note : (i) *Section A - Objective type questions.*

(ii) *Section B - Very short answer type questions.*

(iii) *Section C - Short answer type questions.*

(iv) *Section D - Long answer type questions.*

SECTION - A

(Attempt all the questions)

10x1=10

1. A webpage displays a picture. What tag was used to display that picture ?

- (a) Picture (b) Image
(c) img (d) Src

2. tag makes the enclosed text bold. What is other tag to make text bold ?

- (a) (b) <dar>
(c) black (d) <cmp>

3. _____ is a person who performs most of the same activities a hacker does, but with the owner or company's permission.

- (a) Tester (b) Ethical Hacker
(c) Script kiddies (d) CBI

4. _____ is the other name for Script Kiddies.
- (a) Pocket Monkeys (b) Penetration Testers
(c) Security Testers (d) Good Hackers
5. Which of the following is not a model in penetration testing ?
- (a) white box model
(b) black box model
(c) red box model
(d) gray box model
6. TCP stands for _____.
- (a) Transmission Control Protocol
(b) Transport Control Based
(c) Transmission Congestion Protocol
(d) Transit Control Protocol
7. UDP is a _____ Protocol.
- (a) Connectionless
(b) Connection Oriented
(c) Synchronous
(d) Asynchronous
8. _____ is a computer virus encoded as a macro in programs that supports a macro language.
- (a) Virus (b) Macro Virus
(c) Worm (d) Trojans

9. What is the main purpose of access control ?
- (a) To authorise full access to authorised users.
 - (b) To limit the actions or operations that a legitimate user can perform.
 - (c) To stop unauthorised users accessing resources
 - (d) To protect computers from viral infections
10. The software or hardware components that records each keystroke a user enters into a word processing document is called a _____.
- (a) Sniffer
 - (b) Keylogger
 - (c) Trojan program
 - (d) Buffer overflow

SECTION - B

(Attempt all the questions)

11. Explain Malicious Programs. 2
-
12. Describe asymmetric cryptography. 2
13. How do users prevent and protect themselves against viruses ? 2
14. What is XSS ? 2
15. What are the three ways to authenticate a person ? 2

SECTION - C

(Attempt 2 out of 3 questions)

16. Explain SSL, SMTP and HTTPS. 5
17. What are Information System threats and attacks ? 5
18. What are the basic principles of information security ? Also explain other terms in information security. 5

SECTION - D

(Attempt 2 out of 3 questions)

19. Define Active and Passive attacks. Explain the types of Active and Passive attacks with example. 10
20. Explain the concept of building security into software/system development life cycle. 10
21. Write short notes on the following : 5x2=10
- (a) SQL Infection Attack
 - (b) Buffer overflow attack
 - (c) Digital signature
 - (d) Ethical Hacking
 - (e) PKI

No. of Printed Pages : 1

MSEI-025 (P)

00404

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

December, 2016

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) *Attempt any two questions out of three. Each carries 40 marks.*

(ii) *Viva-voce carries 20 marks.*

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1. How Hackers penetrate a website ? Write all the methods of penetration. Give the demonstration of any one tool. **40**
2. Describe step by step one encryption algorithm to encrypt and decrypt the data. **40**
3. How to write a secure code to avoid the input validation ? **40**

No. of Printed Pages : 3

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2017

00978

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

- Note : (i) Section A - Answer all the Objective type questions.
(ii) Section B - Answer all the Very short answer type questions.
(iii) Section C - Answer any 2 questions out of 3 Short answer type questions.
(iv) Section D - Answer any 2 questions out of 3 Long answer type questions.*

SECTION - A

Answer all the objective type questions :

1. AEC is a cryptography Algorithm. 1
(a) True (b) False
2. ASCII stands for _____ 1
3. STA stands for system testing Architecture. 1
(a) True (b) False
4. _____ testing is also known as clear box 1
testing.

5. For _____ well documented Coding standards will aid the creation of "Test Scripts." 1
6. _____ is the recommended best practice for input validation. All input may only pass if it is validated as known good input. 1
7. WSN stands for _____. 1
8. _____ is the process of safely keeping track of the creation and modification time of a document. 1
9. An application design and programming language should support specification and Realization of _____ data types. 1
10. _____ is the term used to describe the action taken by a program as it browses from page to page on a website. 1

SECTION - B

Answer **all** the very short answer type questions :

5x2=10

11. What is authorization and access control ? 2
12. Write a short note on securing the server operating system. 2
13. Define Ethical Hacking. 2
14. Define black box testing. 2
15. Is it safe to send sensitive information over the internet ? Explain. 2

SECTION - C

Answer **any 2** questions out of 3 short answer type questions.

2x5=10

16. What is the importance of time stamp ? 5
17. Explain TLS, SSL, XML and Plain text. 5
18. Write Pros and Cons for alpha and beta testing techniques. 5

SECTION - D

Answer **any 2** questions out of the 3 Long answer type questions.

2x10=20

19. What types of challenges are faced by web application scanners ? 10
20. What are the major types of web application attacks ? 10
21. Explain Securing Application server and Database Server. 10

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No. of Printed Pages : 1

MSEI-025 (P)

00180

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

June, 2017

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

- Note :** (i) *Attempt any 2 out of 3 questions. Each question carries 40 marks.*
(ii) *Viva-voce carries 20 marks.*

1. Write a program to check whether a number entered is prime or not by using any programming language (preferred C language). Generate the report to explain the syntax written in program. **40**
2. Do the vulnerability Audit of any website, try Injection attack, DDOS attack, Brute Force attacks and also generate report. **40**
3. By using the steganography tool try to hide the file behind the BMP image or WAV file, and Reveal the file also from the same. **40**

No. of Printed Pages : 3

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2017

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

- Note :*
- (i) *Section A - Answer all the objective type questions.*
 - (ii) *Section B - Answer all the very short answer type questions.*
 - (iii) *Section C - Answer any 2 out of the 3 short answer type questions.*
 - (iv) *Section D - Answer any 2 questions out of 3 long answer type questions.*

SECTION - A

Answer all the objective type questions.

1. MTA stands for Mail Transport Agent. 1
(a) True (b) False
2. RAD stands for _____. 1
3. Authentication Attack is type of Malware Attack. 1
(a) True (b) False
4. _____ security allows individual user or 1
organisation to secure traffic for all applications
without having to make any notification to the
applications.

5. RFID stands for _____. 1
6. POP stands for _____. 1
7. _____ is the HTTP error code for page not found. 1
8. The most common web client side scripting language in use today is _____. 1
9. SMTP stands for _____. 1
10. FTP stands for _____. 1

SECTION - B

Answer all the very short answer type questions.

5x2=10

11. What is the difference between HTML and XML ? 2
12. How does web allocation works ? 2
13. Explain "Fraud Reduction" in impacts of Business organization. 2
14. What are two forms of error handling ? 2
15. Define a Audit trail. 2

SECTION - C

Answer **any 2** questions out of the 3 short answer type questions.

2x5=10

16. How to securely send E-mails and transfer files ? 5

17. Explain structured Coding Techniques with the examples of if else statements. 5
18. What necessary step should be taken for securing the web server ? 5

SECTION - D

Answer any 2 questions out of the 3 long answer type questions. 2x10=20

19. Define the following : 2x5=10
- (a) Digest access authentication
 - (b) Application security assessment
20. Explain the methods of Encrypting data. 10
21. What is SQL injection attack and how to prevent from it ? 10

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MSEI-025 (P)

00253

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

December, 2017

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt any 2 out of 3 questions carrying 40 marks each.

(ii) Viva-voce carries 20 marks.

-
1. By using the steganography tool try to hide the file behind the Image, and Reveal the file also from the same. Write a program to implement the Data Encryption Algorithm in the function by using any language. (Recommended C/C++, PHP, ASP. NET). 40
 2. Try to install any web server, access the web page from any node in the network and demonstrate and explain the concept of phishing attack. 40
 3. Perform the Vulnerability Assessment of any website. Also list any top 10 security counter measures/precautions, which have to be evaluated during the audit. 40
-

No. of Printed Pages : 4

MSEI-025

01463

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2018

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

- Note :*
- (i) Section A - Objective type questions.*
 - (ii) Section B - Very short answer type questions.*
 - (iii) Section C - Short answer type questions (Attempt any 2 out of 3 questions).*
 - (iv) Section D - Long answer type questions (Attempt any 2 out of 3 questions).*
-

SECTION - A

(Attempt all the questions)

10x1=10

- 1.** The first step in Software Development Life Cycle (SDLC) is .
 - (a) Preliminary investigation and analysis
 - (b) System Design
 - (c) System Testing
 - (d) Coding
- 2.** What is prototype ?
 - (a) Mini-model of existing system
 - (b) Mini-model of the proposed system
 - (c) Working model of the existing system
 - (d) None

3. Which one of the following is **not** stage of SDLC ?
- (a) System Analysis
 - (b) Problem identification
 - (c) System Design
 - (d) Feasibility study
4. In SET protocol a customer encrypts credit card number using _____.
- (a) His private key
 - (b) Bank's public key
 - (c) Bank's private key
 - (d) Merchant's public key
5. In computer security _____ means that the information in a computer system only be accessible for reading by authorized parties.
- (a) Confidentiality
 - (b) Integrity
 - (c) Availability
 - (d) Authenticity
6. Which of the following malicious program do not replicate automatically ?
- (a) Trojan Horse
 - (b) Virus
 - (c) Worm
 - (d) Zombie

7. Which of the following may intercept and use your messages for their own purposes ?
- (a) News outlets
 - (b) Governments
 - (c) Crime rings
 - (d) All
8. Codes have been used for thousands of years in order to :
- (a) Become a king
 - (b) Communicate with some but not others
 - (c) Send encrypted text messages
 - (d) None
9. Which of these is regularly used for secure online communication ?
- (a) Caesar cipher
 - (b) Public key cryptography
 - (c) Morse code
 - (d) Enigma code
10. How can you tell if a website encrypts its traffic ?
- (a) Google it
 - (b) Look for the lock symbol in a URL
 - (c) All websites encrypt their traffic
 - (d) Encrypted sites take longer to load

SECTION - B

(Attempt all the questions)

5x2=10

11. What is the best approach for choosing a vulnerability assessment tool for your environment ?
12. Describe symmetric cryptography with example.
13. What is input validation ?
14. How to determine if you are vulnerable ?
15. What is Active and Passive attacks ?

SECTION - C

(Attempt any 2 out of 3 questions)

2x5=10

16. Explain malicious programs with examples.
17. What is the difference between a network vulnerability assessment and a penetration test ?
18. Describe asymmetric cryptography with example. Give the difference between symmetric and asymmetric cryptography.

SECTION - D

(Attempt any 2 out of 3 questions)

2x10=20

19. Explain error handling and logging with example.
20. Explain the concept of building security into software/system development life cycle.
21. Write short notes on the following :
(a) Buffer overflow attack
(b) DOS and DDOS attack
(c) Loophole
(d) Public Key Infrastructure
(e) Ethical Hacking

No. of Printed Pages : 1

MSEI-025 (P)

00293

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

June, 2018

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) *Attempt any two questions out of three. Each carries 40 marks.*

(ii) *Viva-voce 20 marks.*

-
1. What do you mean by XSS attack ? Write the penetration method of XSS attack and phishing attack. **40**
 2. What is cryptology ? Give the practical demonstration of asymmetric algorithm to encrypt and decrypt the message. **40**
 3. How to write a secure code for Authentication and Authorization ? **40**
-

No. of Printed Pages : 4

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

December, 2018

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

- Note :**
- (i) *Section A - Objective type questions.*
 - (ii) *Section B - Very short answer type questions.*
 - (iii) *Section C - Short answer type questions (Attempt any 2 out of 3 questions).*
 - (iv) *Section D - Long answer type questions (Attempt any 2 out of 3 questions).*
-

SECTION - A

(Attempt all the questions) 10x1=10

1. System analysis and design phase of Software Development Life Cycle (SDLC) includes which of the following ?

- (a) Parallel run (b) Sizing
- (c) Specification Freeze (d) All

2. Risk analysis of a project is done in :

- (a) System analysis phase
- (b) Feasibility study
- (c) Implementation phase
- (d) Maintenance phase

3. Which of the following does not occur in phase-4 of the System Development Life Cycle (SDLC).
- (a) Conduct interviews
 - (b) Train users
 - (c) Acquire hardware and software
 - (d) Test the new system
4. In SET protocol a customer sends a purchase order :
- (a) Encrypted with his public key
 - (b) In plaintext form
 - (c) Encrypted using Bank's Public key
 - (d) Using digital Signature System
5. The _____ is code embedded in some legitimate program that is set to "explode" when certain conditions are met.
- (a) Trap doors
 - (b) Trojan Horse
 - (c) Logic Bomb
 - (d) Virus
6. What can you trust to be secure 100 percent of the time ?
- (a) Text messages
 - (b) Emails
 - (c) Logic bomb
 - (d) Virus
7. What is the main purpose of access control ?
- (a) To authorize full access to authorized users
 - (b) To limit the actions or operations that a legitimate user can perform
 - (c) To stop unauthorized users accessing resources
 - (d) To protect computers from viral infections

8. Which of the following does not use a Cryptographical Technique to protect data ?
- (a) The use of digital signatures
 - (b) Data encryption
 - (c) The use of stored encrypted password files
 - (d) Using asymmetric keys at sender and receiver nodes
9. What is the default port number for apache and most web servers ?
- (a) 20
 - (b) 40
 - (c) 80
 - (d) 120
10. Which of the following is true of improper error handling ?
- (a) Attackers can use error messages to extract specific information from a system.
 - (b) Attackers can use unexpected errors to knock an application offline, creating DOS attack.
 - (c) Unexpected errors can provide an attacker with a buffer or stack overflow condition that sets the stage for an arbitrary code execution.
 - (d) All of the above

SECTION - B

(Attempt all the questions)

5x2=10

11. Define web application scanning.
12. Describe buffer overflow attack.
13. Describe SQL Injection attack.
14. What are Information system threats ?
15. Write the basic principles of Information security.

SECTION - C

(Attempt any 2 out of 3 questions) $2 \times 5 = 10$

16. What is the difference between a network vulnerability assessment and a penetration test ?
17. Describe passive and active attacks with example.
18. Explain symmetric and asymmetric cryptography with example.

SECTION - D

(Attempt any 2 out of 3 questions) $2 \times 10 = 20$

19. Explain authentication, authorization and session management with example.
 20. Explain Error Handling and Logging with example.
 21. Write short notes on the following : $5 \times 2 = 10$
 - (a) 3D Security
 - (b) DOS and DDOS attack
 - (c) Digital signature
 - (d) PKI
 - (e) XSS attack
-

No. of Printed Pages : 1

MSEI-025 (P)

00002

**POST GRADUATE DIPLOMA IN
INFORMATION SECURITY (PGDIS)**

Term-End Practical Examination

December, 2018

**MSEI-025 (P) : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 3 hours

Maximum Marks : 100

Note : (i) Attempt any two questions out of three.

Each carries 40 marks.

(ii) Viva-Voce carries 20 marks.

-
1. How to protect the data access from unauthorized user ? 40
 2. How to write a code for Error Handling and Logging ? 40
 3. How to write a secure code to circumvent the input validation ? 40
-

No. of Printed Pages : 6

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination

June, 2019

01494

**MSEI-025 : APPLICATION AND BUSINESS SECURITY
DEVELOPMENTS**

Time : 2 hours

Maximum Marks : 50

Note :

*Section A – Answer **all** the objective type questions.*

*Section B – Answer **all** the very short answer type questions.*

*Section C – Answer any **two** questions out of three short answer type questions.*

*Section D – Answer any **two** questions out of three long answer type questions.*

SECTION A

*Answer **all** the objective type questions.*

1. What does XML stand for ?

1

- (a) X-Markup Language
- (b) Example Markup Language
- (c) Extra Modern Link
- (d) Extensible Markup Language

2. TLS stands for _____ . 1
- (a) Transport Layer Superior
 - (b) Transport Layer Security
 - (c) Transport Layer Supervisor
 - (d) Transport Layer Secure
3. SSL stands for _____ . 1
- (a) Secure Sockets Layer
 - (b) Secure Supervisor Layer
 - (c) Secure Superior Layer
 - (d) None of the above
4. HTTPS stands for Hypertext Transfer Protocol Secure. 1
- (a) True
 - (b) False
5. Which of the following is the best way to set up SSH for communicating between systems without needing passwords ? 1
- (a) Use SSH-keygen for generating public-private keys.
 - (b) Disable passwords on specific accounts that will use SSH.
 - (c) Both a and b
 - (d) None of the above

6. Integrated windows authentication make use of _____ .

1

- (a) Digest
- (b) SSL/TLS
- (c) Client Certificate
- (d) Kerberos

7. In Windows, what is the tool which creates a public-private key pair ?

1

- (a) makecert.exe
- (b) generatecert.exe
- (c) strong.exe
- (d) sn.exe

8. Confidentiality with asymmetric-key cryptosystem has its own _____ .

1

- (a) Entities
- (b) Data
- (c) Problems
- (d) Translator

9. Message authentication is a service beyond _____ .

1

- (a) Message Confidentiality
- (b) Message Integrity
- (c) Message Splashing
- (d) Message Sending

10. A hash function guarantees integrity of a message. It guarantees that message has not been _____ .

1

- (a) Replaced
- (b) Overviewed
- (c) Changed
- (d) Violated



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SECTION B

*Answer **all** the very short answer type questions.*

11. What is the difference between access control and authorization ? 2
12. Describe data decryption technique. 2
13. How can SQL Injection attacks be prevented ? 2
14. What is the difference between http and https ? 2
15. What are two forms of error handling ? 2

SECTION C

*Answer any **two** questions out of the three short answer type questions.*

16. Explain the working of SMTP and SSL. 5
17. What are the rules defined for “rule based access 2 control mechanisms” ? 5
18. What are interface design elements ? Explain with example. 5

SECTION D

*Answer any **two** questions out of three long answer type questions.*

19. Explain the working of firewall with diagram. 10

20. Write short notes on the following : 5×2=10

- (a) Cookie Injection
- (b) Application Security Assessment
- (c) Network Security
- (d) Logging
- (e) Error Suppression

21. Explain the working of PGP with diagram. 10

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No. of Printed Pages : 4

M01244

MSEI-025

**P.G. DIPLOMA IN INFORMATION SECURITY
(PGDIS)**

Term-End Examination,

December 2019

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 Hours]

[Maximum Marks : 50

- Note :** (i) **Section-A** :- Answer **all** the objective type questions.
(ii) **Section-B** :- Answer **all** the very short answer type questions.
(iii) **Section-C** :- Answer **any two** out of three short answer type questions.
(iv) **Section-D** :- Answer **any two** questions out of three long answer type questions.

Section - A

Answer all the objective type questions.

1. The pattern that can be used to identify a virus is known as _____ 1
- (a) Stealth
 - (b) Armoured
 - (c) Virus signature
 - (d) Multipartite

(2)

2. In computer system authentication is fundamental building block in _____. 1
- (a) Security context
 - (b) Control context
 - (c) Execution context
 - (d) Performance context
3. Intruder is a most common security threat which referred as _____. 1
- (a) Account access
 - (b) Data access
 - (c) Hacker or Cracker
 - (d) Computer access
4. In process, access control implements a _____. 1
- (a) Security policy
 - (b) Access policy
 - (c) Control policy
 - (d) Check policy
5. Which of the following are forms of malicious attack? 1
- (a) Theft of information
 - (b) Modification of data
 - (c) Wiping of information
 - (d) All
6. Which are common security threats? 1
- (a) File shredding
 - (b) File sharing and permission
 - (c) File corrupting
 - (d) File integrity

(3)

7. What is not a good practice for user administration? 1
(a) Isolating a system after compromise
(b) Perform rand auditing procedures
(c) Using TELNET and FTP for remote access
(d) None
8. Which of the following is least secure method of authentication? 1
(a) Key card
(b) Finger print
(c) Retina pattern
(d) Password
9. What forces the user to change password at first logon? 1
(a) Default behavior of OS
(b) Part of AES encryption practice
(c) Devices being accessed forces the user
(d) Account administrator
10. Which is not a best practice for Password policy? 1
(a) Password encryption
(b) Having change password every two years
(c) Both
(d) None

Section - B

Answer all the very short answer type questions.

11. What are the types of Cookies? 2
12. What is a Honeypot? 2

(4)

13. Describe data decryption technique. 2
14. What are two forms of error handling? 2
15. What is Port scanning? 2

Section - C

Answer **any two** questions out of the **three** short answer type questions.

16. Explain the three classes of intruders. 5
17. What do you understand by Authorization and Authentication? Why authorization is necessary? 5
18. Describe the following protocols: $2 \times 2.5 = 5$
- a) FTP
 - b) POP3

Section - D

Answer **two** questions out of the **three** long answer type questions.

19. Explain white box testing and its advantages and disadvantages over the Black box testing. 10
20. How Web browsing behavior distinguishes the users in continuous authentication system? What are the common issues with PIN-based systems? 10
21. Write short notes on the following: $5 \times 2 = 10$
- a) PKI
 - b) Mail Transport Agent
 - c) SQL Injection
 - d) XSS attack
 - e) Spoofing



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MSEI-025

**P. G. DIPLOMA IN INFORMATION
SECURITY (PGDIS)**

Term-End Examination

June, 2020

**MSEI-025 : APPLICATION AND BUSINESS
SECURITY DEVELOPMENTS**

Time : 2 Hours

Maximum Marks : 50

Note : (i) Section A : Answer all the objective type questions.

(ii) Section B : Answer all the very short answer type questions.

(iii) Section C : Answer any two questions out of three short answer type questions.

(iv) Section D : Answer any two questions out of three long answer type questions.

P. T. O.

[2]

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Section—A

1 each

1. AEC is a cryptography algorithm.

(a) True

(b) False

2. RAD stands for _____.

3. STA stands for System Testing Architecture.

(a) True

(b) False

4. MTA stands for _____.

5. HTML, XML and Flash are the header of C programming language.

(a) True

(b) False

6. _____ is the HTTP error code for page not found.

[3]

MSEI-025

7. _____ is a process of keeping track of user's activity of interaction with a computer system or website.

8. ASCII stands for _____.

9. TLS stands for _____.

10. SSL stands for _____.

Section—B

2 each

11. Difference between authorization and access control.

12. How does web allocation work ?

13. What is the difference between SMTP and POP ?

14. What is XSS ?

15. What is buffer overflow attack ?

Section—C

5 each

16. Explain TLS, SSL, XML and Plaintext.

17. How to securely send e-mails and transfer files ?

P. T. O.

[4]

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18. What are the basic principles of information security ? Also explain other terms in information security.

Section—D

10 each

19. Explain the flow of transaction in SCT with diagram.
20. Define active and passive attacks. Explain the types of active and passive attacks with example.
21. Explain the methods of encrypting data.

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MSEI-025

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Time : 2 Hours

Maximum Marks : 50

Note : Section-A : Answer all the objective type questions.

Section-B : Answer all the very short answer type questions.

Section-C : Answer any **two** questions out of three short answer type questions.

Section-D : Answer any **two** out of three long answer type questions.

[2]

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Section—A

1 each

1. MTA stands for Mail Transport Agent.
 - (a) True
 - (b) False
2. ASCII stands for
3. Authentication Attack is a type of Malware Attack.
 - (a) True
 - (b) False
4. CSS stands for
5. ECB, CBC, CFB and OFB are four block cipher functions.
 - (a) True
 - (b) False
6. TLS stands for
7. PKI stands for
8. is probably the most common web client side scripting language in use today.

9. XML stands for

10. AES stands for

Section—B

11. Define Ethical Hacking. 2

12. How does time stamping work ? 2

13. What is the impact of fraud on business organization ? 2

14. Explain Malicious Programs. 2

15. Define buffer overflow attacks. 2

Section—C

16. Explain Database server. 5

17. What do you understand by authorization and authentication ? Why are they necessary ? 5

18. Write pros and cons for both the testing techniques. 5

Section—D

19. Explain the characteristics of firewall. How is it helpful in providing security in network ? 10

[4]

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20. Define the following : 2×5=10

- (a) Digest access authentication
- (b) Application security assessment

21. Explain Black box testing and also mention advantages, disadvantages and techniques of Black box testing. 10



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