

The CLO Review Material



IS310

Web Design and Development II

SECTION 1: THE BASIC UNDERSTANDING

Terminology

- | | | |
|--------------|----------------|--------------|
| 1. Variable | 5. Number | 9. Loop |
| 2. Echo | 6. Math | 10. Function |
| 3. Data Type | 7. Operator | 11. Array |
| 4. String | 8. If ... Else | 12. Form |

Multiple Choice Questions

- `<?php $x=array("aaa","ttt","www","ttt","yyy","ttt"); $y=array_count_values($x); echo $y[ttt];?>`
 - 2
 - 3
 - 1
 - 4
- How do you get information from a form that is submitted using the "get" method?
 - `$_GET[]`
 - `Request.Form`
 - `Request.QueryString`
 - `$_POST[]`
- Is it possible to submit a form without a submit button?
 - Yes
 - No
- Full form of PHP
 - PreHypertextProcessor
 - HypertextPreprocessor
 - Hypertext Postprocessor



- D. PostHypertextProcessor
5. What is the expansion of LAMP?
- A. Linux And Mysql Php
 - B. Linux Apache Mysql Php
6. In php Which method is used to getting browser properties?
- A. \$_SERVER['HTTP_USER_AGENT'];
 - B. \$_SERVER['PHP_SELF']
 - C. \$_SERVER['SERVER_NAME']
 - D. \$_SERVER['HTTP_VARIANT']
7. Which of the following function is used to pick one or more random values from PHP Array?
- A. array_rand()
 - B. array_random()
 - C. Random_array()
 - D. Rand_array()
8. <?php
\$x=array(1,3,2,3,7,8,9,7,3);
\$y=array_count_values(\$x);
echo \$y[8];
?>
- A. 43
 - B. 1
 - C. 8
 - D. 6
9. Assume that your php file 'index.php' in location c:/apache/htdocs/phptutor/index.php. If you used \$_SERVER['PHP_SELF'] function in your page, then what is the return value of this function ?
- A. phptutor/index.php
 - B. /phptutor/index.php
 - C. c:/apache/htdocs/phptutor/index.php
 - D. index.php
10. Which operator is used to concatenate two strings in php?
- A. dot operator (.)
 - B. plus operator (+)
11. In PHP, which of the following function is used to insert content of one php file into another php file before server executes it
- A. include[]



- B. #include()
- C. include()
- D. #include{}

12. what will be the output of below code ? Assume that today is 2009-5-19:2:45:32 pm

```
<?php
$today = date("F j, Y, g:i a");
?>
```

- A. may 19,09,2:45:32 PM
- B. May 19, 2009, 2:45 pm
- C. May 19,2009,14:45:32 pm
- D. May 19,2009,14:45:32 PM

13. Which of the following function is used for terminate the script execution in PHP?

- A. break()
- B. quit()
- C. die()

14. What function used to print statement in PHP?

- A. echo();
- B. printf
- C. ""

15. <?php
define("x","5");
\$x=\$x+10;
echo x;
?>

- A. Error
- B. 15
- C. 10
- D. 5

16. what will be the output of below code ?

```
<?php
$arr = array(5 => 1, 12 => 2);
$arr[] = 56;
$arr["x"] = 42;
unset($arr);
echo var_dump($arr);
```

?>

- A. 42
- B. 56
- C. Null
- D. x=42

17.PHP variables are

- A. Multitype variables
- B. Double type variables
- C. Single type variable
- D. Tribble type variables

18.All variables in PHP start with which symbol?

- A. !
- B. \$
- C. &
- D. %

19.<?

```
$str="3dollars";  
$a=20;  
$a+=$str;  
print($a);  
?>
```

Output ?

- A. 23dollars
- B. 203dollars
- C. 320dollars
- D. 23

20.<?php

```
function zz(& $x)  
{  
    $x=$x+5;  
}  
?>  
$x=10;  
zz($x);  
echo $x;
```

- A. 5
- B. 0

C. 15

D. 10

THE COURSE LEARNING OUTCOMES

Comprehensive Questions

 **Your Task: Answer all the following question completely.**

1. What does PHP stand for?
2. Write PHP script starts and ends with.
3. Example HTML start with `<html>` and end with `</html>`
4. Write PHP comment.
5. Describe the concept of variable variables in PHP, and provide an example of how you might use them.
6. Write PHP code to create variable name `abc=20`.
7. Explain the difference between POST and GET.
8. What is the difference between single-quoted and double-quoted strings in PHP?
9. What is the purpose of the `isset()` function in PHP, and how can you use it to check the existence of variables and array elements?
10. Write a PHP script that demonstrates the use of the `for`, `while`, and `do-while` loops to iterate over an array and perform some operations on the elements.
11. Write PHP code connection for connect to database name `is310`.

End of Paper



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The CLO Review Material



IS314

Network Management and Workshop

SECTION 1: THE BASIC UNDERSTANDING

Multiple Choice Questions

1. You are the administrator for your company network, and you need to figure out what installation type of Windows Server 2016 you want to use. You are looking for a server type that is designed for private clouds and datacenters that will allow you to remotely administer the server operating system.
What windows version should you install?
 - a. Windows Server 2016 (Desktop Experience)
 - b. Windows Server 2016 Server Core
 - c. Windows Server 2016 Nano Server
 - d. Windows Server 2016 Web Server Core
2. You are the administrator for your company network. You are planning on setting up NIC Teaming and you'd like to also set up fault protection. What is the minimum number of Ethernet adapters you must have?
 - a. One
 - b. Two
 - c. Three
 - d. Four
3. You are the administrator for your company network. You are trying to determine what the default TCP port for remote desktop is. Which one is it?
 - a. 21
 - b. 1433
 - c. 3260
 - d. 3389

4. Which feature in Windows Server 2016 allows you to create and manage multiple virtual machines?
 - a. Hyper-V
 - b. Active Directory
 - c. DNS Server
 - d. DHCP Server
5. What is the minimum RAM requirement for installing Windows Server 2016?
 - a. 1 GB
 - b. 4 GB
 - c. 8 GB
 - d. 16 GB
6. Which Windows Server feature allows you to manage and distribute IP addresses dynamically to network devices?
 - a. DHCP (Dynamic Host Configuration Protocol)
 - b. DNS (Domain Name System)
 - c. WINS (Windows Internet Name Service)
 - d. IPAM (IP Address Management)
7. Which of the following is **NOT** part of the standard password complexity requirements in Windows Server?
 - a. At least one uppercase letter
 - b. At least one special character
 - c. At least one numerical digit
 - d. At least one non-English character
8. What is the purpose of the Account Lockout Threshold setting in a password policy?
 - a. To specify the number of failed login attempts before an account is locked
 - b. To lock an account after it has been inactive for a certain number of days
 - c. To require a user to change their password at regular intervals
 - d. To prevent users from changing their passwords too frequently

9. The Active Directory Domain Servers is installed on Windows server by default.
 - a. True
 - b. False
10. In term of resource use, which of the following role that consume low resource?
 - a. Hyper-V
 - b. Database
 - c. DNS
11. Which tool in Windows Server allows you to install, configure, and manage roles and features on a server?
 - a. Server Manager
 - b. Group Policy Management
 - c. Task Scheduler
 - d. Disk Management
12. Which Windows Server feature provides real-time protection against malware, spyware, and viruses?
 - a. Windows Defender Antivirus
 - b. Group Policy Management
 - c. Remote Desktop Services
 - d. Active Directory Domain Services
13. Which type of malware is designed to spread across networks by exploiting vulnerabilities and does not require any human interaction to propagate?
 - a. Virus
 - b. Worm
 - c. Ransomware
 - d. Trojan Horse
14. To add a server role, which of following guideline that you should follow?
 - a. Start -> Server Manager -> Add roles and features
 - b. Control Panel -> Programs and Features -> View installed updates -> Add roles and features
 - c. Run -> cmd -> install roles and features
15. A strong password should contain:
 - a. Uppercase and lowercase letters
 - b. Number and Uppercase letters
 - c. Symbol, Number and Uppercase letters

- d. Symbol, Number, Uppercase letters, lowercase letters and At least 8 characters
16. Which security concept ensures that sensitive data is only accessible to authorized individuals?
- a. Integrity
 - b. Confidentiality
 - c. Availability
 - d. Auditing
17. Which Windows Server feature can be used to encrypt data stored on a hard drive, protecting it from unauthorized access even if the physical drive is removed from the server?
- a. Windows Firewall
 - b. BitLocker
 - c. AppLocker
 - d. Credential Guard
18. Which of the following is the primary purpose of network teaming in Windows Server 2016?
- a. To increase the number of IP addresses available
 - b. To provide redundancy and improve network performance through load balancing
 - c. To manage DNS configurations
 - d. To enable file sharing between servers
19. What is the primary purpose of Windows Server 2016?
- a. To serve as a personal computer operating system
 - b. To manage network resources, provide services, and facilitate centralized management of a network environment
 - c. To develop software applications
 - d. To act as a standalone firewall solution
20. What is the primary benefit of applying security updates to Windows Server?
- a. Improved server performance
 - b. Enhanced user experience
 - c. Protection against known vulnerabilities and exploits
 - d. Increased server storage capacity
21. Which of the following is a **risk** of not regularly updating software on Windows Servers?
- a. Increased memory availability
 - b. Decreased risk of hardware failure

- c. Increased vulnerability to malware and cyberattacks
 - d. Reduced need for backups
22. What is the primary purpose of antivirus software?
- a. To create backup copies of files
 - b. To protect a computer system by detecting, preventing, and removing malicious software (malware)
 - c. To manage network traffic
 - d. To optimize hardware performance
23. What is the primary purpose of BitLocker in Windows?
- a. To monitor system performance
 - b. To encrypt the entire drive to protect data from unauthorized access
 - c. To back up files to an external drive
 - d. To optimize network traffic
24. What is the primary purpose of audit logs in a system?
- a. To store backup copies of files
 - b. To record events and activities on a system for security monitoring and compliance purposes
 - c. To increase the system's processing speed
 - d. To manage user passwords
25. Which of the following is a key difference between **Windows Server** and **Windows 11**?
- a. Windows Server supports desktop applications while Windows 10 does not
 - b. Windows Server is designed for enterprise environments, supporting roles such as Active Directory and file sharing
 - c. Windows Server has a graphical user interface (GUI), but Windows 10 does not
 - d. Windows Server cannot be used in a domain environment

THE COURSE LEARNING OUTCOMES

Comprehensive Questions

 **Your Task: Answer all the following question completely.**

1. What is Windows Server?
2. What is network management?
3. What are network layers?

4. What steps did you take to design, plan, and implement the new infrastructure?
5. List down what are the key features of Windows Server.
6. To have a strong password policy on windows server, What're the requirement?
7. Can you talk about a time when there was a security breach on the network?
8. Most software applications regularly prompt users to update to the latest version. Please explain the main objectives or benefits of maintaining up-to-date software and applications.
9. What was the outcome and how did the upgrades improve the network's performance?
10. You have conducted the research and presented about windows security hardening. Please select **5 objectives** to secure the windows operating system and give a brief explanation.
11. What steps did you take to troubleshoot and resolve the issue?
12. Can you describe a situation where the network experienced a slowdown?
13. What is an IP address, and how do networking protocols use IP addresses?
14. What is a firewall, and how does it improve network security?
15. What is the TCP/IP model?
16. What is VPN?
17. What is a DNS server?
18. What is router?
19. What is the difference between a LAN and a WAN?
20. What is the difference between a static IP address and a dynamic IP address?

End of Paper



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The CLO Review Material



IS324 & IS434

Information System Security and Auditing Cybersecurity Fundamentals

SECTION 1: THE BASIC UNDERSTANDING

True/False Questions

1. Red Teams are responsible for detecting attacks on a network.
2. Firewalls can block both inbound and outbound malicious traffic.
3. Red Team exercises are designed to identify weaknesses and improve organizational security posture.
4. A firewall alone is sufficient to defend against all types of cyber attacks.
5. Red Team operations are illegal if conducted without organizational consent.
6. An IDS (Intrusion Detection System) can prevent attacks by actively blocking malicious traffic.
7. Network segmentation helps limit the spread of malware or attacks within an internal network.
8. A web server is used to host websites and deliver web content to users over the internet.
9. TCP (Transmission Control Protocol) is a connection-oriented protocol that ensures reliable delivery of data.
10. UDP (User Datagram Protocol) is connectionless and does not guarantee delivery, order, or error checking.
11. Zero Trust security assumes that all users and devices inside a network are automatically trusted.
12. Business Impact Analysis (BIA) helps identify critical business functions and their recovery priorities.
13. Red Team exercises are used to test both technical security controls and human response.
14. Network segmentation helps limit lateral movement of attackers.
15. BCP ensures critical services continue during disruptions.

16. BCP is only relevant for IT systems.
17. Incident response begins after full system recovery.
18. RTO defines maximum acceptable downtime.
19. Intrusion Detection Systems (IDS) can actively block malicious traffic in real time.
20. Red Team activities always focus only on technical vulnerabilities.

Multiple Choice Questions

1. A DMZ (Demilitarized Zone) is primarily used to:
 - a. Store confidential data
 - b. Isolate public-facing services from the internal network
 - c. Replace internal firewalls
 - d. Encrypt internal traffic
2. Which protocol is commonly used to securely access a remote system?
 - a. FTP
 - b. Telnet
 - c. SSH
 - d. HTTP
3. In red team operations, the main objective is to:
 - a. Defend systems from attacks
 - b. Simulate real-world attacks to test security defenses
 - c. Monitor logs and alerts
 - d. Enforce security policies
4. What is the primary purpose of network segmentation?
 - a. Improve internet speed
 - b. Reduce hardware costs
 - c. Limit the spread of attacks within a network
 - d. Centralize user authentication
5. Which of the following is an example of active reconnaissance?
 - a. Reviewing public company websites
 - b. Searching social media for employee information
 - c. Conducting a port scan on a target system
 - d. Reading job postings
6. Which of the following is a passive reconnaissance technique often used by Red Teams?
 - a. Port scanning
 - b. Dumpster diving and social media analysis



- c. Exploit deployment
 - d. Password brute-forcing
7. An IDS is generating alerts for traffic patterns that match known attack signatures. Which type of IDS is being used?
- a. Anomaly-based IDS
 - b. Signature-based IDS
 - c. Behavior-based IDS
 - d. Firewall-based IDS
8. In a network defense context, which of the following is an example of detective control?
- a. Firewall blocking unauthorized traffic
 - b. Antivirus preventing malware installation
 - c. Security Information and Event Management (SIEM) monitoring logs
 - d. Network segmentation
9. Which of the following best describes lateral movement in a compromised network?
- a. Exploiting vulnerabilities on a single system only
 - b. Moving from one compromised system to others within the network
 - c. Performing denial-of-service attacks
 - d. Scanning external IP addresses
10. Which security measure helps prevent attackers from using stolen credentials to access multiple systems?
- a. Single-factor authentication
 - b. Multi-factor authentication (MFA)
 - c. Using weak passwords
 - d. Disabling account lockout
11. Which control best reduces lateral movement?
- a. Antivirus
 - b. Network segmentation
 - c. Email filtering
 - d. Backup
12. What is Zero Trust based on?
- a. Trust internal users
 - b. Never trust, always verify
 - c. Open access model
 - d. Perimeter security only
13. Red Team assessments evaluate which areas of an organization?
- a. Only IT systems
 - b. People, processes, and technology together



- c. Only firewalls
 - d. Only applications
14. Incident response preparation phase focuses on what?
- a. Recovering systems
 - b. Establishing readiness, roles, and procedures before incidents occur
 - c. Removing malware
 - d. Blocking users
15. A Security Information and Event Management (SIEM) system collects and correlates logs from multiple sources. What is its MAIN purpose?
- a. Block malware in real time
 - b. Centralize monitoring and detect security incidents
 - c. Encrypt network traffic
 - d. Replace antivirus tools
16. What is the primary function of an Endpoint Detection and Response (EDR) solution?
- a. Manage user accounts
 - b. Detect, investigate, and respond to threats on endpoints
 - c. Monitor network bandwidth
 - d. Store backups
17. A network administrator blocks all unused ports and services. What security principle is applied?
- a. Open access
 - b. Least privilege / attack surface reduction
 - c. Backup strategy
 - d. Data redundancy
18. Which protocol is primarily responsible for logical addressing at the network layer?
- a. TCP
 - b. IP
 - c. HTTP
 - d. FTP
19. A web application is accessible over HTTP instead of HTTPS. What is the PRIMARY risk?
- a. Slow speed
 - b. Data transmitted without encryption (interception risk)
 - c. Storage failure
 - d. DNS issue
20. Which option represents the correct ordering of the acronym for Security Information and Event Management?

- a. Security Event and Information Management (SEIM)
- b. Security Information and Event Management (SIEM)
- c. System Information and Event Monitoring (SIEM)
- d. Security Incident Event Management (SIEM)

THE COURSE LEARNING OUTCOMES

Comprehensive Questions

👉 Your Task: Answer all the following question completely.

1. What is the purpose of network segmentation, and how does it improve security?
2. Explain the difference between Red Teaming and Penetration Testing. How do they complement each other in a security program?
3. Describe the difference between active and passive reconnaissance in Red Team operations. Give one example tool for each.
4. What is the role of firewalls in network security?
5. What is the main objective of a Business Continuity Plan (BCP) during a disruption?
6. In cybersecurity testing, what does a red team specifically aim to identify?
7. What is the first step in an incident response process when a security breach is detected?
8. What is the purpose of incident classification and prioritization in an incident response process?
9. Explain the concepts of identification, authentication, and authorization. What is the purpose of each, and how do they work together in an access control system?
10. List the six phases of the Software Development Life Cycle (SDLC) in the correct order. Briefly describe the main purpose of each phase.
11. Explain why incorporating security early in the SDLC is important. What are the benefits of identifying and addressing security risks during the early stages of software development?
12. Compare encryption and hashing with real-world use cases?
13. Explain the three authentication factors: something you know, something you have, and something you are?
14. Explain the concepts of identification, authentication, and authorization. Describe the purpose of each and how they work together in an access control system?

15. Write the full form of OTP and explain how a OTP helps protect user accounts from unauthorized access.

End of Paper



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The CLO Review Material



IS349

Database Management System

SECTION 1: THE BASIC UNDERSTANDING

True/False Questions

1. tempdb is Build-in Database in MS SQL Server.
2. Declare @x Cursor for Select * from Tblproduct.
3. Server.MapPath("UploadData") use for get path UploadData of home Directory that want to upload
4. @@Fetch-Status return only a value is NULL.
5. .NET Framework is Class Library that refers to Class Object, Interface, Controls and Other object types.
6. ADO using in XML for Access to DataSource
7. We can use Fetch Next with Cursor Type in Forward-only
8. SQLAgent Service use for Clients read Connect from Database Server
9. ADO.NET can cross data from Firewalls
10. Model is Build-in database in MS SQL Server use for inheritance (Database Structure) to New Database that creating in MS SQL Server
11. In MS SQL Server not provide attitude of Schedule for Backup
12. system.data.sqlClient is related namespace that use for connecting with MS Access
13. system.data.oledb is related namespace that allow to connecting with DBMS Oracle
14. SP_AddLogon is Build-in StoredProcedure
15. Declare @x int =11
16. We use Fat-Server Architecture when we Application Design Clients
17. Three-Tier Design From is most popular of Web Application
18. Mixed mode in MSSQL mean that Clients can Connect to DatabaseServer by Domain Account or SQL Server Account
19. @@SERVERNAME is System Function use for get name of Remote Server

20. @@REMSERVER is System Function use for get name for Local Machine

Matching Questions

A		B
1	T-SQL	a) Is the feature of Ms SQL Server
2	Oledb.oledbcommand (...)	b) is the administrator account in MS SQL Server
3	fatch next	c) is the back-up method in SQL Server
4	Scalability of MS SQL Server	d) is the special object that it's event happen atomically when the traction is affected in table.
5	MS SQL Server has extension	e) is like the temporary table in memory
6	You can't use MS SQL Server	f) is type of index in MS SQL Server
7	Master Database Object	g) is compatible with Window XP
8	MS SQL Server Personal Edition	h) Is SQL Server Build-in Database System
9	Take of line	i) is the statement to move record on Cursor Type
10	dataTable object	j) *.MDF & *.LDF by Default
11	Trigger	k) 32 TB of Hard-Disk space
12	None-Cluster Index	l) If MS SQL Service is Stop.
13	Sa	m) use to access Command object
14	Replication Server	n) Transact Structure Query Language

THE COURSE LEARNING OUTCOMES

Comprehensive Questions

Your Task: Answer all the following question completely.

1. Please create use defined function for calculate values of n! (n factorial)?
2. What is .NET Data Provider?
3. How many .NET DATA Provider? And What?
4. Compare Cursor Type and Data Table in C#.NET?
5. Please create Server Script (User Define Function) for Encrypt Data?
6. Example we have Table: **TblStaff** as below picture:

	Column Name	Data Type	Length	Allow Nulls
	StaffID	varchar	50	
	StaffName	varchar	50	
	Sex	varchar	50	
	Photo	image	16	☒

- a. Please create Stored Procedure that can entry Data Record into **TblStaff**?
 - b. Please write C#.NET code to make function connect to StoreProcedure in FORM Layout?
7. Please give the result in Line4 and Line5?

Declare @st varchar(100) --Line1

set @st='Welcome to Final Exam.' -- Line2

--Set @st=SUBSTRING (@st , 9,len(@st) - 8) --Line3

Set @st = STUFF (

SUBSTRING (@st , 8,len(@st) - 8),1,2,'This is the') -- Line4

Set @st= replace(@st,'o','') -- Line5

Line4 @st.....

Line5 @st.....

End of Paper



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