Part 1: IP Structure

Task 1: Enter your VLSM in the table below:

Name	Network Address	CIDR	Subnet Mask	Usable Range	Broadcast Address	Wildcard Mask
Servers and workstations - 120	10.0.0.0	/25	255.255.255.128	10.0.0.1 - 10.0.0.126	10.0.0.127	0.0.0.127
Wireless Apps - 32	10.0.0.128	/26	255.255.255.192	10.0.0.129 - 10.0.0.190	10.0.0.191	0.0.0.63
Printers - 15	10.0.0.192	/27	255.255.255.224	10.0.0.193 - 10.0.0.222	10.0.0.223	0.0.0.31
Infrastructure -9	10.0.0.224	/28	255.255.255.240	10.0.0.225 - 10.0.0.238	10.0.0.239	0.0.0.15

Question 1	If the population of the network doubles, what will the Network ID and CIDR be?
ANSWER	If the population double then network id and CIDR will be --10.0.0.0/23

Part 2: Virtualization

Task 2. Provide the screenshot here

Task 3. Provide the screenshot here

Question 2	What full Powershell command will create the virtual switch in this section?
ANSWER	`function global:prompt {[Environment]::MachineName+" "+[Environment]::UserName+" PS> "} Get-VMSwitch -Name "WAS3-Proj*"`

Question 3	When should you use the .vhdx format instead of .vhd format?
ANSWER	When you need a virtual hard disc that can hold more than 2TB of data, you should use the.vhdx format rather than the.vhd format. Virtual hard discs up to 64TB in capacity are supported by the.vhdx format. Additionally,.vhdx enhances performance by dynamically changing the block size to the workload and provides protection against data corruption during power outages.

Part 3: Installation and Configuration

Task 4. Provide the screenshot here

Task 5. Provide the screenshot here

Task 6. Provide the screenshot here

Task 7. Provide the screenshot here

Task 8. Provide the screenshot here

Task 9. Provide the screenshot here

Question 4	A user returning from holidays has attempted to login 6 times, the account is locked out. Which powershell command will you need to execute to allow the user to log into the domain again?
ANSWER	Get-ADUser

Question 5	What Powershell cmdlet would you use to start an interactive session with a remote computer by the name of WS1?
ANSWER	Enter-PSSession

Part 4: DNS

Task 10. Provide the screenshot here

Question 6	List 2 record types that are found on an AD DS integrated DNS that you wouldn't find on a public DNS server
ANSWER	

Part 5: AD DS

Task 11. Provide the screenshot here

Task 12. Provide the screenshot here

Task 13. Provide the screenshot here

Task 14. Provide the screenshot here

Question 7	When is a user's access token created?
ANSWER	The system checks a user's password when they log on by comparing it to data in a security database. The system generates an access token if the password can be verified.

Question 8	What is the interface within Active Directory Administrative Center that simplifies the delegation of permissions for domains, OUs, or containers?
ANSWER	Delegation of Control Wizard is the name of the interface in Active Directory Administrative Centre that makes it easier to assign permissions to domains, Organisational Units (OUs), or containers.

Question 9	Which term is described as the process of configuring one or more groups as members of another group?
ANSWER	Selected Group nesting

Part 6: Join Computers to the domain

Task 15. Provide the screenshot here

Question 10	What is the syntax command-line utility for joining a domain using Netdom.exe?
ANSWER	

Question 11	List an example of two graphical tool in Windows Server 2016 that can create user objects.
ANSWER	

Part 7: Group Policy

Task 16. Provide the screenshot here

Question 12	The Group Policy templates (GPT) folder structure is located in the shared _____ folder on a domain controller.
ANSWER	

Question 13	What is the setting on an individual GPO link that forces the GPO's settings to flow down through the AD DS hierarchy, without being blocked by child OUs?
ANSWER	

Question 14	Describe Group Policy Preferences (GPPs).
ANSWER	

Part 8: AD CS

Task 17. Provide the screenshot here

Question 15	A _____ is an electronic document that contains an identity, such as a user or organization name, along with a corresponding public key.
ANSWER	

Question 16	Which PKI-related service is used for network devices such as switches and routers to enroll for an X.509 digital certificate from a CA?
ANSWER	

Part 9: IPv6 Subnetting

Task 18: Enter your subnet in the table below:

Name	CIDR	First IP address	Last IP address