

Aligning/Associating Microsoft Certifications to National Certificates

National Certificate: Information Technology: Systems Support
SAQA QUAL ID : 48573 NQF Level 5

Microsoft Certification: Microsoft Certified Systems Engineers (MCSE) - Messaging



National Certificate: Information Technology: Systems Support SAQA QUAL ID : 48573 NQF Level 5

Microsoft Certification: Microsoft Certified Systems Engineers (MCSE) - Messaging

Microsoft Certified Systems Engineers (MCSEs) credential is the premier credential for professionals who can successfully plan, design and implement a network infrastructure, Active Directory-based infrastructure, and client deployment on the Microsoft Windows Server 2003 platform. They also perform maintenance at a high level for medium to large-sized Windows Server 2003-based environments.

IT Professionals who analyze the business requirements and design, plan, and implement, the infrastructure for business solutions based on the Microsoft Windows Server 2003 System integrated software. MCSE candidates should have at least one year of experience planning, implementing, and analyzing business solutions with Microsoft products and technologies.

Together with the Microsoft core exams, the Microsoft elective exams provide a valid and reliable measure of technical proficiency and expertise in solution design and implementation. MCSE candidates should also have at least one year of experience implementing and administering network operating systems and desktop operating systems.

Microsoft Certified Systems Engineer (MCSE) candidates on the Microsoft Windows Server™ 2003 track are required to satisfy the following requirements:

Microsoft Core Exams (6 Exams Required)

Four networking system exams:

Exam 70–290: Managing and Maintaining a Microsoft Windows Server Environment

Exam 70–291: Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Exam 70-293: Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Exam 70-294: Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure

One client operating system exam:

Exam 70–270: Installing, Configuring, and Administering Microsoft Windows XP Professional

One Design exam:

Exam 70-297: Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure

Messaging Specialization (2 Exams Required)

Exam 70-284: Implementing and Managing Microsoft Exchange Server 2003

Exam 70-285: Designing a Microsoft Exchange Server 2003 Organization

Core Unit Standards

Qual ID	SAQA ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS	Microsoft Official Course	Microsoft Official Course Name	Microsoft Exam Code
Q-48573-Core	114046	Demonstrate an understanding of issues affecting the management of a local area computer network (LAN)	5	4	2274	Managing a Microsoft Windows Server 2003 Environment	70-290
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2011 2008	Troubleshooting Microsoft Exchange Server 2003 Designing a Microsoft Exchange Server 2003 Organization	70-284 70-285
Q-48573-Core	114047	Install and configure a multi-user networked operating system	5	9	2272	Implementing and Supporting Microsoft Windows XP Professional	70-270
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2011	Troubleshooting Microsoft Exchange Server 2003	70-284
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
Q-48573-Core	114052	Demonstrate appropriate customer care in the context of IT support, according to a Service Level Agreement	5	8	2272	Implementing and Supporting Microsoft Windows XP Professional	70-270
					2274	Managing a Microsoft Windows Server 2003 Environment	70-290
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
2011	Troubleshooting Microsoft Exchange Server 2003	70-284					

Q-48573-Core	114053	Monitor and maintain a multi-user networked operating system	5	6	2275 2276 2278 2279 2282 2011 2008	Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Troubleshooting Microsoft Exchange Server 2003 Designing a Microsoft Exchange Server 2003 Organization	70-290 70-291 70-293 70-294 70-297 70-284 70-285
Q-48573-Core	114054	Administer a local area computer network	5	7	2275 2276 2278 2279 2282	Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-290 70-291 70-293 70-294 70-297
Q-48573-Core	114056	Describe enterprise systems management and its role in IT systems support	5	3	2275 2276 2278 2279 2282	Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-290 70-291 70-293 70-294 70-297
Q-48573-Core	114058	Demonstrate an understanding of the concepts of Multi-User computer Operating systems	5	7	2272 2275 2276 2277 2279 2282 2011 2008	Implementing and Supporting Microsoft Windows XP Professional Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Troubleshooting Microsoft Exchange Server 2003 Designing a Microsoft Exchange Server 2003 Organization	70-270 70-290 70-291 70-291 70-294 70-297 70-284 70-285

Q-48573-Core	114060	Demonstrate an understanding of local area computer networks, by installing a networked workstation	5	5	2272 2275 2276 2278 2279 2282	Implementing and Supporting Microsoft Windows XP Professional Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-270 70-290 70-291 70-293 70-294 70-297
Q-48573-Core	114061	Demonstrate an understanding of Wide Area Computer Networks (WAN's), comparing them with Local Area Networks (LAN's)	5	5	2275 2276 2278 2279 2008	Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Exchange Server 2003 Organization	70-290 70-291 70-294 70-294 70-285
Q-48573-Core	114066	Test Networked IT systems against given specifications	5	4	2272 2275 2276 2277 2278 2279 2282 2008 2400 2011	Implementing and Supporting Microsoft Windows XP Professional Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Designing a Microsoft Exchange Server 2003 Organization Implementing and Managing Microsoft® Exchange Server 2003 Troubleshooting Microsoft Exchange Server 2003	70-270 70-290 70-291 70-291 70-293 70-294 70-297 70-285 70-284 70-284

Q-48573-Core	114072	Install and commission a local area computer network	5	9	2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
Q-48573-Core	114074	Demonstrate an understanding of different computer network architectures and standards	5	5	2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
Q-48573-Core	114075	Design a local area computer network for a departmental office environment	5	5	2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
					2400	Implementing and Managing Microsoft® Exchange Server 2003	70-284

Fundamental Unit Standards

Qual ID	SAQA ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS	Microsoft Official Course	Microsoft Official Course Name	Microsoft Exam Code
Q-48573-Fund	8252	Writing business reports in Retail/Wholesale practices	5	6	2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
Q-48573-Fund	10135	Work as a project team member	4	8			
Q-48573-Fund	114050	Explain the principles of business and the role of information technology	5	4	2279 2282 2400	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Implementing and Managing Microsoft® Exchange Server 2003	70-294 70-297 70-284
Q-48573-Fund	114051	Conduct a technical practitioners meeting	5	4			
Q-48573-Fund	114055	Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	5	3			
Q-48573-Fund	114059	Demonstrate an understanding of estimating a unit of work and the implications of late delivery	5	5			
Q-48573-Fund	114076	Use computer technology to research a computer topic	4	3	2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
Q-48573-Fund	114183	Apply the principles of resolving problems for single-user and multi-user computer operating systems	5	7	2272 2275 2276 2277 2279 2282 2011	Implementing and Supporting Microsoft Windows XP Professional Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Troubleshooting Microsoft Exchange Server 2003	70-270 70-290 70-291 70-291 70-294 70-297 70-284

Elective Unit Standards: Specialization Field: Hardware and peripherals Support for Server Computers. (minimum 25 credits needed.)

Qual ID	SAQA ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS	Microsoft Official Course	Microsoft Official Course Name	Microsoft Exam Code
Q-48573-Elect	114062	Assemble a server computer and peripherals from modules	5	5			
Q-48573-Elect	114063	Install a server computer and peripherals	5	7	2274 2275 2276 2277	Managing a Microsoft Windows Server 2003 Environment Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-290 70-290 70-291 70-291
Q-48573-Elect	114064	Install and commission multi-user application software for a server computer	5	5	2274 2275 2276 2277 2279 2282 2400 2011 2008	Managing a Microsoft Windows Server 2003 Environment Maintaining a Microsoft Windows Server 2003 Environment Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure Implementing and Managing Microsoft® Exchange Server 2003 Troubleshooting Microsoft Exchange Server 2003 Designing a Microsoft Exchange Server 2003 Organization	70-290 70-290 70-291 70-291 70-294 70-297 70-284 70-284 70-285

Q-48573- Elect	114065	Maintain and repair a server computer to module level	5	10	2273	Managing and Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
					2400	Implementing and Managing Microsoft® Exchange Server 2003	70-284
					2011	Troubleshooting Microsoft Exchange Server 2003	70-284
Q-48573- Elect	114073	Install and commission multi-user system software on a server computer	5	7	2274	Managing a Microsoft Windows Server 2003 Environment	70-290
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
Q-48573- Elect	114077	Maintain and repair server computer peripherals to module level	5	10			

Elective Unit Standards: Specialization Field: Computer Operations Support (minimum 25 credits needed)

Qual ID	SAQA ID	UNIT STANDARD TITLE	NQF LEVEL	CREDITS	Microsoft Official Course	Microsoft Official Course Name	Microsoft Exam Code
Q-48573-Elect	114043	Support a local area computer network	5	10	2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
Q-48573-Elect	114044	Demonstrate an understanding of change management for computer systems	6	3	2272	Implementing and Supporting Microsoft Windows XP Professional	70-270
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2400	Implementing and Managing Microsoft® Exchange Server 2003	70-284
					2011	Troubleshooting Microsoft Exchange Server 2003	70-284
2008	Designing a Microsoft Exchange Server 2003 Organization	70-285					

Q-48573- Elect	114045	Operate an enterprise server computer system	5	6	2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2278	Planning and Maintaining a Microsoft® Windows® Server 2003 Network Infrastructure	70-293
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297					
Q-48573- Elect	114048	Create database access for a computer application using structured query language	5	9	2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
Q-48573- Elect	114049	Demonstrate an understanding of Computer Database Management Systems	5	7	2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
Q-48573- Elect	114057	Install high-volume/High-Speed computer cabling for server computer system	5	10			

Q-48573- Elect	114069	Administer security systems for a multi-user computer system	6	15	2272	Implementing and Supporting Microsoft Windows XP Professional	70-270
					2276	Implementing a Microsoft® Windows® Server 2003 Network Infrastructure: Network Hosts	70-291
					2277	Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure: Network Services	70-291
					2275	Maintaining a Microsoft Windows Server 2003 Environment	70-290
					2279	Planning, Implementing, and Maintaining a Microsoft® Windows® Server 2003 Active Directory® Infrastructure	70-294
					2282	Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure	70-297
					2008	Designing a Microsoft Exchange Server 2003 Organization	70-285
					2400	Implementing and Managing Microsoft® Exchange Server 2003	70-284
					2011	Troubleshooting Microsoft Exchange Server 2003	70-284

Project Ideas to Address GAPS

National Certificate: Information Technology: Systems Support
SAQA QUAL ID : 48573 NQF Level 5

Microsoft Certification: Microsoft Certified Systems Engineers (MCSE) - Messaging



Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	114055	3	5

Projects Addressing Gaps in Microsoft Courseware

Specific Outcomes	Assessment Criteria	Development work required for the current learning programme / GAP
1. Describe professionalism for the computer industry in South Africa.	1. The description identifies acceptable and unacceptable professional practices found in the computer industry.	List acceptable and unacceptable practices. Discuss why each practice is acceptable or not. Use local computer distributors and newspaper advertisements to compile this list.
	2. The description identifies known professional bodies in South Africa.	Research professional bodies and how laws can be enforced in keeping computer users ethical in South Africa.
	3. A short description of each named professional body is provided.	Create a list of bodies with the following headings:- - URL - Body - Description Swap lists making sure all information is distributed. <u>ASSESSMENT OUTCOME RANGE</u> <ul style="list-style-type: none"> As for criteria 1.2

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	114055	3	5

2. Describe the codes of practice for professionalism in the IT industry in South Africa	1. The description identifies the codes of practice for the IT industry in South Africa.	Debate what would be categorised as good ethical practice in the South Africa's Computer Industry.
	2. The description provides a brief explanation of the codes of practice identified.	Debate the practices identified in 2.1. Convince each other of the validity of the view point or code of practice. Summarize and list of code of ethics agreed upon.
3. Describe the code of ethics in the computer industry in South Africa.	1. The description confirms that the computer industry supports equality of opportunity.	Research salaries, gender, etc. in a South African Newspaper Articles.
	2. The description confirms the understanding that the computer industry is against computer software piracy.	Present a short description on how to determine if software is valid and licensed and discuss why software piracy is illegal.

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Demonstrate an awareness of ethics and professionalism for the computer industry in South Africa	114055	3	5

	3. The description identifies ways in which piracy is addressed in South Africa	Discuss the different vendors' way of dealing with Software Piracy in South Africa
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Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Conduct a Technical Practitioner's Meeting	114051	5	4

Projects Addressing Gaps in Microsoft Courseware

Specific Outcomes	Assessment Criteria	Development work required for the current learning programme / GAP
1. Demonstrate knowledge of different types of technical practitioners meetings.	1. The demonstration describes the types of technical meetings and their uses.	<p>Discuss the importance of the different meetings types in deciding and approving business requirements and deliverables when following a methodology such as the Microsoft Solutions Framework Model.</p> <p><u>ASSESSMENT CRITERION RANGE</u> One of Contract meetings, technical review meetings, project review meetings.</p>
	2. The demonstration identifies leadership styles used in meeting procedures.	<p>Discuss and list the roles in Microsoft Solutions Framework Model and who would be the facilitator and responsible for leading the meetings when using Microsoft Solutions Framework Model.</p> <p><u>ASSESSMENT CRITERION RANGE</u> Democratic, Autocratic, Facilitative.</p>
	3. The demonstration identifies decision making processes used in meetings.	<p>Role-play and discuss how all stakeholders would come to an agreement in meetings held. Discuss the waterfall and spiral project methodology and why Microsoft uses a hybrid: Microsoft Solutions Framework Model 4.0 or Agile.</p> <p><u>ASSESSMENT CRITERION RANGE</u> Voting, Consensus, Criteria-based rating, Ranking, Paired comparisons.</p>
	4. The demonstration describes meeting conventions relevant to the type of meeting chosen.	<p>Discuss the different types of meetings used during the software development life cycle. Discuss what would be discussed at these meetings and the deliverables presented at these meetings.</p> <p><u>ASSESSMENT OUTCOME RANGE</u> Moving; Seconding; Amending; Voting Procedures</p>

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Conduct a Technical Practitioner's Meeting	114051	5	4

	5. The demonstration identifies that the note taker should have technical background knowledge.	Discuss the technical background needed to take notes and the terminology used.
2. Prepare for a technical practitioners meeting	1. The preparation ensures physical arrangements for the meeting is done, relevant to the type of meeting.	Pre-meeting: Draft a plan of venue, delegates, logistics, and deliverables needed to conduct a meeting. Prioritize and select information according to criteria. Different lay-outs of the tables in the meeting room are discussed and how this could encourage successful communications. <u>ASSESSMENT CRITERION RANGE</u> Venue selection, Facilities, Technology required, Relevant supporting information.
	2. The preparation ensures that meeting outcomes are clear, concise and well documented.	Discuss different techniques that can be used to stick to a topic and not to stray off the topic. <u>ASSESSMENT CRITERION RANGE</u> Venue selection, Facilities, Technology required, Relevant supporting information.
	3. The preparation ensures that meeting invitations are extended to relevant participants timeously.	Discuss who should be invited to a meeting in the different phases of the Microsoft Solutions Framework and what role and responsibilities the different roles own. <u>ASSESSMENT CRITERION RANGE</u> Venue selection, Facilities, Technology required Relevant supporting information.

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Conduct a Technical Practitioner's Meeting	114051	5	4

3. Chair a Technical Practitioner's Meeting	1. The chair and members agree on rules and guidelines on behavior.	<p>List the rules and norms for the types of meetings chosen and why behaviour is important.</p> <p>ASSESSMENT CRITERION RANGE Relevant to the type of meeting preparing for.</p>
	2. The chair applies agreed meeting conventions throughout the meeting, according to the type of meeting and in accordance with the standing procedures of the organisation(s) involved.	<p>Role-play a meeting according to a scenario. Record the meeting. Assess responses and behaviours in the meeting. List the behaviours and responses identified as positive and negative.</p> <p>ASSESSMENT CRITERION RANGE Relevant to the type of meeting preparing for.</p>
	3. The chair ensures that the published agenda is followed.	<p>Discuss the different roles in a team and what type of information in the project is relevant to which role.</p> <p>ASSESSMENT CRITERION RANGE Relevant to the type of meeting preparing for.</p>
	4. The chair provides for active participation by all members to avoid/minimize conflict.	<p>List behaviors that encouraged participation and behaviors that would be negative to open discussion.</p>

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Conduct a Technical Practitioner's Meeting	114051	5	4

	5. The chair ensures that meeting topics are prioritised and that discussion times are allocated according to importance, urgency, complexity and agenda.	A "time-plan" is calculated according to the amount of people at the role-play meeting and the priorities list compiled in 2.2.
	6. The chair ensures that agreed decisions are clear, accurate, includes a time frame for action and are within the mandate of the type of meeting conducted.	Ensure that the meeting is held within the specific time given and that only topics on the agenda are discussed.
4. Conduct post meeting follow up for a technical meeting.	1. The follow up ensures minutes of the meeting is produced accurately and in line with the policy of the organisation	<p>Role-play one meeting with the entire class. Select a few delegates to take notes for the minutes. All the minutes taken are copied and compared. Assess the accuracy and clarity.</p> <p><u>ASSESSMENT OUTCOME RANGE</u></p> <ul style="list-style-type: none"> • Circulation of Minutes; Recommendations; Motions passed; Feedback.
	2. The follow up communicates agreed records of discussion to interested parties in a format and time frame that meet requirements of the type of meeting and of the organisation(s) involved.	<p>Discuss why it is important to have role-players take responsibility and give feedback after a meeting.</p> <p><u>ASSESSMENT OUTCOME RANGE</u></p> <ul style="list-style-type: none"> • One of Contractual, technical review or project specific.

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Conduct a Technical Practitioner's Meeting	114051	5	4

	3. One of Contractual, technical review or project specific.	Discuss the minutes distributed and ask questions about uncertainties and how the minutes could be improved..
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Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Use computer technology to Demonstrate an understanding of estimating a unit of work and the implications of late delivery	114059	3	4

Projects Addressing Gaps in Microsoft Courseware

Specific Outcomes	Assessment Criteria	Development work required for the current learning programme / GAP
1. Demonstrate the ability to interpret given cost/benefit analysis documentation.	1. The demonstration identifies different parts of a cost/benefit analysis	Discuss the principles of a cost/benefit analysis, using the feature resource cost and time triangle used in Microsoft Solutions Framework and how this is utilised to control time and cost management in projects using Microsoft Solutions Framework. <u>ASSESSMENT RANGE OUTCOME</u> Costs, benefits
	2. Explains the purpose of the different parts of a cost/benefit analysis.	Discuss the impact of changing features'; cost, resources or time, has on a project.
2. Prepare a time estimate for an element of work.	1. The time estimate is based on a breakdown of the component in the logical parts for estimating.	Discuss methods of estimating time, for example using past experience as a reference. Create a project in Microsoft Excel or Microsoft Projects. Projects are analysed into smaller tasks. Time is allocated to these smaller tasks.
	2. The time estimate is based on an understanding that the estimate should include the implementation / testing of interfaces to other components where applicable.	The time ration between the different phases in Microsoft Solutions Framework and Agile are discussed.
3. Prepare a cost estimate for an element of work.	1. The cost estimate is based on a breakdown of the component in the logical parts for estimating.	Research methods of cost estimation in Microsoft Projects or Microsoft Excel, and compare the results. <u>ASSESSMENT RANGE OUTCOME</u> At least one of: structured programming, object oriented programming.

Unit Standard Title:	Unit Standard ID number:	Credits:	NQF Level:
Use computer technology to Demonstrate an understanding of estimating a unit of work and the implications of late delivery	114059	3	4

	2. The cost estimate is based on an understanding that the estimate should include the implementation/ testing of interfaces to other components where applicable.	Discuss the three basic types that cost estimate consists of, and the order of each of the following:- <ul style="list-style-type: none"> - Magnitude Estimates - Budget Estimates - Definite Estimates
	3. The cost estimate demonstrates an understanding that being assisted by other resources or people could escalate the costs.	Discuss previous experiences working on projects and how the estimation compared to reality.
4. Demonstrate an understanding of the effect of late delivery of an element of work.	1. The demonstration confirms the understanding that an element delivered is often a subset of a bigger deliverable.	Discuss the importance of appropriate planning tools and techniques. The delegates discuss how the deliverables depend on each other. <u>ASSESSMENT CRITERION RANGE</u> Time, cost
	2. The demonstration explains the affect of late delivery on other related components.	Discuss how late delivery influences cost and how the ratio between time and cost can influence the quality of project deliverables.

Microsoft Exam – to – Course Matrix

National Certificate: Information Technology: Systems Support
SAQA QUAL ID : 48573 NQF Level 5

Microsoft Certification: Microsoft Certified Systems Engineers (MCSE) - Messaging



MCSE Exam 70-297

Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure

Key to the Matrix:

- 100 %** The course includes material to prepare you for this task.
50 % The course includes some material to prepare you for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-297	Course 2282
<i>Creating the Conceptual Design by Gathering and Analyzing Business and Technical Requirements</i>	
Analyze the impact of Active Directory on the existing technical environment. <ul style="list-style-type: none"> ▪ Analyze hardware and software requirements. ▪ Analyze interoperability requirements. ▪ Analyze current level of service within an existing technical environment. ▪ Analyze current network administration model. ▪ Analyze network requirements. 	100 %
Analyze DNS for Active Directory directory service implementation. <ul style="list-style-type: none"> ▪ Analyze the current DNS infrastructure. ▪ Analyze the current namespace. 	100 %
Analyze existing network operating system implementation. <ul style="list-style-type: none"> ▪ Identify the existing domain model. ▪ Identify the number and location of domain controllers on the network. ▪ Identify the configuration details of all servers on the network. Server types might include primary domain controllers, backup domain controllers, file servers, print servers, and Web servers. 	100 %
Analyze security requirements for the Active Directory directory service. <ul style="list-style-type: none"> ▪ Analyze current security policies, standards, and procedures. 	100 %

<ul style="list-style-type: none"> ▪ Identify the impact of Active Directory on the current security infrastructure. ▪ Identify the existing trust relationships. 	
<p>Design the Active Directory infrastructure to meet business and technical requirements.</p> <ul style="list-style-type: none"> ▪ Design the envisioned administration model. ▪ Create the conceptual design of the Active Directory forest structure. ▪ Create the conceptual design of the Active Directory domain structure. ▪ Design the Active Directory replication strategy. ▪ Create the conceptual design of the organizational unit (OU) structure. 	100 %
<p>Design the network services infrastructure to meet business and technical requirements.</p> <ul style="list-style-type: none"> ▪ Create the conceptual design of the DNS infrastructure. ▪ Create the conceptual design of the WINS infrastructure. ▪ Create the conceptual design of the DHCP infrastructure. ▪ Create the conceptual design of the remote access infrastructure. 	100 %
<p>Identify network topology and performance levels.</p> <ul style="list-style-type: none"> ▪ Identify constraints in the current network infrastructure. ▪ Interpret current baseline performance requirements for each major subsystem. 	100 %
<p>Analyze the impact of the infrastructure design on the existing technical environment.</p> <ul style="list-style-type: none"> ▪ Analyze hardware and software requirements. ▪ Analyze interoperability requirements. ▪ Analyze current level of service within the existing technical environment. ▪ Analyze network requirements. 	100 %

Creating the Logical Design for an Active Directory Infrastructure

<p>Design an OU structure.</p> <ul style="list-style-type: none"> ▪ Identify the Group Policy requirements for the OU structure. ▪ Design an OU structure for the purpose of delegating authority. 	<p>100 %</p>
<p>Design a security group strategy.</p> <ul style="list-style-type: none"> ▪ Define the scope of a security group to meet requirements. ▪ Define resource access requirements. ▪ Define administrative access requirements. ▪ Define user roles. 	<p>100 %</p>
<p>Design a user and computer authentication strategy.</p> <ul style="list-style-type: none"> ▪ Identify common authentication requirements. ▪ Select authentication mechanisms. ▪ Optimize authentication by using shortcut trust relationships. 	<p>100 %</p>
<p>Design a user and computer account strategy.</p> <ul style="list-style-type: none"> ▪ Specify account policy requirements. ▪ Specify account requirements for users, computers, administrators, and services. 	<p>100 %</p>
<p>Design an Active Directory naming strategy.</p> <ul style="list-style-type: none"> ▪ Identify Internet domain name registration requirements. ▪ Specify the use of hierarchical namespace within Active Directory. ▪ Identify NetBIOS naming requirements. 	<p>100 %</p>

<p>Design migration paths to Active Directory.</p> <ul style="list-style-type: none"> Define whether the migration will include an in-place upgrade, domain restructuring, or migration to a new Active Directory environment. 	100 %
<p>Design a strategy for Group Policy implementation.</p> <ul style="list-style-type: none"> Design the administration of Group Policy objects (GPOs). Design the deployment strategy of GPOs. Create a strategy for configuring the user environment with Group Policy. Create a strategy for configuring the computer environment with Group Policy. 	100 %
<p>Design an Active Directory service site topology.</p> <ul style="list-style-type: none"> Design sites. Identify site links. 	100 %
<p><i>Creating the Logical Design for a Network Services Infrastructure</i></p>	
<p>Design a DNS name resolution strategy.</p> <ul style="list-style-type: none"> Create the namespace design. Identify DNS interoperability with Active Directory, WINS, and DHCP. Specify zone requirements. Specify DNS security. Design a DNS strategy for interoperability with UNIX Berkeley Internet Name Domain (BIND) to support Active Directory. 	100 %
<p>Design a NetBIOS name resolution strategy.</p> <ul style="list-style-type: none"> Design a WINS replication strategy. 	100 %
<p>Design security for remote access users.</p> <ul style="list-style-type: none"> Identify security host requirements. Identify the authentication and accounting provider. Design remote access policies. 	100 %

<ul style="list-style-type: none"> ▪ Specify logging and auditing settings. 	
<p>Design a DNS service implementation.</p> <ul style="list-style-type: none"> ▪ Design a strategy for DNS zone storage. ▪ Specify the use of DNS server options. ▪ Identify the registration requirements of specific DNS records. 	100 %
<p>Design a remote access strategy.</p> <ul style="list-style-type: none"> ▪ Specify the remote access method. ▪ Specify the authentication method for remote access. 	100 %
<p>Design an IP address assignment strategy.</p> <ul style="list-style-type: none"> ▪ Specify DHCP integration with DNS infrastructure. ▪ Specify DHCP interoperability with client types. 	100 %
<p><i>Creating the Physical Design for an Active Directory and Network Infrastructure</i></p>	
<p>Design DNS service placement.</p>	100 %
<p>Design an Active Directory implementation plan.</p> <ul style="list-style-type: none"> ▪ Design the placement of domain controllers and global catalogue servers. ▪ Plan the placement of flexible operations master roles. ▪ Select the domain controller creation process. 	100 %
<p>Specify the server specifications to meet system requirements.</p>	100 %
<p>Design Internet connectivity for a company.</p>	100 %
<p>Design a network and routing topology for a company.</p> <ul style="list-style-type: none"> ▪ Design a TCP/IP addressing scheme through the use of IP subnets. ▪ Specify the placement of routers. 	100 %

<ul style="list-style-type: none">▪ Design IP address assignment by using DHCP.▪ Design a perimeter network.	
<p>Design the remote access infrastructure.</p> <ul style="list-style-type: none">▪ Plan capacity.▪ Ascertain network settings required to access resources.▪ Design for availability, redundancy, and survivability.	100 %

MCSE / MCDBA Exam 70-293

Planning and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Key to the Matrix:

- 100 % The course includes material to prepare you for this task.
 50 % The course includes some material to prepare your for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-293	Course 2278	Course 2830
<i>Planning and Implementing Server Roles and Server Security</i>		
Configure security for servers that are assigned specific roles.	100%	
Plan a secure baseline installation. <ul style="list-style-type: none"> ▪ Plan a strategy to enforce system default security settings on new systems. ▪ Identify client operating system default security settings. ▪ Identify all server operating system default security settings. 		100%
Plan security for servers that are assigned specific roles. Roles might include domain controllers, Web servers, database servers, and mail servers. <ul style="list-style-type: none"> ▪ Deploy the security configuration for servers that are assigned specific roles. ▪ Create custom security templates based on server roles. 	100%	
Evaluate and select the operating system to install on computers in an enterprise. <ul style="list-style-type: none"> ▪ Identify the minimum configuration to satisfy security requirements. 	100%	

Planning, Implementing, and Maintaining a Network Infrastructure		
<p>Plan a TCP/IP network infrastructure strategy.</p> <ul style="list-style-type: none"> ▪ Analyze IP addressing requirements. ▪ Plan an IP routing solution. ▪ Create an IP subnet scheme. 	100%	
<p>Plan and modify a network topology.</p> <ul style="list-style-type: none"> ▪ Plan the physical placement of network resources. ▪ Identify network protocols to be used. 	100%	
<p>Plan an Internet connectivity strategy.</p>	100%	
<p>Plan network traffic monitoring. Tools might include Network Monitor and System Monitor.</p>	100%	
<p>Troubleshoot connectivity to the Internet.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to Network Address Translation (NAT). ▪ Diagnose and resolve issues related to name resolution cache information. ▪ Diagnose and resolve issues related to client configuration. 	100%	
<p>Troubleshoot TCP/IP addressing.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to client computer configuration. ▪ Diagnose and resolve issues related to DHCP server address assignment. 	100%	
<p>Plan a host name resolution strategy.</p> <ul style="list-style-type: none"> ▪ Plan a DNS namespace design. ▪ Plan zone replication requirements. ▪ Plan a forwarding configuration. 	100%	

<ul style="list-style-type: none"> ▪ Plan for DNS security. ▪ Examine the interoperability of DNS with third-party DNS solutions. 		
<p>Plan a NetBIOS name resolution strategy.</p> <ul style="list-style-type: none"> ▪ Plan a WINS replication strategy. ▪ Plan NetBIOS name resolution by using the Lmhosts file. 	100%	
<p>Troubleshoot host name resolution.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to DNS services. ▪ Diagnose and resolve issues related to client computer configuration. 	100%	
<i>Planning, Implementing, and Maintaining Routing and Remote Access</i>		
<p>Plan a routing strategy.</p> <ul style="list-style-type: none"> ▪ Identify routing protocols to use in a specified environment. ▪ Plan routing for IP multicast traffic. 	100%	
<p>Plan security for remote access users.</p> <ul style="list-style-type: none"> ▪ Plan remote access policies. ▪ Analyze protocol security requirements. ▪ Plan authentication methods for remote access clients. 	100%	
<p>Implement secure access between private networks.</p> <ul style="list-style-type: none"> ▪ Create and implement an IPSec policy. 	100%	

Troubleshoot TCP/IP routing. Tools might include the route, tracert, ping, pathping, and netsh commands and Network Monitor.	100%	
Planning, Implementing, and Maintaining Server Availability		
Plan services for high availability. <ul style="list-style-type: none"> ▪ Plan a high availability solution that uses clustering services. ▪ Plan a high availability solution that uses Network Load Balancing. 		
Identify system bottlenecks; including memory, processor, disk, and network related bottlenecks. <ul style="list-style-type: none"> ▪ Identify system bottlenecks by using System Monitor. 	100%	
Implement a cluster server. <ul style="list-style-type: none"> ▪ Recover from cluster node failure. 		
Manage Network Load Balancing. Tools might include the Network Load Balancing Monitor Microsoft Management Console (MMC) snap-in and the WLBS cluster control utility.		
Plan a backup and recovery strategy. <ul style="list-style-type: none"> ▪ Identify appropriate backup types. Methods include full, incremental, and differential. ▪ Plan a backup strategy that uses volume shadow copy. ▪ Plan system recovery that uses Automated System Recovery (ASR). 	100%	
Planning and Maintaining Network Security		
Configure network protocol security. <ul style="list-style-type: none"> ▪ Configure protocol security in a heterogeneous client computer environment. ▪ Configure protocol security by using IPSec policies. 	100%	

<p>Configure security for data transmission.</p> <ul style="list-style-type: none"> Configure IPSec policy settings. 	100%	
<p>Plan for network protocol security.</p> <ul style="list-style-type: none"> Specify the required ports and protocols for specified services. Plan an IPSec policy for secure network communications. 	100%	
<p>Plan secure network administration methods.</p> <ul style="list-style-type: none"> Create a plan to offer Remote Assistance to client computers. Plan for remote administration by using Terminal Services. 		100%
<p>Plan security for wireless networks.</p>	50%	
<p>Plan security for data transmission.</p> <ul style="list-style-type: none"> Secure data transmission between client computers to meet security requirements. Secure data transmission by using IPSec. 	100%	
<p>Troubleshoot security for data transmission. Tools might include the IP Security Monitor MMC snap-in and the Resultant Set of Policy (RSOP) MMC snap-in.</p>	100%	
<p>Planning, Implementing, and Maintaining Security Infrastructure.</p>		
<p>Configure Active Directory directory service for certificate publication.</p>	50%	100%
<p>Plan a public key infrastructure (PKI) that uses Certificate Services.</p> <ul style="list-style-type: none"> Identify the appropriate type of certificate authority to support certificate issuance requirements. Plan the enrollment and distribution of certificates. 	100%	

<ul style="list-style-type: none"> ▪ Plan for the use of smart cards for authentication. 		
<p>Plan a framework for planning and implementing security.</p> <ul style="list-style-type: none"> ▪ Plan for security monitoring. ▪ Plan a change and configuration management framework for security. 	50%	100%
<p>Plan a security update infrastructure. Tools might include Microsoft Baseline Security Analyzer and Microsoft Software Update Services.</p>	100%	

MCSE Exam 70-294

Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure

Key to the Matrix:

- 100 % The course includes material to prepare you for this task.
 50 % The course includes some material to prepare you for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-294	Course 2279
<i>Planning and Implementing an Active Directory Infrastructure</i>	
Plan a strategy for placing global catalogue servers. <ul style="list-style-type: none"> ▪ Evaluate network traffic considerations when placing global catalogue servers. ▪ Evaluate the need to enable universal group caching. 	100 %
Plan flexible operations master role placement. <ul style="list-style-type: none"> ▪ Plan for business continuity of operations master roles. ▪ Identify operations master role dependencies. 	100 %
Implement an Active Directory service forest and domain structure. <ul style="list-style-type: none"> ▪ Create the forest root domain. ▪ Create a child domain. ▪ Create and configure Application Data Partitions. ▪ Install and configure an Active Directory domain controller. ▪ Set an Active Directory forest and domain functional level based on requirements. ▪ Establish trust relationships. Types of trust relationships might include external trusts, shortcut trusts, and cross-forest trusts. 	100 %
Implement an Active Directory site topology.	100%

<ul style="list-style-type: none"> ▪ Configure site links. ▪ Configure preferred bridgehead servers. 	
<p>Plan an administrative delegation strategy.</p> <ul style="list-style-type: none"> ▪ Plan an organizational unit (OU) structure based on delegation requirements. ▪ Plan a security group hierarchy based on delegation requirements. 	100%
<p>Managing and Maintaining an Active Directory Infrastructure</p>	
<p>Manage an Active Directory forest and domain structure.</p> <ul style="list-style-type: none"> ▪ Manage trust relationships. ▪ Manage schema modifications. ▪ Add or remove a UPN suffix. 	100%
<p>Manage an Active Directory site.</p> <ul style="list-style-type: none"> ▪ Configure replication schedules. ▪ Configure site link costs. ▪ Configure site boundaries. 	100%
<p>Monitor Active Directory replication failures. Tools might include Replication Monitor, Event Viewer, and support tools.</p> <ul style="list-style-type: none"> ▪ Monitor Active Directory replication. ▪ Monitor File Replication service (FRS) replication. 	100%
<p>Restore Active Directory directory services.</p> <ul style="list-style-type: none"> ▪ Perform an authoritative restore operation. 	100%

<ul style="list-style-type: none"> Perform a nonauthoritative restore operation. 	
<p>Troubleshoot Active Directory.</p> <ul style="list-style-type: none"> Diagnose and resolve issues related to Active Directory replication. Diagnose and resolve issues related to operations master role failure. Diagnose and resolve issues related to the Active Directory database. 	100%
<p><i>Planning and Implementing User, Computer, and Group Strategies</i></p>	
<p>Plan a security group strategy.</p>	100%
<p>Plan a user authentication strategy.</p> <ul style="list-style-type: none"> Plan a smart card authentication strategy. Create a password policy for domain users. 	100%
<p>Plan an OU structure.</p> <ul style="list-style-type: none"> Analyze the administrative requirements for an OU. Analyze the Group Policy requirements for an OU structure. 	100%
<p>Implement an OU structure.</p> <ul style="list-style-type: none"> Create an OU. Delegate permissions for an OU to a user or to a security group. Move objects within an OU hierarchy. 	100%

Planning and Implementing Group Policy	
<p>Plan Group Policy strategy.</p> <ul style="list-style-type: none"> ▪ Plan a Group Policy strategy by using Resultant Set of Policy (RSoP) Planning mode. ▪ Plan a strategy for configuring the user environment by using Group Policy. ▪ Plan a strategy for configuring the computer environment by using Group Policy. 	100%
<p>Configure the user environment by using Group Policy.</p> <ul style="list-style-type: none"> ▪ Distribute software by using Group Policy. ▪ Automatically enrol user certificates by using Group Policy. ▪ Redirect folders by using Group Policy. ▪ Configure user security settings by using Group Policy. 	100%
<p>Deploy a computer environment by using Group Policy.</p> <ul style="list-style-type: none"> ▪ Distribute software by using Group Policy. ▪ Automatically enrol computer certificates by using Group Policy. ▪ Configure computer security settings by using Group Policy. 	50%
Managing and Maintaining Group Policy	
<p>Troubleshoot issues related to Group Policy application. deployment. Tools might include RSoP and the gpresult command.</p>	100%
<p>Maintain installed software by using Group Policy.</p> <ul style="list-style-type: none"> ▪ Distribute updates to software distributed by Group Policy. ▪ Configure automatic updates for network clients by using Group Policy. 	100%
<p>Troubleshoot the application of Group Policy security settings. Tools might include RSoP and the gpresult command.</p>	100%

MCSA / MCSE Exam 70-291

Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure

Key to the Matrix:

- 100 % The course includes material to prepare you for this task.
- 50 % The course includes some material to prepare you for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-291	Course 2276	Course 2277
<i>Implementing, Managing, and Maintaining IP Addressing</i>		
Configure TCP/IP addressing on a server computer.	100 %	
Manage DHCP. <ul style="list-style-type: none"> ▪ Manage DHCP clients and leases. ▪ Manage DHCP Relay Agent. ▪ Manage DHCP databases. ▪ Manage DHCP scope options. ▪ Manage reservations and reserved clients. 		100 %
Troubleshoot TCP/IP addressing. <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to Automatic Private IP Addressing (APIPA). ▪ Diagnose and resolve issues related to incorrect TCP/IP configuration. 		100 %
Troubleshoot DHCP. <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to DHCP authorization. ▪ Verify DHCP reservation configuration. ▪ Examine the system event log and DHCP server audit log files to find related events. ▪ Diagnose and resolve issues related to configuration of DHCP server and scope options. ▪ Verify that the DHCP Relay Agent is working correctly. ▪ Verify database integrity. 		100 %

Implementing, Managing, and Maintaining Name Resolution

<p>Install and configure the DNS Server service.</p> <ul style="list-style-type: none"> ▪ Configure DNS server options. ▪ Configure DNS zone options. ▪ Configure DNS forwarding. 		100 %
<p>Manage DNS.</p> <ul style="list-style-type: none"> ▪ Manage DNS zone settings. ▪ Manage DNS record settings. ▪ Manage DNS server options. 		100 %
<p>Monitor DNS. Tools might include System Monitor, Event Viewer, Replication Monitor, and DNS debug logs.</p>		100 %
<h2><i>Implementing, Managing, and Maintaining Network Security</i></h2>		
<p>Implement secure network administration procedures.</p> <ul style="list-style-type: none"> ▪ Implement security baseline settings and audit security settings by using security templates. ▪ Implement the principle of least privilege. 		100 %
<p>Monitor network protocol security. Tools might include the IP Security Monitor Microsoft Management Console (MMC) snap-in and Kerberos support tools.</p>		100 %
<p>Troubleshoot network protocol security. Tools might include the IP Security Monitor MMC snap-in, Event Viewer, and Network Monitor.</p>		100 %

Implementing, Managing, and Maintaining Routing and Remote Access

<p>Configure Routing and Remote Access user authentication.</p> <ul style="list-style-type: none"> ▪ Configure remote access authentication protocols. ▪ Configure Internet Authentication Service (IAS) to provide authentication for Routing and Remote Access clients. ▪ Configure Routing and Remote Access policies to permit or deny access. 		100 %
<p>Manage remote access.</p> <ul style="list-style-type: none"> ▪ Manage packet filters. ▪ Manage Routing and Remote Access routing interfaces. ▪ Manage devices and ports. ▪ Manage routing protocols. ▪ Manage Routing and Remote Access clients. 		100 %
<p>Manage TCP/IP routing.</p> <ul style="list-style-type: none"> ▪ Manage routing protocols. ▪ Manage routing tables. ▪ Manage routing ports. 		100 %
<p>Implement secure access between private networks.</p>		100 %
<p>Troubleshoot user access to remote access services.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to remote access VPNs. ▪ Diagnose and resolve issues related to establishing a remote access connection. ▪ Diagnose and resolve user access to resources beyond the remote access server. 		100 %
<p>Troubleshoot Routing and Remote Access routing.</p> <ul style="list-style-type: none"> ▪ Troubleshoot demand-dial routing. ▪ Troubleshoot router-to-router VPNs. 		100 %

Maintaining a Network Infrastructure

Monitor network traffic. Tools might include Network Monitor and System Monitor.

100 %

Troubleshoot connectivity to the Internet.

100 %

Troubleshoot server services.

100 %

- Diagnose and resolve issues related to service dependency.
- Use service recovery options to diagnose and resolve service-related issues.

MCSA / MCSE / MCDBA Exam 70-290
Managing and Maintaining a Microsoft Windows Server 2003 Environment

Key to the Matrix:

- 100 %** The course includes material to prepare you for this task.
- 50 %** The course includes some material to prepare your for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-290	Course 2274	Course 2275
Manage basic disks and dynamic disks.		100 %
Monitor server hardware. Tools might include Device Manager, the Hardware Troubleshooting Wizard, and appropriate Control Panel items.		100 %
Optimize server disk performance. <ul style="list-style-type: none"> ▪ Implement a RAID solution. ▪ Defragment volumes and partitions. 		100 %
Install and configure server hardware devices. <ul style="list-style-type: none"> ▪ Configure driver signing options. ▪ Configure resource settings for a device. ▪ Configure device properties and settings. 		100 %
Manage local, roaming, and mandatory user profiles.	100 %	
Create and manage computer accounts in an Active Directory environment.	100 %	
Create and manage groups. <ul style="list-style-type: none"> ▪ Identify and modify the scope of a group. ▪ Find domain groups in which a user is a member. ▪ Manage group membership. ▪ Create and modify groups by using the Active Directory Users and Computers Microsoft Management Console (MMC) snap-in. ▪ Create and modify groups by using automation. 	100 %	

<p>Create and manage user accounts.</p> <ul style="list-style-type: none"> ▪ Create and modify user accounts by using the Active Directory Users and Computers MMC snap-in. ▪ Create and modify user accounts by using automation. ▪ Import user accounts. 	100 %	
<p>Troubleshoot computer accounts.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to computer accounts by using the Active Directory Users and Computers MMC snap-in. ▪ Reset computer accounts. 	100 %	
<p>Troubleshoot user accounts.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve account lockouts. ▪ Diagnose and resolve issues related to user account properties. 	100 %	
<p>Troubleshoot user authentication issues.</p>	100 %	
<p>Configure access to shared folders.</p> <ul style="list-style-type: none"> ▪ Manage shared folder permissions. 	100 %	
<p>Troubleshoot Terminal Services.</p> <ul style="list-style-type: none"> ▪ Diagnose and resolve issues related to Terminal Services security. ▪ Diagnose and resolve issues related to client access to Terminal Services. 		
<p>Configure file system permissions.</p> <ul style="list-style-type: none"> ▪ Verify effective permissions when granting permissions. ▪ Change ownership of files and folders. 	100 %	
<p>Troubleshoot access to files and shared folders.</p>	100 %	
<p>Monitor and analyze events. Tools might include Event Viewer and System Monitor.</p>		100 %

Manage software update infrastructure.		100 %
Manage software site licensing.		100 %
<p>Manage servers remotely.</p> <ul style="list-style-type: none"> ▪ Manage a server by using Remote Assistance. ▪ Manage a server by using Terminal Services remote administration mode. ▪ Manage a server by using available support tools. 		100 %
Troubleshoot print queues.	100 %	
Monitor system performance.		100 %
<p>Monitor file and print servers. Tools might include Task Manager, Event Viewer, and System Monitor.</p> <ul style="list-style-type: none"> ▪ Monitor disk quotas. ▪ Monitor print queues. ▪ Monitor server hardware for bottlenecks. 		100 %
<p>Monitor and optimize a server environment for application performance.</p> <ul style="list-style-type: none"> ▪ Monitor memory performance objects. ▪ Monitor network performance objects. ▪ Monitor process performance objects. ▪ Monitor disk performance objects. 		100 %
<p>Manage a Web server.</p> <ul style="list-style-type: none"> ▪ Manage Internet Information Services (IIS). ▪ Manage security for IIS. 		
<p>Perform system recovery for a server.</p> <ul style="list-style-type: none"> ▪ Implement Automated System Recovery (ASR). ▪ Restore data from shadow copy volumes. ▪ Back up files and System State data to media. 		100 %

▪ Configure security for backup operations.		
Manage backup procedures. ▪ Verify the successful completion of backup jobs. ▪ Manage backup storage media.		100 %
Recover from server hardware failure.		100 %
Restore backup data.		100 %
Schedule backup jobs.		100 %

MCSA / MCSE Exam 70-270

Installing, Configuring, and Administering Microsoft Windows XP Professional

Key to the Matrix:

- 100 % The course includes material to prepare you for this task.
- 50 % The course includes some material to prepare your for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-270	Course 2272
<i>Installing Windows XP Professional</i>	
Perform and troubleshoot an attended installation of Windows XP Professional.	100 %
Perform and troubleshoot an unattended installation of Windows XP Professional. <ul style="list-style-type: none"> ▪ Install Windows XP Professional by using Remote Installation Services (RIS). ▪ Install Windows XP Professional by using the System Preparation Tool. ▪ Create unattended answer files by using Setup Manager to automate the installation of Windows XP Professional. 	50 %
Upgrade from a previous version of Windows to Windows XP Professional. <ul style="list-style-type: none"> ▪ Prepare a computer to meet upgrade requirements. ▪ Migrate existing user environments to a new installation. 	100 %
Perform post-installation updates and product activation.	100 %
Troubleshoot failed installations.	100 %

Implementing and Conducting Administration of Resources

<p>Monitor, manage, and troubleshoot access to files and folders.</p> <ul style="list-style-type: none"> ▪ Configure, manage, and troubleshoot file compression. ▪ Control access to files and folders by using permissions. ▪ Optimize access to files and folders. 	
<p>Manage and troubleshoot access to shared folders.</p> <ul style="list-style-type: none"> ▪ Create and remove shared folders. ▪ Control access to shared folders by using permissions. ▪ Manage and troubleshoot Web server resources. 	
<p>Connect to local and network print devices.</p> <ul style="list-style-type: none"> ▪ Manage printers and print jobs. ▪ Control access to printers by using permissions. ▪ Connect to an Internet printer. ▪ Connect to a local print device. 	
<p>Configure and manage file systems.</p> <ul style="list-style-type: none"> ▪ Convert from one file system to another file system. ▪ Configure NTFS, FAT32, or FAT file systems. 	100 %
<p>Manage and troubleshoot access to and synchronization of offline files.</p>	50 %

Implementing, Managing, Monitoring, and Troubleshooting Hardware Devices and Drivers

<p>Implement, manage, and troubleshoot disk devices.</p> <ul style="list-style-type: none"> ▪ Install, configure, and manage DVD and CD-ROM devices. ▪ Monitor and configure disks. ▪ Monitor, configure, and troubleshoot volumes. ▪ Monitor and configure removable media, such as tape devices. 	50 %
<p>Implement, manage, and troubleshoot display devices.</p> <ul style="list-style-type: none"> ▪ Configure multiple-display support. ▪ Install, configure, and troubleshoot a video adapter. 	100 %
<p>Configure Advanced Configuration Power Interface (ACPI).</p>	100 %
<p>Implement, manage, and troubleshoot input and output (I/O) devices.</p> <ul style="list-style-type: none"> ▪ Monitor, configure, and troubleshoot I/O devices, such as printers, scanners, multimedia devices, mouse, keyboard, and smart card reader. ▪ Monitor, configure, and troubleshoot multimedia hardware, such as cameras. ▪ Install, configure, and manage modems. ▪ Install, configure, and manage Infrared Data Association (IrDA) devices. ▪ Install, configure, and manage wireless devices. ▪ Install, configure, and manage USB devices. ▪ Install, configure, and manage hand held devices. ▪ Install, configure, and manage network adapters. 	
<p>Manage and troubleshoot drivers and driver signing.</p>	100 %
<p>Monitor and configure multiprocessor computers.</p>	

Monitoring and Optimizing System Performance and Reliability

Monitor, optimize, and troubleshoot performance of the Windows XP Professional desktop.

- Optimize and troubleshoot memory performance.
- Optimize and troubleshoot processor utilization.
- Optimize and troubleshoot disk performance.
- Optimize and troubleshoot application performance.
- Configure, manage, and troubleshoot Scheduled Tasks.

Manage, monitor, and optimize system performance for mobile users.

Restore and back up the operating system, System State data, and user data.

- Recover System State data and user data by using Windows Backup.
- Troubleshoot system restoration by starting in safe mode.
- Recover System State data and user data by using the Recovery console.

50 %

Configuring and Troubleshooting the Desktop Environment

Configure and manage user profiles and desktop settings.

100 %

Configure support for multiple languages or multiple locations.

- Enable multiple-language support.
- Configure multiple-language support for users.
- Configure local settings.
- Configure Windows XP Professional for multiple locations.

50 %

Manage applications by using Windows Installer packages.

Implementing, Managing, and Troubleshooting Network Protocols and Services

Configure and troubleshoot the TCP/IP protocol.	50 %
<p>Connect to computers by using dial-up networking.</p> <ul style="list-style-type: none"> ▪ Connect to computers by using a virtual private network (VPN) connection. ▪ Create a dial-up connection to connect to a remote access server. ▪ Connect to the Internet by using dial-up networking. ▪ Configure and troubleshoot Internet Connection Sharing (ICS). 	50 %
Connect to resources by using Internet Explorer.	
Configure, manage, and implement Internet Information Services (IIS).	
Configure, manage, and troubleshoot Remote Desktop and Remote Assistance.	100 %
Configure, manage, and troubleshoot an Internet Connection Firewall (ICF).	
Configuring, Managing, and Troubleshooting Security	
Configure, manage, and troubleshoot Encrypting File System (EFS).	100 %
Configure, manage, and troubleshoot a security configuration and local security policy.	100 %
<p>Configure, manage, and troubleshoot local user and group accounts.</p> <ul style="list-style-type: none"> ▪ Configure, manage, and troubleshoot auditing. ▪ Configure, manage, and troubleshoot account settings. ▪ Configure, manage, and troubleshoot account policy. ▪ Configure, manage, and troubleshoot user and group rights. ▪ Troubleshoot cache credentials. 	100 %
Configure, manage, and troubleshoot Internet Explorer security settings.	

MCSE Exam 70-285

Designing a Microsoft Exchange Server 2003 Organization

Key to the Matrix:

100 %	The course includes material to prepare you for this task.
50 %	The course includes some material to prepare you for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-285	Course 2008
<i>Designing an Upgrade or Migration and Coexistence Strategy</i>	
<p>Design an upgrade strategy from previous versions of Exchange. Considerations include upgrading from Exchange 2000 Server or Exchange Server 5.5, whether to upgrade the existing organization or create a new organizational structure, and designing connection agreements.</p> <p>Upgrade from Exchange Server 5.5. Upgrade from Exchange 2000 Server.</p>	100%
<p>Design coexistence and migration of Exchange Server 2003 with other messaging systems. Considerations include cc:Mail, MSMail, previous versions of Exchange, Lotus Notes, X.400 messaging systems, PROFS, SNADS, and Groupwise.</p> <p>Plan for coexistence/migration with foreign mail systems, such as Notes, cc:Mail, GroupWise, MS Mail, PROFS, TAO, and SNADS. Plan for coexistence with Exchange Server 5.5. Plan for coexistence with Exchange 2000 Server.</p>	100%
<p>Design the integration with the existing or planned Active Directory. Considerations include potential changes to the current or planned Active directory structure, and inter-organizational connectivity and synchronization.</p> <p>Identify any changes needed to the Active Directory. Design inter-organizational connectivity and synchronization.</p>	100%

Designing the Exchange Server 2003 Infrastructure	
Design an Exchange Server 2003 administrative model. Considerations include business factors, existing and planned administrative model, organizational unit (OU) structure, policies, administrative group placement and boundaries, and permissions.	100%
Designate and design servers. Server configurations include server placement, connectors, client computer access, and multiple protocols. Design server placement. Design Server Specialization.	100%
Design Exchange Server 2003 Public Folder Infrastructure. Considerations include company structure, geographical structure, maintenance policies, permissions, replication and indexing. Determining Public Folder Referrals. Design Public Folder Security.	100%
Design the storage strategy. Considerations include optimal database sizing, logging strategy, stores and storage group configurations.	100%
Design servers to achieve fault tolerance and increased performance. Considerations include server scalability, storage fault tolerance, front-end back-end topology, and clustering. Determine approach for scalability. Hardware fault tolerance (RAID). Design the front-end/back-end servers. Microsoft Cluster Server (MSCS) Clustering.	100%
Design a backup and recovery solution. Considerations include planning backup scope, defining the backup schedule, media storage and rotation, backup type, recovering the entire messaging system, individual databases, and servers; re-associating user mailboxes with accounts; and designing mailbox stores to support recovery.	100%

Designing Connectivity for Exchange Server 2003	
<p>Design an Exchange Server 2003 routing group topology.</p> <p>Plan traffic flow. Considerations include ADC computer and bridgeheads, routing group boundaries, bandwidth, public folder replication, and existing network connections.</p>	100%
Design Exchange 2003 Connectors.	100%
Design Exchange 2003 Virtual (protocol) Server Strategy.	100%
Design a fault-tolerant DNS solution.	100%
<p>Design Client strategy for Exchange Server 2003. Considerations include hardware, operating system, access method, existing message store requirements, and existing message clients.</p> <p>Design a strategy for mail access. Messaging clients include MAPI, IMAP4, POP3, RPC over HTTP, and HTTP mail. Plan deployments of messaging clients. Considerations include policies and profiles.</p>	100%

Designing the Security Strategy	
<p>Design an authentication and encryption strategy. Considerations include user authentication and encryption requirements, such as S/MIME, IPSec, NTLM, Digest authentication, and SSL.</p> <ul style="list-style-type: none"> Outlook Web Access (OWA) Outlook Mobile Access (OMA) Secure/Multipurpose Internet Mail Extensions (S/MIME) 	100%
<p>Design protection from external threats. Considerations include protection from unsolicited commercial e-mail, viruses, spoofing, and firewalls.</p> <ul style="list-style-type: none"> Block SMTP Relay Virus protection Protect from unsolicited commercial e-mail (spam) Protect from spoofing Firewall configuration Content filtering Blacklists 	100%
<p>Protect the Exchange Server 2003 infrastructure against internal attacks.</p> <ul style="list-style-type: none"> Physical security of the computer Virus protection Permissions Internal firewall 	

MCSE Exam 70-284

Implementing and Managing Microsoft Exchange Server 2003

Key to the Matrix:

100 % The course includes material to prepare you for this task.
 50 % The course includes some material to prepare your for this task. You will need to supplement the course with additional work.

Skills measured by exam 70-284	Course 2400	Course 2009	Workshop 2011
<i>Installing, Configuring, and Troubleshooting Exchange Server 2003</i>			
Prepare the environment for deployment of Exchange Server 2003	100%	100%	
Install, configure, and troubleshoot Exchange Server 2003	50%	50%	50%
Install, configure, and troubleshoot Exchange Server 2003 in a clustered environment	50%	50%	50%
Upgrade from Exchange Server 5.5 to Exchange Server 2003	50%	50%	
Migrate from other messaging systems to Exchange Server 2003 Use the Migration Wizard to migrate from other messaging systems Migrate from other Exchange organizations	50%	50%	50%
Configure and troubleshoot Exchange Server 2003 for coexistence with other Exchange organizations	50%	50%	
Configure and troubleshoot Exchange Server 2003 for coexistence with other messaging systems	50%	50%	
Configure and troubleshoot Exchange Server 2003 for interoperability with other SMTP messaging systems	50%	50%	

Managing, Monitoring, and Troubleshooting Exchange Server Computers			
Manage, monitor, and troubleshoot server health	50%	50%	50%
Manage, monitor, and troubleshoot data storage	50%	50%	50%
Manage, monitor, and troubleshoot Exchange Server clusters	50%	50%	
Perform and troubleshoot backups and recovery	50%	50%	50%
Remove an Exchange Server computer from the organization	100%	100%	
Managing, Monitoring, and Troubleshooting the Exchange Organization			
Manage and troubleshoot public folders	50%	50%	50%
Manage and troubleshoot virtual servers	50%	50%	50%
Manage and troubleshoot front-end and back-end servers	50%	50%	50%
Manage and troubleshoot connectivity	50%	50%	50%
Monitor, manage, and troubleshoot infrastructure performance	50%	50%	50%
Managing Security in the Exchange Environment			
Manage and troubleshoot connectivity across firewalls	50%	50%	50%
Manage audit settings and audit logs	50%	50%	
Manage and troubleshoot permissions	50%	50%	50%
Manage and troubleshoot encryption and digital signatures	50%	50%	50%
Detect and respond to security threats	50%	50%	50%

Managing Recipient Objects and Address Lists			
Manage recipient policies	50%	50%	
Manage user objects	50%	50%	
Manage distribution and security groups	50%	50%	
Manage contacts	50%	50%	
Manage address lists	50%	50%	
Managing and Monitoring Technologies that Support Exchange Server 2003			
Diagnose problems arising from host resolution protocols			100%
Diagnose problems arising from Active Directory issues			100%
Diagnose network connectivity problems			100%