



Qualification Pack

Technician - Computer Hardware & Network Management

QP Code: MSME/ELE/Q2201

Version: 1.0

NSQF Level: 4

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Qualification Pack

Contents

MSME/ELE/Q2201: Technician - Computer Hardware & Network Management	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
MSME/ELE/N2201: Prepare Testing & Maintenance of Power Supply-SMPS	5
MSME/ELE/N2202: Prepare Testing & Maintenance of Power Supply-SMPS	11
MSME/ELE/N2203: Assembly of PC Architecture & their Troubleshooting	17
MSME/ELE/N2206: Understand & Operate LINUX Operating System & its Management	21
MSME/ELE/N2204: Installing System Software & their Maintenance	24
MSME/ELE/N2205: Managing Network & Windows Server Configuration	28
MSME/ELE/N2207: Employability Skill	32
Assessment Guidelines and Weightage	36
<i>Assessment Guidelines</i>	36
<i>Assessment Weightage</i>	36
Acronyms	38
Glossary	39



Qualification Pack

MSME/ELE/Q2201: Technician - Computer Hardware & Network Management

Brief Job Description

The qualification containing different modules, which is required for the job role of Sr. Technician (Computer Hardware & Network Management). Qualified Learners shall be able to Take care of the maintenance & troubleshooting of computer hardware & Networking

Personal Attributes

The qualification containing different modules, which is required for the job role of Sr. Technician (Computer Hardware & Network Management). Qualified Learners shall be able to Take care of the maintenance & troubleshooting of computer hardware & Networking

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [MSME/ELE/N2201: Prepare Testing & Maintenance of Power Supply-SMPS](#)
2. [MSME/ELE/N2202: Prepare Testing & Maintenance of Power Supply-SMPS](#)
3. [MSME/ELE/N2203: Assembly of PC Architecture & their Troubleshooting](#)
4. [MSME/ELE/N2206: Understand & Operate LINUX Operating System & its Management](#)
5. [MSME/ELE/N2204: Installing System Software & their Maintenance](#)
6. [MSME/ELE/N2205: Managing Network & Windows Server Configuration](#)
7. [MSME/ELE/N2207: Employability Skill](#)

Qualification Pack (QP) Parameters

Sector	Electronics
Sub-Sector	Strategic Electronics
Occupation	Computer Networking 01
Country	India
NSQF Level	4



Qualification Pack

Credits	20
Aligned to NCO/ISCO/ISIC Code	Computer Network and Systems Technician
Minimum Educational Qualification & Experience	Completed 3 year diploma after 10th with NA of experience OR Certificate-NSQF (Previous relevant Qualification of NSQF Level 3) with 3 Years of experience OR Completed 2nd year of the 3-year diploma after 10 with NA of experience OR Certificate-NSQF (Previous relevant Qualification of NSQF Level 3.5) with 1.5 years of experience OR 12th grade Pass with NA of experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	17 Years
Last Reviewed On	NA
Next Review Date	30/04/2027
NSQC Approval Date	30/04/2024
Version	1.0
Reference code on NQR	Technician - Computer Hardware & Network Management
NQR Version	1.0



Qualification Pack

MSME/ELE/N2201: Prepare Testing & Maintenance of Power Supply-SMPS

Description

After completion of course Student should be able to Understand how to measurement of the various electronics components and fault finding.

Scope

The scope covers the following :

- After completion of course Student should be able to Understand how to measurement of the various electronics components and fault finding.

Elements and Performance Criteria

Prepare Testing & Maintenance of Power Supply-SMPS

To be competent, the user/individual on the job must be able to:

- PC1.** Explain Multi-meter & Tools
- PC2.** Identify the Different types of terminals
- PC3.** Demonstrate the Testing procedure of V, I, R.
- PC4.** Identify the tools and its functions.
- PC5.** Identify the types of Resistors.
- PC6.** Demonstrate and calculate the value of Resistor
- PC7.** Understand Resistance in Ohms, Capacity in Farads, Inductance Henrys
- PC8.** Demonstrate the testing procedure of Resistor.
- PC9.** Identify the types of Capacitors
- PC10.** Demonstrate the Testing procedure of Capacitor
- PC11.** Demonstrate the testing procedure of inductor.
- PC12.** Understand the Functions of Inductor.
- PC13.** Understand the Characteristics of diode
- PC14.** Demonstrate the Procedure to connect Diode
- PC15.** Demonstrate the Testing Procedure of Diode
- PC16.** Demonstrate the Use of Diode
- PC17.** Identify the types of transistors
- PC18.** Demonstrate the Testing of Transistor
- PC19.** Understand the Functions of Transistor
- PC20.** Explain the Importance and Types of IC.
- PC21.** Explain about the power supply
- PC22.** Explain the Types of power supply,
- PC23.** Explain the Use of power supply
- PC24.** Differentiate the different section of SMPS



Qualification Pack

- PC25.** Demonstrate the Function of SMPS
- PC26.** Explain the Components used in different section of SMPS.
- PC27.** Demonstrate about the Input section,
- PC28.** Explain about the Circuit Diagram of Input section.
- PC29.** Identify & Tracing of Input section.
- PC30.** Demonstrate about the Switching Section
- PC31.** Explain about the Circuit Diagram of Switching Section.
- PC32.** Demonstrate the Role and Functions of Switching Section.
- PC33.** Identify & Tracing of Switching Section.
- PC34.** Discuss about the Output Section,
- PC35.** Explain about the Circuit Diagram of Output Section
- PC36.** Demonstrate the Role and Function of Output Section
- PC37.** Identify & Tracing of Output Section
- PC38.** Discuss about the Driver Section
- PC39.** Explain about the Circuit Diagram of Driver Section
- PC40.** Demonstrate the Role and Function of Driver Section
- PC41.** Identify & Tracing of Driver Section.
- PC42.** Demonstrate about the Oscillator Section
- PC43.** Explain about the Circuit Diagram of Oscillator Section
- PC44.** Demonstrate the Role and Function of Oscillator Section.
- PC45.** Identify & Tracing of Oscillator Section
- PC46.** Discuss about the Standby Section,
- PC47.** Explain about the Circuit Diagram of Standby Section
- PC48.** Demonstrate the Role and Function of Standby Section.
- PC49.** Identify & Tracing of Standby Section.
- PC50.** Demonstrate the Testing of different section.
- PC51.** Detect the fault and troubleshoot the fault.
- PC52.** Explain Voltage testing in the output connector of SMPS



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare Testing & Maintenance of Power Supply-SMPS</i>	100	-	-	-
PC1. Explain Multi-meter & Tools	-	-	-	-
PC2. Identify the Different types of terminals	-	-	-	-
PC3. Demonstrate the Testing procedure of V, I, R.	-	-	-	-
PC4. Identify the tools and its functions.	-	-	-	-
PC5. Identify the types of Resistors.	-	-	-	-
PC6. Demonstrate and calculate the value of Resistor	-	-	-	-
PC7. Understand Resistance in Ohms, Capacity in Farads, Inductance Henrys	-	-	-	-
PC8. Demonstrate the testing procedure of Resistor.	-	-	-	-
PC9. Identify the types of Capacitors	-	-	-	-
PC10. Demonstrate the Testing procedure of Capacitor	-	-	-	-
PC11. Demonstrate the testing procedure of inductor.	-	-	-	-
PC12. Understand the Functions of Inductor.	-	-	-	-
PC13. Understand the Characteristics of diode	-	-	-	-
PC14. Demonstrate the Procedure to connect Diode	-	-	-	-
PC15. Demonstrate the Testing Procedure of Diode	-	-	-	-
PC16. Demonstrate the Use of Diode	-	-	-	-
PC17. Identify the types of transistors	-	-	-	-
PC18. Demonstrate the Testing of Transistor	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC19. Understand the Functions of Transistor	-	-	-	-
PC20. Explain the Importance and Types of IC.	-	-	-	-
PC21. Explain about the power supply	-	-	-	-
PC22. Explain the Types of power supply,	-	-	-	-
PC23. Explain the Use of power supply	-	-	-	-
PC24. Differentiate the different section of SMPS	-	-	-	-
PC25. Demonstrate the Function of SMPS	-	-	-	-
PC26. Explain the Components used in different section of SMPS.	-	-	-	-
PC27. Demonstrate about the Input section,	-	-	-	-
PC28. Explain about the Circuit Diagram of Input section.	-	-	-	-
PC29. Identify & Tracing of Input section.	-	-	-	-
PC30. Demonstrate about the Switching Section	-	-	-	-
PC31. Explain about the Circuit Diagram of Switching Section.	-	-	-	-
PC32. Demonstrate the Role and Functions of Switching Section.	-	-	-	-
PC33. Identify & Tracing of Switching Section.	-	-	-	-
PC34. Discuss about the Output Section,	-	-	-	-
PC35. Explain about the Circuit Diagram of Output Section	-	-	-	-
PC36. Demonstrate the Role and Function of Output Section	-	-	-	-
PC37. Identify & Tracing of Output Section	-	-	-	-
PC38. Discuss about the Driver Section	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC39. Explain about the Circuit Diagram of Driver Section	-	-	-	-
PC40. Demonstrate the Role and Function of Driver Section	-	-	-	-
PC41. Identify & Tracing of Driver Section.	-	-	-	-
PC42. Demonstrate about the Oscillator Section	-	-	-	-
PC43. Explain about the Circuit Diagram of Oscillator Section	-	-	-	-
PC44. Demonstrate the Role and Function of Oscillator Section.	-	-	-	-
PC45. Identify & Tracing of Oscillator Section	-	-	-	-
PC46. Discuss about the Standby Section,	-	-	-	-
PC47. Explain about the Circuit Diagram of Standby Section	-	-	-	-
PC48. Demonstrate the Role and Function of Standby Section.	-	-	-	-
PC49. Identify & Tracing of Standby Section.	-	-	-	-
PC50. Demonstrate the Testing of different section.	-	-	-	-
PC51. Detect the fault and troubleshoot the fault.	-	-	-	-
PC52. Explain Voltage testing in the output connector of SMPS	-	-	-	-
NOS Total	100	-	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2201
NOS Name	Prepare Testing & Maintenance of Power Supply-SMPS
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	1
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2202: Prepare Testing & Maintenance of Power Supply-SMPS

Description

After completion of course Student should be able to Understand how to measurement of the various electronics components and fault finding.

Scope

The scope covers the following :

- After completion of course Student should be able to Understand how to measurement of the various electronics components and fault finding.

Elements and Performance Criteria

Prepare Testing & Maintenance of Power Supply-SMPS

To be competent, the user/individual on the job must be able to:

- PC1.** Explain Multi-meter & Tools
- PC2.** Identify the Different types of terminals
- PC3.** Demonstrate the Testing procedure of V, I, R.
- PC4.** Identify the tools and its functions.
- PC5.** Identify the types of Resistors.
- PC6.** Demonstrate and calculate the value of Resistor
- PC7.** Understand Resistance in Ohms, Capacity in Farads, Inductance Henrys
- PC8.** Demonstrate the testing procedure of Resistor.
- PC9.** Identify the types of Capacitors
- PC10.** Demonstrate the Testing procedure of Capacitor
- PC11.** Demonstrate the testing procedure of inductor.
- PC12.** Understand the Functions of Inductor.
- PC13.** Understand the Characteristics of diode
- PC14.** Demonstrate the Procedure to connect Diode
- PC15.** Demonstrate the Testing Procedure of Diode
- PC16.** Demonstrate the Use of Diode
- PC17.** Identify the types of transistors
- PC18.** Demonstrate the Testing of Transistor
- PC19.** Understand the Functions of Transistor
- PC20.** Explain the Importance and Types of IC.
- PC21.** Explain about the power supply
- PC22.** Explain the Types of power supply,
- PC23.** Explain the Use of power supply
- PC24.** Differentiate the different section of SMPS



Qualification Pack

- PC25.** Demonstrate the Function of SMPS
- PC26.** Explain the Components used in different section of SMPS.
- PC27.** Demonstrate about the Input section,
- PC28.** Explain about the Circuit Diagram of Input section.
- PC29.** Identify & Tracing of Input section.
- PC30.** Demonstrate about the Switching Section
- PC31.** Explain about the Circuit Diagram of Switching Section.
- PC32.** Demonstrate the Role and Functions of Switching Section.
- PC33.** Identify & Tracing of Switching Section.
- PC34.** Discuss about the Output Section,
- PC35.** Explain about the Circuit Diagram of Output Section
- PC36.** Demonstrate the Role and Function of Output Section
- PC37.** Identify & Tracing of Output Section
- PC38.** Discuss about the Driver Section
- PC39.** Explain about the Circuit Diagram of Driver Section
- PC40.** Demonstrate the Role and Function of Driver Section
- PC41.** Identify & Tracing of Driver Section.
- PC42.** Demonstrate about the Oscillator Section
- PC43.** Explain about the Circuit Diagram of Oscillator Section
- PC44.** Demonstrate the Role and Function of Oscillator Section.
- PC45.** Identify & Tracing of Oscillator Section
- PC46.** Discuss about the Standby Section,
- PC47.** Explain about the Circuit Diagram of Standby Section
- PC48.** Demonstrate the Role and Function of Standby Section.
- PC49.** Identify & Tracing of Standby Section.
- PC50.** Demonstrate the Testing of different section.
- PC51.** Detect the fault and troubleshoot the fault.
- PC52.** Explain Voltage testing in the output connector of SMPS



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare Testing & Maintenance of Power Supply-SMPS</i>	-	100	-	-
PC1. Explain Multi-meter & Tools	-	-	-	-
PC2. Identify the Different types of terminals	-	-	-	-
PC3. Demonstrate the Testing procedure of V, I, R.	-	-	-	-
PC4. Identify the tools and its functions.	-	-	-	-
PC5. Identify the types of Resistors.	-	-	-	-
PC6. Demonstrate and calculate the value of Resistor	-	-	-	-
PC7. Understand Resistance in Ohms, Capacity in Farads, Inductance Henrys	-	-	-	-
PC8. Demonstrate the testing procedure of Resistor.	-	-	-	-
PC9. Identify the types of Capacitors	-	-	-	-
PC10. Demonstrate the Testing procedure of Capacitor	-	-	-	-
PC11. Demonstrate the testing procedure of inductor.	-	-	-	-
PC12. Understand the Functions of Inductor.	-	-	-	-
PC13. Understand the Characteristics of diode	-	-	-	-
PC14. Demonstrate the Procedure to connect Diode	-	-	-	-
PC15. Demonstrate the Testing Procedure of Diode	-	-	-	-
PC16. Demonstrate the Use of Diode	-	-	-	-
PC17. Identify the types of transistors	-	-	-	-
PC18. Demonstrate the Testing of Transistor	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC19. Understand the Functions of Transistor	-	-	-	-
PC20. Explain the Importance and Types of IC.	-	-	-	-
PC21. Explain about the power supply	-	-	-	-
PC22. Explain the Types of power supply,	-	-	-	-
PC23. Explain the Use of power supply	-	-	-	-
PC24. Differentiate the different section of SMPS	-	-	-	-
PC25. Demonstrate the Function of SMPS	-	-	-	-
PC26. Explain the Components used in different section of SMPS.	-	-	-	-
PC27. Demonstrate about the Input section,	-	-	-	-
PC28. Explain about the Circuit Diagram of Input section.	-	-	-	-
PC29. Identify & Tracing of Input section.	-	-	-	-
PC30. Demonstrate about the Switching Section	-	-	-	-
PC31. Explain about the Circuit Diagram of Switching Section.	-	-	-	-
PC32. Demonstrate the Role and Functions of Switching Section.	-	-	-	-
PC33. Identify & Tracing of Switching Section.	-	-	-	-
PC34. Discuss about the Output Section,	-	-	-	-
PC35. Explain about the Circuit Diagram of Output Section	-	-	-	-
PC36. Demonstrate the Role and Function of Output Section	-	-	-	-
PC37. Identify & Tracing of Output Section	-	-	-	-
PC38. Discuss about the Driver Section	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC39. Explain about the Circuit Diagram of Driver Section	-	-	-	-
PC40. Demonstrate the Role and Function of Driver Section	-	-	-	-
PC41. Identify & Tracing of Driver Section.	-	-	-	-
PC42. Demonstrate about the Oscillator Section	-	-	-	-
PC43. Explain about the Circuit Diagram of Oscillator Section	-	-	-	-
PC44. Demonstrate the Role and Function of Oscillator Section.	-	-	-	-
PC45. Identify & Tracing of Oscillator Section	-	-	-	-
PC46. Discuss about the Standby Section,	-	-	-	-
PC47. Explain about the Circuit Diagram of Standby Section	-	-	-	-
PC48. Demonstrate the Role and Function of Standby Section.	-	-	-	-
PC49. Identify & Tracing of Standby Section.	-	-	-	-
PC50. Demonstrate the Testing of different section.	-	-	-	-
PC51. Detect the fault and troubleshoot the fault.	-	-	-	-
PC52. Explain Voltage testing in the output connector of SMPS	-	-	-	-
NOS Total	-	100	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2202
NOS Name	Prepare Testing & Maintenance of Power Supply-SMPS
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2203: Assembly of PC Architecture & their Troubleshooting

Description

After completion of course Student should be able to Understand the function of hardware peripherals of computer system, Laptop and procedure to troubleshoot the common issues.

Scope

The scope covers the following :

- After completion of course Student should be able to Understand the function of hardware peripherals of computer system, Laptop and procedure to troubleshoot the common issues.

Elements and Performance Criteria

MSME/ADCHNM/02 Assembly of PC Architecture & their Troubleshooting

To be competent, the user/individual on the job must be able to:

- PC1.** Explain the Types of microprocessor and their technology
- PC2.** Explain about the Different types of motherboard
- PC3.** Explain about the Different types of add- on cards.
- PC4.** Explain Different types of port in motherboard
- PC5.** Explain Different types of slot in motherboard
- PC6.** Explain Different Types of memory of computer.
- PC7.** Understand about ROM and it's used in computer system.
- PC8.** Identify Different the type of HDD & Size of HDD
- PC9.**
 - Explain the physical and logical technology used to read and write the data in
 - HDD
- PC10.** Discuss about the types of CDD & the types of DVD
- PC11.**
 - Explain the physical and logical technology used to read and write the data in
 - Optical Drive
- PC12.** Demonstrate about the types Keyboard & types Of Mouse
- PC13.** Explain the Problems in Keyboard and mouse.
- PC14.**
 - Explain the proper use of Joy Stick, Light pen, Track Ball, Scanner, Graphic Tablet,
 - Microphone, Bar Code Reader
- PC15.** Explain about different types of Monitor like: - CRT, LCD, LED etc
- PC16.** Explain the common issues and troubleshooting method.
- PC17.** Explain about the Types of printer
- PC18.** Explain the Printing technology of printer
- PC19.** Demonstrate about Role and function of different printers
- PC20.** Explain common errors of printer and troubleshooting process



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>MSME/ADCHNM/02 Assembly of PC Architecture & their Troubleshooting</i>	-	100	-	-
PC1. Explain the Types of microprocessor and their technology	-	-	-	-
PC2. Explain about the Different types of motherboard	-	-	-	-
PC3. Explain about the Different types of add- on cards.	-	-	-	-
PC4. Explain Different types of port in motherboard	-	-	-	-
PC5. Explain Different types of slot in motherboard	-	-	-	-
PC6. Explain Different Types of memory of computer.	-	-	-	-
PC7. Understand about ROM and it's used in computer system.	-	-	-	-
PC8. Identify Different the type of HDD & Size of HDD	-	-	-	-
PC9. • Explain the physical and logical technology used to read and write the data in • HDD	-	-	-	-
PC10. Discuss about the types of CDD & the types of DVD	-	-	-	-
PC11. • Explain the physical and logical technology used to read and write the data in • Optical Drive	-	-	-	-
PC12. Demonstrate about the types Keyboard & types Of Mouse	-	-	-	-
PC13. Explain the Problems in Keyboard and mouse.	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. • Explain the proper use of Joy Stick, Light pen, Track Ball, Scanner, Graphic Tablet, • Microphone, Bar Code Reader	-	-	-	-
PC15. Explain about different types of Monitor like: - CRT, LCD, LED etc	-	-	-	-
PC16. Explain the common issues and troubleshooting method.	-	-	-	-
PC17. Explain about the Types of printer	-	-	-	-
PC18. Explain the Printing technology of printer	-	-	-	-
PC19. Demonstrate about Role and function of different printers	-	-	-	-
PC20. Explain common errors of printer and troubleshooting process	-	-	-	-
NOS Total	-	100	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2203
NOS Name	Assembly of PC Architecture & their Troubleshooting
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2206: Understand & Operate LINUX Operating System & its Management

Description

After completion of course Student should be able to Understand use of Linux Operating System and installation

Scope

The scope covers the following :

- After completion of course Student should be able to Understand use of Linux Operating System and installation

Elements and Performance Criteria

MSME/ADCHNM/05 Understand & Operate LINUX Operating System & its Management

To be competent, the user/individual on the job must be able to:

- | | |
|--------------|--|
| PC1. | Discuss about the Linux Operating System and installation |
| PC2. | Overview about Linux OSS and Linux file systems |
| PC3. | Use basic commands and limitations. |
| PC4. | Explain Concept of Linux file permission |
| PC5. | Understand Linux file permission & Disk Management |
| PC6. | Explain Mount drive & external Storage |
| PC7. | Able to Install Packages and software up- gradation |
| PC8. | Explain to Implement the Group Policy Management |
| PC9. | Understand DHCP Server Configuration. |
| PC10. | Identify different server configuration services / packages. |
| PC11. | Create and Configure Apache web server. |
| PC12. | Explain to Configure FTP and SAMBA server. |
| PC13. | Understand to Edit boot process of Linux OS |
| PC14. | Understand to Change password of root user in rescue mode. |
| PC15. | Install and upgrade packages as per service of server. |



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>MSME/ADCHNM/05 Understand & Operate LINUX Operating System & its Management</i>	-	100	-	-
PC1. Discuss about the Linux Operating System and installation	-	-	-	-
PC2. Overview about Linux OSS and Linux file systems	-	-	-	-
PC3. Use basic commands and limitations.	-	-	-	-
PC4. Explain Concept of Linux file permission	-	-	-	-
PC5. Understand Linux file permission & Disk Management	-	-	-	-
PC6. Explain Mount drive & external Storage	-	-	-	-
PC7. Able to Install Packages and software up-gradation	-	-	-	-
PC8. Explain to Implement the Group Policy Management	-	-	-	-
PC9. Understand DHCP Server Configuration.	-	-	-	-
PC10. Identify different server configuration services / packages.	-	-	-	-
PC11. Create and Configure Apache web server.	-	-	-	-
PC12. Explain to Configure FTP and SAMBA server.	-	-	-	-
PC13. Understand to Edit boot process of Linux OS	-	-	-	-
PC14. Understand to Change password of root user in rescue mode.	-	-	-	-
PC15. Install and upgrade packages as per service of server.	-	-	-	-
NOS Total	-	100	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2206
NOS Name	Understand & Operate LINUX Operating System & its Management
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2204: Installing System Software & their Maintenance

Description

After completion of course Student should be able to Understand about software and its uses

Scope

The scope covers the following :

- After completion of course Student should be able to Understand about software and its uses

Elements and Performance Criteria

MSME/ADCHNM/03 Installing System Software & their Maintenance

To be competent, the user/individual on the job must be able to:

- PC1.** Explain about the software and its type.
- PC2.** Explain Partition concept of hard disk and their limitation.
- PC3.** Demonstrate about various operating systems and their features
- PC4.** Understand to Setup the basic steps of installation process.
- PC5.** Explain the Support of hardware base application and their uses.
- PC6.**
 - Explain about disk management tools, driver software and manage antivirus
 - software
- PC7.** Explain about the Application Software
- PC8.** Explain and use of Installation process of Software.
- PC9.** Demonstrate Basic of word processing tools & various menu.
- PC10.** Explain about the Spreadsheet database.
- PC11.** Explain the Use of Program skill to manage the report
- PC12.** Explain Power Point program to setup the slide & design
- PC13.**
 - Demonstrate to Use Power Point program to setup the layout and themes on
 - organize way.
- PC14.** Understand OS Missing issue, Blue Screen errors and resolving the issue.



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>MSME/ADCHNM/03 Installing System Software & their Maintenance</i>	-	100	-	-
PC1. Explain about the software and its type.	-	-	-	-
PC2. Explain Partition concept of hard disk and their limitation.	-	-	-	-
PC3. Demonstrate about various operating systems and their features	-	-	-	-
PC4. Understand to Setup the basic steps of installation process.	-	-	-	-
PC5. Explain the Support of hardware base application and their uses.	-	-	-	-
PC6. • Explain about disk management tools, driver software and manage antivirus • software	-	-	-	-
PC7. Explain about the Application Software	-	-	-	-
PC8. Explain and use of Installation process of Software.	-	-	-	-
PC9. Demonstrate Basic of word processing tools & various menu.	-	-	-	-
PC10. Explain about the Spreadsheet database.	-	-	-	-
PC11. Explain the Use of Program skill to manage the report	-	-	-	-
PC12. Explain Power Point program to setup the slide & design	-	-	-	-
PC13. • Demonstrate to Use Power Point program to setup the layout and themes on • organize way.	-	-	-	-
PC14. Understand OS Missing issue, Blue Screen errors and resolving the issue.	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
NOS Total	-	100	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2204
NOS Name	Installing System Software & their Maintenance
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	3
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2205: Managing Network & Windows Server Configuration

Description

After completion of course Student should be able to Setup different network and share the resources.

Scope

The scope covers the following :

- After completion of course Student should be able to Setup different network and share the resources.

Elements and Performance Criteria

MSME/ADCHNM/04 Managing Network & Windows Server Configuration

To be competent, the user/individual on the job must be able to:

- PC1.** Explain about the Computer Network
- PC2.** Demonstrate Network topology and transmission media
- PC3.** Understand the OSI Model and it's functions
- PC4.** Demonstrate Protocol overview and uses.
- PC5.** Explain about Use of IP address and Ranges of IP address
- PC6.** Explain the Functions of end user devices (PC, MOBILE, etc.).
- PC7.**
 - Explain about the use of devices like: - (REPEATER, HUB, SWITCH, ROUTER, etc.).
- PC8.** Explain to Create Peer to Peer networking and demonstrate their uses.
- PC9.** Explain Concept of Client Server Architecture
- PC10.** Create Workgroup and Domain Module
- PC11.** Discuss Client Server security.
- PC12.** Understand to Apply Group Policy Management
- PC13.**
 - Understand to manage ADDS, FTP, DNS, DHCP, WDS and wireless device and their configuration process
- PC14.** Demonstrate various server configuration and their services.
- PC15.** Explain about N-Computing devices and limitations.
- PC16.** Demonstrate their functions and uses.



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>MSME/ADCHNM/04 Managing Network & Windows Server Configuration</i>	-	100	-	-
PC1. Explain about the Computer Network	-	-	-	-
PC2. Demonstrate Network topology and transmission media	-	-	-	-
PC3. Understand the OSI Model and it's functions	-	-	-	-
PC4. Demonstrate Protocol overview and uses.	-	-	-	-
PC5. Explain about Use of IP address and Ranges of IP address	-	-	-	-
PC6. Explain the Functions of end user devices (PC, MOBILE, etc.).	-	-	-	-
PC7. • Explain about the use of devices like: - (REPEATER, HUB, SWITCH, ROUTER, etc.).	-	-	-	-
PC8. Explain to Create Peer to Peer networking and demonstrate their uses.	-	-	-	-
PC9. Explain Concept of Client Server Architecture	-	-	-	-
PC10. Create Workgroup and Domain Module	-	-	-	-
PC11. Discuss Client Server security.	-	-	-	-
PC12. Understand to Apply Group Policy Management	-	-	-	-
PC13. • Understand to manage ADDS, FTP, DNS, DHCP, WDS and wireless device and their • configuration process	-	-	-	-
PC14. Demonstrate various server configuration and their services.	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. Explain about N-Computing devices and limitations.	-	-	-	-
PC16. Demonstrate their functions and uses.	-	-	-	-
NOS Total	-	100	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2205
NOS Name	Managing Network & Windows Server Configuration
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	6
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024



Qualification Pack

MSME/ELE/N2207: Employability Skill

Description

This NOS unit is about carrying out operations about learners applying basic and advanced Employability Skills concepts in real life situations to become a successful 21st century professional

Scope

The scope covers the following :

- The scope covers the following plan and prepare advance employability skills activities
- carry out the work to plan and prepare the learners to build key knowledge and skills for career development in the 21st century using advanced employability skills documenting the record

Elements and Performance Criteria

Employability Skill

To be competent, the user/individual on the job must be able to:

- PC1.** Explain the major applications of MS Office
- PC2.** Explain the different types of e-commerce
- PC3.** List the benefits of e-commerce for retailers and customers
- PC4.** Discuss how the Digital India campaign will help boost e-commerce in India
- PC5.** Write applications pertaining to various matters.
- PC6.** Explain power of positive attitude and Importance of commitment
- PC7.** Explain motivation and the Ways to motivate oneself and Personal goal setting
- PC8.** Explain the Effective & Level of Communication
- PC9.** Explain communication and Significance of technical communication?
- PC10.** Explain the methods of listening Skills.
- PC11.** Explain the differences between bio-data, CV and Resume.
- PC12.** Explain verbal and non-verbal Communication
- PC13.** Explain how to face an interview.
- PC14.** Explain team work, group work, team formation process
- PC15.** How to Minimize the team conflicts
- PC16.** Explain Ethics & values
- PC17.** Explain the concept of entrepreneurship, and entrepreneurship v/s Management
- PC18.** Explain the process of project report preparation for setting up a new business
- PC19.**
 - Explain the role of various schemes and institute for self- employment i.e. MSME,
 - DIC, NSIC, SIDBI etc.,
- PC20.** Role of financial institution to support startup
- PC21.** Discuss the importance of saving money
- PC22.** Discuss the main types of bank accounts
- PC23.** Differentiate between fixed and variable costs



Qualification Pack

- PC24.** Describe the different types of insurance products
- PC25.** Discuss the main types of electronic funds transfers



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Employability Skill</i>	100	-	-	-
PC1. Explain the major applications of MS Office	-	-	-	-
PC2. Explain the different types of e-commerce	-	-	-	-
PC3. List the benefits of e-commerce for retailers and customers	-	-	-	-
PC4. Discuss how the Digital India campaign will help boost e-commerce in India	-	-	-	-
PC5. Write applications pertaining to various matters.	-	-	-	-
PC6. Explain power of positive attitude and Importance of commitment	-	-	-	-
PC7. Explain motivation and the Ways to motivate oneself and Personal goal setting	-	-	-	-
PC8. Explain the Effective & Level of Communication	-	-	-	-
PC9. Explain communication and Significance of technical communication?	-	-	-	-
PC10. Explain the methods of listening Skills.	-	-	-	-
PC11. Explain the differences between bio-data, CV and Resume.	-	-	-	-
PC12. Explain verbal and non-verbal Communication	-	-	-	-
PC13. Explain how to face an interview.	-	-	-	-
PC14. Explain team work, group work, team formation process	-	-	-	-
PC15. How to Minimize the team conflicts	-	-	-	-
PC16. Explain Ethics & values	-	-	-	-
PC17. Explain the concept of entrepreneurship, and entrepreneurship v/s Management	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC18. Explain the process of project report preparation for setting up a new business	-	-	-	-
PC19. - Explain the role of various schemes and institute for self-employment i.e. MSME, - DIC, NSIC, SIDBI etc.,	-	-	-	-
PC20. Role of financial institution to support startup	-	-	-	-
PC21. Discuss the importance of saving money	-	-	-	-
PC22. Discuss the main types of bank accounts	-	-	-	-
PC23. Differentiate between fixed and variable costs	-	-	-	-
PC24. Describe the different types of insurance products	-	-	-	-
PC25. Discuss the main types of electronic funds transfers	-	-	-	-
NOS Total	100	-	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MSME/ELE/N2207
NOS Name	EmployabilitySkill
Sector	Electronics
Sub-Sector	
Occupation	Computer Networking 01
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	30/04/2024
Next Review Date	30/04/2027
NSQC Clearance Date	30/04/2024

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

AS PER QP

Minimum Aggregate Passing % at QP Level : 40

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Minimum Passing % at NOS Level: 40

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS



Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MSME/ELE/N2201.Prepare Testing & Maintenance of Power Supply-SMPS	100	-	-	-	100	20
MSME/ELE/N2202.Prepare Testing & Maintenance of Power Supply-SMPS	-	100	-	-	100	20
MSME/ELE/N2203.Assembly of PC Architecture & their Troubleshooting	-	100	-	-	100	10
MSME/ELE/N2206.Understand & Operate LINUX Operating System & its Management	-	100	-	-	100	20
MSME/ELE/N2204.Installing System Software & their Maintenance	-	100	-	-	100	10
MSME/ELE/N2205.Managing Network & Windows Server Configuration	-	100	-	-	100	10
MSME/ELE/N2207.EmployabilitySkill	100	-	-	-	100	10
Total	200	500	-	-	700	100



Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training



Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.



Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.