

INDUSTRIAL ELECTRICITY

Assessment Package

National Vocational
Certificate Level 1

Version 1 - December 2014

Published by

National Vocational and Technical Training Commission
Government of Pakistan

Headquarter

Plot 38, Kirthar Road, Sector H-9/4, Islamabad, Pakistan
www.navttc.org

Responsible

Director General Skills Standard and Curricula, National Vocational and Technical Training Commission
National Deputy Head, TVET Reform Support Programme, Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH

Layout & design

SAP Communications

Photo Credits

TVET Reform Support Programme

URL links

Responsibility for the content of external websites linked in this publication always lies with their respective publishers. TVET Reform Support Programme expressly dissociates itself from such content.

This document has been produced with the technical assistance of the TVET Reform Support Programme, which is funded by the European Union, the Embassy of the Kingdom of the Netherlands, the Federal Republic of Germany and the Royal Norwegian Embassy and has been commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ). The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in close collaboration with the National Vocational and Technical Training Commission (NAVTTTC) as well as provincial Technical Education and Vocational Training Authorities (TEVTAs), Punjab Vocational Training Council (PVTC), Qualification Awarding Bodies (QABs) and private sector organizations.

Document Version

December, 2014

Islamabad, Pakistan

INDUSTRIAL ELECTRICITY

Assessment Package

National Vocational
Certificate Level 1

Version 1 - December 2014

INDUSTRIAL ELECTRICIAN (LEVEL 1)
KNOWLEDGE ASSESSMENT TEST
(Maintain Safety, Health and Cleanliness)

Credit: 06 Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 30 minutes
Training Institution:

Instructions to Candidates:

Answer all questions.

1) What is the purpose of safety in electricity?

- A) Save life
- B) Save machine
- C) Save Tools
- D) All**

2) What is meant by ABC Rule in electricity?

- A) Always be clever
- B) Always be clear
- C) Always be careful**
- D) Both A and B

3) During practical in Electrical Lab/Workshop always wear

- A) Loose Dress
- B) Causal Dress
- C) Tight Dress**
- D) Sleeping Dress

4) What is meant by?



- A) short circuit
- B) Fire
- C) Emergency
- D) Danger**

5) During working in electrical workshop always

- A. Run around the room
- B. Sing
- C. Check your Facebook
- D. Follow all written procedures**

Short Questions & Answers

Q1. What are the electricity hazards?

Ans: The main electricity hazards are following

- electric shock and burns from contact with live parts
- injury from exposure to arcing, fire from faulty electrical equipment or installations
- explosion caused by unsuitable electrical apparatus or static electricity igniting flammable vapors or dusts, for example in a spray paint booth

Q2. When do electricians require eye protection?

Ans: Eye protection is required during any electronic or electrical hardware repair, installation and /or open front operation and welding.

Q3. Define safety?

Ans: Safety is defined as to adopt risk free method from danger harm, injury or loss to personal and /or machines and equipment.

Q4. What is meant by ABC rules in Electricity?

Ans: ABC means always be careful.

Q5. What are the safety sign give the names?

Ans:



INDUSTRIAL ELECTRICIAN (LEVEL 1)
KNOWLEDGE ASSESSMENT TEST
(Communicate in Different Work Contexts)
Credit: 03 Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 30 minutes
Training Institution:

Instructions to Candidates:

Answer all questions.

1) Communication means

- A) To follow rules
- B) To convey message**
- C) To be careful
- D) All

2) Reporting is a type of.....

- A) Verbal communication
- B) Non-verbal communication**
- C) Both
- D) None

3) The following is/are the most effective way of communication

- A) verbal
- B) Non-verbal
- C) Written**
- D) All

4) Communication is the task of imparting.....

- A) Training
- B) Information
- C) Knowledge
- D) Message**

5) The following is/are non-verbal communication

- A. Facial expression
- B. appearance
- C. posture

D. All

Short Questions & Answers

Q1. What do you mean by written communication?

Ans: Written communication means the process of communication in which messages or information is exchanged within sender and receiver through written form

Q2. State some expressions of non-verbal communication

Ans:

- I. Facial expression
- II. Gestures
- III. Body language
- IV. Touch
- V. Silence

Q3. State the media of oral communication

Ans:

- I. Speaking
- II. Listening
- III. Reading

Q4. What are the causes for liking written communication?

Ans:

- I. Covering complex information
- II. Permanent record
- III. Longevity
- IV. Easy verification

Q5. Write different sources of communication

Ans:

- I. Call
- II. Message
- III. Letter
- IV. picture

INDUSTRIAL ELECTRICIAN (LEVEL 1)

KNOWLEDGE ASSESSMENT TEST

(Apply a Problem Solving Method)

Credit: 06

Version: 1

Candidate Name: Father's Name:

Registration No: Date: Time Allowed: 30 minutes

Training Institution:

Instructions to Candidates:

Answer all questions.

1) What is the purpose of safety in electricity?

- A) Save life
- B) Save machine
- C) Save Tools
- ☒ D) All

2) What is meant by A, B, C Rule in electricity?

- A) Always be clever
- B) Always be clear
- ☒ C) Always be careful
- D) Both A and B

3) During practical in Electrical Lab/Workshop always wear

- A) Loose Dress
- B) Casual Dress
- ☒ C) Tight Dress
- D) Sleeping Dress

4) What is meant by?

- A) short circuit
- B) Fire
- C) Emergency
- ☒ D) Danger



5) During working with electrical components we should

- A. Run around the room
- B. Sing
- C. Check your Facebook
- D. Follow all written procedures**

Short Questions & Answers

Q1. Define problem solving method?

Ans: The process of working through details of a problem to reach a solution. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

Q2. Write different problem solving methods?

Ans: 1) Brainstorming 2) Pros and cons 3) Ideal

Q3. Define Brainstorming?

Ans: The brainstorming engaged in by our intelligent and creative team resulted in many great ideas for the future of our firm.

Q4. Define ideal situation

Ans: The lossless and best situation that can be adopted to perform a problem solving method

Q5. Define problem?

Ans: A problem is a matter or situation regarded as unwelcome or harmful and needing to be dealt with and overcome.

INDUSTRIAL ELECTRICIAN (LEVEL 1)

KNOWLEDGE ASSESSMENT TEST

(Produce a Plan for Career Options Related To an Industrial Electrician)

Credit: 03

Version: 1

Candidate Name: Father's Name:

Registration No: Date: Time Allowed: 30 minutes

Training Institution:

Instructions to Candidates:

Answer all questions.

1) Career means?

- A) Relevant to future
- B) Relevant to health
- C) Relevant to business
- D) All

2) Personal profile is.....?

- A) Manager data
- B) workers data
- C) company data
- D) personal data

3) Plan means

- A) Perform actions
- B) Roadmap to achieve a task/target
- C) Working attitude
- D) Last stage of a project

4) Performance development plan is set for the employee by his immediate boss

- A) employer
- B) Department head
- C) Immediate boss
- E) Anyone of the above

- 5) The basic managerial skill(s) is/are
- A) To supervise
 - B) To stimulate
 - C) To motivate
 - D) All

Short Questions & Answers

Q1. Define information?

Ans: Information means facts provided or learned about something or someone

Q2. What is personal profile?

Ans: Personal profile is an introductory paragraph at the beginning of CV.

Q3. Define plan?

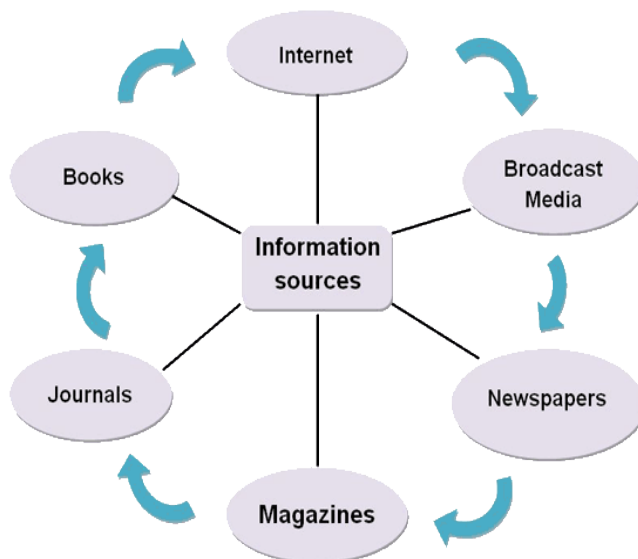
Ans: Plan is a roadmap to achieve a target/task

Q4. Write different information sources?

Ans: Information sources may be observations, speeches, people, documents, pictures, websites etc.

Q5. Draw sketch diagram of information sources?

Ans:



INDUSTRIAL ELECTRICIAN (LEVEL 1)

KNOWLEDGE ASSESSMENT TEST

**(Apply Basic Reading, Writing and Speaking Skills in English in
Different Life Contexts)**

Credit: 06

Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 30 minutes
Training Institution:

Instructions to Candidates:

Answer all questions.

1) Writing means?

- A) Oral
- B) Save machine
- C) Save Tools
- D) All**

2) What is meant by A, B, C Rule in electricity?

- A) Always be clever
- B) Always be clear
- C) Always be careful**
- D) Both A and B

3) During practical in Electrical Lab/Workshop always wear

- A) Loose Dress
- B) Casual Dress
- C) Tight Dress**
- D) Sleeping Dress

4) What is meant by?

- A) short circuit
- B) Fire
- C) Emergency
- D) Danger**



5) During working with electrical components we should

- A. Run around the room
- B. Sing
- C. Check your Facebook
- D. Follow all written procedures**

Short Questions & Answers

Q1. What is reading?

Ans: Reading" is the process of looking at a series of written symbols and getting meaning from them. When we read, we use our eyes to receive written symbols

Q2. What is writing?

Ans: Writing is a method of representing language in visual or tactile form. Writing systems use sets of symbols to represent the sounds of speech,

Q3. What is meaning of key words?

Ans: A word or concept of great significance.

Q4. What is meaning of phrase?

Ans: a small group of words standing together as a conceptual unit, typically forming a component of a clause.

Q5. What is listening?

Ans: Listening is receiving language through the ears. Listening involves identifying the sounds of speech and processing them into words and sentences.

INDUSTRIAL ELECTRICIAN (LEVEL 1)
KNOWLEDGE ASSESSMENT TEST
(Apply Basic Numeracy Skills in Different Life Contexts)

Credit: 05 Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 30 minutes
Training Institution:

Instructions to Candidates:

Answer all questions.

1) Two dimensional shape represents.....

- A) Length only
- B) Length and width only
- C) Length, width and height only
- D) All

2) Three dimensional shapes have

- A) Length only
- B) Length and width only
- C) Length, width and height only
- D) All

3) Which is/are two dimensional figures?

- A) Square
- B) Circle
- C) Cube
- D) Cuboid

4) Formula of area is.....

- A) $L \times A$
- B) $L \times W$
- C) $A \times V$
- D) $W \times V$

5) Unit of volume is....

- A. Meter
- B. Meter square
- C. Meter cube
- D. All

Short Questions & Answers

Q1. Define length and write its unit?

Ans: Distance between two points is called length and its unit is meter

Q2. Define kilogram and convert one kilogram in grams?

Ans: kilogram is the unit of mass.

1 Kilogram=1000 grams

Q3. Define shape?

Ans: shape is defined as “a geometric figure such as a square, triangle, circle etc.”

Q4. Define decimal number system?

Ans: A number system whose base is “10” is called decimal number system. There are 10 digits in this system. Its first digit is 0 and last digit is 9.

Q5. Define thermometer and write its types?

Ans: A device which is used to measure and indicate temperature of a thing is called thermometer

Types

- A. Mercury thermometer
- B. Strip thermometer
- C. Gas thermometer

INDUSTRIAL ELECTRICIAN (LEVEL 1)
KNOWLEDGE ASSESSMENT TEST
(Demonstrate Positive Workplace Attitude and Behaviors)

Credit: 04 Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 30 minutes
Training Institution:

Instructions to Candidates:

Answer all questions.

- 1) Attitude means
 - A) Result
 - B) way of work
 - C) Handling different situations with well manners**
 - D) All

- 2) We should bein workplace?
 - A) professional**
 - B) Anger
 - C) Careless
 - D) Kind

- 3) Performing practical in Electrical Lab/Workshop always wear
 - A) Loose Dress
 - B) Causal Dress
 - C) Tight Dress**
 - D) Sleeping Dress

- 4) Always listen to your trainer.....
 - A) Carelessly
 - B) Carefully**
 - C) In hurry
 - D) None

- 5) During work with electrical components we should
 - A. Run around the room
 - B. Sing
 - C. Check your Facebook
 - D. Follow all written procedures**

Short Questions & Answers

Q1. Define attitude in workplace?

Ans: A tendency to respond positively or negatively towards a certain idea, object, person or situation.

Q2. What is behavior?

Ans: Response of an individual or group to an action, environment or person etc. is called behavior.

Q3. Define safety?

Ans: Safety is defined as to adopt risk free method from danger harm, injury or loss to personal and /or machines and equipment.

Q4. Explain the importance of confidentiality?

Ans: without confidentiality we cannot get good results and acquire targets within time limits.

Q5. What is active listening?

Ans: Active listening means to listen carefully. It is a skill that can be acquired and developed with practice.

INDUSTRIAL ELECTRICIAN (LEVEL 1)

KNOWLEDGE ASSESSMENT TEST

(Carry Out Maintenance Procedures as Industrial Electrician-Helper)

Credit: 06

Version: 1

Candidate Name: Father's Name:

Registration No: Date: Time Allowed: 30 minutes

Training Institution:

Instructions to Candidates:

Answer all questions.

1) Preventive maintenance is.....?

- A) Life saving
- B) Time saving
- C) Money saving
- D) All**

2) Sorting out problems in faulty machinery is called.....?

- A) Preventive maintenance
- B) Corrective maintenance**
- C) Both
- D) None

3) Preventive maintenanceequipment breakdown

- A) Increases
- B) Avoid**
- C) Decreases
- D) All

4) Regular servicing at pre-planned intervals is known as.....

- A) Run to breakdown
- B) Condition based maintenance
- C) Preventive maintenance**
- D) Corrective maintenance

5) During maintenance we should use.....

- A. Tools
- B. Equipment
- C. Machinery
- D. **All**

Short Questions & Answers

Q1. Define maintenance and write its types?

Ans: The process of preserving tools, equipment and machines

- I. preventive maintenance
- II. corrective maintenance

Q2. What is breakdown maintenance?

Ans: It means that people wait until equipment fails and repair it

Q3. Define preventive maintenance?

Ans: It is a daily maintenance (cleaning, inspection, oiling and re-tightening) design to retain the healthy condition of equipment and prevent failure

Q4. What is meant by corrective maintenance?

Ans: It improves equipment and its components so that the preventive maintenance can be carried out reliably

Q5. Write some protective equipment name?

Ans:

- A. Hand gloves
- B. Goggles
- C. Safety shoes
- D. Safety belt

INDUSTRIAL ELECTRICIAN (LEVEL 1)
KNOWLEDGE ASSESSMENT TEST
(INDUSTRIAL ELECTRICIAN-Integrated)

Credit: 33 Version: 1

Candidate Name: Father's Name:
Registration No: Date: Time Allowed: 2 hours
Training Institution:

Instructions to Candidates:

Answer all questions.

1) What is the purpose of safety in electricity?

- A) Save life
- B) Save machine
- C) Save Tools
- ☒ D) All

2) What is meant by A, B, C Rule in electricity?

- A) Always be clever
- B) Always be clear
- ☒ C) Always be careful
- D) Both A and B

3) During practical in Electrical Lab/Workshop always wear

- A) Loose Dress
- B) Casual Dress
- ☒ C) Tight Dress
- D) Sleeping Dress

4) What is meant by?



- A) short circuit
- B) Fire
- C) Emergency
- ☒ D) Danger

- 5) During working in electrical workshop always
- A. Run around the room
 - B. Sing
 - C. Check your Facebook
 - D. Follow all written procedures**
- 6) Communication means
- A) To follow rules
 - B) To convey message**
 - C) To be careful
 - D) All
- 7) Reporting is a type of.....
- A) Verbal communication
 - B) Non-verbal communication**
 - C) Both
 - D) None
- 8) The following is/are the most effective way of communication
- A) verbal
 - B) Non-verbal
 - C) Written**
 - D) All
- 9) Communication is the task of imparting.....
- A) Training
 - B) Information
 - C) Knowledge
 - D) Message**
- 10) The following is/are non-verbal communication
- A. Facial expression
 - B. appearance
 - C. posture
 - D. All**
- 11) What is the purpose of safety in electricity?
- A) Save life
 - B) Save machine
 - C) Save Tools
 - D) All**

12) What is meant by A, B, C Rule in electricity?

- A) Always be clever
- B) Always be clear
- C) Always be careful**
- D) Both A and B

13) During practical in Electrical Lab/Workshop always wear

- A) Loose Dress
- B) Casual Dress
- C) Tight Dress**
- D) Sleeping Dress

14) What is meant by?



- A) short circuit
- B) Fire
- C) Emergency
- D) Danger**

15) During working with electrical components we should

- A. Run around the room
- B. Sing
- C. Check your Facebook
- D. Follow all written procedures**

16) Career means?

- A) Relevant to future**
- B) Relevant to health
- C) Relevant to business
- D) All

17) Personal profile is.....?

- A. Manager data
- B. workers data
- C. company data
- D. personal data**

18) Plan means

- A) Perform actions
- B) Roadmap to achieve a task/target**
- C) Working attitude
- D) Last stage of a project

19) Performance development plan is set for the employee by his immediate boss

- A) employer
- B) department head
- C) immediate boss
- D) Anyone of the above

20) The basic managerial skill(s) is/are

A) To supervise

B) To stimulate

C) To motivate

D) All

21) Writing means?

A) Oral

B) Save machine

C) Save Tools

D) All

22) What is meant by A, B, C Rule in electricity?

A) Always be clever

B) Always be clear

C) Always be careful

D) Both A and B

23) During practical in Electrical Lab/Workshop always wear

A) Loose Dress

B) Casual Dress

C) Tight Dress

D) Sleeping Dress

24) What is meant by?

A) short circuit

B) Fire

C) Emergency

D) Danger



25) During working with electrical components we should

- A. Run around the room
- B. Sing
- C. Check your Facebook
- D. Follow all written procedures**

Short Questions & Answers

Q1. What are the electricity hazards?

Ans: The main electricity hazards are following

- electric shock and burns from contact with live parts
- injury from exposure to arcing, fire from faulty electrical equipment or installations
- explosion caused by unsuitable electrical apparatus or static electricity igniting flammable vapors or dusts, for example in a spray paint booth

Q2. When do electricians require eye protection?

Ans: Eye protection is required during any electronic or electrical hardware repair, installation and /or open front operation and welding.

Q3. Define safety?

Ans: Safety is defined as to adopt risk free method from danger harm, injury or loss to personal and /or machines and equipment.

Q4. What is meant by ABC rules in Electricity?

Ans: ABC means always be careful

Q5. What are the safety sign give the names?

Ans:



Q6. What do you mean by written communication?

Ans: Written communication means the process of communication in which messages or information is exchanged within sender and receiver through written form

Q7. State some expressions of non-verbal communication

Ans:

- I. Facial expression
- II. Gestures
- III. Body language
- IV. Touch
- V. Silence

Q8. State the media of oral communication

Ans:

- I. Speaking
- II. Listening
- III. Reading

Q9. What are the causes for liking written communication?

Ans:

- I. Covering complex information
- II. Permanent record
- III. Longevity
- IV. Easy verification

Q10. Write different sources of communication

Ans:

- I. Call
- II. Message
- III. Letter
- IV. picture

Q11. Define problem solving method?

Ans: The process of working through details of a problem to reach a solution. Problem solving may include mathematical or systematic operations and can be a gauge of an individual's critical thinking skills.

Q12. Write different problem solving methods?

Ans: 1) Brainstorming 2) Pros and cons 3) Ideal

Q13. Define Brainstorming?

Ans: The brainstorming engaged in by our intelligent and creative team resulted in many great ideas for the future of our firm.

Q14. Define ideal situation

Ans: The lossless and best situation that can be adopted to perform a problem solving method

Q15. Define problem?

Ans: A problem is a matter or situation regarded as unwelcome or harmful and needing to be dealt with and overcome.

Q16. Define information?

Ans: Information means facts provided or learned about something or someone

Q17. What is personal profile?

Ans: Personal profile is an introductory paragraph at the beginning of CV.

Q18. Define plan?

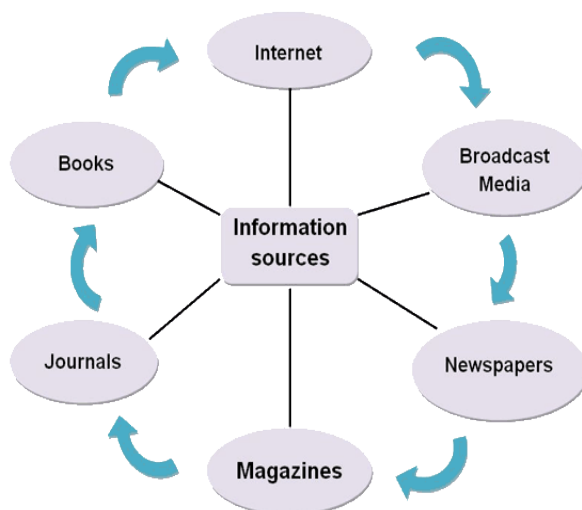
Ans: Plan is a roadmap to achieve a target/task

Q19. Write different information sources?

Ans: Information sources may be observations, speeches, people, documents, pictures, websites etc.

Q20. Draw sketch diagram of information sources?

Ans:



Q21. What is reading?

Ans: *Reading* is the process of looking at a series of written symbols and getting meaning from them. When we *read*, we use our eyes to receive written symbols

Q22. What is writing?

Ans: Writing is a method of representing language in visual or tactile form. *Writing* systems use sets of symbols to represent the sounds of speech,

Q23. What is meaning of key words?

Ans: A word or concept of great significance.

Q24. What is meaning of phrase?

Ans: a small group of words standing together as a conceptual unit, typically forming a component of a clause.


Q25. What is listening?

Ans: *Listening* is receiving language through the ears. *Listening* involves identifying the sounds of speech and processing them into words and sentences.

National Vocational and Technical Training Commission (NAV TTC)

 5th Floor Evacuee Trust Complex Sector F-5/1, Islamabad.

 +92 51 9044 04

 +92 51 9044 04

 info@navttc.org

 www.navttc.org