



Republic of the Philippines  
**Department of Education**  
REGION X – NORTHERN MINDANAO

**TECHNOLOGY AND LIVELIHOOD EDUCATION (T.L.E.)**  
**Grade 10 – Electrical Installation and Maintenance (EIM)**  
**TEST QUESTIONS FOR VALIDATION**

*Directions: Read and understand the questions. Tick the letter of the correct answer on the screen.*

1. Which of the following is NOT considered as a characteristic of an entrepreneur?
  - A. Copes with failure
  - B. Dependent
  - C. Persistent
  - D. Opportunity-seeker
2. It refers to the behaviors, behavioral orientations, interests, and opinions of a culture, group, or individual.
  - a. Traits
  - b. Skills
  - c. Lifestyles
  - d. Characteristics
3. Is the ability of encouraging a group of people to perform to achieve a common goal.
  - A. Leadership
  - B. Marketing
  - C. Focus
  - D. Customer service
4. What are the things to do to align with PECs of a successful entrepreneur?
  - A. React positively to criticisms and open to feedback.
  - B. Always demonstrate positive attitude to achieve a desired goal.
  - C. Always project a strong and well-balanced behavior
  - D. All of these
5. A place where buyers and sellers come together
  - A. Groceries
  - B. Malls
  - C. Markets
  - D. Convenient store
6. What are products and services in the market?
  - A. Products are generally tangible items — something that your customers can physically hold in their hands
  - B. Industrial Equipment, Luxury Handbags, Maintenance Services, Mobile Phone Services
  - C. Services are typically intangible — something that you provide or perform for another person.
  - D. A and C

7. A consumer segment, region, or demographic that would likely be interested in buying a product from a particular brand but hasn't yet
  - A. A potential market
  - B. Large size of market
  - C. Market potential
  - D. None of these
8. The following are the needs of consumers.
  - A. Car, mobile phone, watch
  - B. Food, water, air, security, shelter
  - C. Smart TV, Audio, Appliances, Travel, air, security, shelter
  - D. A and C
9. Provides personalized insights into your audience.
  - A. Customer analysis
  - B. Market analysis
  - C. Competitive analysis
  - D. Research analysis
10. An organization or enterprising entity engaged in commercial, industrial, or professional activities.
  - A. Entrepreneurship
  - B. Business
  - C. Trading
  - D. Work
11. Successfully implementing a new idea and creating value for your customers and stakeholders.
  - A. Invention
  - B. Fabrication
  - C. Innovation
  - D. Creation
12. Is a process that we have to try on in order to create or discover a good techno idea. Walking around somewhere with an unintended discovery of something good.
  - A. Serendipity
  - B. Serendipity walk
  - C. Seeking opportunities
  - D. Generate business
13. Is a document generated by a user department or storeroom personnel to notify the purchasing department about items it needs to order and their quantity.
  - A. Work Order Form
  - B. Borrower's Form
  - C. Purchase Requisition
  - D. Inventory Form
14. Is a list of tools, materials, property and other resources.
  - A. Bill of Materials
  - B. Requisition Slip Form
  - C. Inventory Form
  - D. Borrower Slip Form

15. What electrical tools are needed to make holes in building structure for passage of wires and conduit in both new and old installation, indoor or outdoor wiring?
- A. Electric Drill
  - B. Screwdrivers
  - C. Pliers
  - D. Angle grinder
16. What is the function of hydraulic pipe bender?
- A. Used to break-up rocks, pavements, and concrete.
  - B. Used to bend piping of different materials like copper and stainless steel to form variety of angles and curves.
  - C. Drive machinery or move mechanical components.
  - D. Bending the conduits without spoiling the true round shape of the conduit
17. What we looked if the product had passed the quality standards?
- A. Regulatory Code
  - B. Bar Code
  - C. Quality Control
  - D. A and B
18. Loss or harm resulting from injury to person, property, or reputation.
- A. Destroy
  - B. Damage
  - C. Break
  - D. Disfigurement
19. It is the surest ways to identify a safe workplace
- A. Good house keeping
  - B. Safety first
  - C. Maintenance
  - D. CANDO
20. In order to ensure that tools are operating properly and efficiently.
- A. Preventive maintenance
  - B. Corrective maintenance
  - C. Emergency maintenance
  - D. Maintenance
21. It reduces friction between moving metal surfaces.
- A. Lubrication
  - B. Synthetic lubricants
  - C. Penetrating lubricant
  - D. Rust remover
22. What should be used to lubricate electric tools?
- A. Water
  - B. WD-40
  - C. Oil specified by the manufacturer
  - D. Cleaning solution

23. A tool used to remove gears and hubs from shafts, bushings from blind.
- A. Wrenches
  - B. Pullers
  - C. Screwdrivers
  - D. Pliers
24. In storing electric and hydraulic tools you need to read, understand, follow the instruction of manual before using any power tool
- A. Never
  - B. Sometimes
  - C. Always
  - D. Depend
25. Which statement about hydraulic tools is true?
- A. They are always powered by electricity
  - B. They are only used in construction sites
  - C. They use fluid pressure to generate force
  - D. They are not as powerful as electric tools
26. What is the tool used to bend in 90 degrees of metallic tubing?
- A. Bench vise
  - B. Pipe cutter
  - C. Pipe bender
  - D. Hydraulic tool
27. It is the allowable number of quarter bends which can be done in a one run of electrical metallic conduit.
- A. 2
  - B. 3
  - C. 4
  - D. 6
28. What is the last procedure in installing electrical metallic tubing?
- A. Wear appropriate PPE
  - B. Read/interpret working drawing
  - C. Layout and measure
  - D. Observe good housekeeping
29. Is something that can cause harm, e.g., electricity, chemicals, working on a ladder, noise, a keyboard, a bully at work, or stress.
- A. Risk
  - B. Hazard
  - C. Health safety
  - D. Danger
30. It is a type of fitting which is used to adopt cable tray when it changes in size.
- A. T-junction
  - B. L-junction
  - C. Reducer
  - D. Straight

31. Features a one piece ventilated or solid bottom. Used for installations featuring small amounts of cable supported on short to medium spans.
- A. Solid bottom
  - B. Channel
  - C. Ladder
  - D. Wire mesh
32. "Poor lighting, chairs lifting, repeated movements, computer screens are problems of what workplace hazards? "
- A. Biological hazards
  - B. Ergonomic hazards
  - C. Psychological hazards
  - D. Physical hazards
33. Used to hold telephone system and terminals in place inside the cabinet.
- A. Telephone Terminal Cabinet
  - B. Frames
  - C. Fitting
  - D. Fastening devices
34. What is the size area in front of the cabinet which must be kept clear for technician access?
- A. 8'
  - B. 8"
  - C. 8°
  - D. .8'
35. It is the chance or probability that a person will be harmed or experience an adverse.
- A. Risk
  - B. Hazard
  - C. Danger
  - D. Accident
36. It is a structure that provides safe passage for traffic across open spans.
- A. Cable tray
  - B. Bridge
  - C. Flexible hose
  - D. Metallic tube
37. Used to cut metal & concrete
- A. Hacksaw
  - B. Metal cutter
  - C. Cold chisel
  - D. Electrician knife
38. It includes ear and eye protection, respirators, and protective clothing
- A. Assess the risk
  - B. Personal Protective Equipment
  - C. Administrative control
  - D. Engineering control

39. Which of the following is NOT a characteristic of a ground fault circuit interrupter (GFCI) outlet?
- A. Protects against electrical shock
  - B. Monitors the flow of current
  - C. Automatically detects ground faults
  - D. Provides surge protection
40. Mrs. Gina Magno opens up her own electrical hardware business. She knows that her personal entrepreneurial characteristics are insufficient to ensure a successful operationalization of a business she has in mind. Your answers to the questions below will help in developing her PECs. What PECs must she possess if there are customers who complain about the quality of her product?
- A. Patience
  - B. Hard work
  - C. Versatility
  - D. All of these
41. How to assess the characteristics, attributes, lifestyle skills and traits?
- A. Physical strength and stamina
  - B. Pleasing personality
  - C. Experience and training
  - D. A and C
42. How do you relate your PECs to the PECs of a successful entrepreneurs?
- A. React positively to criticisms and open to feedback.
  - B. Always demonstrate positive attitude to achieve a desired goal.
  - C. Always project a strong and well-balanced behavior.
  - D. All of these
43. How would you align your PECs to the PECs of a successful entrepreneur?
- A. The aspirant entrepreneur should benchmark the personal entrepreneurial competencies that could be learn.
  - B. He can determine whether he can perform entrepreneurial functions effectively
  - C. Can do an inspiration to the people who wants to become successful too.
  - D. Must good and effective communication;
44. Mr. D. has a good business in electrical products, it happened that there is other entrepreneur who compete to his business in his territory. Mr. D.'s problem is how he continue his business that can't affect to the other business. If you are Mr. D.'s friend, what will you advice?
- A. Understand the Competition and Highlight Your Difference.
  - B. Clarify Your Message and Explore Strategic Partnership Opportunities.
  - C. Keep Innovating and Look After Your Team
  - D. All of these

45. A small business owner is experiencing a decline in sales and profitability. He observed that most of his products in electrical had no sales. What will the owners do to cope up his sales?
- A. The owner needs to identify the reasons for the decline and develop a plan to turn the business around.
  - B. The owner could analyze sales data, conduct market research, identify the demand products and areas of inefficiency in the business, and develop a plan to improve marketing and operations
  - C. The owners should identify either the products or services are demand.
  - D. The owner should stop the business and find a stable job.
46. Sometimes the problem of market for not being potential because of no alignment with buyer persona. If you are given a chance to fix it, which of the following is better solutions?
- A. Develop Buyer Personas Based on Data and Research
  - B. Choose The Right Channels
  - C. Use The Right Language and Messaging
  - D. All of these
47. How do you solve if there are needs and wants product price competition?
- A. Keep abreast of your costs, know your customers, Be unique
  - B. Don't consider a "loss leader"
  - C. Ignore the competition
  - D. Avoid less-discounting
48. Unavailable products are one of the issues/problems of the customers. If you're an entrepreneur, how would you overcome them?
- A. Customer service representative to provide them with helpful information to ensure their satisfaction.
  - B. Thank the customer for bringing the matter to your attention. Apologize and accept ownership, don't blame others and remain courteous.
  - C. Ask the customer what response they are seeking; Decide if the request is reasonable.
  - D. Keep the customer informed if there are any delays in resolving their request. Don't promise things that you can't deliver.
49. With the excitement of a new business idea, it can be tempting to launch without much forward-thinking. Yet a lack of planning can mean your business runs out of cash or isn't prepared for vital activities such as marketing or dealing with suppliers. This is one of the common challenges in new business, Failure to plan. What possible action to make the business into a succeed one?
- A. Spend time conducting market research to collect information about potential customers. This will reveal your target market's size and help you decide if there is enough demand for your business idea.
  - B. "Create a marketing plan for how you intend to reach your customers. Most start-ups operate on small budgets, so investigate different marketing methods. Are there low cost or even free ways you can reach your target audience? If you have funds for marketing, invest wisely in the most appropriate tactics."
  - C. Create a detailed business plan that covers areas such as marketing, staffing, finance and sales. Regularly review and update your plan as the business develops.
  - D. "You need to understand all the costs your start-up will incur and make sure that your products or services are priced appropriately to make a profit. Create a cash flow forecast that predicts your sales as well as your profit and loss. You can then forecast money coming in and going out of your business."

50. A lack of innovation can damage in business- means a loss of productivity, reduced customer engagement and an inevitable decline in profits. What possible solutions that you can give?
- A. Offering thorough backing for innovation initiatives, conducting innovation training and Promoting accountability for innovation performance outcomes.
  - B. Give people guidance and ensure you reach the right people using open innovation tools.
  - C. Create order to highlight the best idea and Encourage collaboration.
  - D. Creating accessibility supports contributor motivation.
51. If Serendipity Isn't Enough: How Frustration and Knowledge Lead to Market Success?
- A. Challenge yourself to learn. It's like you're trying to run faster than usual, and the muscles of your brain are working extra hard.
  - B. Remember the source of your frustration, and once you're not mad anymore, find the opportunity hidden within.
  - C. Take action: Sometimes, the best way to overcome frustration is to take action. Identify one small step you can take to move forward and take it. This can help you regain a sense of control and momentum.
  - D. You need to actively seek out negative feedback and complaints to get a better understanding of your customers' frustrations.
52. How do you make a request of tools, equipment and materials?
- A. Provide details about the necessary tools, equipment and materials
  - B. Make model/layout
  - C. Printer paper, ink cartridges, etc.
  - D. A and B
53. If you are assigned as a tool keeper in your shop and it happened that some of the tools are missing, what will you do?
- A. Checked the inventory form
  - B. Checked the Purchase Requisition
  - C. Checked the work Order form
  - D. Checked the borrower's form
54. It has the ability to interrupt the flow of current when short circuit or over current occurs.
- A. Fuses and breakers
  - B. Electrical boxes
  - C. Measuring tools
  - D. Measuring and testing tools
55. In preparing the electric and hydraulic tools for the specific job requirements, you identified that one of the electric tools is not working properly. As an electrician what you should do?
- A. Always do a visual check of the equipment to make sure it's in good working order.
  - B. Turn it off immediately. You should never continue using power tools that are smoking or sparking. Unplug the tool, set it aside, and allow it to cool down before attempting to diagnose or fix an issue.
  - C. Keep all tools in good condition with regular maintenance.
  - D. Wear the proper personal protective equipment (PPE).



56. Why is it necessary to tighten the disk lock nut snugly only when the disc is replaced on the portable disc grinder?
- A. The threads will be stripped on the spindle.
  - B. The disc may be too difficult to remove next time
  - C. The natural rotation of the disc and spindle will cause the threads to tighten.
  - D. "The loose threads are allowed to hold some of the vibration created by the portable disc grinder"
57. What should be the possible effects when unreliable equipment is used?
- A. It will eventually break down and incur issues, causing ineffectiveness.
  - B. It can disrupt operations, lead to costly downtime, increase maintenance expenses, and, in some cases, pose safety risks to personnel.
  - C. It can likely put a halt to production, ultimately leading to loss of time, money, and resources
  - D. Higher repair costs, production downtime, health and safety implications for workers, and affect production and delivery of services.
58. How to retain electrical power and hydraulic tools in an acceptable condition?
- A. Using 5's
  - B. Inspection
  - C. Lubrication
  - D. Maintenance
59. How do you safely respond to equipment and tool malfunctions during checking its condition?
- A. ">Verify a Problem Actually Exists. The troubleshooting process begins with symptom recognition.  
>Narrow Down the Problem's Root Cause"
  - B. ">Correcting the Cause of the Problem.  
>Verify the Problem Is Corrected."
  - C. ">Identify the problem  
>Isolate the hazard  
>Report the incident  
>Repair or replace  
>Test and verify  
>Learn and improve  
>what else to consider"
  - D. Prevent Future Issues by Following Up
60. How lubrication contribute to safety and economic lubricating machine tools?
- A. Maintain the proper level of lubrication reservoirs
  - B. Suitable method of lubrication should be followed
  - C. Transmits power
  - D. A and B
61. How would you cope up with a situation in which you realize you made a serious error in lubricating tools?
- A. Adopt a meticulous cataloguing approach. Keep an organized chart that shows which oils and greases play well together. Store them in clearly marked containers, separated to avoid accidental mixing. Flush the old one thoroughly; no residue should stay behind
  - B. Getting rid of the problem starts with choosing the right lubricant for your industrial application.

- C. The first step to correct application is to know how to lubricate, which is generally explained in the manual. The instructions often suggest specific ways to use industrial lubrication,
  - D. As a first line of defense, seals and joints where the lubricant is used should be cleaned and checked regularly. use a filtration device that removes foreign particles from the lubricants as they move around.
62. How do we replace auxiliary parts of electric power tools?
- A. Follow preventive maintenance
  - B. Brush and wipe clean all hydraulic connections
  - C. Always use fiber brushes
  - D. all of these
63. How should you store electric and hydraulic tools safely?
- A. Classify first what are electric and hydraulic tools
  - B. Read manuals
  - C. Used original cases/cabinet and PPE
  - D. A and C
64. A student was given a task to have an inventory of tools. He observed that cables and hoses of some electric tools were damaged. If you ask to keep the tools next time, what will you do to prevent the problem when storing electric and hydraulic tools?
- A. Keeping the tools in a dry environment
  - B. Wrapping the cables and hoses tightly
  - C. Exposing the tools to direct sunlight
  - D. Disassembling the cables and hoses
65. What is likely to happen if the tools and equipment are not used according to its function?
- A. Failure to the project you are doing and can also lead to broken materials
  - B. Accident
  - C. Engineers' disapproval
  - D. Nothing happened
66. Which conditions should EMT protected with enamel not be used?
- A. Cinder fill
  - B. Hazardous location
  - C. exposure to corrosive fumes and vapor
  - D. all of these
67. How electrical metallic tubing can minimize or to eliminate fire hazard and electrical accident?
- A. Used standard materials for installations
  - B. Follow Philippine Electrical Code provision
  - C. Safety first
  - D. Providing a safe and reliable conduit system for electrical wiring
68. What is an important method of controlling hazards?
- A. General cleanliness in a workplace
  - B. Provide facilities for washing or to take a shower
  - C. Inspect undergarments for signs of contamination
  - D. Always wear PPE

69. What conditions to be considered in installing wire ways and cable trays?
- A. The equipment tools must be properly checked.
  - B. The workplace must be free from obstruction
  - C. The installed cable tray should appear as per the drawing or picture shown.
  - D. Prepare the area for the installation of cable tray
70. Does cable tray need to be earthed?
- A. Cable tray and wire basket need an earth path as it is used as a support mechanism.
  - B. Cable tray and wire basket does not need an earth path as it is only used as a support mechanism.
  - C. If the tray is an exposed conductive part, it requires earthing
  - D. B and C
71. What will you do if the prepared tools/equipment and materials needed for the installation of telephone terminal cabinet are not in line with job requirement?
- A. Refer to the supervisor/engineer
  - B. Continue the installation
  - C. Leave your work
  - D. None of these
72. What to do if the installed telephone will not function?
- A. Do the test
  - B. Conduct commissioning
  - C. Troubleshoot telephone connections
  - D. Do the reconnection
73. An electrician should always have his tools in good working condition, the most important reason being is \_\_\_\_\_
- A. you have to exert more effort when using defective tools
  - B. your job cannot be satisfactory done without good tools
  - C. it is part of your job to keep tools in good working condition
  - D. defective tools can cause accidents or damage to equipment
74. What will you do if the load schedule reflects a 20AT/2.0 sq. mm. Lighting Branch Circuit of which circuit breaker is over rated?
- A. Wait for your superior and let him do the correction
  - B. Look for another load schedule and check for differences
  - C. Look for the wiring layout and check groupings
  - D. Change rating to 15AT to conform with PEC requirement
75. What will you do if the installation manual for installing cable bridge is not available?
- A. if you are not familiar with the installation/replacement of the selector switch, do not attempt to do it.
  - B. Bring the matter to your immediate supervisor and ask for assistance.
  - C. Continue the installation
  - D. A and B
76. To control electrical hazards, what are the OHS procedures when working with wires and cables?
- A. Plan your work and plan for safety and avoid wet working conditions and other dangers.
  - B. Avoid overhead powerlines and use proper wiring and connectors.
  - C. Use and maintain tools properly and wear correct PPE.
  - D. All of these

77. When you interpret the electrical plan and it seems that the specification was not based on the job requirements, what will you do?
- A. Change it into the correct one
  - B. Report it to the draftsman
  - C. Refer it to the supervisor
  - D. Leave it as the wrong one since you are not the one who made the work.
78. Why is there a need to assess one's PECs in terms of characteristics attributes lifestyle skills and traits before starting a particular business?
- A. It helps individuals gain a deeper understanding of themselves, their strengths, weaknesses, and preferences
  - B. In order to determine whether this individual can actually perform entrepreneurial functions effectively
  - C. It can be an inspiration to the people who want to become successful too
  - D. It helps to get hired and give potential employers an idea of your qualifications or personality
79. The client requested the engineer to purchase materials for his project to a recognized supplier. If you're an electrical engineer, how would you identify the good supplier within town?
- A. Solicit customer's feedback
  - B. Read Competitors' Blogs for Hidden Insights on Target Customers
  - C. Gather Information from Loss Notes
  - D. none of these
80. Why is it important to know your products and services?
- A. Product information can be important and can be impactful in help close a deal.
  - B. Customers are also more likely to purchase a product if they can find detailed and accurate information about that product
  - C. Helps customers trust your brand and business
  - D. It becomes easier to sell, provide support and attract attention.
81. Why is it important to identify customer needs and wants?
- A. Motivation for why a customer wants to buy a service or product.
  - B. Essential for delivering excellent customer service
  - C. To persuade potential and existing customers that buying from you is in their best interests
  - D. Generate sales and make its survival.
82. What is the purpose of conducting a market analysis?
- A. To project the success, you can expect when you introduce your brand and its products to consumers within the market.
  - B. To confirm and improve your business idea.
  - C. To identify opportunities and threats, evaluate the competition, and develop effective marketing strategies.
  - D. To identify the most important characteristics of a market and to determine the market structure at a certain point in time.

83. Why is the procedures of requisition of tools and materials important?
- A. Helps ensure the safety of operators and those around them
  - B. Allows employees to request for necessary materials needed to perform their tasks at the workplace
  - C. It is important to inspect and check materials and tools for defects and damage before receiving them so that you can ask for replacements for those that you found defective.
  - D. It serves as a legal form that a contractor, subcontractor, or other clients need to abide by
84. Why is it important to prepare all the necessary tools and equipment before you do a specific job?
- A. It would make our job easier and it would save us a lot of time.
  - B. Because if we don't, there is a high chance of it not working, make accidents, or don't know how to use or operate it.
  - C. Having all your tools and materials prepared before starting a project saves time.
  - D. Ensures the safety of the user but also increases staff productivity and efficiency.
85. "What can the operator expect to happen when the wire brush attachment is used on the portable disc grinder?"
- A. The grinder may be jumped out or be thrown out
  - B. The grinder moves back and forth
  - C. The grinder stays steady on the material being bushed
  - D. The grinder performs well
86. What to check if there is no power in electric power tools?
- A. Dismantle the tool
  - B. Check the cords
  - C. Check the power
  - D. Use testing tools
87. Why do you have to maintain the good condition of electrical tools and hydraulic tools?
- A. Can be expensive to repair or replace.
  - B. To identify whether work equipment can be operated, adjusted and maintained safely, with any deterioration detected and remedied before it results in a health and safety risk.
  - C. Help reduce the chance of someone using an unsafe tool.
  - D. To make sure equipment is safe for use and that all systems are working properly.
88. How would you determine the correct lubricant to be used on the specific application?
- A. Consider the surface materials, environmental conditions and performance requirements.
  - B. Pricing. Price is always the most important factor for most buys in your business and personal life.
  - C. Look at application/environmental factors such as speed, temperature, load, vibration, moisture, and dust
  - D. None of these
89. What possible defect if the power tools have no power?
- A. Open line cord
  - B. Switch locked
  - C. Worn-out carbon brush
  - D. Bearing worn out

90. Which of the following is NOT a recommended practice for storing electric and hydraulic tools?
- A. Keeping the tools in a clean and organized manner
  - B. Regularly inspecting the tools for any damage
  - C. Storing the tools in an area with high humidity
  - D. Using proper storage containers for the tools