

Job Role Name QP Code		Batch Name/Id	
Duration:		Max Marks:	<b>250</b>
Name of Candidate		Candidate Signature	
Assessor Name		Aadhaar Number	
Assessor Signature		Trainer Signature	
TP Name		TC Name	
TP/TC Stamp with Signature		Date	

**Instruction:**

1. All questions are compulsory
2. The question papers consist of MCQ.
3. You will be given 60 minutes
4. Please read all questions carefully
5. There is no negative marking

**TEL/N4306: Optimize DC and AC Circuits with RLC Components**

1. What does an RLC circuit contain in AC systems? (8 Marks)  
A. Resistor, Inductor, Capacitor  
B. Resistor, LED, Coil  
C. Relay, Link, Coil  
D. Rectifier, Load, Converter
2. In AC RLC circuit, inductance mainly affects which quantity? (8 Marks)  
A. Voltage generation only  
B. Power supply rating  
C. Current flow opposition  
D. Resistance increase directly
3. What is the purpose of optimizing RLC circuits? (8 Marks)  
A. Improve circuit efficiency  
B. Stop current flow  
C. Reduce component size only  
D. Increase wire length
4. In a DC circuit, which RLC component behaves differently compared to AC? (8 Marks)  
A. Switch  
B. Inductor  
C. Fuse  
D. Resistor
5. Which factor is most important in AC RLC circuit performance? (8 Marks)  
A. Wire color  
B. Impedance matching  
C. Battery size  
D. Switch position

**TEL/N4307: Operate series and parallel circuit simulation software**

6. What is the main purpose of series circuit simulation software? (8 Marks)  
A. Design parallel motors

- B. Simulate single current path
  - C. Increase voltage supply
  - D. Replace physical wiring
7. In a parallel circuit simulation, what remains same across all branches? (8 Marks)
- A. Resistance value
  - B. Voltage level
  - C. Current direction
  - D. Power loss
8. Which software is commonly used for circuit simulation in basic electronics training? (8 Marks)
- A. Circuit design tool
  - B. Video editing software
  - C. Graphic painting tool
  - D. Text processor software
9. In series circuit simulation, if one component fails, what happens? (8 Marks)
- A. Circuit continues normally
  - B. Only voltage increases
  - C. Whole circuit stops
  - D. Current becomes zero only in branch
10. What is an advantage of using circuit simulation software? (8 Marks)
- A. Increases physical wiring cost
  - B. Removes need for electricity
  - C. Provides virtual testing safely
  - D. Limits circuit design options

**TEL/N4308: Work with DC power supply system**

11. What is the main function of a DC power supply system? (8 Marks)
- A. Convert AC to DC
  - B. Store electrical energy
  - C. Increase AC frequency
  - D. Reduce circuit resistance
12. Which device is commonly used to convert AC to DC? (8 Marks)
- A. Transformer
  - B. Rectifier
  - C. Inductor
  - D. Relay
13. In a DC power supply system, what does a regulator do? (8 Marks)
- A. Amplifies current flow
  - B. Stores electrical charge
  - C. Converts AC frequency
  - D. Controls current flow
14. What is the characteristic of DC current? (8 Marks)
- A. Alternates direction
  - B. Changes frequency constantly
  - C. Has zero voltage
  - D. Flows in one direction
15. Why is filtering used in DC power supply systems? (8 Marks)
- A. Increase noise
  - B. Flows in one direction
  - C. Convert AC to DC
  - D. Remove ripples

**TEL/N4309: Test the power backup system to ensure proper working of DC-DC converter, battery and controller**

16. What is the main purpose of testing a DC power backup system? (8 Marks)
- A. Increase voltage output
  - B. Ensure reliable backup operation
  - C. Reduce battery size
  - D. Change AC frequency
17. In a power backup system, what is the role of a DC-DC converter? (8 Marks)
- A. Store electrical energy
  - B. Generate AC supply
  - C. Convert voltage levels
  - D. Control mechanical load
18. Which component stores energy in a backup power system? (8 Marks)
- A. Controller
  - B. Transformer
  - C. Battery
  - D. Rectifier
19. What does the controller do in a DC power backup system? (8 Marks)
- A. Monitors and regulates system operation
  - B. Increases battery weight
  - C. Converts AC to DC directly
  - D. Produces electrical noise
20. During testing of a backup system, what should be verified first? (8 Marks)
- A. Wire colour coding
  - B. Battery voltage and health
  - C. Cabinet design
  - D. Fan speed only

**TEL/N4310: Install the surge protection system**

21. What is the main purpose of a surge protection system? (8 Marks)
- A. Increase current flow
  - B. Convert AC to DC
  - C. Store electrical energy
  - D. Protect equipment from voltage spikes
22. Which device is commonly used for surge protection? (8 Marks)
- A. Resistor
  - B. Surge protector (SPD)
  - C. Transformer
  - D. Inductor
23. Where is a surge protection device usually installed? (8 Marks)
- A. Only on load side
  - B. In series with motor
  - C. At power entry point
  - D. Inside battery only
24. What type of electrical issue does a surge protector handle? (8 Marks)
- A. Voltage spikes
  - B. Frequency reduction
  - C. Power loss
  - D. Current limitation only
25. What is important before installing a surge protection system? (8 Marks)
- A. Paint condition check
  - B. Correct grounding system
  - C. Wire colour selection
  - D. Fan installation

**TEL/N9101: Organize Work and Resources as per Health and Safety Standards**

26. What is the main purpose of organizing work as per safety standards? (6Marks)
- A. Reduce manpower usage
  - B. Ensure safe and efficient work
  - C. Increase production speed
  - D. Avoid tool usage
27. Which action helps maintain workplace safety? (6Marks)
- A. Proper material storage
  - B. Random tool placement
  - C. Overloading work area
  - D. Ignoring safety signs
28. What should be checked before starting any task? (6Marks)
- A. Safety equipment availability
  - B. Personal preferences
  - C. Colour of tools
  - D. Break timing only
29. Why is housekeeping important in workplace safety? (6Marks)
- A. Changes work design
  - B. Increases electricity use
  - C. Prevents accidents and hazards
  - D. Improves work speed only
30. What is required to follow health and safety standards? (6Marks)
- A. Skipping inspection
  - B. Ignoring guidelines
  - C. Random work planning
  - D. Using proper PPE

**DGT/VSQ/N0101: Employability Skills (30 Hours)**

31. Which skill helps in effective communication at workplace? (4Marks)
- A. Welding skill
  - B. Technical drawing skill
  - C. Machine operating skill
  - D. Listening and speaking skill
32. Why is teamwork important in employability skills? (4Marks)
- A. Improves coordination and output
  - B. Stops communication
  - C. Increases errors
  - D. Reduces salary cost
33. What is the purpose of time management at work? (4Marks)
- A. Reduce responsibilities
  - B. Increase confusion
  - C. Complete tasks efficiently
  - D. Delay work process
34. Which behaviour shows professionalism at workplace? (4Marks)
- A. Breaking rules
  - B. Avoiding teamwork
  - C. Being punctual and disciplined
  - C. Ignoring instructions
35. What is an important digital employability skill? (4Marks)
- A. Mechanical repair skill
  - B. Basic computer knowledge
  - C. Electrical wiring skill
  - D. Using social media randomly

### Answer Key

S. No.	Answer	S. No.	Answer	S. No.	Answer	S. No.	Answer	S. No.	Answer
1	A	8	A	15	D	22	B	29	C
2	C	9	C	16	B	23	C	30	D
3	A	10	C	17	C	24	A	31	D
4	B	11	A	18	C	25	B	32	A
5	B	12	B	19	A	26	B	33	C
6	B	13	D	20	B	27	A	34	C
7	B	14	D	21	D	28	A	35	B