

OTPC Qualifiction Written Test
1 Hour

1. (A) (B) (C) (D)
2. (A) (B) (C) (D)
3. (A) (B) (C) (D)
4. (A) (B) (C) (D)
5. (A) (B) (C) (D)
6. (A) (B) (C) (D)
7. (A) (B) (C) (D)
8. (A) (B) (C) (D)
9. (A) (B) (C) (D)
10. (A) (B) (C) (D)
11. (A) (B) (C) (D)
12. (A) (B) (C) (D)
13. (A) (B) (C) (D)
14. (A) (B) (C) (D)
15. (A) (B) (C) (D)
16. (A) (B) (C) (D)
17. (A) (B) (C) (D)
18. (A) (B) (C) (D)
19. (A) (B) (C) (D)
20. (A) (B) (C) (D)

21. (A) (B) (C) (D)
22. (A) (B) (C) (D)
23. (A) (B) (C) (D)
24. (A) (B) (C) (D)
25. (A) (B) (C) (D)
26. (A) (B) (C) (D)
27. (A) (B) (C) (D)
28. (A) (B) (C) (D)
29. (A) (B) (C) (D)
30. (A) (B) (C) (D)
31. (A) (B) (C) (D)
32. (A) (B) (C) (D)
33. (A) (B) (C) (D)
34. (A) (B) (C) (D)
35. (A) (B) (C) (D)
36. (A) (B) (C) (D)
37. (A) (B) (C) (D)
38. (A) (B) (C) (D)
39. (A) (B) (C) (D)
40. (A) (B) (C) (D)

41. (A) (B) (C) (D)
42. (A) (B) (C) (D)
43. (A) (B) (C) (D)
44. (A) (B) (C) (D)
45. (A) (B) (C) (D)
46. (A) (B) (C) (D)
47. (A) (B) (C) (D)
48. (A) (B) (C) (D)
49. (A) (B) (C) (D)
50. (A) (B) (C) (D)

Score = -1(98%), -2(96%), -3(94%), -4(92%), -5(90%), -6(88%), -7(86%), and -8(84%)

Open Transition PowerCommand® (OTPC) Transfer Switches Written Examination

The OTPC Qualification written exam consists of 50 multiple choice and true/false questions. This is a 90 minute open book examination.

Training material and References used:

- OTPC Participant Guide 932-0761
- Operator's Manual for OTPC Transfer Switches 962-0126
- Installation Manual for OTPC Transfer Switches 962-0612
- Service Manual for OTPC Transfer Switches 960-0526
- Schematic diagrams
- Wiring diagrams
- Interconnection diagram 630-1974

The "correct" answer is based on what is stated in the training and reference material, though another answer could be correct under actual field conditions.

Be sure to read all answers provided before selecting the one which most closely reflects information provided in the training and reference material.

Please do not mark in this examination

Onan is a registered trademark of Onan Corporation.
PowerCommand® is a registered trademark of Onan Corporation

7. If the "Not In Auto" LED on the Switch Panel is lit it would indicate
 - a. someone needs to place the generator set control switch in the Auto position.
 - b. the OTPC door is not fully closed and latched.
 - c. the motor disconnect switch is off.
 - d. the OTPC has a Level 2 control.
8. To find the build date of an OTPC transfer switch you would
 - a. refer to the Model/Spec tag.
 - b. look in the "About" menu.
 - c. look in the "Statistics" menu.
 - d. look in the "Setup" menu.
9. While viewing the OTPC Digital Display menu which shows ATS Configuration, which buttons must be pressed to view the screen that shows software version?
 - a. Push the "UP" button twice
 - b. Press the "Previous" menu button
 - c. Press the "Previous" menu button, then the "About" menu button
 - d. Press the "Home" button
10. How many events can be stored in the OTPC?
 - a. Up to 50 faults and 50 non-faults
 - b. A total of 50 events, both faults and non-faults
 - c. An unlimited number of events as long as they are faults
 - d. Only the first and last event
11. Generator set starting circuits on the OTPC include
 - a. both 2-wire and 3-Wire start are available.
 - b. 3-Wire Start only on the Level 1 control.
 - c. an auto-set feature which will configure the OTPC for either 2-Wire or 3-Wire start.
 - d. 2-Wire start.

The following questions are from the Installation Manual,

12. All Utility to Utility OTPC switches use Level 2 controls.
 - a. True
 - b. False

18. Standard procedure before replacing any OTPC module is to
- place the remote switch in the stop or off position,
 - disconnect J1 to remove AC from the Digital module.
 - wear a grounding wrist strap.
 - all of the above are correct.
19. What items are required to add the LED Bar Graph to an OTPC transfer switch?
- Level 1 control, Digital Display, Load Module
 - Level 2 control, Current Module, Network Module
 - Level 2 Power Module, Level 2 Digital Module, Current Module
 - Level 2 Control Module, Current Module, Digital Display

The following questions are from the Service Manual

20. The digital module contains drivers for the Bar Graph Meter Panel.
- True
 - False
21. The "Not In Auto" relay is energized when the motor disconnect switch is in the "Auto" position.
- True
 - False
22. Disconnecting J1 from P1 removes all AC power from the components on the door.
- True
 - False
23. The "Not In Auto" LED lights when the OTPC receives a Load Shed signal.
- True
 - False
24. Failure to Open of the S3 N/O contacts will cause:
- an immediate transfer to source 2
 - an immediate retransfer to source 1
 - a fail to close to emergency
 - No functional interruption of switch operation

30. If the Network Module is not installed, but the software is enabled, the "Network Module" menu will show
- OK
 - Not Installed
 - Not Enabled
 - Not Available
31. The customer complains that the lights do not come on after the generator set started during a power failure. You test the switch and the OTPC does not transfer to the Emergency position. What should be your next check?
- Does the GenSet stop when commanded?
 - Does the GenSet start when commanded?
 - Does the OTPC transfer to Emergency?
 - Does the OTPC retransfer to Normal?
32. If an OTPC does not transfer from Source 1 to Source 2 or from Source 2 to Source 1, where would you check for a failure?
- S1-1 / S1-2
 - J1-7 / P1-7
 - CB1-1 / CB1-2
 - all of the above are good checks
33. If you want to test to see if the front panel override switch is bad which J25 pins would you jumper together?
- 10 to 1
 - 10 to 2
 - 10 to 3
 - 10 to 4
34. On a Level 1 208 Volt OTPC where would you check Phase B voltage on TB11?
- Pin 4
 - Pins 3, 4, 5
 - Pins 3, 4, 6
 - Pins 3, 4, 6, 7

41. The load module is an option for a level ____ switch.
- 4
 - 3
 - 2
 - 1
42. How many main menus are there for the OTPC?
- 2
 - 3
 - 4
 - 6
43. The chevrons (>>) are associated to which command?
- About
 - Events
 - Home
 - More
44. What does "TDEN" stand for?
- Time Delay Emergency to Neutral.
 - Time Delay Neutral to Emergency.
 - Time Delay Emergency to Normal.
 - Time Delay Normal to Emergency.
45. On the OTPC utility to genset transfer switch, source 1 is _____ and source 2 is _____.
- generator, utility
 - utility, generator
 - utility 1, utility 2
 - generator 1, generator 2
46. Where should the CT's be mounted for switches with the bar graph display?
- On the normal side with the • toward the switch.
 - On the load side with the • toward the switch.
 - On the load side with the • toward the load.
 - On the emergency side with the • toward the switch.

OTPC Transfer Switch Prints

300-5146 Sheet 1 of 13	10-3
OTPC Level 1 Digital Module Schematic Diagram, modified for training.	
300-5146 Sheet 12 of 13	10-4
OTPC Level 1 Digital Module Parts Placement Diagram, modified for training.	
300-5147 Sheet 1 of 15	10-5
OTPC Level 2 Digital Module Schematic Diagram, modified for training.	
300-5147 Sheet 14 of 15	10-6
OTPC Level 2 Digital Module Parts Placement Diagram, modified for training.	
300-5148 Sheet 1 of 2	10-7
OTPC Level 1 Power Module Schematic Diagram, modified for training.	
300-5148 Sheet 2 of 2	10-8
OTPC Level 1 Power Module Parts Placement Diagram, modified for training.	
300-5149 Sheet 1 of 2	10-9
OTPC Level 2 Power Module Schematic Diagram, modified for training.	
300-5149 Sheet 2 of 2	10-10
OTPC Level 2 Power Module Parts Placement Diagram, modified for training.	
300-5152 Sheet 1 of 2	10-11
Relay Module Schematic Diagram, modified for training.	
300-5152 Sheet 2 of 2	10-12
Relay Module Parts Placement Diagram, modified for training.	
300-5153 Sheet 3 of 3	10-13
Network Module Parts Placement Diagram, modified for training.	
300-5180 Sheet 2 of 2	10-14
LED Bargraph Parts Placement Diagram, modified for training.	
300-5180 Sheet 2 of 2	10-15
LED Bargraph Parts Placement Diagram, modified for training.	