

PACT Building Construction Technology (BCT) Certification

Exam Objectives:

GENERAL BUILDING CONSTRUCTION TECHNOLOGY CONCEPTS

1. Fill and interpret work orders and make-ready checklists.
2. Fill out and correctly maintain service work orders.
3. Caulk around fixtures.
4. Repair and re-grout tile.

CARPENTRY MAINTENANCE

5. Demonstrate carpentry safety practices.
6. Identify basic carpentry hand tools, their function, and how to use the tools safely.
7. Identify basic carpentry power tools, their function, and how to use the tools safely.
8. Identify anchors and fasteners.
9. Identify carpentry-related materials commonly used in carpentry maintenance.
10. Replace, repair, and install siding.
11. Perform weatherizing procedures.
12. Repair drywall and plaster walls.
13. Replace and repair interior walls.
14. Identify procedures for replacing, repairing, and installing floor coverings.
15. Install wall and ceiling insulation.
16. Install or replace interior trim.
17. List steps for installing keyed, privacy, and passage lock sets.
18. Describe key security systems.

ELECTRICAL MAINTENANCE

19. Demonstrate electrical safety practices.
20. Identify basic electrical hand tools, their function, and how to use the tools safely.
21. Identify basic electrical power tools, their function, and how to use the tools safely.
22. Identify anchors and fasteners commonly used in electrical maintenance.
23. Identify electrical-related materials.
24. Properly use electrical test equipment, such as multimeters and outlet testers.
25. Troubleshoot/repair or replace outlets, switches, fuses, and fixtures in existing building.
26. Identify power supplies (e.g., single-phase, three-phase).
27. Wire 120-Volt circuits.
28. Wire low-voltage circuits using a schematic.
29. Identify and correct defective two-wire and three-wire cords & plugs.
30. Maintain emergency lighting systems, exit lights, and signs.
31. Check and test "hard-wired" smoke detectors.

PLUMBING MAINTENANCE

32. Demonstrate plumbing safety practices.
33. Identify basic plumbing hand tools, their function, and how to use the tools safely.
34. Identify basic plumbing power tools, their function, and how to use the tools safely.
35. Identify anchors and fasteners commonly used in plumbing maintenance.
36. Identify plumbing-related materials.
37. Cut, clean, and glue plastic pipe.
38. Assemble compression fittings.
39. Replace and repair plumbing fixtures and connections.
40. Describe how a garbage disposal works.
41. Describe the three most common problems related to garbage disposals.
42. Identify and describe water supply, diverter and drains for a tub/shower.
43. Replace, repair, and install plumbing accessories.

- 44. Clean and replace traps, drains, and vents.
- 45. Identify and describe backflow prevention.
- 46. Demonstrate proper use and application of thread seal, pipe dope, and plumber's putty.

HVAC/PREVENTIVE MAINTENANCE

- 47. Demonstrate safety practices for servicing environmental control systems.
- 48. Identify basic hand tools, their function, and how to use the tools safely.
- 49. Describe basic heating operations for a gas furnace.
- 50. Clean the removable burner tubes and ports on a gas furnace.
- 51. Describe basic heating operations for electrical baseboard.
- 52. Test the heating element on an electric baseboard heater.
- 53. Describe basic heating operations for hydronic systems.
- 54. Identify 13 key parts of a hydronic heating system.
- 55. Describe the four main parts of an air conditioning system.
- 56. Describe the flow of refrigerant in an air conditioning system.
- 57. Clear evaporator pan and drain line.
- 58. Check thermostat operation.
- 59. Clean condenser.
- 60. Replace furnace and/or cooling filters.
- 61. Locate shutoffs for electrical and plumbing fixtures.
- 62. Identify potential electrical hazards.
- 63. Check the condition of emergency exit floor plans.

LANDSCAPING MAINTENANCE

- 64. Use and maintain grounds-keeping equipment (mowers, edger's, etc.) safely.
- 65. Identify basic landscaping hand tools, their functions, and how to use the tools safely.
- 66. Maintain and police grounds.
- 67. Prune trees and shrubs.
- 68. Identify basic components of a pool system.

APPLIANCE REPAIR

- 69. Identify common appliance components for a clothes dryer, washing machine, and dishwasher.
- 70. Test and replace a clothes dryer door switch.
- 71. Identify and describe key parts of an electric and gas range.
- 72. Remove/repair/replace the cook-top ignitor on a gas range.
- 73. Test and replace oven temperature control.
- 74. Describe how a dishwasher works and Identify key parts.
- 75. Test the dishwasher motor.
- 76. Adjust and test the dishwasher door latch and switch.