

## Mechanical Research Engineer Interview Questions

1. Provide a time when you were able to identify a complex problem, evaluate the options, and implement a solution. How did the solution benefit your employer?

2. Describe an experience in which your recommendation for a design modification eliminated a system malfunction.

3. Share an experience you had in dealing with a difficult person and how you handled the situation.

4. Share an experience in which you successfully shared a difficult piece of information. (Make sure that the candidate has open lines of communication.)

5. Share an experience in which you oversaw the assembly, fabrication, construction, maintenance, or modification of equipment. How did you communicate to the staff what you wanted?

6. Tell me how you organize, plan, and prioritize your work.

7. Share an experience when you applied new technology or information in your job. How did it help your company?

8. Give me an example of when you thought outside of the box. How did it help your employer?

9. Tell me about an experience in which you analyzed information and evaluated results to choose the best solution to a problem.

10. Would you consider analyzing data or information a strength? How so?

11. Share an effective approach to working with a large amount of information/data. How has your approach affected your company?

12. Tell me about the last time you monitored or reviewed information and detected a problem. How did you respond?

13. Share an example of a time you had to gather information from multiple sources. How did you determine which information was relevant?

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14. Share an experience in which your ability to consider the costs or benefits of a potential action helped you choose the most appropriate action.

15. Tell me about a time when your ability to analyze needs and product requirements helped you create an effective design or make an informed decision to benefit your company.

16. Share an experience in which your understanding of a current or upcoming problem helped your company to respond to the problem.

17. Name a time when you identified strengths and weaknesses of alternative solutions to problems. What was the impact?

18. Share a time when you successfully used scientific rules or methods to solve a problem at work.

19. Provide an example of a time when you were able to demonstrate excellent listening skills. What was the situation and outcome?

20. What have you found to be the best way to monitor the performance of your work and/or the work of others? Share a time when you had to take corrective action.

21. How would you rate your writing skills? (Ask for an example that demonstrates great writing skills.)

22. Share an experience in which your attention to detail and thoroughness had an impact on your last company.

23. In your experience, what is the key to ensuring your company was compliant with all laws, regulations and standards that were applicable to your area of responsibility?

24. Share an experience in which you conducted a test of a product, service, or process and successfully improved the quality or performance.

25. Share an experience in which you were able to generate a new design or modify a current design to better serve the needs of your customers.

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26. Please share an experience in which you presented to a group. What was the situation and how did it go?

27. Share an example of when you went above and beyond the "call of duty". (Look for answers that show the candidate is dependable.)

28. Name a time when your advice to management led to an improvement in your company or otherwise helped your employer.

29. Share a time when you willingly took on additional responsibilities or challenges. How did you successfully meet all of the demands of these responsibilities? (Make sure the candidate is a self-starter and can demonstrate some initiative.)

30. How do you balance cooperation with others and independent thinking? Share an example. (Try to determine if the candidate has a cooperative attitude or is otherwise good-natured.)

31. Provide an example of when you were persistent in the face of obstacles.

32. Name a time when your creativity or alternative thinking solved a problem in your workplace.

33. Provide a time when you worked in a rapidly evolving workplace. How did you deal with the change? (Make sure the candidate is flexible.)

34. Share an experience in which you successfully coordinated with others. How about a coordination effort that was not as successful?

35. Provide a time when you dealt calmly and effectively with a high-stress situation.

36. Share an effective method you have used in interpreting blueprints, technical drawings, schematics, or computer-generated reports.

37. Share an experience in which your diligence of inspecting equipment, structures, or materials helped you identify a problem or the cause of a problem.

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38. Tell me about a time when you developed your own way of doing things or were self-motivated to finish an important task.

39. Provide an example when your ethics were tested.

40. Share an example of when you established and accomplished a goal that was personally challenging. What helped you succeed?

41. Provide an experience in which you successfully assisted a drafter in developing a structural design of a product.

42. Share an experience in which your willingness to lead or offer an opinion helped your company.

43. Share an experience in which conferring with other personnel helped you to resolve a difficult problem.

44. Share an experience in which your research helped you to effectively analyze the feasibility, design, operation, or performance of a system or equipment.

45. Provide an experience that demonstrates your ability to manage time effectively. What were the challenges and results?

46. Name a time when your patience was tested. How did you keep your emotions in check?

47. Provide an effective method you have used to ensure that machines or equipment are installed and functioning according to specifications.

48. Share an effective method you have used to inform design engineers on customer problems and needs.

49. Tell me about a time when you successfully determined the cause of an operating error at your company and solved the problem.

50. Describe a series of effective models you developed to compare alternate designs and processing methods.

51. Provide an experience in which you resolved a difficult operational problem.

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52. Provide an experience in which you were sensitive to someone's needs or feelings. How did your helpfulness affect your work environment?

53. Share an experience in which you successfully coordinated all production activities. What methods made you successful?

54. Provide an example of a time when you successfully organized a diverse group of people to accomplish a task.

55. Tell me about a time when you successfully supervised personnel and evaluated their work. What methods led to your success?

56. Share an effective method you have used to solicit new business.

57. Provide an effective method you have used to ensure conformance of products with engineering design and/or performance specifications.

58. Share an experience in which you effectively applied engineering principles or practices to an emerging field.

59. Tell me about the last time you oversaw the work of someone else. How did you effectively motivate, develop, and direct the worker(s)?

60. Describe a time when you successfully persuaded another person to change his/her way of thinking or behavior.

61. Describe performance requirements you have written. What methods did you use?

62. Please share an experience in which you successfully taught a difficult principle or concept. How were you able to be successful?

63. Share an experience in which you used new training skills, ideas, or a method to adapt to a new situation or improve an ongoing one. (Look for the candidate's ability to learn.)

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64. Provide an effective method you have used to estimate costs. Share an experience.

65. Share an effective method you have used to maintain machines and equipment in their prescribed conditions.

66. Describe an experience in which you identified the educational needs of your students and successfully developed a way to teach/train them.

67. Describe an effective test control apparatus or equipment which you developed.

68. Provide an experience in which your study of industrial processes helped you to successfully determine where and how application of equipment could be made.

69. Provide an example when you were able to prevent a problem because you foresaw the reaction of another person.

70. Share an experience in which personal connections to coworkers or others helped you to be successful in your work. (Make sure candidate works well with others.)

71. What factors do you consider when selecting equipment to reduce energy use or pollution?

72. Share an experience in which you recommended to use of utility or energy services which effectively minimized carbon footprint.

73. Provide an effective method you have used to evaluate mechanical designs and prototypes for energy performance and/or environmental impact.

74. Share an experience in which you successfully directed installation, operation, maintenance, or testing of renewable energy equipment.

75. Tell me about an integrated mechanical or alternative system you designed which improved energy efficiency.

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76. Provide an effective method you have used to calculate energy losses for buildings.
77. Tell me about some of your most recent computer programming projects.
78. Provide an example of a project you worked on that demonstrates your programming abilities. What was your role in the project?
79. Provide an experience in which your ability to actively find ways to help people improved your company or your own work ethic.
80. Describe an experience in which your ability to work well with others and reconcile differences helped your company or employer. (Make sure the candidate knows how to negotiate.)
81. In your experience, what is the key to developing a good team? (Look for how they build mutual trust, respect, and cooperation.)
82. Please share with me an example of how you helped coach or mentor someone. What improvements did you see in the person's knowledge or skills?
83. Share an experience in which you've successfully learned how to handle a new piece of equipment?
84. What are some long-range objectives that you developed in your last job? What did you do to achieve them?
85. Provide an example of when you set expectations and monitored the performance of subordinates. What guidance and direction did you find most effective?
86. Describe a time when you were able to select the best tool to do a job. How did you use reasoning skills to make the best choice?
87. Share an experience in which you successfully installed a difficult piece of equipment. What made the situation so difficult?