

Radiocommunications Technician interview questions

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What to expect

Interviews for radiocommunications technician roles focus on practical RF skills, safety awareness and your ability to work independently at remote sites. Employers want to see you can think through a fault logically and communicate clearly with clients.

- **Technical:** Questions about RF theory, equipment setup and programming.
- **Safety:** Questions about working at heights, RF exposure and site safety.
- **Process:** Walk-throughs of fault-finding or installation procedures.
- **Scenario:** Hypothetical coverage or interference problems to solve.
- **Behavioural:** Past experiences working remotely, in teams or under pressure.

Typically a phone screen followed by a face-to-face or site-based interview. You might be asked to demonstrate use of a spectrum analyser or walk through a fault-finding scenario. Some employers include a practical test.

1. Walk me through how you would install and commission a new radio base station.

Why they ask

Assesses your technical process and attention to detail.

How to structure your answer

Step-by-step walk-through: site survey, mounting, cabling, power, RF testing, coverage check.

Example answer

"First, I would review the site survey and confirm the mounting position for the antenna and base station. I would check that the mast is secure and the coax cable run is protected. After mounting the antenna, I would connect the feeder cable and test it with an antenna analyser to ensure low loss. Then I would power up the base station, connect it to the repeater or network, and program the frequencies and channels. Next, I would use a spectrum analyser to check the output power and frequency stability. Finally, I would conduct a coverage test by driving around the area with a portable radio, noting any dead spots. I would document the results and hand over to the client."

2. Tell me about a time you diagnosed a difficult fault in a radio network.

Why they ask

Tests your fault-finding skills and ability to work under pressure.

How to structure your answer

STAR: Situation, Task, Action, Result.

Example answer

"In a previous role, a mine site reported intermittent communications across a haul road. The fault was hard to reproduce because it only happened when trucks were moving. I set up a spectrum analyser at the base station and monitored for interference. I also drove the route with an antenna analyser to check signal strength. I found that a nearby power line was causing RF interference at a specific frequency. I worked with the site electrician to add filtering, and then reprogrammed the radios to avoid that frequency. The result was clear communications across the entire haul road, and the client reported no further dropouts."

3. A site has reported poor coverage. How would you investigate and resolve it?

Why they ask

Tests your problem-solving approach and coverage knowledge.

How to structure your answer

Scenario judgement: assess, test, plan, implement, verify.

Example answer

"I would start by talking to the client to understand where and when the coverage issues occur. Then I would review the site plans and existing radio system. I would conduct a coverage test using a portable radio and a GPS to map dead spots. I would also check the antenna system with an antenna analyser and check the base station output with a spectrum analyser. If I found the antenna was too low or obstructed, I would recommend raising it or relocating it. If the issue was interference, I would identify the source with a spectrum analyser and either filter it or change frequencies. After making changes, I would re-test to confirm the fix and document the results."

4. What safety precautions do you take when working on an antenna tower or near RF sources?

Why they ask

Assesses your commitment to workplace safety.

How to structure your answer

Safety protocol: list key steps and why they matter.

Example answer

"Before any tower work, I check the weather and ensure I have a current Working at Heights certificate. I inspect my harness, lanyards and climbing gear. I use a spotter on the ground and maintain three points of contact. For RF safety, I always check that transmitters are powered down or that I am not in the near field of an active antenna. I use an RF monitor if unsure. I also wear appropriate PPE, including a hard hat, gloves and safety glasses. I make sure the site is barricaded and that others know not to enter the exclusion zone."

5. How do you explain technical radio concepts to a client who is not technical?

Why they ask

Tests your client-facing communication skills.

How to structure your answer

Client-facing: use analogies, avoid jargon, confirm understanding.

Example answer

"I start by asking what the client already knows and what they need to achieve. I use simple analogies, like comparing a repeater to a megaphone that extends the range of a voice. I avoid acronyms and technical terms unless I explain them. I draw a simple diagram if helpful. Then I check that they understand by asking them to repeat back or by asking if they have questions. I always offer to follow up in writing with a plain English summary."

6. Describe a situation where you had to work remotely or alone for an extended period.

Why they ask

Assesses your reliability and self-management.

How to structure your answer

Behavioural: STAR, focus on planning, communication, outcome.

Example answer

"I once spent three weeks on a remote mine site in the Pilbara, installing and testing a radio network. I was the only technician on site, so I had to plan each day carefully. I made sure I had all the spare parts and tools I needed. I checked in with the site supervisor every morning and evening. I kept detailed notes and photos of my work. When I hit a problem with a cable, I used the satellite phone to call my offsite supervisor for advice. I completed the installation on schedule and the network passed coverage testing on the first attempt."