

Homework Sheet **Answer Key**

Task 1

Evaluate the importance of clinical lab tests. Analyze the career options available in the industry, as a clinical technician. List the pre-requisite educational qualifications, skills, attitude and personality required for this job.

Clinical lab tests are indispensable healthcare tools. Clinical lab tests inform both the patient and healthcare professionals about a person's health conditions prior to, during and at the end of a treatment. For healthcare providers, clinical lab tests provide data-based evidence to determine the appropriate medical care be it diet, exercise, medication and/or surgical procedures.

Clinical technicians, also known as laboratory technicians, are very important technical support staff in the healthcare industry. The following job titles are available:

1. Phlebotomy technician
2. Clinical laboratory consultant
3. Lab assistant
4. Hematology lab assistant
5. Histotechnician
6. Medical or clinical technologist
7. Medical laboratory scientist

Pre-requisite educational qualifications for jobs #1-5:

Associate degree in clinical technology from recognized institutions, followed by certification from the *National Accreditation Agency for Laboratory Sciences*. Some experience, such as a hospital internship, is a desirable additional qualification.

Pre-requisite educational qualifications for jobs #6 and 7:

Undergraduate degree in clinical technology from recognized institutions, followed by certification from the *National Accreditation Agency for Laboratory Sciences*. Some experience, such as a hospital internship, is a desirable additional qualification.

Skills: Testing skills with the ability to perform tests within the error limits; test reporting skills, basic computer skills, appropriate instrumentation skills for instrument-based tests, lab safety skills.

Attitude: A service attitude, punctuality, ethical and safety consciousness, and the commitment to keep confidential information truly confidential.

Personality: The ability to maintain personal hygiene and cleanliness; ability to relate to people and be extremely patient and polite with patients; capacity for making reasonable decisions regarding tests, always very professional in words and actions, including body language; determination to stay calm when working under pressure.

Task 2:

Write a comparative evaluation in terms of pre-requisite educational qualifications, salary, skills, attitude and personality required for the following jobs:

- 1) Clinical engineer, 2) field clinical engineer, 3) human factor engineer

	Clinical Engineer	Field Clinical Engineer	Human Factor Engineer
Educational Qualification	MS biomedical engineering	BS biomedical engineering with MBA or diploma in sales and services; certification from Academy for Healthcare Sciences	MS, MS or PhD human factors and ergonomics
Salary	Junior level: \$95,000 Senior level: \$115,000	Junior level: \$75,000 Senior level: \$85,000 to \$100,000	Junior level: \$85,000 Senior level: \$100,000
Skills	Ability to maintain and service all medical equipment and instrumentation; knowledge of regulatory agency codes and standards; knowledge of database programming languages, coding, drawing and online instrument troubleshooting	Skilled in traveling; sales and marketing skills in addition to technical skills of being able to offer training sessions to medical technicians on products; offer consultation to hospitals on products and services, onsite repair and instrument ordering	Excellent psycho-analytical skills; human interaction and communications skills; ability to translate colloquial language into technical specifications; data management skills; coding, programming and computer drawing skills
Attitude	Service attitude, punctuality and commitment to work	Service attitude, punctuality, ethical and safety consciousness, and the commitment to keep confidential information truly confidential; high integrity	Service attitude, punctuality, ethical and safety consciousness, and the commitment to keep confidential information truly confidential; high integrity
Personality	Strong communication and team-building skills with leadership qualities; commitment to maintain personal hygiene, cleanliness and professional outlook; proven ability to work collaboratively within a multidisciplinary team and manage complex projects	Ability to work onsite, be a problem solver and excellent communicator with timely responses; ability to lead by example; ability to accomplish tasks no matter what the obstacles; commitment to maintain personal hygiene, cleanliness and professional outlook; ability to relate to people and be polite with clients, trainees, fellow trainers and superiors; ability to make strategic decisions, able to work well under pressure	Ability to identify problems and present them, work with large number of people on one side and ability to work with teams of instrumentation engineers on the other end; pleasant and effective in communication