**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.

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| 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

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|  | **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: $95,000Senior level: $115,000 | Junior level: $75,000Senior level: $85,000 to $100,000 | Junior level: $85,000Senior 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 |