

## Department Wise Common Pharma Interview Questions for Fresher

**Q. Tell me about yourself**

**Ans:** Start with something like that, my name is Sanjay, and I am a pharma graduate, I completed my Degree from (college name) in a (year). My father is a farmer and my mother is a Housewife.

**Q. What do you know about our company?**

**Ans:** Tell them about the company's history, direction, progress, culture, and products.

**Q. Tell me about your strength.**

**Ans:** Tell them about your Strength so that they can answer like Supportive, or Diplomatic. Good communication, Pressure handling, truthiness, creativity, well organizer, willpower, dedication, and motivation.

**Q. What is your weakness?**

**Ans:** You can tell them about your weakness like if you have in following:

I sometimes lack overconfident

I have trouble asking for help

I focused too much on details so its consumed lots of time.

**Q. Why should we hire you?**

**Ans:** I can do the work and deliver good results within the time framework

I can manage a team or work as a team to grow more

I have skills like soft skills, and technical skills, perform multiple tasks at once

**Education and training deliver**

**Q. Are you a hard worker or a smart worker?**

**Ans:** Sir, basically I am a hard worker, but now I can complete the project by doing hard work within the time frame.

**Q. What are your salary expectations?**

**Ans:** As a fresher, I expect the salary as per company norms or policy

## **Pharma Interview Questions Production for fresher**

**Q. Why do you want to join Production?**

**Ans:** As I am capable to work in any environment, I can handle pressure. I am also interested in manufacturing activities.

**Q. What are the different types of tablets in pharma?**

**Ans:** Coated tablets

Uncoated tablets

Effervescence tablets

Long release tablets

Modified-release tablets

Sugar-coated tablets

**Enteric-coated tablets**

**Dispersible tablets**

**Q: What is the Granulation?**

**Granulation is the size enlargement process during which small particles combine to form a large mass. It's also called agglomeration.**

**Q: What is the coating equipment which is being used?**

**Ans: For the coating process mainly following 3 types of equipment is used:**

- ✓ **Conventional coating pan**
- ✓ **Perforated Coating pan**
- ✓ **Fluidized bed coater**

**Q: What is the leak test of packaging?**

**Ans: The test which is used to check the integrity of packed strips, blisters, bottles, and small sachets containing tablets, capsules, and dry powders is called leak test. leak test apparatus is used to test the quality of the packing process and to check the proper sealing of the enclosed product inside the cavity. Methylene blue color is applied to detect leakage in blisters or stripes, and the solution in the desiccators must be changed daily or as needed.**

**Q. What is the Leak test in Packing?**

**Ans. The term "leak test" refers to the procedure used to examine the integrity of packed strips, blisters, bottles, and small sachets holding tablets, capsules, and dry powders. Leak test Equipment is used to assess the effectiveness of the packing process and ensure that the product's seals are completely intact and**

that no water should enter the pack. It is made to detect even small punctures and defects in products that have been packed.

**Q. What are the units of Hardness in tablets?**

**Ans.** Kilogram (kg), Newton (N), Pound (lb), Kilopond (kp) and Strong-Cobb (SC), Kilo force (Kgf)

**Q. What is GMP stand for?**

**Ans:** GMP Stands for good manufacturing practices.

**Q. Who is cGMP?**

**Ans:** Current good manufacturing practices.

**Q. What are capsules in dosage form?**

**Ans:** The capsule may be in granules, powder, and semi-solid form.

**Q. Describe the types of capsules?**

**Ans:** Capsules are of two types: Hard gelatin capsules and soft gelatin capsules.

**Q. What is packing in pharmaceuticals and their types?**

**Ans:** Packing is the enclosed envelopes of the medicament in the form of strips, blisters, and bottles.

**Q. Types of packing in pharmaceuticals?**

**Ans:** There are basically three types of packaging in pharma

**Primary packing**

**Secondary packing**

**Tertiary packing**

**Q. What is Primary Packing?**

**Ans:** Primary packing mainly involves enclosing the medication inside the pocket or cavity to prevent the medicine from external environments.

**Q. What is secondary Packing?**

**Ans:** Secondary packing is used for aggregation purposes either by packing in cartons or slives to get good distribution practice.

**Q. What is tertiary packing?**

**Ans:** Tertiary packing is mainly packing the bundles of medicine in corrugated boxes to prevent the drugs from damage during transport, and also from external or physical damage.

**Q. What is the difference between disintegration and dissolution?**

**Ans:** Disintegration is the process by which an oral dose form breaks down into smaller aggregates. (The 'break-up time of a solid dosage form is called disintegration time.)

Dissolution, on the other hand, is the process by which a solid substance dissolves in a solvent to produce a solution. The affinity between the solid substance and the liquid is what controls it.

**Q.** What is room temperature?

**Ans:** The room temperature is 25°C

## QC Pharma Interview Questions for fresher

**Q:** What is the IR spectroscopy and Range of IR.

**Ans:** Infrared spectroscopy is used to identify functional groups, measure the impurity in the sample and detect impurities. Its ranges are 14000 to 4000  $\text{cm}^{-1}$

**Q:** What is the range of UV-Vis spectroscopy and its Ranges?

**Ans:** It is used to measure the concentration and impurity in the sample. Its range Ranges from 200 to 800 nm.

**Q:** What is the use of NMC spectroscopy and its Range?

**Ans:** NMC is used to identify the structure of the molecules in the sample and their purity. NMC spectroscopy range ranges from 0 to 1000 MHz.

**Q: What is the use of X-Ray spectroscopy and its Ranges?**

**Ans:** It is used to identify the crystal structure of the molecules and measure the impurity of the sample and detect impurities. its Range Ranges from 0.1 to 10 nm.

**Q: What is the use of mass to charge ratio?**

**Ans:** mass to charge ratio is used in mass spectroscopy which is an analytical technique that measures the mass and abundance of the ions in the sample.

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**Q: What are the steps of quality control in the pharmaceutical industry?**

**Ans:** Quality control is a critical process in the pharmaceutical industry to ensure that drugs are safe, effective, and of high quality. The following are the typical steps of quality control in the pharmaceutical industry:

**Sampling and testing:** The first step in quality control is to take representative samples of the drug product and test them for various quality attributes, such as potency, purity, and stability.

**Analytical method development:** In order to accurately test the drug product, a suitable analytical method must be developed that can detect and quantify the active ingredient and any impurities.

**Stability testing:** Pharmaceutical products must be tested for stability over time to ensure that they retain their quality and efficacy throughout their shelf life.

**Documentation:** All quality control activities must be documented thoroughly, including the sampling and testing procedures, analytical method development and validation, and stability testing results.

**Release testing:** Before a drug product can be released for sale or distribution, it must undergo rigorous testing to ensure that it meets all quality standards and specifications.

**Continuous monitoring:** Quality control is an ongoing process that continues throughout the life cycle of the drug product. Manufacturers must monitor



product quality and make any necessary adjustments to maintain consistent quality.

**Auditing and inspections:** Regulatory authorities may conduct audits and inspections of pharmaceutical manufacturing facilities to ensure that they comply with all applicable quality standards and regulations.

**Q: What are the different techniques included in Qualitative analysis?**

**Ans:** Qualitative analysis includes various techniques such as:

**Chromatography:** It is a separation technique that separates the components of a mixture based on their chemical properties. High-performance liquid chromatography (HPLC) and gas chromatography (GC) are commonly used in pharmaceutical analysis.

**Spectroscopy:** It is a technique that uses electromagnetic radiation to measure the interaction of a sample with light. Some of the commonly used spectroscopy techniques in pharmaceutical analysis are infrared (IR), ultraviolet-visible (UV-Vis), nuclear magnetic resonance (NMR) spectroscopy. Raman Spectroscopy, and X-Ray Spectroscopy.

**Mass Spectrometry:** It is an analytical technique that ionizes a molecule and separates the ions based on their mass-to-charge ratio. Mass spectrometry (MS) is used to determine the molecular weight of a drug or its related substances.

**Thermal Analysis:** It is a technique that studies the physical and chemical properties of a substance as a function of temperature. Differential scanning calorimetry (DSC) and thermo gravimetric analysis (TGA) are commonly used thermal analysis techniques in pharmaceutical analysis.

**Microscopy:** It is a technique that uses a microscope to study the structure and morphology of a substance. Polarized light microscopy (PLM) and scanning electron microscopy (SEM) are commonly used in pharmaceutical analysis.

**Q: What techniques are used in Quantitative analysis?**

**Ans:** Quantitative analysis techniques are mainly used to quantify any compound or substance in the sample. These techniques are based in:

- ✓ The quantitative performance of suitable chemical reaction and either measuring the amount of reagent added to complete the reaction or measuring the amount of reaction product obtained,
- ✓ The characteristic movement of a substance through a defined medium under controlled conditions,
- ✓ Electrical measurement,
- ✓ Measurement of some spectroscopic properties of the compound.

**Q: What is the main difference between qualitative and quantitative analysis?**

**Ans:** Qualitative analysis involves the identification of the compound or chemical based on its chemical (absorption, emission) or physical properties like Melting point, and boiling point).

Quantitative analysis refers to the estimation or determination of conc. or amount of the chemical compounds or components.

**Q: What is the Friability Test of a Tablet?**

**Ans:** Friability is defined as the %age of weight loss of powder from the core surface of the tablets due to mechanical or physical action and the test is performed to measure the weight loss during transportation.

**Friability (%) =  $\frac{W1 - W2}{W1} \times 100$**  Where, W1 = Weight of Tablets (Initial / Before Tumbling) &

**W2 = Weight of Tablets (After Tumbling or friability)**

**Limit: Friability (%) = Not More Than 1.0 %**

**Q: Can you explain HPLC?**

**Ans:** HPLC stands for High-performance liquid chromatography. It is a widely used analytical technique in the pharmaceutical industry for quality control of drugs and their related substances. It is a powerful tool for the separation, identification, and quantification of drug molecules and their impurities.

**In pharmaceutical quality control, HPLC is used to:**

- ✓ Identify and quantify the active pharmaceutical ingredient (API) in a drug product.
- ✓ Determine the impurity profile of a drug substance or drug product.
- ✓ Analyze the stability of a drug substance or drug product under different conditions.
- ✓ Test the dissolution profile of a drug product.
- ✓ Monitor the Process of drug development and manufacturing.

**Q: Can you explain DSC?**

**Ans: DSC stands for Differential Scanning Calorimetric. DSC is a technique that measures the difference in heat flow between a sample and a reference material as they are heated or cooled. In pharmaceutical analysis, DSC is often used to study the physical and chemical changes that occur in drug substances and formulations during heating or cooling, such as melting, recrystallization, and degradation.**

**Q: Can you explain TGA?**

**Ans: TGA stands for Thermo gravimetric Analysis. TGA is a technique that measures the change in weight of a sample as it is heated or cooled in a controlled atmosphere. TGA can provide information on the thermal stability and decomposition behavior of a sample. In**

**pharmaceutical analysis, TGA is often used to study the thermal stability of drug substances and formulations, as well as the purity of the sample. TGA can also be used to determine the moisture content of a sample by measuring the weight loss due to the evaporation of water.**

**Q: Can you explain PLM?**

**Ans: PLM stands for Polarized Light Microscopy. PLM is a technique that uses polarized light to examine the optical properties of materials. PLM can be used to examine the microstructure of materials, such as crystalline structures and fiber orientation. In pharmaceutical analysis, PLM is often used to examine the physical properties of drug substances and formulations, such as the crystal form, particle size, and shape.**

**Q: Can you explain SEM?**

**Ans:** SEM stands for Scanning Electron Microscopy. SEM is a technique that uses a focused beam of electrons to examine the surface of a material. SEM can provide detailed information on the morphology, size, and composition of materials at a micro- and nanoscale level. In pharmaceutical analysis, SEM is often used to examine the surface morphology of drug particles, such as the size and shape of particles, and to investigate the distribution of active pharmaceutical ingredients in a formulation.

**Q:** What is pH? What is the formula for pH?

**Ans:** pH stands for Potential of Hydrogen. pH is a measure of how acidic or basic a chemical solution is. The pH scale runs from 0 to 14—a value of seven is considered neutral, less than seven is acidic and greater than seven basics.

$$\text{pH} = -\log[\text{H}^+]$$

$$[\text{H}^+] = 10^{-\text{pH}}$$

pH is the negative base 10 logarithms ("log" on a calculator) of the hydrogen ion concentration of a solution.

**Q:** What is Beer-Lambert's Law?

**Ans:** Beer-Lambert's Law, also known as the Beer-Lambert-Bouguer Law, is a fundamental principle in spectroscopy. It is used to determine the concentration of drug molecules in a sample. Mathematically, Beer-Lambert's Law is expressed as  $A = Ecl$

**Where:** A = Absorbance, E = Molar absorptivity (also known as the extinction coefficient), c = Concentration of the sample, l = Path length of light through the sample

According to Beer-Lambert's Law, the absorbance of a sample increases linearly with the concentration of the sample and the path length of light through the sample. The molar absorptivity is a constant for a given compound and is dependent on the wavelength of light used.

## QA Pharmaceutical Interview Questions for fresher

**Q. What is QA in a pharma interview?**

**Ans:** QA is stood for Quality assurance, QA department is responsible to ensure the quality of products through their lift periods, sampling intermediate and final products, and reviewing or assurance documents related to the products. Complying with the non-confirmation reports, market recalls, and market problems.

**Q. What is ADL in pharma?**

**Ans:** ADL stands for Analytical Development Department, As in the ADL department, you have to develop the methods used in the QC department. And as per the QC department, you have to just follow the set methods. So as per learning objectives, the ADL unit is the best way to start up and after getting 1 or 2 years of experience in method development you can switch either to QC or QA.

**Q. What is BMR in pharma?**

**Ans:** BMR is the Batch manufacturing records to record the processing activity.

**Q. What is calibration in pharma?**

**Ans:** Calibration is the accurate measurement of any instrument or analytical instrument.

**Q. What are analytical R and D?**

**Ans:** R&D stands for Research and Development

**Q. What is an API plant?**

**Ans:** The API plant is engaged in manufacturing Active Pharmaceutical Ingredients.

**Q. What is the master formula?**

**Ans:** Master formulas act as evidence for the manufacturing process. it is a master document containing the all manufacturing process for products. the master formula is prepared by the R&D department of the organization.

**Q. Which is Phase 3 of process validation?**

**Ans:** Process design

Process validation

Continue process validation

**Q. What are OOS and OOT in pharma?**

**Ans: OSS is out of specification: if the testing result of the sample found outside of comparison limits is called OOS**

**OOT is out of trend: if the comparison of historical data with respect to time.**

**Q. What is cleaning validation in pharma?**

**Ans: Since agency documents like the Inspection Guide for Bulk Pharmaceutical Chemicals and the Biotechnology Inspection Guide briefly touched on this topic, validation of cleaning techniques has been the subject of substantial controversy. These Agency materials make it crystal clear that techniques (processes) for cleaning should be confirmed.**

**Q. What is line clearance?**

**Ans: it is the verification process by the products and QA person to protect the products against undesirable effects or it is a standard operating process to ensure the work area, equipment, and environments are free from the last manufactured products.**

**Q. What are batch packing Records (BPR) in Pharma?**

**Ans: The batch packing record, which details the technique and step-by-step instructions to be followed throughout the packing of each batch, is a written record of the batch from the dispensing to the shipment stage. It comprises accurate packing data and functions as confirmation that batches were correctly created, examined by production, and validated by quality assurance staff. It also includes information such as who performed the activity, when the activity was performed, etc.**



**Q. Why C is small in cGMP?**

**Ans: Small c is used for current in GMP.**

**\*\*\*\*\*End of Documents\*\*\*\*\***

**Thank you**

**Team Pharmajobswalkin.com**