1.1 What is the need and purpose of research? Discuss the conceptual framework of research.

Ans: Research comprises "creative and systematic work undertaken to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications. It is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theorems, or develop new theories. A research project may also be an expansion on past work in the field. Research projects can be used to develop further knowledge on a topic, or in the example of a school research project, they can be used to further a student's research prowess to prepare them for future jobs or reports. To test the validity of instruments, procedures, or experiments, research may replicate elements of prior projects or the project as a whole. The primary purposes of basic research (as opposed to applied research) are documentation, discovery, interpretation, or the research and development (R&D) of methods and systems for the advancement of human knowledge. Approaches to research depend on epistemologies, which vary considerably both within and between humanities and sciences. There are several forms of research: scientific, humanities, artistic, economic, social, business, marketing, practitioner research, life, technological, etc.

The purpose of research can be a complicated issue and varies across different scientific fields and disciplines. At the most basic level, science can be split, loosely, into two types, 'pure research' and 'applied research'. Both of these types follow the same structures and protocols for propagating and testing hypotheses and predictions, but vary slightly in their ultimate purpose. An excellent example for illustrating the difference is by using pure and applied mathematics. Pure maths is concerned with understanding underlying abstract principles and describing them with elegant theories. Applied maths, by contrast, uses these equations to explain real life phenomena, such as mechanics, ecology and gravity. Conceptual Framework is like pre-planning wherein we define what the research will include. However, the position of conceptual framework within Qualitative and Quantitative Research varies. In case of qualitative research, the researcher defines the research problem and key variables which will be used to resolve the problem. However, in case of qualitative research inductive position is applicable wherein the researcher seeks to build up theory. In such a situation, existing theories can be misleading and therefore the conceptual framework emerges after the research is complete.

There are several inputs which are essential when working on a conceptual framework. The two main elements are:

- Experiential Knowledge: technical knowledge, research background and personal experience.
- Literature Review: related theory, related research and other theories and research related to the topic.

The key steps for development of conceptual framework are:

1. Identify the key variables used in the subject area of your study.
2. Draw out key variables within something you have already written about the subject area i.e. literature review.
3. Take one key variable and then brainstorm all the possible things related to the key variable.
4. After all the variables have been defined, focus on number of relationships they can form with each other to determine the inter-relationships between all.

It can be presented in the form of; flow diagrams, tree diagrams, mind maps or even shape based diagrams.

OR

1.2 What is historical research? Discuss the problems associated in conducting such a research.

Ans: Historical research enables you to explore and explain the meanings, phases and characteristics of a phenomenon or process at a particular point of time in the past. We differentiate historical research as a research strategy from the research of history, which refers to research in the discipline of history.

The variable focus of your research is time. Your essential aim is to identify appearances of your chosen phenomenon in a temporally defined situation and environment. The strategy of historic research is also suitable in other disciplines as it enables you to focus on exploring the historical appearances of phenomena. The strategy of historical research is linked to the strategy of hermeneutics, as defining and explaining events in the past are based on interpretations. You can, as in hermeneutic research, use various approaches. You can use a variety of methods of analysis. Qualitative analysis is the norm, but quantitative analysis can also explain the past. Historical research is that which utilizes historical sources like documents, remains etc. to study events or ideas of the past, including the philosophy of persons and groups at any remote point of time. Research can also be classified as conclusion oriented and decision oriented research while doing conclusion oriented research, a researcher is free to pick up the problem, redesign the enquiry as he proceeds and is prepared to conceptualize as he wishes. Design oriented research is always for the need of a design maker and the researcher in this case is not free to embark upon research according to his own inclination. Operation research is an example of design oriented research since it is a scientific method of providing executive departments with a quantitative basic for decisions regarding operations under their control.