CHAPTER 4

METHODOLOGY
The purpose of the present research work, the deliniation of the relevant variables and an overview of the previous studies related to the problem under study, having been focused in the earlier chapters (I,II & III), we have arrived at a place where the methodological plan to probe into their interrelation is necessary. It has already been highlighted that the present problem has been planned to examine the value pattern of professional and non professional groups as correlated with their occupational choice having contribution of other related psychosocial variables. For this purpose initially in the methodological plan the specific objectives of the present study with their appropriate reasons are to be laid down.

4.1. OBJECTIVES OF THE PRESENT STUDY

In line with the basic theoretical frame of the present topic as discussed in the introductory portion, the aim and objectives of the current research can be considered as follows.

(a) The first objective is to find out the value pattern of two different selected groups of professionals. It is expected that each specific profession has its own specificity and people go for a specific profession inorder to derive a specific kind of satisfaction or to meet a selective value trend. Allport (1961) states that a mature person needs a unifying philosophy of life to make meaning of his/her existence. An individual's philosophy is based upon value based conviction about what is a real importance in life indicating that a person's efforts are oriented to find order and meaning in his existence where value are the governing forces. For any adult individual's life span, conditions are responsible for a distinct value orientation. Each of them try to maintain the value specific trend in different activities of life. One of these is the choice of a particular profession. Being in a profession for quite sometimes it is expected that the background trend of the given set of individuals would have it's distinctiveness. Since different sets of professionals have been selected for the present work, the objective is to find out the distinct value pattern of
each of these professional groups.

(b) The second objective of the research is to evaluate whether there exists any difference in value pattern in an inter and intra group perspective of professionals and non professional service men. The human life pattern gets its colour and meaningfulness from several different aspects of life as such. Job context seems to be an important variable in this regard. People with different job contexts have different life style in terms of variations of standard of living, goal of life, modes of deriving pleasure in life. Since these conditions are very much involved in the economic resources of individuals and their associated social status. It is expected that there would be the differences in the goal directed behaviour i.e. value of different sets of people in different job contexts.

(c) The third objective is to see whether job satisfaction is related to specific value pattern of each group of professionals and nonprofessionals. Job context as a meaningful source of variations in individual's value system and life pattern seems to be highly related to the fact of whether the job itself is satisfying to the individual or not. The extent of job satisfaction seems to be a potent factor in setting the stage for the individual to derive the specific value trend. Hence a need is felt to see the degree of job satisfaction of the selected samples and its direct relation to their specific value pattern.

(d) The fourth objective is to study whether selfesteem as an important personality component is related to the specific professional context and their corresponding value pattern. Value as conceived by Allport (1960) is an integral part of one's personality. It is a binding force of all the personality elements. Selfesteem is the evaluation of his self-image together with his aspirational level. Whether selfesteem is related to the value pattern of specific job oriented conditions or not is an important
(e) Lastly to get a global view of the value system of different professional and nonprofessional groups, the objective is to see whether or not there occurs a difference in the pattern and nature of the value system of specific professional and nonprofessional group with adjustment areas in home, health, social, emotional and occupational areas in life of an individual in their particular job context. The fabrication of human life incorporates various changes and challenges from different corners. It is quite likely that these changes will tend to reorder a different shade to the kind of adjustment in different areas of life which would turn be related to the value system of the given individual. In the process of development each individual happens to have several exposures in life that invite significant changes in the adjustment pattern for dynamic life. Similarly such exposures orient a person toward a specific value trend. Hence whether these variables are related or not is the final objective of the present study.

4.2. FRAMING THE HYPOTHESIS

With these objectives in hand, when design of the study has to be decided upon, it is needed to frame the hypotheses of the present study. In this context it has been hypothesised that -

(1) with the controlled set of samples there will be found a recognisable uniform relationship of the value making a recognisable value pattern for different professional and nonprofessional groups.

(2) There will be found a unique way of patterning in value and other selected psychosocial variables in the professional and non-professional groups context.

(3) In a comparative perspective of the different categories of samples an intra
group differences of values and other psychosocial variables will be found.
(4) An inter group differences in terms of different male female orientation to
values and other psychosocial variables will be found.

4.3. SELECTION OF TOOLS

After discussing problem and implication of present research, the undernoted
tools were selected for the present study.
A) Information Blank
B) Allport Vernon Lindzey's study of values (Indian adaptation by K.
Roychowdhury 1958)
C) Bell's Adjustment Inventory (Adult Form)
D) Rosenberg's Selfesteem Scale
E) Job satisfaction instrument by R.S. Misra and Manorama Tiwari and D.N.
Pandey.

A schematic representation of Tools is given in Table along with their purpose
and suitability.

4.3.1. Description of Tools :

After presenting the tools schematically an attempt will be made to describe
the selected tools in detail.

A. The Information Blank -

The information blank, constructed by the researcher herself, appended in
Appendix A. Which aimed at eliciting certain basic information like age, sex,
education, type of profession, duration of service socioeconomic status etc. The items
of this blank were prepared in advance and were approved by the experts of the field.
### Table 4.1

**Tools Used in the Present Study**

<table>
<thead>
<tr>
<th>Purpose/Category</th>
<th>Tools used</th>
<th>Factor/variable measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening of the Sample group</td>
<td>Information Blank</td>
<td>Socioeconomic status qualification, age, sex, etc.</td>
</tr>
</tbody>
</table>

#### a. Values

- **Discriminator Variables**
  - Allport-Vernon-Lindzey's Study of values
  - a) Theoretical Value
  - b) Economic Value
  - c) Aesthetic Value
  - d) Political Value
  - e) Social value
  - f) Religious value

#### b. Adjustment

- **Bell Adjustment Inventory (Adult Form)**
  - a) Home adjustment
  - b) Health adjustment
  - c) Social adjustment
  - d) Emotional adjustment
  - e) Occupational adjustment
  - f) Degree of total adjustment

#### c. Selfesteem

- Rosenberg's selfesteem scale
  - Selfesteem

#### d. Job satisfaction

- Job satisfaction instrument by Misra, Tiwari, Pandey
  - Amount of job satisfaction

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**B. The Value Scale**

The Allport-Vernon-Lindzey study of values Indian adaptation by K. Roychowdhury (1958) (appendix B) was designed to measure the relative prominence of six dominant interest, motives or evaluative attitudes in personality. It was originally developed by G.W. Allport and P.E. Vernon in 1931 and was revised in 1960 by...
Allport, Vernon and Gardner Lindzey. The main change of this revised scale, according to the test manual are an improvement in the diagnostic power of items, a simplification of wording and a modernisation of certain items, a more economic scoring system, redefinition of social value, fresh norm and increase in the reliability of the test as a whole.

According to Super and Crites (1962), "this test is first of its kind, has been most thoroughly studied and is still most widely used". Reviewing the study of values Gage remarked, "the test gives impression of being an intelligent test for intelligent people. For counselling and vocational guidance and for research on a wide variety of psychological questions, the test is very good". Summarizing the merits of the test Harrison pointed out that "the study of values would appear to be dependable and informative instrument. It has a definite theoretical basis, its statistical properties are adequate and it yields scores which possess utility for both group and individual interpretation. Within the appropriate context the test possesses considerable merits and utility."

The study of values is basically rooted in Spranger's (1928) contention that personality can be inferred from an individual's values. Spranger in his book "Types of men" specifies six types of men, namely the theoretical, the economic, the aesthetic, the social, the political and the religious.

A. The theoretical: The theoretical person is primarily concerned with the discovery of truth. In doing so he assumes a cognitive approach, seeking only to observe and to reason. The theoretical individual basically searches for fundamental identities and differences, rejecting any consideration of beauty. The theoretical person is basically a philosopher, or intellectual or a scientist since his ideas and interests are rational,
critical and empirical. This person wants to achieve most in order to systematize his knowledge, though his level of achievement may not be very high since true value are revealed through interests than through achievement.

**B. The Economic**: The economic individual places high value upon what is useful or of practicality in life. He confronts closely to the stereotypes of the successful business person. The economic value generally extends to the everyday affairs of the business world like the production, the marketing and consumption of goods, elaboration of credit and the accumulation of wealth.

In their personal lives, the economic individuals mix luxury with beauty. Moreover in their relations with others, the economic individuals aspires to surpass others in terms of wealth rather than in knowledge (theoretical), service (social) or dominance (political). For the economic individual, education too should be of practical use and regard unapplied knowledge as waste.

**C. The Aesthetic**: The aesthetic individual places highest value on form and harmony. Grace, symmetry, fitness are the important criteria from the standpoint of which an aesthetic individual perceives his life. For him, life a chain of events with each individual impression enjoyed for its own sake. Such an individual may not necessarily be an artist but he never fails to identify the artistic episodes of life.

In direct contrast to the theoretical person, the aesthetic individual agrees with Keats that truth is beauty and with Mencken that to make a thing beautiful is million times more important than to make it true. Such persons oppose and detest the economic value and in social interactions they basically show interest in persons instead of their welfare. In their dealings with others, the aesthetic individuals turn toward self sufficiency and individuality.
D. The Social: The highest value of the social type is love of people. The social people are often kind, sympathetic and unselfish and prize other people's contact as ends. Such a person experiences the theoretical, economic or aesthetic values as cold and inhuman and regards love as the only strongest base of human relationship. In its purest form the social individual selfless and closely related to the religious value.

E. The political: The dominant interest of the political individual is power. However, vocational activities of this group of people are not necessarily confined to the area of politics. Because competition and struggle are inherent parts of the life process. Philosophers have stressed that power is the most universal and fundamental motive of human life. For Spranger, however, certain personality yearn for personal power which overrides all other in all respects.

F. The Religious: Religious individuals place their highest value on unity. Fundamentally mystical, they seek to understand the world as a united whole. The religious person is fundamentally oriented towards the creation of the highest and absolutely satisfying value expense, eg. some religious persons are eminent mystics' who find religious meaning from active participation in life while others are' transcendental mystics' who strive to unite themselves with a higher reality by withdrawing from life as for instance monks. Regardless of the particular type of expression, the religious person basically seeks unity and higher meaning in the cosmos.

Content of the Tests:

The test contains 45 questions and is divided into two parts. There are 30 items in Part I and 15 items in part II. It employs forced choice items which require a choice between 2 or 4 alternatives falling different value categories. In the first part,
two alternatives have to be rated either as 3 or 0 or 0 and 3 or 2 and 3 or 2 and 2 or 3, according to the agreement or disagreement with the statement I. In part II the 4 alternatives are rated in order of personal preference, giving 4 to the most attractive, 3 to the second most attractive, 2 to the next one and 1 to the least attractive alternative.

There is no time limit for the test but it takes about 30-40 minutes to complete the blank. Directions are simple and scoring is easy.

**Indian Adaptation** - The Allport-Vernon-Lindzey study of value was adopted in Indian situation by K. Roychowdhury in 1958. According to K. Roychowdhury "the adaptation of the scale in the Indian situation seems to be quite satisfactory". The author has simplified the instructions given in English and illustrated certain facts or situations from Indian history and life. No item was added or eliminated.

**Reliability of the scale:**

The reliability of this modified scale by the Kuder Richardson formula ranges from '82 to '89 as shown in table below.

<table>
<thead>
<tr>
<th>Value Dimensions</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>'92</td>
</tr>
<tr>
<td>Economic</td>
<td>'92</td>
</tr>
<tr>
<td>Aesthetic</td>
<td>'82</td>
</tr>
<tr>
<td>Social</td>
<td>'99</td>
</tr>
<tr>
<td>Political</td>
<td>'89</td>
</tr>
<tr>
<td>Religious</td>
<td>'92</td>
</tr>
</tbody>
</table>
Validity of the test - Validity has been determined on a group of 215 cases by product moment correlation obtained between the different value categories which suggests a good validity of the scale.

Suitability of the Test - The value scale is by far the most suitable for the present study. Other tests like the one by Alam and Srivastava were not considered as the Indian adaptation of the study of value was already available.

C. Adjustment Inventory

The Bell Adjustment Inventory appended in Appendix C. Constructed by H.M. Bell (1934-1939) has two forms which are self-administering. The student form was designed to measure adjustment in four areas, namely home, health, social and emotional. The adult form which was used by the researcher provides an additional score for occupational adjustment. The questions pertaining to each adjustment area are mixed random throughout the inventory, with the respondent being given no indication of the categories in which the responses are to be classified. The student form contains 140 questions while the Adult Form contains 160 questions. The score yielded are best interpreted in terms of excellent, good average, unsatisfactory or very unsatisfactory, for each areas of adjustment as well as for the total adjustment. The Adult Form provides five separate measures of personal and social adjustment. They are as follows -

a. Home Adjustment - It is a measure of whether the individual is satisfied or dissatisfied with his whole life and his associations. Individuals scoring high tend to be unsatisfactorily adjusted to their home surroundings. Those scoring low show satisfactory adjustment in their home life.

b. Health Adjustment - It is a measure of whether the individual has been ill, has
had major operations, suffers from minor ailments and the extent of his illness. Individuals scoring high tend to be unsatisfactorily adjusted to their health status. Low scores of individuals indicate satisfactory health adjustment.

c. **Social Adjustment** - It is a measure of whether the individual is shy, retiring, submissive or aggressive. Individuals scoring high tend to be submissive and retiring in their social contacts. Individuals with low scores are aggressive in their social contact.

d. **Emotional Adjustment** - It is a measure of whether the individual is easily disturbed, nervous, depressed, irritated or excited. Individuals scoring high tend to be emotionally unstable. Those scoring low tend to be emotionally stable.

e. **Occupational Adjustment** - Individual with high score tend to be dissatisfied with their present or past occupation. Those who score low tend to be pleased with their job.

**Reliability of the Bell Adjustment Inventory:**

The reliability of the five components of the Bell Adjustment Inventory are as follows:

<table>
<thead>
<tr>
<th>Areas of Adjustment</th>
<th>Coefficient of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>'91</td>
</tr>
<tr>
<td>Health</td>
<td>'81</td>
</tr>
<tr>
<td>Social</td>
<td>'88</td>
</tr>
<tr>
<td>Emotional</td>
<td>'91</td>
</tr>
<tr>
<td>Occupational</td>
<td>'85</td>
</tr>
<tr>
<td>Total</td>
<td>'94</td>
</tr>
</tbody>
</table>
**Validity** - The test was found to be valid.

**Suitability of the Test** - The authenticity of the Bell Adjustment Inventory cannot be questioned. It is one of the most well-known tests of measuring adjustment in so many areas in the life of an individual. Other tests for instance, the extroversion-introversion test or the MMPI measure only a particular dimension of personality. But the present research aimed at measuring adjustment at various corners of life and thus the Bell's Adjustment Inventory was selected.

**D. Rosenberg's self-esteem scale**

Rosenberg's (1965) self-esteem scale is a ten itemed scale where the subjects are asked to strongly agree, agree, disagree or strongly disagree with the statements. It can be scored either as a Guttman scale or according to Likert format. An instrument was required which would enable us to rank people along a single continuum ranging from those who had very high to those who had very low self-esteem. Guttman format was used in the present study.

**Reliability and reproducibility and scalability** -

This test has accumulated satisfactory reproducibility of 92% and scalability of 72%. This scale has been found to have respectable validity and reliability. The internal consistency of the scale is .86.

**Suitability of the scale**

Rosenberg's self-esteem scale have been selected in this study since it is short, convenient and widely used in our culture specially (Mohan and Bali, 1988). There are many other measures of self-esteem like Coopersmith self-esteem scale (1967), self-confidence scale of the Adjective Check list (Gough & Heilbrun, 1965) selfrating
depression inventory (Hunt, Singer & Cobb, 1967). But these scales were not found to be suitable for the present study on account of being lengthy. For this reason Rosenberg's (1965) self-esteem scale was selected for the present study.

E. The job satisfaction instrument

This inventory appended in Appendix E constructed by R.S. Mishra, Manorama Tiwari and D.N. Pandey (1977). The test include 11 important areas which are relatively more prominent. They are security, monetary remuneration, service conditions, future advancement, recognition of good work, social circle, working condition, nature of job supervisions, accommodation and leave facilities. These 11 areas have been split up into 41 statements. These statements are prepared in English.

Scoring -

The responses will be recorded against each statement under the five point scale - Most unfavourable, Unfavourable, Neutral, favourable and most favourable. The scale continuum has been divided in five equal interval scale and the arbitrary weightage the most unfavourable point was given 1 mark and most favourable 5 marks and the other marks are adjusted between these two lower and upper limits. But in case of negative statements the scoring will be in reverse i.e. most unfavourable response gets 5 marks and most favourable get 1 marks. This mechanism of positive and negative statement have considerably reduced the subjectiveness.

Interpretation Method -

On the basis of total scores three categories are made.
1. Fully satisfied - Above 105 score
2. Average satisfied - 71-105 score
3. Dissatisfied - Below 70 score

Reliability -
The coefficient of reliability determined by split half method and test retest method.

Table 4.4
Reliability of the job satisfaction instrument

<table>
<thead>
<tr>
<th>Method</th>
<th>Reliability Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Split half</td>
<td>.78</td>
</tr>
<tr>
<td>Test Retest</td>
<td>.69</td>
</tr>
</tbody>
</table>

Validity - The validation criterion used for this test was to correlate the scores of present test with scores of rating by the Head/Supervisors of the workers. The correlation coefficient was found to .68.

Suitability of the test - The job satisfaction instrument is suitable for the present study as because it is applicable in Indian culture, items are very easy to understand and not time consuming. There are other job satisfaction scales for instance, Minnesota Employee Satisfaction Questionnaire by Weiss, Davis, England and Lofquist (1967), Index of job satisfaction developed by Brayfield and Rothe (1951). But these scales were not suitable in Indian context. Though certain Indian job
satisfaction scales are there like job satisfaction and dissatisfaction by Lahiri and Srivastava (1967), job satisfaction scale by Dr. B.C. Muthayya (1976). These scales were not found to be suitable because the content and item of the tests were found to be inappropriate for the present investigation. That is why job satisfaction instrument by Misra, Tiwari and Pandey (1977) was used in the present research.

After the selection of the tools to be administered in a research plan, a stage arrives when the suitability as well as the applicability of the tests need to be verified by means of the prepiilot and pilot studies. These studies will be discussed in the next chapter.

After the prepiilot and pilot studies which serve as bases for the commencement of actual work, the nature of the sample, as well as the sampling technique adopted in this study need to be elaborated in the selection to follow.

4.4. TECHNIQUES OF SAMPLING

A sample is a smaller representation of a larger whole. It means the selection of the small group of population out of the total group in such a way that it might be able to represent the population. According to Freeman (1962) the data obtained in any investigation represent a sample drawn from a population. The adequacy of a sample will depend upon our knowledge of the population or supply (population of objects or things) as well as upon the method used in drawing the sample.

Before deciding the type of sampling used in the present study, a commonly used sampling methods need to be briefed in the following paragraph.

1. Random Sampling

This is a very common technique of sampling. The criteria for randomness in a
sample are a) every individual in the population has the same chance of being chosen for the sample b) when the selection of one individual or thing in no way influences the choice of another.

Cochran (1953) points out that random sampling can be categorized under three subgroups -

I. **Simple random sampling** is a method in which every population member is assigned a unique member, and sample items are selected by use of random numbers. It requires minimum knowledge of population and it becomes easy to analyze data and errors.

II. **Limited random sampling** - Limited random sampling can be classified into two categories.
   (a) **Stratified sampling** or quota sampling is a technique designed to ensure representativeness and avoid bias by use of a modified random sampling method. This scheme is applicable when the population is composed of subgroups or strata of different sizes. So that a representative sample must contain individuals drawn from each category or stratum in accordance with the size of the subgroups with each stratum the sampling is random - or as nearly so, as possible.

   The stratified sampling technique assures representativeness with respect to property which forms the basis of classifying units. The characteristics of each stratum can be estimated by this particular sampling technique and hence comparisons can be made.

   (b) **Cluster sampling** - It signifies such grouping that is already present in the population which should be as non homogeneous as possible. The sampling units are selected by some form of random sampling and the ultimate units are heterogeneous
groups. This technique yields lower field costs if clusters are geographically defined and the characteristics of clusters as well as those of population can be estimated. However, larger errors for comparable size than other probability samples are likely in this technique.

III. **Multi stage sampling** - This is a form of random sampling used in each of the sampling stages where there are at least two stages. This technique cuts down field costs if sampling units are geographically defined and also reduces variability. However, the errors are likely to be larger in this technique.

2. **Biased sampling**

   A biased sampling is characterised by the fact that there is every possibility of a systematic error in this sampling technique. The nature of samples mostly depends on the own decisions of investigator and the each individual being chosen for one investigation may be different from one another. Therefore in biased sampling no systematic error is followed.

*Purposive sampling* :

   A sample may be expressively chosen because in the light of available evidence, it mirrors some larger group with reference to a given characteristic. Though this sampling technique seems quite convenient, yet for the purpose of 'error-free' sampling, prior information should be collected about the population characteristics.

*Incidental sampling* :

   The term 'incidental sampling' should be applied to those groups which are used chiefly because they are easily or readily obtainable.
Thus it can be said that those different types of sample designs are based on two factors - the representation basis and the element selection technique. In case of representation basis sample may be probability sampling or it may be nonprobability sampling. Probability sampling is based on the principle of nonrandom selection. On element selection basis, sample may be either unrestricted or restricted. When each element is drawn individually from the population, the sample is called unrestricted whereas all other forms of sampling are covered under restricted sampling. Sampling Design can be summed up in the following table 4.5.

Table 4.5
Table showing Basic sampling design

<table>
<thead>
<tr>
<th>Element selection technique</th>
<th>Representation Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Probability sampling</td>
</tr>
<tr>
<td></td>
<td>Nonprobability sampling</td>
</tr>
<tr>
<td>Unrestricted sampling</td>
<td>Simple random sampling</td>
</tr>
<tr>
<td></td>
<td>Haphazard sampling</td>
</tr>
<tr>
<td>Restricted sampling</td>
<td>Complex random sampling</td>
</tr>
<tr>
<td></td>
<td>Purposive sampling</td>
</tr>
</tbody>
</table>


In conclusion therefore the process of sample selection can be summerized in the words of Russell Ackoff (1953) who states.

"From practical as well as purely scientific purposes it is necessary to use selection procedure whose error are measurable. A procedure should be capable of characterization relative to bias and variability. The fundamental procedure satisfying
these conditions is simple random sampling, a method in which each individual has an equal chance of being selected. Simple random sampling a method in which each individual has an equal chance of being selected. Simple random sampling is performed with the aid of random numbers, while systematic sampling is a variation which proceeds from a random start to select elements at a present interval.

By breaking the population into subgroups sample can be selected in stage. If a random sample is selected at each stage, we have a multistage random sample. If a complete count of sampling units is taken at one stage other than the last, we have a stratified sample. If a complete count is made at the last stage we have a cluster sample. The probability of selecting any subgroups may be made proportionate to some function of the size of the subgroup and the number of units selected from any subgroup may also be made proportionate to some such function. Proportionate sampling tends to reduce sampling errors. Stratification and clustering can be combined to yield efficient samples particularly where stratification and or clustering is based on geographic properties (i.e. in area sampling). Area sampling reduces the complexity of preparing sampling lists and permitting the clustering of subjects so that they come in bunches.

In double sampling a first sample can be used to provide information which can in turn be used to design an efficient second sample. Such sampling can also be used to reduce the number of observations required, on the average, for coming to a conclusion. When double sampling is generalized, it yields sequential sampling, a method of drawing one item or set of items at a time and using the data obtained to decide whether to continue sampling or not.

The ultimate basis for selecting a sampling procedure should be minimization
of the cost of getting the sample and the expected cost of errors which may result from using the method. Expert assistance should be employed in making such evaluation" (Ackoff: 1953, P 123).

4.5. SAMPLE AND ITS CHARACTERISTICS

Before adopting a sampling technique it is necessary to define the population appropriate for the investigation. The criteria of definition for the present investigation are as follows:

Age

In the present research three different sets of professions were selected. Of these three, two groups were professional group of doctors and engineers and the third one was individuals of general service holder that is in nonprofessional service category. The age range for three groups were 35-40 yrs. This mid life span was chosen for the fact that maturity in value system and other related preferences are expected to be reflected in this age range.

Sex

In the professional group of doctor and nonprofessional group of general service people, the subgroups had both female and male categories but the engineer had only male, since the female belonging to this category were found to be rare and the available female would not be matched in terms of the other criteria of the selected sample. Husband and wife combination in both professional or nonprofessional groups were not taken, since it was found that their attitude to life and job differed to a great extent rather than the individual samples of each group.

Socioeconomic Status

The present samples belonged to upper middle socioeconomic status
according to Kuppuswamy socio-economic status scale. Since the respondent were from an urban background, their level of income was also expected to be on higher side.

Education

All the subjects of any three of these groups had equal educational level of post graduate grade. The year of education in that sense has matched for each group which was at least five years after H.S. level. Hence the doctor were at least M.B.B.S. The engineer were BE degree holder and the member of nonprofessional group had P.G. degree in science faculties. This last group was selected only from science faculty in order to be comparable to two other science oriented group i.e., doctors and engineers.

Language Spoken and Religion

The respondents selected in the present study were Bengali Hindu male and females whose mother tongue was Bengali. However all of them were able to understand and communicate in English which aided in understanding the tools administered on them.

Area

The total sample were drawn from different localities of Calcutta. Doctors were selected from different Government Hospitals, Engineers from Government and private organisations and service holder nonprofessional group from different multinational companies.

Service Span

Service span for all the groups of professional and nonprofessional were
minimum seven years. Doctors, engineers were all service holder. Private practitioners were not included in the study, because of the variations expected to be caused by their income range and attitude towards life in general.

Size of Sample

In the present study 250 individuals belonging to three different sets of profession were investigated. Two groups were professional of doctor and engineer and the third one was individual of nonprofessional service group. In the professional group of doctors and nonprofessional group of general service people, the subgroup had 50 males and 50 females in each of them and engineers group had 50 males.

Mode of Sampling

Considering the various technique of sampling already discussed in section 4.3 and the various factors mentioned above the random stratified method of sampling which is also incidental in nature to quite an extent was selected.

4.6. ADMINISTRATION OF THE TESTS

The administration of the tests have been discussed in detail in section of 5.4 of Chapter V. In nutshell it may be mentioned that the three groups of sample were selected on the basis of above criteria. The final sample were administered the tools as per schedule mentioned in Chapter V. The procedure for the administration of the tests was similar to that adopted in the pilot study mentioned in section 5.3 of Chapter V.

Rapport was established for data collection with each of the respondents and the purpose of the investigation was made clear to each of them. An honest endeavour was made on part of the researcher to keep the testing conditions as constant as possible. Sufficient rest was given in between tests in order to eliminate
the effects of fatigue and monotony.

On the completion of testing, the respondents answers were scored following the scoring key given with each tools and the scores were then put to statistical analyser for further interpretation.

4.7. METHODS OF ANALYSIS

From the review of literature it appears that most of the studies on occupation and value have used univariate models of analysis for their investigation. But none of these studies are found to include the bivariate method of analysis which may be more appropriate in order to understand the inter-correlation among the variables selected for investigation. Because univariate methods ignore the structural relationship among the dependent variables, they do not allow the possibility of describing the data in terms of explanatory variables inferred from these relationship.

There are different types of multivariate procedure. Some of them are as follows.

Multiple Correlation Analysis

Multiple correlation analysis is characterised by the fact that it is the method which studies the relationship of a single quantitative dependent variable to a set of independent variables. The level of the multiple correlation is dependent on the level of intercorrelation of the other variables and the correlations between those variables and the criterion variable.

Regression Analysis

It is the statistical analysis of the functional dependence of an incidental variable on several dependent variables. In regression analysis, the values of the
Dependent variables can be obtained on the basis of the knowledge of the corresponding values of the independent variables. Regression analysis can also be used when casual connection between the explanatory variables and the criterion variable is not directly assumed and when two sets of variables are used at the same level, an expected score of the given explanatory variables can be obtained which can be used for the purpose of prediction.

Analysis of Variance and Covariance

Analysis of variance and covariance is an extremely useful technique in social science research. ANOVA is a procedure for testing the difference among different groups of data for homogeneity. By ANOVA one can investigate any number of factors which are said to influence the dependent variable. By this technique total variation in a set of data is broken into two components - one is due to chance and the other is due to certain causes. There may be variation between the sample and within the sample items. The basic principle of ANOVA is to test for difference among the mean by examining the amount of variation with the samples and between the sample. From a given set of data we estimate the variance between and within the sample and ratio of these variance is known as variance - ratio or F ratio.

The main objective of a covariance analysis is to obtain a reduced estimate of experimental errors by taking into account the regression of 'y' measures on the 'x' measures. If the 'y' measures are sufficiently correlated with the 'x' measures, then the analysis of covariance will report a smaller percentage of error than would be obtained from the analysis of variance of y measures alone.

4.8. PLAN OF ANALYSIS

Mode of analysis to be followed for testing the hypothesis if people are discriminated according to the degree of their value pattern, adjustment in various
areas of life along with self-esteem and job satisfaction. This is appropriate for a factorial design and has a special advantage over the other methods, scores were planned to be subjected to multiple correlation analysis in order to see the inter-correlation of the variable to a set of predictor variables.

**Table 4.6**

Plan of Data analysis

<table>
<thead>
<tr>
<th>Level of variables</th>
<th>Purpose</th>
<th>Mode of analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univariate</td>
<td>Descriptive</td>
<td>Mean and standard deviation</td>
</tr>
<tr>
<td></td>
<td>Test the inter-group difference in variables</td>
<td>ANOVA followed by t test</td>
</tr>
<tr>
<td>Bivariate</td>
<td>Examine the nature of bivariate analysis</td>
<td>Coefficient of correlation</td>
</tr>
</tbody>
</table>

Now all the aspects of the procedural details of the data collection will be detailed in the next chapter.