UNIT 5: TEST ITEMS

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5.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- understand the meaning and purpose of item analysis
- understand the analysis and selection process of test items
- explain the process of determining difficulty and discrimination of test items
- explain the procedure of distracter analysis
- understand the process of preparing different types of test items.

5.2 INTRODUCTION

A psychological test is basically a collection of a set of test items. An item is a statement in the form of a question. E. Lindquist defined an item as, "A scoring unit in an exercise." According to K. L. Bean, an item is "a single task or question that usually cannot be broken down into any smaller

unit". Nunnally described an item as the "lowest common denominator of a test". Hence, the quality of a test depends on the quality of test items to a large extent. The vital importance of item analysis can be understood from the fact that most of the important criteria including validity, reliability, and objectivity of a test depend on the quality of its items. Item analysis can ensure high reliability, validity, and objectivity by evaluating items and suggesting necessary improvement in them. Improving a test, in fact, means selecting appropriate items and revising improper items through the process of item analysis. Item analysis suggests deletion of unnecessary items from a test to make it shorter and at the same time to increase its validity and reliability. This is why item analysis is one of the most important aspects of test construction. However, item analysis is a broad term for a set of different methods used to evaluate test items. In this unit, a detail description regarding item analysis is presented so that learners can prepare different test items on their own.

5.3 MEANING OF ITEM ANALYSIS

Item analysis is a very important process of standardized test construction. Item analysis evaluates the quality of test items. Quality of a test depends on the quality of items. Hence, one cannot hope to construct a good test without analysing items constructed for the test. Item analysis in its simplest meaning is the process of determining relative difficulty level and discriminating power of the test items. In other words, the task of item analysis is to determine how difficult or how easy an item was, and whether the item could differentiate between good and poor students. The validity and reliability of a test also depend on the validity and reliability of the items in the test.

According to **Abodunrin**, item analysis is "the process involved in examining or analysing testee's responses to each item on a test with a basic intent of judging the quality of item specifically, the difficulty and discriminating ability of the item as well as effectiveness of each alternative."

In the views of **Guilford**, "The major goal of item analysis are the

improvement of total score reliability or total score validity and the achievement of better item sequences and types of score distributions. Both the validity and reliability of a test depend on characteristics of its items. Item analysis ensures high reliability and validity into a test in advance."

According to **Arthur S. Reber**, "In a narrower sense, the term (item analysis) will be used specifically for a measurement of how effectively each individual item contributes to the overall validity of the test."

According to **Baron-Cohen, Wheelwright, et** al, "Item analysis is a process in which responses to test items are examined in order to test the quality of those items. Statistical methods are routinely used to identify any test items that do not belong on the test. Items are removed when they do not show the same kind of patterns of association with other items that is observed among retained test items. In addition, an item analysis will reveal if an item is too easy, too difficult, and/or will show a difference between different types of test-takers."

While constructing a test, one has to construct more items than the number of items actually required for the test. These initial items are administered on a large sample and the answers are carefully analysed. After analysing the items for difficulty, discrimination, validity, reliability, objectivity, etc., selected items are retained for the final draft of the test and the defective items are discarded. This process of analysing items can ensure high quality of a test. Hence, item analysis is an indispensable part of the process of constructing a good test.

5.3.1 Objectives or purpose of Item Analysis

Item analysis allows the test constructor to exercise quality control over the test which is being constructed. Well defined objectives of learning and well-prepared items may help in good beginning in the process of test construction, but item analysis can give feedback on how successful the test actually was. The main objectives of item analysis may be listed as below:

- The first and foremost purpose of item analysis is to improve

the qualitative standard of test items for using it in the future.

- One important purpose of item analysis is to help the process of construction of appropriate, effective, high quality test. Item analysis helps in deleting and/or revising the defective or ineffective items.
- Another objective of item analysis is to determine the relative difficulty level of each of the items on the test. Items only with proper difficulty level are retained for the final draft of the test.
- Determining how well did the test distinguish between students or determining the discriminating power of each item is another objective of item analysis.
- Multiple choice type items use distracters with the correct answer to the item. Item analysis helps to know if all the distracters are functioning properly.
- Item analysis also helps to find out why some items did not work properly, and thus suggests ways to improve them
- Another important purpose of item analysis is studying the strengths and weaknesses in educational achievement of the test-takers.
- Item analysis throws light on the nature of students' achievement, effectiveness of teaching, and the characteristics of test items.
- Item analysis gives insight into the act constructing better items by way of studying the incorrect responses of the test-takers.
- The main purpose of item analysis is to evaluate the qualitative standard of a test. The final draft of a test is prepared on the basis of the findings about each of the items acquired through item analysis.

Thus, the purpose of item analysis is to assess how well a test is functioning. Besides, each item on a test is intended to sample performance of test-takers on a particular learning outcome. The test as a whole estimates the performance on all the learning outcomes. Hence, analysis of each item is a must if we want to know the performance of individuals on particular learning outcomes.



CHECK YOUR PROGRESS

Q 1: What is item analysis?

.....

Q 2: Mention any two purposes of item analysis.

.....

5.4 ANALYSIS AND SELECTION OF TEST ITEMS

The process of item analysis mainly involves the tasks of determining difficulty level and discriminating power of each item besides analysis of distracters. Psychometricians and test experts believe that there is no need for analysing the responses of all the respondents for determining the relative difficulty level and discriminating power of test items; analysing the responses of a section of respondents may serve the purpose well. For this, two groups from among the respondents of the items should be formed and named the 'High group' and the 'Low group'. In order to form these groups, all the respondents should be ranked on the basis of their scores in the test. Then, for convenience of statistical calculations, any percentage between highest 25% and 35% of respondents should be included in the High group and any percentage between lowest 25% and 35% of respondents should be included in the Low group.

It is important to note at this point that various formulas are used to determine difficulty level and discriminating power of test items. In the following section the process of determining difficulty level and discriminating power using simple and easily understandable formulas have been presented.

5.4.1 Determination of Difficulty Level

The difficulty level of item is simply the percentage of students who answer an item correctly. The item difficulty index ranges from 0.00

to 1.00; the higher the value, the easier the item. If an item is answered correctly by everyone, or everyone gets it wrong, then it must be understood that the item is too easy or too difficult to be included in the test. Such item will not discriminate between good and poor students. Hence items only with average difficulty level should be included in a test.

In order to determine the difficulty level of an item statistically, the total number of students answering an item correctly in both high and low group should be divided by the total number of students in the two groups. This calculation can be done by using the following formula:

$$D_f = \frac{C_H + C_L}{N_H + N_L}$$

Where,

D_f= Difficulty Index

C_H= Number of respondents who attempted the item correctly in the High group

C_L= Number of respondents who attempted the item correctly in the Low group

N_H = Total number of respondents in the High group

N_L = Total number of respondents in the Low group

For example, if an item is attempted correctly by 12 out of 20 students in the high group and 8 out of 20 students in the low group, then the index of difficulty level for the item would be:

$$D_f = \frac{C_H + C_L}{N_H + N_L} = \frac{12 + 8}{20 + 20} = \frac{20}{40} = 0.50$$

It is important to remind here that item difficulty index may range from 0.00 to 1.00; the higher the value, the easier the item. According to famous statistician **H.E. Garrett**, any index of item difficulty ranging from 0.40 to 0.60 is acceptable.

The following table shows the different indices of difficulty levels and their interpretations:

Table 5.1: Indices of item difficulty level

Difficulty Index	Difficulty Level
0.00-0.20	Very difficult
0.21-0.40	Difficult
0.41-0.60	Moderate/most acceptable
0.61-0.80	Easy
0.81-1.00	Very easy

Source: Asaad &Hailaya (2004)

The procedure and formula discussed above may help in analyzing the item difficulty level for a test. However, it has been observed that an item with proper difficulty level may not be able to distinguish between good and poor learners sometimes. For example, if an item is attempted correctly by 10 out of 20 students in the high group and 10 out of 20 students in the low group, then the index of difficulty level for the item would be 0.50;

$$D_f = \frac{C_H + C_L}{N_H + N_L} = \frac{10+10}{20+20} = \frac{20}{40} = 0.50$$

Though the difficulty level for the item mentioned above is acceptable, the item could not make any discrimination between good and poor learners; because, the item was answered correctly by an equal number of learners from both high and the low group. On the other hand if an item is attempted correctly by all 20 out of 20 students in the high group and none out of 20 students in the low group, then the index of difficulty level for the item would again be 0.50.

$$D_f = \frac{C_H + C_L}{N_H + N_L} = \frac{20+0}{20+20} = \frac{20}{40} = 0.50$$

But, the discriminating power of this item would be highest; because this item is answered correctly by all in the high group and none in the low group. This example shows that only acceptable index of difficulty level cannot make for good items. This is why

determination of discriminating power of an item is an indispensable part of item analysis.

5.4.2 Determination of Discriminating Power

A measuring tool must be able to discriminate between good and poor students. According to **Linn and Gronlund**, the discrimination index of an item is defined as "the degree to which it discriminates between students of high and low achievement". In other words, the item must be able to pick out and choose the good students from the poor ones; and more good students than poor students should be able to answer the item. There are various methods for determining the discriminating power of test item; one such method is to subtract the number of students giving correct answers in the low group from the number of students giving correct answers in the high group and dividing that by the number of students either in the high or in the low group. This calculation can be done by using the following formula:

$$D_S = \frac{C_H - C_L}{N}$$

Where,

D_S= Index of Discriminating power

C_H= Number of students attempting the item correctly in the High group

C_L= Number of respondents attempting the item correctly in the Low group

N = Total number of respondents in either the High or the Low group

For example, if an item is answered correctly by all the 20 students of the high group and by none in the low group, then the index of discriminating power of the item would be:

$$D_S = \frac{C_H - C_L}{N} = \frac{20-0}{20} = \frac{20}{20} = 1.00$$

In the same way, if an item is answered correctly by 10 out 20 in the high group and 10 out of 20 in the low group, then the index of discriminating power of the item would be:

$$D_S = \frac{C_H - C_L}{N} = \frac{10-10}{20} = \frac{0}{20} = 0.00$$

Important to note here is that, index of discriminating power of an item may range between +1.00 and -1.00. The highest level of discrimination of an item is indicated by +1.00 and this happens when an item is answered correctly by all the students of the high group and by none in the low group. When an equal number of students from both high and low group answer an item correctly, then the index of discriminating power would be 0.00. And a negative index of discrimination is obtained when more students from the low group than the high group answers the item correctly. Such item with negative index of discrimination should be readily deleted from the test.

The following table shows the different indices of discriminating power and their interpretations:

Table 5.2: Indices of discriminating power of test items

Index of discrimination	Interpretation
0.10 or less	Poor/ Questionable item
0.11-0.20	Not discriminating
0.21-0.30	Moderately discriminating
0.31-0.40	Discriminating
0.41-1.00	Very discriminating

Source: Asaad &Hailaya (2004)

5.4.3 Distracter Analysis

Distracter analysis is an important aspect of item analysis. In a Multiple Choice type item students are asked to select one of the alternatives from a list of possible answers. The correct alternative is called the key while the incorrect alternatives are called the

distracter. The function of a distracter in a Multiple Choice type item is to distract those test takers from the correct answer who actually do not know the answer. All the distracters in a multiple Choice Type item must work properly to make the item effective. Distracter analysis is the process of determining how the distracters were able to function effectively by drawing the test takers away from the correct answer. The process of distracter analysis involves counting the number of times each distracter is selected in order to determine the effectiveness of the distracter. An effective distracter should be selected by a significant number of respondents. However, an acceptable value in this regard depends to a large extent on the difficulty index of the item. For example, an item was attempted by a total of 100 students and the difficulty index of the item was 0.55, and it is expected that the remaining 0.45 should be evenly distributed among the distracters (item difficulty is equal to the percentage of students that correctly answered the item). Thus, if the item difficulty is 0.55, then 55 students answered the item correctly. Now if rest of all the 45 students selected option C, the distracters B and D are useless in their role as distracters. Similarly, if 25 students selected D and another 20 selected B, then C is not an effective distracter and should be removed. The ideal condition would be for each of the three distracters to be selected by 15 respondents. Therefore, for an item which has an item difficulty of 0.55, the ideal effectiveness of each distracter can be quantified as 15/100 or 0.15.

Distracter analysis of test items can also be done in another way. In this way, the formula used for determining item discrimination can be used in distracter analysis. However, the analysis and interpretation would differ from the regular item discrimination. Here, instead of a positive value, **a negative value is acceptable** since more students from the lower group should select distracters that are effective. In this method, the responses of the High and the Low group to an item is tabulated and the discrimination index calculated as shown below:

Table 5.3: Distractor analysis

Distractor	No of high group respondents who selected	No of low group respondents who selected	Index of Discrimination
A*	42	18	(42-18)/60=0.40
B	16	16	(16-16)/60=0.00
C	12	3	(12-3)/60=0.15
D	8	32	(8-32)/60=0.40

*** The Key or the correct answer.**

In the table above, Alternative A is the key and hence a positive value with a discrimination index of 0.40 is acceptable. The value for distracter B is 0 and this means the distracter could not discriminate between the good students in the high group and the poor students in the low group. Hence, effectiveness of this distracter is questionable and must be revised or removed. The positive value (0.15) obtained by distracter C shows that more of the good students selected this distracter. Hence, this distracter again is not functioning effectively. However, the final distracter, i.e. distracter D, has functioned effectively by attracting more students in the low group than in the high group. A distracter is effective when it seems to be the correct answer to poor students.

It is important to note here that if any distracter is not selected by any of the respondents from any of the groups, then the distracter is useless. When a distracter is not selected by anyone then it results in the reduction of one incorrect option and thereby helping respondents to guess the correct answer from the remaining options.



CHECK YOUR PROGRESS

Q 3: What do you mean by item difficulty level?

.....

Q 4: What is discriminating power of test items?

.....

Q 5: What is distractor analysis?

.....

5.5 PREPARING DIFFERENT TYPES OF TEST ITEMS

Results or scores on a good test must reflect the actual ability of the test-taker that the test supposes to measure. The type of test items to be constructed depends on the purpose of the test or the nature of the ability that the test intends to measure. Therefore, the test maker must have a good ground over the types of items with their relative merits and demerits. From a broad perspective, items can be categorized into two types: **Objective type test items, and Subjective type test items**

Objective type test items: This type of test items consist of factual questions that require very short answers that can be scored quickly and unambiguously by anyone with a scoring key. These items require short answers which usually consist of one word, a phrase or a sentence.

Subjective type test items: These types of test items involve subjective judgement of the scorer or evaluator. These items are difficult and expensive to prepare, administer and evaluate correctly, even though these items may be more valid.

Different types of objective type items include:

- Alternate response (true-false, yes-no) items
- Matching items
- Multiple choice items
- Completion items

Alternate response type test items: In this type of items, a factual statement is made and the learner is required to respond with any of the alternatives given (usually yes-no, or true-false) according to his judgement about the correctness of the statement. **The chief advantages** of this type of items include: these items are easy to prepare, can be scored objectively and they can cover a wide range of topics. Their **disadvantages**

include: not easy to construct the items that are definitely true or false or can simply be answered as yes or no, and they are prone to guessing.

Matching type items: This type of items require linking contents of one list to contents in another list. The test items are presented in the form of two columns of interrelated contents and ask the testee to link or connect the contents. The main **advantages** of this type of test items are: These items can measure associations and relationships as well as sequence of events very well; they can be used to ask questions beginning with who, when, where and what; these items are relatively easy to construct; and they are easy to score. The **disadvantages** of this type of items are: they cannot usually be constructed to measure higher order thinking and guessing is easy in this type of items.

Multiple choice test items: A multiple choice item is usually a statement followed by four or five alternative responses from which only the best or correct one must be selected. The statement or question is called the 'stem' and the alternatives or choices are the 'options' and the correct alternative is called the 'key. Incorrect options or alternatives are called 'distracters'. **Advantages** of multiple choice items are: they can measure various levels of learning; they are easy to score; very popular among all concerned; and proven to be an effective measurement tool. **Disadvantages** include: effective multiple choice items are difficult to construct; very well constructed items only can measure higher order of thinking; and contain a number of plausible distracters making it possible for the test-taker to guess the correct answer.

Completion type items: In completion type items, a sentence is presented from which an important word, figure, or phrase left out and learners are required to supply the words or figures which have been left out. These items are presented in the form of questions or phrases in which a learner is required to respond with a word or statement. **Advantages** of this type of item are: relatively easy to construct; can cover a wide range of content; and can reduce guessing. The **disadvantages** of this type of items are that these are primarily used for lower levels of thinking; items are sometimes ambiguous; construction is not simple; and scoring is dependent

on the judgment of the evaluator.

Different types of Subjective type test items: In general there are two types of test which are: Short answer type or restricted response items, and Essay type items or extended response items.

A. **Short answer type items:** These are fairly structured items that require brief answers, usually within few words or sentences. These items can represent wide area of topic. Their **advantages** include: more valid and reliable than essay type tests; reasonably free of subjective influences since the boundary of answers are stipulated; students cannot write irrelevant answers; preparation, administration, and scoring is easy; less time is required to answer the questions; these items are a combination of essay type and objective type items. **Limitations** of short answer type items are: restricts the scope of the topic to be discussed; and indicate the nature of the desired response and thereby limits originality.

B. **Essay type items:** These items are traditional and popular that require lengthy answers and demand higher level thinking like analysis, synthesis, explanation, comparison, presentation etc. These items are very useful for measuring educational achievement and testing the depth of knowledge among the students. However, essay type answers are alleged to be less valid, less reliable, and often subjective. **Advantages** of Essay type answers: they can measure higher cognitive abilities such as analysis, synthesis and evaluation; ascertain individual difference in terms of attitudes, values and creative thinking; they can test abilities of written communication, representation, expression, and understanding; construction and administration of essay items is easy and economic; they can develop the habit of deeper study among students. The **limitations** of essay type answers are: they cannot cover wide area of content since only a few questions can be asked; students write irrelevant answers since the scope of answer is not specified; validity, reliability, and objectivity of essay type items is

questionable; scoring of essay type answers is not free of subjectivity; time consuming; measures memory rather than learning and understanding; reduces the speed of thinking to the speed of writing.

5.5.1 Guidelines for Construction of Different Types of Test Items

Following are some of the guidelines for construction of different types of test items-

A. Guidelines for construction Objective type test items:

- Objective type item should be constructed in such ways that demand answers that are either right or wrong and each question should have only one possible answer. Words such as, 'all', 'generally', 'never', 'absolutely' or 'none' etc. should not be used because these words are ambiguous in many situations.
- Statements in true-false items must always be either true or false, and must be unambiguous or clear. Negative statements should not be used.
- In matching type of items an unequal number of premises and responses may be provided in order to reduce guessing. The items should be kept short. Headings for each column should accurately describe its content and the basis for matching specified.
- The completion type items must be specific and unambiguous. For example: Education is a _____ process; this item is ambiguous because various words such as "dynamic", "social", "bi-polar", "tri-polar" or many other can be correct answer. Similarly, another item: Gandhiji was born in _____ is not clear if it was asking his year of birth or the place or even the country of his birth. If the answer is numerical or a quantity, then the unit must be indicated in the question. Sometimes using 'an' before the blank gives

clue to the students that the answer must begin with a vowel.

- In a multiple choice items: a table of specification should be prepared to include items from topics and the skills to be tested. Multiple choice items should be constructed to test all the objectives of instruction. The statement of the item should state the problem clearly without unnecessary information. Options should be carefully selected and must include the best answer or key. Distracters should be relevant and not far-fetched. No item should provide clues or the answers to another question in the same test. All items should be independent. Tricky questions should be avoided and the instructions to test-takers should be very clear.

B. Guidelines for construction of subjective type test items:

- Test items should be prepared keeping the level of mental development of the test-takers in view.
- Items should not be too comprehensive, too general, and ambiguous.
- A model answer for every item should be prepared for guiding the act of scoring.
- Action verbs as solve, interpret, compare and contrast, discuss or explain should be used to direct the examinee to focus on the desired behaviour.
- Appropriate directions should be provided indicating expected length of the answer, time limits and features of the response that count in scoring.
- A scoring rubric should be created that would list the desired features of the response with a number of points awarded for each specific feature.
- In order to raise the reliability of items and to guard subjective scoring more than one evaluator may be employed to score the answers.
- The language used in writing test items should be clear and unambiguous.

- Useful words such as 'how', 'why', 'contrast', 'describe' and 'discuss' should be used in writing items for a test.
- The questions should clearly define the scope of the answer required.
- The time provided for the learner to respond to the questions should be sufficient.
- The items should match the goals or objective of testing.
- The length of the answer required should be specified.



5.6 LET US SUM UP

The unit can be summarized as-

- Item analysis is a very important process of standardized test construction. Item analysis evaluates the quality of test items. In its simplest meaning, item analysis is the process of determining relative difficulty level and discriminating power of the test items.
- The purpose of item analysis is to assess how well a test is functioning. It allows the test constructor to exercise quality control over the test. Item analysis serves the purpose of improving the qualitative standard of test items for using it in the future. It helps the process of construction of appropriate, effective, high quality test. Determining how well did the test distinguish between students or determining the discriminating power of each item is an objective of item analysis. The main purpose of item analysis is to evaluate the qualitative standard of a test. The final draft of a test is prepared on the basis of the findings about each of the items acquired through item analysis.
- The process of item analysis involves the tasks of determining difficulty level and discriminating power of each item besides analysis of distracters. The difficulty level of item is simply the percentage of students who answer an item correctly. In order to determine the difficulty level of an item statistically, the total number of students answering an item correctly in both high and low group should be

divided by the total number of students in the two groups.

- The discrimination index of an item is defined as the degree to which it discriminates between students of high and low achievement. An item must be able to pick out and choose the good students from the poor ones; and more good students than poor students should be able to answer the item. There are various methods for determining the discriminating power of test item; one such method is to subtract the number of students giving correct answers in the low group from the number of students giving correct answers in the high group and dividing that by the number of students either in the high or in the low group.
- Distracter analysis is an important aspect of item analysis. In a Multiple Choice type item students are asked to select one of the alternatives from a list of possible answers. The correct alternative is called the key while the incorrect alternatives are called the distracter. The function of a distracter in a Multiple Choice type item is to distract those test takers from the correct answer who actually do not know the answer. Distracter analysis is the process of determining how the distracters were able to function effectively by drawing the test takers away from the correct answer.
- From a broad perspective, items can be categorized into two types: Objective type test items, and Subjective type test items
  - Objective type test items consist of factual questions that require very short answers that can be scored quickly and unambiguously by anyone with a scoring key. These items require short answers which usually consist of one word, a phrase or a sentence.
  - Subjective type test items involve subjective judgment of the scorer or evaluator. These items are difficult and expensive to prepare, administer and evaluate correctly, even though these items may be more valid.
- Utmost precautions should be taken while constructing different types of test items following proper guidelines so that items can be made

valid, reliable, and objective.

5.7 FURTHER READING

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5.8 ANSWERS TO CHECK YOUR PROGRESS

Ans to Q No 1: Item analysis is a very important process of standardized test construction. Item analysis evaluates the quality of test items. Quality of a test depends on the quality of items. Hence, one cannot hope to construct a good test without analysing items constructed for the test. Item analysis in its simplest meaning is the process of determining relative difficulty level and discriminating power of the test items. In other words, the task of item analysis is to determine how difficult or how easy an item was, and whether the item could differentiate

between good and poor students. The validity and reliability of a test also depend on the validity and reliability of the items in the test.

Ans to Q No 2: Two purpose of item analysis are: (i) one important purpose of item analysis is to help the process of construction of appropriate, effective, high quality test. Item analysis helps in deleting and/or revising the defective or ineffective items, and (ii) another objective of item analysis is to determine the relative difficulty level of each of the items on the test. Items only with proper difficulty level are retained for the final draft of the test.

Ans to Q No 3: The difficulty level of item is simply the percentage of students who answer an item correctly. The item difficulty index ranges from 0.00 to 1.00; the higher the value, the easier the item. If an item is answered correctly by everyone, or everyone gets it wrong, then it must be understood that the item is too easy or too difficult to be included in the test. Such item will not discriminate between good and poor students. Hence items only with average difficulty level should be included in a test. In order to determine the difficulty level of an item statistically, the total number of students answering an item correctly in both high and low group should be divided by the total number of students in the two groups.

Ans to Q No 4: The discrimination index of an item is defined as the degree to which it discriminates between students of high and low achievement. In other words the item must be able to pick out and choose the good students from the poor ones; and more good students than poor students should be able to answer the item. Out of the various methods for determining discriminating power of test item one method is to subtract the number of students giving correct answers in the low group from the number of students giving correct answers in the high group and dividing that by the number of students either in the high or in the low group.

Ans to Q No 5: Distracter analysis is an important aspect of item analysis. In a Multiple Choice type item students are asked to select one of the alternatives from a list of possible answers. The correct alternative is

called the key while the incorrect alternatives are called the distracter. The function of a distracter in a Multiple Choice type item is to distract those test takers from the correct answer who actually do not know the answer. Distracter analysis is the process of determining how the distracters were able to function effectively by drawing the test takers away from the correct answer. The process of distracter analysis involves counting the number of times each distracter is selected in order to determine the effectiveness of the distracter.



5.9 MODEL QUESTIONS

Short Questions (Answer each question in around 150 words)

Q 1: What is the importance of item analysis?

Q 2: What are the merits and demerits of objective type test items?

Q 3: Write about the different types of test items.

Long Questions. (Answer each question in around 300-500 words)

Q 1: Explain the process of determination of difficulty level of test items.

Q 2: Explain how discriminating power of test items are calculated.

Q 3: Explain the process of distracter analysis.

Q 4: Suggest some measures to improve the quality of essay type test items.

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