

APPENDIX I

ADOLESCENTS' QUESTIONNAIRE

Dear Friend,

I am sure you are aware of the many difficulties that people of your age are facing nowadays. This Questionnaire is meant to study some of these difficulties with a view to helping teenagers. I am sure that you will not mind answering these questions, since eventually you will be rendering a great service to others who have the same or greater difficulties than you have. The information that you will give will be kept strictly confidential.

Thanking you,

Yours sincerely,

(Miss) L. Menezes.  
Professor of Psychology  
& Students' Counsellor.

-----

PART I

Instructions : The following are some statements regarding family life. Kindly express your opinion by putting a tick under one of the four alternatives provided in the Answer Sheet given to you.

- 1 a) Do you and your parents go for movies or for outings together ?  
b) Do you and your parents listen to the radio or watch TV together ?  
c) Do you and your parents go visiting friends and relatives together ?
- 2 a) Do you and your parents have meals together ?  
b) Do you and your parents say prayers together ?  
c) Do your parents go out and return late at night ?
- 3 a) Do your parents discuss their work and activities with you ?  
b) Do you discuss your classwork with your parents ?  
c) Do you discuss your school problems as regards teachers, friends or studies with your parents ?
- 4 a) Do your parents let you help decide everyday family rules and daily activities ?  
b) Do your parents invite your opinion or suggestions when there is a family problem ?  
c) Do your parents invite your suggestions in their own personal problems ?

- 5 a) Do your parents organise your free time for you ?  
b) Do your parents tell you what you have to wear ?  
c) Do your parents tell you with whom you can go out and when you have to be back ?
- 6 a) Are your parents after you to work hard to become a success?  
b) Are your parents disappointed when your results are not as they expected ?  
c) Do your parents force you to join special classes or courses in order to get good results ?
- 7 a) Do your parents inspire you to do your best ?  
b) Do your parents encourage and appreciate your successes ?  
c) Do your parents provide you with special help to develop your abilities ?
- 8 a) Do your parents openly show affection for each other ?  
b) Do your parents agree with each other with regard to your upbringing ?  
c) Do your parents consult each other on everyday matters of the home ?
- 9 a) When you discuss your problems with your parents, do they insist that you listen to them and do as they tell you because they are your parents ?  
b) Do they give you suggestions and leave the decision to you?  
c) Are they non-interfering and let you do what you like, when you have a problem ?
- 10 a) When you have a problem, do your parents listen to the problem ?  
b) Do your parents understand the kind of problems you have ?  
c) Do your parents help you to solve your problems ?
- 11 a) Do your parents openly show affection for you by kissing, hugging etc. ?  
b) Do your parents openly show affection for you by their words ?  
c) Do your parents openly show affection for you by caring for your needs and comforts ?
- 12 a) How confident do your parents seem to be that you will behave properly away from home ?  
b) How confident do your parents seem to be that you will spend your pocket money wisely ?  
c) How confident do your parents seem to be that you will not waste your time and devote sufficient time to your studies ?

- 13 a) Does either parent ever seem to wish that you were a different sort of person ?  
b) Does either parent accept you with your weak qualities ?  
c) Does either parent appreciate the good qualities in your character ?
- 14 a) Would you like to be the same parent to your child that your parents have been to you ?  
b) Would you like to have the same relationship with your marriage partner as your parents have with each other ?  
c) Would you choose a marriage partner who resembles one of your parents ?
- 15 a) Do you agree with your parents' ideas about life ?  
b) Do you agree with your parents' ideas about religion ?  
c) Do you agree with your parents' ideas about values in life ? (Examples of values are money, fame, justice, honesty, etc.)
- 

PART II

1. What sort of person is your mother ?
2. What sort of person is your father ?
3. What do you like most about your home and family ?
4. What would you like to change about your home and family ?

PART III  
*Youth Adjustment Analyzer*

by

**Dr. (Miss) Mehroo D. Bengalee** M. A., M. Ed. Ph. D.

(Under the guidance of Dr. T. R. Kulkarni, M. A., L. M. P., Reader, Dept. of Applied Psychology,  
Univ. of Bombay)

---

### Introduction

The main object of this investigation is to find out in a limited way, the pattern of personality of youth in general.

The booklet contains a number of statements regarding your parents/guardians and past life. Further, there are statements which describe certain beliefs, attitudes, and the state of mind and body. Information regarding 'likes' and 'dislikes' is also sought.

To answer it, you have to state whether the particular statement is 'true' in your individual case or 'false'. If it is true, you have to cross out 'T' on the answer-sheet; if it is false, you have to cross out 'F'. When you are certain you cannot answer it as 'true' or 'false', then cross out the '?'. All answers are to be entered on a separate answer-sheet specially provided for the purpose. Do not make any marks on this booklet. Be sure that the number of the statement on the booklet is the same as the number on the answer-sheet. Work as fast as you can, without making mistakes.

Remember, this is not a test of intelligence or abilities. There are no correct or incorrect answers. Each answer has its own importance.

All information that is supplied in this booklet, will be treated as strictly confidential, and in no case will the name of the student or his family be mentioned in any communication or report. It is hoped, therefore, that every student will carefully go through the statements and give what he/she honestly believes to be the true answers, in all simplicity and sincerity without any mental reservation.

Follow all further instructions carefully.

**Do not open the booklet until you are told to do so.**

---

## PART I (a)

## Instructions

Please read the following statements, one by one, very carefully. If you think they truthfully describe the attitude shown to you by your parents, then cross out, 'T' like this + on the answer-sheet, against the number of statements. In case you consider the statements false as applied to your own case, cross out 'F' like this + on the answer-sheet. In case of doubt, cross out the '?' like this +.

If you were brought up by persons other than your parents, then answer the statements with regard to the people who were responsible for your upbringing.

When I was young, my parents,

1. Exacted too much work from me.
2. Treated me with courtesy and due consideration.
3. Gave me a free hand in matters of sports, hobbies and companionship.
4. Allowed me to upset home routine.
5. Dealt with me firmly but sympathetically in all acts of misconduct.
6. Often blamed me for anything that went wrong at home.
7. Supervised my activities to the point of thwarting.
8. Were quite sensible and affectionate in their dealings with me.
9. Enforced a very strict obedience to them.
10. Allowed me to talk freely with them on matters of sex.
11. Gave proper attention to my health and education.
12. Allowed me to have my own way.
13. Did not allow me to play with whomsoever I liked.
14. Threatened me with punishment of a severe kind.
15. Exercised practically no control on my behaviour.
16. Approved of almost everything I did.
17. Always told me that they knew that was best for me.
18. Inflicted severe punishments on me for practically no fault of mine.
19. Often objected to the kind of friends I went around with, inspite of my friends being unobjectionable. ✓
20. Loved me. ✓
21. Manifested their love to me by excessive hugging, caressing, and so on.
22. Used threats of sending me away. ✓
23. Unfairly criticised me. ✓
24. Did not speak well of me. ✓
25. Set high standards for me that I considered far above my capacities to achieve. ✓
26. Never gave me a soft look or gesture. ✓
27. Were in the habit of denying me even my simple requests. ✓
28. Ordinarily wanted me to do what they said and not what I wished to do. ✓
29. Showed a tendency to find excuses for my flaws.
30. Constantly overpraised me in the presence of others.
31. Gave in to my wishes whether I was right or wrong.
32. Often defended me even when I was wrong.
33. Ridiculed me before others.
34. Gave me a clear indication that I was an unwanted child in the family.
35. Prevented me from doing anything independently.

PLEASE READ FURTHER

## PART I (b)

**Instructions**

Please read the following statements one by one, very carefully. If you think they truthfully describe the general home conditions, when you were young, then cross out 'T' like this + on the answer-sheet, against the number of statements. In case you consider the statements false as applied to your own case, cross out 'F' like this + on the answer sheet. In case of doubt, cross out the '?' like this +

If you were brought up by persons other than your parents, then answer the statements with regard to the people who were responsible for your upbringing.

- |   |   |
|---|---|
| 36. My mother died at my birth.   | 53. I was dissatisfied with the conditions prevailing at home.                          |
| 37. I constantly had the feeling of loyalty or duty to my parents.                                      | 54. I loved my mother.  |
| 38. I had a strong desire to run away from home.  | 55. I kept no secrets from my parents.  |
| 39. I had reasons for feeling jealous of one or more members of my family.                              | 56. I did not have any children of my age to play with, when I was young.               |
| 40. I could fully confide in my parents and seek their advice in all matters.                           | 57. My parents and my family members found more fault with me than they should have.    |
| 41. I had an impression that there was lack of real love and affection between my father and my mother. | 58. The conditions at home were clearly unfavourable to me.                             |
| 42. My parents seemed to have been disappointed in me.  | 59. I was unhappy for not having an attractive home.                                    |
| 43. I seldom felt that conditions at home needed some improvement.                                      | 60. I liked the way my parents treated me.  |
| 44. I could find more happiness at home than anywhere else.   | 61. The atmosphere at home was friendly and cheerful.                                   |
| 45. I liked my home.  | 62. I had a happy childhood.  |
| 46. I sometimes felt like remaining alone or being away from the family.                                | 63. My mother was a good woman.   |
| 47. On certain occasions I was forced to leave home in order to have peace.                             | 64. My Mother was an irritable woman.   |
| 48. I dreaded being close to my father.   | 65. My father was a kind man.   |
| 49. My mother seemed to pass a very miserable life.   | 66. I had an impression that my brother/sister was more favoured by my parents than me. |
| 50. My parents had permanently separated.   | 67. My family had always treated me well.   |
| 51. I was jealous of the extra attention given to my brothers/sisters.                                  | 68. My father lost his job and remained dependent on relatives for sometime.            |
| 52. I always felt that it was difficult to find happiness at home.                                      | 69. My relationship with the members of my family was fairly satisfactory.              |
|   | 70. I maintained good relations with my brothers and-sisters.                           |

PLEASE READ FURTHER

## PART II

## Instructions

Please read the following statements one by one very carefully. If you think they truthfully describe your own opinion, belief, attitude, habit, or state of mind or body, then cross out "T" like this + on the answer-sheet against the number of the statements. In case you consider the statements false as applied to your own case, cross out 'F' like this + on the answer-sheet. In case of doubt, cross out the '?' like this +.

- |   |  |
|---|--|
| 71. Horses that don't pull should be beaten or kicked.  | 88. I take a very long time to get reconciled to a person, even though he is sorry for the misunderstanding aroused. |
| 72. I am often inclined to go out of my way to win a point with someone who has opposed me.                       | 89. I am troubled by attacks of nausea and vomiting.   |
| 73. I cannot tolerate my associates being friendly with persons whom I don't like.                                | 90. I am certainly lacking in self-confidence.   |
| 74. I have done dangerous things for the thrill of it.  | 91. I frequently suffer from bodily aches and pains.   |
| 75. I am troubled with the fear of being crushed in a crowd.  | 92. Once in a while I think of things too bad to talk about.   |
| 76. I think, I would be better off dead.  | 93. I think, I have some complaints which probably no doctor would be able to diagnose.                              |
| 77. I am often so annoyed when someone tries to get ahead of me in a line of people that I speak to him about it. | 94. When someone does me a wrong I feel I should pay him back if I can, just for the principle of the thing.         |
| 78. I can hardly do anything to improve my ways, since I did not receive the necessary training in my childhood.  | 95. Sometimes when I am not feeling well, I am cross.  |
| 79. I have had periods of such great restlessness, that I could not sit long in a chair.                          | 96. The thought of an earthquake or a fire frightens me.   |
| 80. I get mad easily, and then get over it soon.  | 97. I deserve severe punishment for my sins.   |
| 81. People frequently are so unkind to me that I feel like crying.  | 98. I am troubled by feelings of inferiority.  |
| 82. I believe, I am being followed.   | 99. I am often tense or high-strung.   |
| 83. Things often slip from my hands even when I take great care in handling them.                                 | 100. I have often been frightened of the idea that my parents/guardians might die leaving me dependent on others.    |
| 84. Shyness prevents me from approaching people.  | 101. I have a feeling that I cannot get on well with people.   |
| 85. People around me are unfairly critical.   | 102. Spanking is a good form of discipline.  |
| 86. I am often seized with the idea that I may fall down when standing on a height.                               | 103. I have often found people jealous of my good ideas just because they had not thought of them first.             |
| 87. I usually feel that life is worthwhile.   |  |

PLEASE READ FURTHER

104. At times I have fits of laughing and crying that I cannot control.
105. Many people seem perfectly willing to take advantage of me.
106. I am frequently burdened by a sense of remorse.
107. My feelings are easily hurt.
108. I feel flattered when I am praised.
109. Parts of my body have feeling like burning, tingling, crawling or like "going to sleep".
110. There seems to be a lump in my throat most of the time.
111. I think I wash my hands and my feet rather too often and for too long a time.
112. Sometimes when embarrassed, I break out in a sweat which annoys me greatly.
113. I usually require a rather long time to fall asleep at night.
114. I think, I worry more than most people.
115. I frequently notice that my hand shakes when I try to do something.
116. A child should be taught that his parents always know what is best.
117. Things are so cross these days, that to be interested in doing anything is to invite trouble.
118. I find it difficult to associate with the opposite sex.
119. Any joke at my expense causes such distress to me that I feel useless for quite some time.
120. Borrowing small articles from others and not returning them, need not be taken as criminal.
121. I have very few fears compared to my friends.
122. I dread snakes and wild animals so much, that I refuse to go to places where they are likely to be found.
123. At times I feel very proud of my achievements.
124. I would rather win than lose a game.
125. I am not easily downed in an argument.
126. As a youngster, I was suspended from school one or more times for cutting up.
127. I am not likely to speak to people until they speak to me.
128. It would make me nervous if any member of my family got into trouble with the law.
129. I get angry sometimes.
130. One should follow one's opinion rather than care for the opinion of others.
131. I enjoy a race or a game better when I bet on it.
132. I am often discouraged because people fail to recognise my worth.
133. When faced with excitement or unexpected situations, I become nervous or jumpy.
134. Even the slightest physical trouble usually keeps me disturbed for rather a long time.
135. I often have severe headaches.
136. My mind wanders, so that I sometimes lose trace of what I am doing.
137. Whenever I see some people talking amongst themselves, I feel that they are talking about me.
138. I have often to make classmates do things that they don't want to do.
139. It is disobedience rather than obedience that sometimes pays.
140. At times I feel like smashing things.
141. I daydream rather too much.
142. Things are so hard these days, that it is no wonder that many should be forced to use corrupt means to live a happy life.
143. Several times a week, I feel as if something dreadful is about to happen.
144. I try to convince people of my own beliefs and do not feel satisfied till they also have the same beliefs.
145. I sometimes feel that the world around me can offer nothing.
146. I suffer from frequent palpitations of heart though I have no heart disease.
147. I enjoy seeing my rivals in difficulty.
148. I frequently consult an astrologer.

PLEASE READ FURTHER

149. Teachers, these days, lack the tallness to command any respect.
150. I get discouraged easily.
151. Sometimes I exaggerate facts to suit my convenience.
152. At times I find it difficult to resist the impulse to hit back a person who has offended me.
153. I am considered a failure in many of the things I do.
154. If things are not agreeable to me, I would say it out to my friends even at the cost of losing their love or approval.
155. Some people are so bossy, that I feel like doing the opposite of what they request, even though I know they are right.
156. Once in a while I put off until to-morrow what I ought to do to-day.
157. I worry about catching a serious disease like cancer or T. B.
158. I find that I cannot make up my mind until the time of action has passed.
159. My sleep is fitful and disturbed.
160. I would rather hide my faults and weaknesses, than own them publicly.
161. When arguing, I use sharp and cutting statements to hurt my opponents.
162. Once in a while I laugh at a dirty joke.
163. It bothers me to be alone even for a short time.
164. On some special occasions, I experience a peculiar feeling that I may behave in an unbecoming manner.
165. I feel that I am possessed by evil spirits.
166. Once a week, or oftener, I suddenly feel hot all over without any apparent cause.
167. I do not find any pleasure in meeting danger.
168. I have nightmares.
169. It is peculiar with me that I often meet with accidents.
170. It makes me feel like a failure when I hear of the success of someone whom I know well.
171. I am afraid of losing my mind.
172. If I get annoyed with someone, I won't rest content till I have hurt his feelings in some way.
173. I brood a great deal.
174. I have never had a fainting spell.
175. It is right to create a scene in order to get your own way.
176. In stepping down from a train, a peculiar idea suddenly haunts me that the train would start and I would be run over.
177. I seem to have no pleasure for learning anything.
178. One may use any means to beat back a rival.
179. I do not like everyone I know.
180. My ways of doing things are apt to be misunderstood by others.
181. Even though of sound physique, I have a feeling of general weakness of the body.
182. Whenever I go out, I feel safe only if I have a companion.
183. At times I feel like picking a first fight with someone.
184. Most of the time I feel I have done something wrong or evil.
185. In the present context of things it is very difficult to be sincere and conscientious about anything.
186. I am sure I do not get a fair deal from life.
187. When I get bored, I like to stir up some excitement.
188. Sometimes I lose courage.
189. Generally I am misunderstood by others.
190. I do not always tell the truth.
191. The thought, that I am not understood by people, haunts me.

PLEASE READ FURTHER

192. At times I chat with my friends during class hours.
193. I gossip a little at times.
194. I have been susceptible to attacks of asthma, eczema, skin rashes, etc.
195. I easily lose patience with people.
196. I am likely to stutter when I get worried or excited.
197. Only cowards can bear insults.
198. The so-called moral or spiritual ideals seem to have lost their battle for existence, owing mainly to their own weaknesses.
199. A call for self-denial amounts, at least, to a partial appeal to suicide.
200. People say that my actions are unpredictable.

### PART III (a)

#### Instructions

Please read the following pairs of statements very carefully. You have to choose one of the two which you like better. Indicate your choice by crossing out either A, like this  $\times$  or B, like this  $\times$ ; on the answer sheet.

You may like both A and B. In that case, you would have to choose between the two, and you should choose the one that you like better.

Your choice should be in terms of what you like and not what you ought to like.

Make a choice for every pair of statements; do not skip any.

- 201 A. I like to stay with my friends.  
B. I like to stay with my parents.
- 202 A. I like an outdoor life of romance and adventure.  
B. I like a peaceful life.
- 203 A. I like to travel.  
B. I like to ramble endlessly.
- 204 A. I like clean and comfortable dresses.  
B. I like fashionable, attractive and expensive dresses.
- 205 A. I like films of music and dancing.  
B. I like films of love, adventure and fighting.
- 206 A. I like friends who are entertaining.  
B. I like friends who are helpful.
- 207 A. I like to entertain my friends.  
B. I like to entertain my teachers.
- 208 A. I like to have more friends of my own sex.  
B. I like to have friends of the opposite sex.
- 209 A. I like to offer drinks to my friends.  
B. I like to spend on drinks only for myself.
- 210 A. I like to watch people fighting.  
B. I like to take part in fighting.
- 211 A. I like day-school because I can return to my parents.  
B. I like boarding-school because I can be with my friends for a longer time.
- 212 A. I like to read detective stories and mysteries.  
B. I like to read any story.
- 213 A. I like to lead an easy life.  
B. I like to take risks in life.
- 214 A. I like to play cards.  
B. I like to play cards only when there is hope of winning some money.
- 215 A. I like to pray quietly on my own.  
B. I like to take part only in common prayers.
- 216 A. I like to keep back things which I have found.  
B. I like to give away things which I have found.

PLEASE READ FURTHER

- 217 A. I like to take up any job offered to me.  
B. I like to make preparations in advance for a professional career for myself.
- 218 A. I like to study subjects taught in a school.  
B. I like to learn any trade taught in a work-shop.
- 219 A. I like games like cricket and table-tennis.  
B. I like games like football, hutu-tutu and kabadi.
- 220 A. I like to take part in concerts.  
B. I like to attend concerts.
- 221 A. I like to listen to 'musharas' and 'kavi sammelans'.  
B. I like to listen to talks on radio.
- 222 A. I like to lead an expedition.  
B. I like to be led in a new adventure.
- 223 A. I like to respect all elders.  
B. I like to respect those who deserve.
- 224 A. I like to be recognised.  
B. I like to be loved.

### PART III (b)

#### Instructions

Please read the following pairs of statements very carefully. You have to choose one of the two which you dislike more. Indicate your choice by crossing out either A like this × or B like this × on the answer sheet.

You may dislike both A and B. In that case, you would have to choose between the two, and you should choose the one that you dislike more.

Your choice should be in terms of what you dislike and not what you ought to dislike.

Make a choice for every pair of statements ;do not skip any.

- 225 A. I dislike associating myself with cowards.  
B. I dislike associating myself proud people.
- 226 A. I dislike back-biters.  
B. I dislike those who put me in trouble.
- 227 A. I dislike teachers who are strict.  
B. I dislike teachers who are partial.
- 228 A. I dislike wearing used clothes.  
B. I dislike wearing tight-fitting clothes.
- 229 A. I dislike friends who show off  
B. I dislike friends who always want to lead.
- 230 A. I dislike boasters.  
B. I dislike people who talk only about themselves.
- 231 A. I dislike doing work the whole day.  
B. I dislike doing nothing
- 232 A. I dislike my parents telling me "do this" and "do that".  
B. I dislike authority of any kind.
- 233 A. I dislike staying in a home even when there is complete freedom.  
B. I dislike staying in a home where there is no freedom.
- 234 A. I dislike being dependent.  
B. I dislike working under strict supervision.
- 235 A. I dislike spending my spare time at home.  
B. I dislike spending my spare time outside.
- 236 A. I dislike to misbehave.  
B. I dislike to be caught when misbehaving.
- 237 A. I dislike using counterfeit coin.  
B. I dislike travelling without paying the fare.
- 238 A. I dislike depriving somebody of his belongings.  
B. I dislike telling lies to escape punishment.
- 239 A. I dislike people using abusive language.  
B. I dislike people using vulgar language.
- 240 A. I dislike to be dictated to.  
B. I dislike to be under watch.

PART IV

Instructions : A number of statements indicating adjustment in various facets of life are given below. Please read each statement carefully and on the Answer Sheet given to you, put a tick in the appropriate column.

A

- 1 I feel free to consult my superiors/elderly persons.
- 2 I have frequent quarrels with my friends/relatives.
- 3 I like to be with people a great deal, I do not like to be all alone.
- 4 In group discussions, I would not feel embarrassed to give my criticism on others' views.
- 5 I often fear I might not perform well in open competitions.
- 6 I do not feel myself to be disliked by others.
- 7 I often find myself to be disliked by others.
- 8 I always quarrel with those who criticise my way of living.
- 9 I often cross the road when I find someone known to me is passing on the road.
- 10 I like to participate in social activities or cultural festivals.
- 11 I take the lead to enliven a group of people sitting dull.
- 12 I easily develop friendly relationships with members of the opposite sex.
- 13 Even small happenings make me feel nervous/upset.
- 14 I have a tendency to feel shy, hence I find it difficult to mix with others.
- 15 In social relationships, I find myself at ease when I am with others.
- 16 I cannot freely talk about my difficulties to my friends/relatives.

- 17 I do not feel uncomfortable when I have to be with unknown people / at unknown places.
- 18 I feel excited for a very long time when I am insulted.
- 19 I do not feel easily upset and excited.
- 20 I take time to adapt to the changes in life.

B

- 21 I do my best to uplift my family, but the family members do not cooperate.
- 22 Almost everyone in our family understands and acts with responsibility.
- 23 When there are problems or difficulties in the family, we put our heads together to find a solution.
- 24 I do not think I could freely talk about my difficulties to anyone in the family, it would be useless to do so.
- 25 Generally all our family members try to live economically.
- 26 In terms of guidance and direction my family members would never feel responsible, but would always be ready to criticise me.
- 27 Some of my family members are so awe-inspiring that I dare not voice my opinion.
- 28 In family conflicts children often become the scapegoats.
- 29 At times I have very much wanted to leave home.
- 30 Generally we all get on well with one another in our family.
- 31 I think that children in our family are not brought up and trained as they should be.
- 32 I feel there is a lot of partiality and favouritism in our home.
- 33 I am not given recognition in my family, I am not considered worthy of it.
- 34 I feel unhappy about the way my family deals with life situations.

- 35 Members in our family usually consult one another on most of the dealings.
- 36 I feel our family members are adequately cared for.
- 37 I do not encourage my friends/relatives to visit us, they do not get a warm welcome in my family.
- 38 Members of my family often criticise me, I feel they are after me.
- 39 Nobody bothers about me, except for the household duties I perform.
- 40 There is a lot of jealousy and antagonism in my family.

ADOLESCENTS' ANSWER SHEETPART I

		<u>Almost Never</u>	<u>Sometimes</u>	<u>Often</u>	<u>Very Often</u>
1	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
2	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
3	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
4	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
5	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
6	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
7	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
8	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
9	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----
10	a)	-----	-----	-----	-----
	b)	-----	-----	-----	-----
	c)	-----	-----	-----	-----

	<u>Not at all</u>	<u>A little</u>	<u>Considerably</u>	<u>Very much</u>
11 a)	-----	-----	-----	-----
b)	-----	-----	-----	-----
c)	-----	-----	-----	-----
12 a)	-----	-----	-----	-----
b)	-----	-----	-----	-----
c)	-----	-----	-----	-----
13 a)	-----	-----	-----	-----
b)	-----	-----	-----	-----
c)	-----	-----	-----	-----
14 a)	-----	-----	-----	-----
b)	-----	-----	-----	-----
c)	-----	-----	-----	-----
15 a)	-----	-----	-----	-----
b)	-----	-----	-----	-----
c)	-----	-----	-----	-----

---

PART II

- 1.
- 2.
- 3.
- 4.

PART III

A

1	T	F	?
2	T	F	?
3	T	F	?
4	T	F	?
5	T	F	?
6	T	F	?
7	T	F	?
8	T	F	?
9	T	F	?
10	T	F	?
11	T	F	?
12	T	F	?
13	T	F	?
14	T	F	?
15	T	F	?
16	T	F	?
17	T	F	?
18	T	F	?
19	T	F	?
20	T	F	?
21	T	F	?
22	T	F	?
23	T	F	?
24	T	F	?
25	T	F	?
26	T	F	?
27	T	F	?
28	T	F	?
29	T	F	?
30	T	F	?
31	T	F	?
32	T	F	?
33	T	F	?
34	T	F	?
35	T	F	?

B

36	T	F	?
37	T	F	?
38	T	F	?
39	T	F	?
40	T	F	?
41	T	F	?
42	T	F	?
43	T	F	?
44	T	F	?
45	T	F	?
46	T	F	?
47	T	F	?
48	T	F	?
49	T	F	?
50	T	F	?
51	T	F	?
52	T	F	?
53	T	F	?
54	T	F	?
55	T	F	?
56	T	F	?
57	T	F	?
58	T	F	?
59	T	F	?
60	T	F	?
61	T	F	?
62	T	F	?
63	T	F	?
64	T	F	?
65	T	F	?
66	T	F	?
67	T	F	?
68	T	F	?
69	T	F	?
70	T	F	?

C

71	T	F	?
72	T	F	?
73	T	F	?
74	T	F	?
75	T	F	?
76	T	F	?
77	T	F	?
78	T	F	?
79	T	F	?
80	T	F	?
81	T	F	?
82	T	F	?
83	T	F	?
84	T	F	?
85	T	F	?
86	T	F	?
87	T	F	?
88	T	F	?
89	T	F	?
90	T	F	?
91	T	F	?
92	T	F	?
93	T	F	?
94	T	F	?
95	T	F	?
96	T	F	?
97	T	F	?
98	T	F	?
99	T	F	?
100	T	F	?
101	T	F	?
102	T	F	?
103	T	F	?
104	T	F	?
105	T	F	?
106	T	F	?
107	T	F	?
108	T	F	?
109	T	F	?
110	T	F	?
111	T	F	?
112	T	F	?
113	T	F	?
114	T	F	?
115	T	F	?
116	T	F	?
117	T	F	?
118	T	F	?
119	T	F	?
120	T	F	?

C

121	T	F	?
122	T	F	?
123	T	F	?
124	T	F	?
125	T	F	?
126	T	F	?
127	T	F	?
128	T	F	?
129	T	F	?
130	T	F	?
131	T	F	?
132	T	F	?
133	T	F	?
134	T	F	?
135	T	F	?
136	T	F	?
137	T	F	?
138	T	F	?
139	T	F	?
140	T	F	?
141	T	F	?
142	T	F	?
143	T	F	?
144	T	F	?
145	T	F	?
146	T	F	?
147	T	F	?
148	T	F	?
149	T	F	?
150	T	F	?
151	T	F	?
152	T	F	?
153	T	F	?
154	T	F	?
155	T	F	?
156	T	F	?
157	T	F	?
158	T	F	?
159	T	F	?
160	T	F	?
161	T	F	?
162	T	F	?
163	T	F	?
164	T	F	?
165	T	F	?
166	T	F	?
167	T	F	?
168	T	F	?
169	T	F	?
170	T	F	?

<u>C</u>				<u>D</u>		
171	T	F	?	201	A	B
172	T	F	?	202	A	B
173	T	F	?	203	A	B
174	T	F	?	204	A	B
175	T	F	?	205	A	B
176	T	F	?	206	A	B
177	T	F	?	207	A	B
178	T	F	?	208	A	B
179	T	F	?	209	A	B
180	T	F	?	210	A	B
181	T	F	?	211	A	B
182	T	F	?	212	A	B
183	T	F	?	213	A	B
184	T	F	?	214	A	B
185	T	F	?	215	A	B
186	T	F	?	216	A	B
187	T	F	?	217	A	B
188	T	F	?	218	A	B
189	T	F	?	219	A	B
190	T	F	?	220	A	B
191	T	F	?	221	A	B
192	T	F	?	222	A	B
193	T	F	?	223	A	B
194	T	F	?	224	A	B
195	T	F	?			
196	T	F	?		<u>E</u>	
197	T	F	?			
198	T	F	?	225	A	B
199	T	F	?	226	A	B
200	T	F	?	227	A	B
				228	A	B
				229	A	B
				230	A	B
				231	A	B
				232	A	B
				233	A	B
				234	A	B
				235	A	B
				236	A	B
				237	A	B
				238	A	B
				239	A	B
				240	A	B

-----

L ..... N ..... A..... I..... P.A..... H.O..... Y.A.A. ....

PART IV

	<u>A</u>			<u>B</u>	
	<u>Yes</u>	<u>No</u>		<u>Yes</u>	<u>No</u>
1	---	---	21	---	---
2	---	---	22	---	---
3	---	---	23	---	---
4	---	---	24	---	---
5	---	---	25	---	---
6	---	---	26	---	---
7	---	---	27	---	---
8	---	---	28	---	---
9	---	---	29	---	---
10	---	---	30	---	---
11	---	---	31	---	---
12	---	---	32	---	---
13	---	---	33	---	---
14	---	---	34	---	---
15	---	---	35	---	---
16	---	---	36	---	---
17	---	---	37	---	---
18	---	---	38	---	---
19	---	---	39	---	---
20	---	---	40	---	---

PARENTS' QUESTIONNAIRE

Dear Parent,

Let me begin by introducing myself. You will find my name at the end of these few lines and since the name is not enough, I might as well tell you that I am a Lecturer in Psychology and a Students' Counsellor. Through the exercise of my profession, I have come to realise that teenagers are experiencing many difficulties nowadays. Some of these difficulties I can solve. Many I cannot. I also feel that the persons who could best help me to solve these difficulties, are parents of teenagers. I feel confident that their experience is very valuable and will help me a great deal. This is the reason why I come to you. I am sure you will not mind answering the following Questionnaire. Please send it back to me as soon as possible, since your answers together with the answers of about 800 other parents will have to be tabulated, and this always takes time. Needless to say that the information given by you will be kept strictly confidential by me.

Thanking you,

Yours sincerely,

(Miss) Lillian Menezes.

-----

PART I

Instructions : Below are given some statements that are typically made by teenagers to their parents. Each statement has 4 possible responses of parents. On the separate Answer Sheet given to you, kindly strike off the response (only one) that you are most likely to make. Write under (e) your response, if the ones given are not likely to be made by you.

Statement 1

It makes me so mad ! Everybody is always telling me what to do and what not to do. Why don't you leave me alone and let me do things the way I want to ? Can't I have a little more freedom?

Responses

- a) You are furious at the way you are being treated. As you say, you do have a right to more freedom, as you have grown up now, but remember you also have an obligation to develop greater responsibility and maturity.

- b) If I sometimes tell you what to do and what not to do, it is because I have more experience than you and advise what I think is good for you. You should realise this and not think that I want to curtail your freedom.
- c) Of course you can think for yourself. Tell me what is worrying you and I will try and help you.
- d) Agreed that you are no more a child and that you should have more freedom and take your own decisions. But remember that at your age it is not always easy to take the right decision and a little guidance from elders would help.

### Statement 2

I'm so excited and everything is so great ! I have been made the leader of my class. And today the teacher said I was one of the best students of the class. I'm so happy !

### Responses

- a) Congratulations ! But don't forget that leadership and honour go hand in hand with a sense of responsibility. Start with this first at home.
- b) It is indeed a great honour to be head of the class. Your teacher also appreciates your abilities and has faith in you now.
- c) I am really proud of you. Remember that your teacher, apart from recognising your capabilities has thrown more faith and responsibility on you. So, be sure to maintain the trust placed in you.
- d) This is the result of being responsible and well behaved. They must be finding you are a good leader. Well done !

### Statement 3

Music is so relaxing ! I can study for hours and absorb so much if the music is on while I am studying. But it has to be loud so that I can feel it and enjoy it fully. I really don't understand why you get annoyed with me for that ?

- a) You may be able to study, but what about the people around you who can't stand loud music ? You must consider the neighbours.
- b) Too much of anything is always harmful. Silence is the best atmosphere for studying well and if you have to play music, then play it softer.

- c) Personally I feel that soft music is soothing and conducive to study, but you feel that loud music affects you that way. It's just a difference of opinion. However, you must consider the effect of loud music on others.
- d) I am glad you enjoy music and that it relaxes you. Why not try playing it softer when there's serious study?

Statement 4

What an exciting game it was ! We beat the other party hollow ! I feel so wonderful at the success we achieved.

Responses

- a) I wish you were as successful in your studies.
- b) Congratulations ! You sure did well ! How did you manage to defeat the other team ?
- c) It is great ! Keep it up ! But be prepared to face defeat also cheerfully.
- d) Well done ! I am sure this will give you great confidence in your abilities.

Statement 5

You talk about our generation going to the dogs. It seems to me that your generation at our age was just as bad. So, don't say your generation was better than ours. We may discuss this forever and still not understand each other since you don't know the problems our generation has to face.

Responses

- a) The young people of each generation feels that and so did I, but once you are out of your teens it really does not matter so much.
- b) Every generation thinks that they were better ; our parents told us the same thing. But our generation had a better sense of morality and discipline and we were more respectful towards our parents.
- c) Half the problems of your generation are of your own doing. You attach undue importance to trivial matters and the way you young people behave is just terrible.
- d) In many ways what you're saying is true. Perhaps if we discuss this a little more we shall understand each other better.

Statement 6

Why must grown-ups always find fault with the way we dress? Long hair is the fashion now and so are loose pants. Can you imagine how funny I would appear to my friends if I were to dress as you do? After all, dress does not affect the personality of an individual.

Responses

- a) You should follow fashions as long as they suit you. I don't want you to blindly follow the crowd.
- b) You can certainly dress as you please, provided you look tidy and decent.
- c) They are offbeat imaginary fashions. Try and understand that your dress and hairdo must be decent and tidy so that it gives you an elegant appearance.
- d) I agree with you. Dress does not affect the personality of an individual, but it is the other way about. The personality is expressed in the way you dress. So, see that you express what you are.

Statement 7

The group of friends I move about with are good people. They may look funny but they are great. They are not going to spoil me, you can be sure!

Responses

- a) Your friends seem to be a nice lot. I am sure your friendships will make you a better and happier person.
- b) A man is known by the company he keeps. If they are good, so much the better. But be careful, all the same.
- c) That your friends are good is fine. But let us have a chance to be with them and judge.
- d) You say that your friends are good. I am glad, because if you say that they are good, I have no doubt that they are really good.

Statement 8

We have all been invited to a party tomorrow. We have decided to have a real good time! I think it will get over pretty late. Please don't get worried about me if I am late. I am no longer a child.

Responses

- a) You will have a good time I'm sure and be responsible enough to return on time. A small bit of advice. One can never be too careful.
- b) To me, you will always be a child. I have a responsibility for your welfare as a parent. So, see that you are back on time. If you happen to be late, please inform us.
- c) I must know with whom you are going and when you will be back. These parties of yours are becoming too frequent and are coming in the way of your studies.
- d) I know how much you are looking forward to this party. I trust you will take care of yourself and will come back on time.

Statement 9

The exams are fast approaching ! What if I fail ? I have so much to study and I don't even know where to start.

Responses

- a) Why should you worry if you have worked regularly ? Try and concentrate on your studies rather than worrying.
- b) You are very anxious about your exams, and this anxiety is coming in the way of your studies. Don't get discouraged if you have not prepared well. Try your best and have confidence in yourself.
- c) This is a wrong approach. You must start serious study for the exams well in advance. Otherwise you have to pay for your negligence.
- d) You are worried about your exams and afraid of failing. Do your best and don't worry about the results.

Statement 10

All this is real hypocrisy. Why should I sit there and smile and talk to your friends ? I don't even know them and the topics of your conversation don't interest me at all. I could spend that time reading or listening to music.

Responses

- a) Living in a civilized society you must learn how to abide by its rules of good manners. Besides, how would you feel if I showed scant respect and hospitality towards your friends ?

- b) You feel that talking to my friends is a waste of time and a rather artificial relationship. Well, the least you could do is to come and say 'Hello' to them.
- c) You find it difficult to be yourself with my friends because you don't know what to say to them. If I am present you need not entertain them. But in my absence, you can at least be courteous for a while.
- d) Courtesy demands that whoever visits us must be welcomed with a smile and small talk, for it never hurts to be kind.

#### Statement 11

I never expected such good results ! Wonderful isn't it ? Imagine ! I studied only at the last minute and I managed to do so well.

#### Responses

- a) Thank God for your success ! But don't always depend on last minute efforts. It's safer to work consistently.
- b) Good ! Try to keep it up but don't get overconfident for that is the biggest enemy of success.
- c) You are delighted with your results. You never expected to do so well ! Since your small efforts have been so well rewarded, you feel encouraged to put in more effort.
- d) How wonderful is the feeling to discover that you are intelligent. Imagine the results if you had put in hard and regular work.

#### Statement 12

What's so wrong with talking or going out with the opposite sex ? The minute I do so, the neighbours look at me suspiciously and gossip.

#### Responses

- a) It's fine and forget the neighbours. You may do as you like, provided you understand your responsibility.
- b) We have to respect society's norms. These kind of things are not done in our society.
- c) There's nothing wrong in it but some discretion is required.

- d) Your feeling that you are grown up and need to know the opposite sex is legitimate and normal. One cannot help neighbours who criticise. What is very important is your behaviour and your limitations with the opposite sex.

Statement 13

I did so well in the test we had today. I'm so happy that I took up these subjects in school/college. They are extremely interesting.

Responses

- a) I am happy to see that you are taking interest in your studies. Keep trying and you will succeed.
- b) I knew you would do well in the test as you took the subjects that interest you. I am glad you made the right choice.
- c) I knew you would do well if you took these subjects. Are you not glad that you followed my advice ?
- d) You feel that your success is due to the interest you have in the subjects that you selected. Keep up your good work !

Statement 14

Why can't I see movies that are censored 'Adults'? There is nothing in them that we don't know. I think that children above 13 should be allowed to see 'A' movies.

Responses

- a) I know I cannot stop you but could I take a look at these movies first?
- b) I agree that you should be allowed to see any movies provided that you can exercise your responsibility and decide by your self or by consulting others, what would be harmful to you and what would not.
- c) You don't know the harm that such movies can do to you. You are at an imaginative age when you may absorb the wrong ideas and the realisation may come too late.
- d) You feel that you are grown up and therefore have a right to see 'A' movies. Rules are framed for society in general, not for individuals. Seeing 'A' movies may be all right for you, but not for others.

Statement 15

I just don't know what to do. I try so hard in school/college, but you don't seem to notice. You are always praising my brother/sister. That's not fair.

Responses

- a) Agreed it's not fair. What you feel is that you must be given as much recognition as an individual as your brother/sister.
- b) I do notice your efforts but he/she is still young and needs it. You must set a good example.
- c) You are more mature and must therefore perform far better than him/her.
- d) You want to be loved and appreciated for what you are. You don't like to feel that your brother/sister is better than you are. I assure you that we love you just the same as we love your brother/sister.

PART II

Instructions : Here are some statements regarding a number of important social and personal questions. There are no RIGHT OR WRONG answers. The best answer to each statement is your personal opinion. Whether you agree or disagree with a statement, you can be sure that many people feel the same way as you do. On the Answer Sheet given to you, kindly indicate how much you agree or disagree with a statement by striking off +1, +2, +3 or -1, -2, -3.

- +1 : I agree a little
- +2 : I agree on the whole
- +3 : I agree very much
- 1 : I disagree a little
- 2 : I disagree on the whole
- 3 : I disagree very much.

Statements

- 1 The principles I have come to believe are quite different from those believed in by most people.
- 2 Man on his own is a helpless and miserable creature.
- 3 Fundamentally the world we live in is a pretty lonesome place.
- 4 I'd like it if I could find someone who would tell me how to solve my personal problems.
- 5 It is only natural for a person to be rather fearful of the future.
- 6 There is so much to be done and so little time to do it in.
- 7 In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
- 8 In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what others are saying.
- 9 Once I get bound up in a heated discussion I just can't stop.
- 10 In a discussion I sometimes interpret others too much in my eagerness to put across my own point of view.
- 11 Most people are failures and it is the system which is responsible for this.
- 12 I have often felt that strangers were looking at me critically.
- 13 People say insulting and vulgar things about me.
- 14 There are a number of people I have come to hate because of the things they stand for.
- 15 A man who does not believe in some great cause has not really lived.
- 16 Of all the different philosophies which exist in this world there is probably only one which is correct.
- 17 A person who gets enthusiastic about too many causes is likely to be a pretty 'wishy-washy' sort of person.
- 18 When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.

- 19 To compromise with our political oponents is to be guilty of appeasement.
- 20 There are two kinds of people in this world : those who are for the truth and those who are against the truth.
- 21 Most of the ideas which get printed nowadays are not worth of paper they are printed on.
- 22 I sometimes have a tendency to be too critical of others.
- 23 In this complicated world of ours the only way we can know what is going on is to rely on leaders and experts who can be trusted.
- 24 There is no use wasting your money on newspapers which you know in advance are just plain propaganda.
- 25 It is by returning to our glorious and forgotten past that social progress can be achieved.
- 26 To achieve the happiness of mankind in the future it is sometimes necessary to put up with injustices in the present.
- 27 If a man is to accomplish his mission in life it is sometimes necessary to gamble all or nothing at all.
- 28 To one who really takes the trouble to understand the world he lives, in it is an easy matter to predict future events.
- 29 It is sometimes necessary to resort to force to advance an ideal one strongly believes in.
- 30 The present is often full of worries ; that is why the future is of great importance.
- 31 Assessing that the chances of success are few, I prefer to cancel my plans before I start them.
- 32 I am worried at times whether I have to face difficulties in the future.
- 33 I consider those persons stupid who do not take even minor things for granted and start asking 'why', 'how', etc.
- 34 I reject the viewpoint of my opponents without giving any thought to it because they say nothing which has any truth.

-----  
Any suggestions you would like to make regarding Teenagers will be most welcome :

PARENTS' ANSWER SHEET

Age :                      Sex : Male / Female      Occupation :  
 Religion : Hindu / Parsi / Muslim / Christian / Any other  
 Education : Postgraduate / Graduate / S.S.C. / Any other  
 Income : Below Rs 500 / Between Rs 500 and Rs 1500 /  
             Between Rs 1500 and Rs 2500 / Above Rs 2500.

PART I

	<u>Statements</u>					<u>Responses</u>
1	a	b	c	d	e	.....
2	a	b	c	d	e	.....
3	a	b	c	d	e	.....
4	a	b	c	d	e	.....
5	a	b	c	d	e	.....
6	a	b	c	d	e	.....
7	a	b	c	d	e	.....
8	a	b	c	d	e	.....
9	a	b	c	d	e	.....
10	a	b	c	d	e	.....
11	a	b	c	d	e	.....
12	a	b	c	d	e	.....
13	a	b	c	d	e	.....
14	a	b	c	d	e	.....
15	a	b	c	d	e	.....

PART IIStatementsResponses

1	+1	+2	+3	-1	-2	-3
2	+1	+2	+3	-1	-2	-3
3	+1	+2	+3	-1	-2	-3
4	+1	+2	+3	-1	-2	-3
5	+1	+2	+3	-1	-2	-3
6	+1	+2	+3	-1	-2	-3
7	+1	+2	+3	-1	-2	-3
8	+1	+2	+3	-1	-2	-3
9	+1	+2	+3	-1	-2	-3
10	+1	+2	+3	-1	-2	-3
11	+1	+2	+3	-1	-2	-3
12	+1	+2	+3	-1	-2	-3
13	+1	+2	+3	-1	-2	-3
14	+1	+2	+3	-1	-2	-3
15	+1	+2	+3	-1	-2	-3
16	+1	+2	+3	-1	-2	-3
17	+1	+2	+3	-1	-2	-3
18	+1	+2	+3	-1	-2	-3
19	+1	+2	+3	-1	-2	-3
20	+1	+2	+3	-1	-2	-3
21	+1	+2	+3	-1	-2	-3
22	+1	+2	+3	-1	-2	-3
23	+1	+2	+3	-1	-2	-3
24	+1	+2	+3	-1	-2	-3
25	+1	+2	+3	-1	-2	-3
26	+1	+2	+3	-1	-2	-3
27	+1	+2	+3	-1	-2	-3
28	+1	+2	+3	-1	-2	-3
29	+1	+2	+3	-1	-2	-3
30	+1	+2	+3	-1	-2	-3
31	+1	+2	+3	-1	-2	-3
32	+1	+2	+3	-1	-2	-3
33	+1	+2	+3	-1	-2	-3
34	+1	+2	+3	-1	-2	-3

STATISTICAL FORMULAE USEDI) CHI-SQUARE TEST OF INDEPENDENCE IN CONTINGENCY TABLES

$$\text{Formula} \quad \frac{(f_o - f_e)^2}{f_e}$$

II) CHI-SQUARE IN FOURFOLD CONTINGENCY TABLE.

$$X^2 = \frac{N(AD-BC)^2}{(A+B)(C+D)(A+C)(B+D)}$$

III) BISERIAL CORRELATION

$$r_{bis} = \frac{M_p - M_q}{SD} \times \frac{pq}{u}$$

IV) PRODUCT-MOMENT CORRELATION

$$r = \frac{\frac{\sum x'y'}{N} - c_x c_y}{SD'_x SD'_y}$$

$$r = \frac{\sum xy}{\sum x^2 \times \sum y^2}$$

V)

FACTORIAL DESIGN FOR ANALYSIS OF VARIANCE

( 4 x 2 Design )

	<u>Christians</u>	<u>Hindus</u>	<u>Zoroastrians</u>	<u>Muslims</u>	
BOYS	N = 50	N = 50	N = 50	N = 50	$\Sigma B$
GIRLS	N = 50	N = 50	N = 50	N = 50	$\Sigma G$
	$\Sigma C$	$\Sigma H$	$\Sigma Z$	$\Sigma M$	N = 400

 $\Sigma X$  of 400 Scores $\Sigma X^2$  of 400 Scores $\Sigma C, \Sigma H, \Sigma Z, \Sigma M.$ 

$$\text{Correction } C = \frac{(\Sigma X)^2}{N}$$

$$\text{Total Variance } SS_T = \Sigma X^2 - C$$

$$\text{Variance due to Community } SS_C = \frac{(\Sigma C)^2 + (\Sigma H)^2 + (\Sigma Z)^2 + (\Sigma M)^2}{100} - C$$

$$\text{Variance due to Sex } SS_S = \frac{(\Sigma B)^2 + (\Sigma G)^2}{200} - C$$

Variance due to Interaction  
between Sex and Community

$$SS_{C \times S} = \frac{(\Sigma CB)^2 + (\Sigma CG)^2 + (\Sigma HB)^2 + (\Sigma HG)^2 + (\Sigma ZB)^2 + (\Sigma ZG)^2 + (\Sigma MB)^2 + (\Sigma MG)^2}{50} - C$$

$$\text{Error Variance} = SS_T - SS_C - SS_S - SS_{C \times S}$$