

APPENDIX I (i)

SENSITIVITY THRESHOLD TEST

Name: _____

Date: _____

You are provided with a series of containers having solutions with increasing concentration of one of the taste qualities (sweet, salty and sour). Please identify the taste in each set and score them according to the concentration. The samples are not allowed to be retested.

Sample Code	Set-1	Set-II	Set III	Total Score
A				
B				
C				
D				
E				
Mean Scores				

Scale:

While awarding the intensity scores, take the following basis into account;

0 - None or taste of pure water

1 - Different from water but taste quality not identifiable

2 - Weak taste

3 - Medium

4 - Strong

5 - Very strong

Signature of Judge

APPENDIX I (ii)

THRESHOLD TEST

(ii) Procedure for preparation of solution required for threshold test

Solution No.	Molarity	Salty (Stock solution)	Sweet (Stock solution)	Molarity	Sour (Stock solution)	Bitter (Stock solution)
		5.845 g of sodium chloride/L)	34.23 g of sucrose/L)		21.015 g of citric acid/L)	19.41 g of caffeine/L)
		ml of stock solution to be diluted to 1 L	ml of stock solution to be diluted to 1 L		ml of stock solution to be diluted to 1 L	ml of stock solution to be diluted to 1 L
1	0.0002	2	2	0.0005	0.5	0.5
2	0.0004	4	4	0.0001	1	1
3-	0.0008/	8	8	0.0002	2	2
4	0.0016	16	16	0.0004	4	4
5/	0.0032'	32	32	0.0006	6	6
6	0.0064	64	64	0.0008	8	8
7-	0.0128	128	128	0.0010	10	10
8	0.0256.	256	256	0.0012	12	12
9'	0.0512	2.994 g/L	17.526 g/L	0.0014	14	14
10	0.1024	5.988 g/L	35.052 g/L	0.0016	16	16
11'	0.2048	11.976 g/L	70.103 g/L	0.0032	32	32
12	0.4096	23.953 g/L	140.206 g/L	0.0064	64	64

Source : Jellinek, G. (1964). J. Nutri. Diet. 1:219

APPENDIX II

Score Card for Product Evaluation

Panel Member's Name :

Contact No.

Test these samples and check how much you like or dislike one. Use appropriate scale to show your attitude by assigning points that best describe your feeling about the sample. An honest feeling of your expression will help to get unbiased data.

Product Name: _____

Date: _____

Code	Colour / Appearance	Mouth feel	Texture	Taste	After Taste	Overall Accepta bility

Note: Please grade the following samples by giving scores.

Minimum score - 0

Maximum score - 10

REMARKS:-

APPENDIX III

Consent Form

Portocol Number (CTRI Registration Number):

Subjects Name: _____ Date of Birth / Age:

1. I confirm that I have read and understood this information sheet for the above study and have /had the opportunity to ask questions.
2. I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal rights being affected.
3. I understand that the sponsor, the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published.
4. I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose (s).
5. I understand the study will involve:
 - Filling up of questionnaire regarding socioeconomic status, my health behavior, eating pattern, satiety level and dietary intake.
 - Anthropometric measurements and blood pressure measurements
 - A blood sample of 10 ml for biochemical analysis.
 - A fecal sample for microbiological analysis.
6. I understand that I will be informed of the results of the test (even if they are abnormal) when they are ready. In addition I understand the information obtained from me be kept strictly confidential

I agree to participate voluntarily in the community health study conducted by The Dept. of Foods & Nutrition, Faculty of Family and Community Nutrition, The Maharaja Sayajirao University of Baroda.

Thanking You.

Date:

Name:

Signature:

APPENDIX IV QUESTIONNAIRE

**Confidential
Research
Purpose
only**

Date Of Survey

Code:

A. General Information:

A1: Name:

A2: Address

A3: Contact No. (H) (0) (M)

Email:

A4: Date of Birth:

A5: Age (years):

A6: Gender:

A6 1	Male	
A6 2	Female	

A7: Religion:

A7 1	Hindu	
A7 2	Muslim	
A7 3	Sikh	
A7 4	Christian	
A7 5	Others	

A8: Type of Family:

A8 1	Joint	
A8 2	Nuclear	
A8 3	Extended nuclear	

A9: Number of Family Members:

A9 1	Adults	
A9 2	Children	

A 10: Socio Economic Status :

A10 A : Education of the Head (Main earning Member)		Score	Tick(√)
1. Profession or Honours		7	
2. Graduate or post graduate		6	
3. Intermediate or post high school diploma		5	
4. High school certificate		4	
5. Middle school certificate		3	
6. Primary school certificate		2	
7. Illiterate		1	
A 10 B : Occupation of the Head (Main earning Member)		Score	Tick(√)
1. Profession		10	
2. Semi-Profession		6	
3. Clerical, Shop-owner, Farmer		5	
4. Skilled worker		4	
5. Semi-skilled worker		3	
6. Unskilled worker		2	
7. Unemployed		1	
A10 C: Family income per month in Rs (2010)		Score	Tick(√)
1. \geq 28114		12	
2. 14050 - 23113		10	
3. 10533 - 14049		6	
4. 7016 - 10532		4	
5. 4204 - 7015		3	
6. 1407 - 4203		2	
7. \leq 1406		1	
Total Score			
Scores	Codes	Socioeconomic class	Tick(√)
26-29	A10CI	Upper (I)	
16-25	A10CII	Upper Middle (II)	
11-15	A10CIII	Lower middle (III)	
5-10	A10CIV	Upper lower (IV)	
<5	A10CV	Lower (V)	

B. Anthropometric Measurements:

B1) Height (cm):

B2) Weight (kg):

B3) BMI (kg/m²):

B4) Waist Circumference (cm):

B5) Hip Circumference (cm):

B6) WHR:

B7) Body Fat (%):

C. Family History

Members Of Family	Obesity	Hypertension	Diabetes mellitus	Coronary Heart Disease
	C1	C2	C3	C4
Both Parents				
Single Parent (F / M)				
Brother				
Sister				
Grand parents				
Other Relation				
Total Score				

D6 A: Inquiry About Defecation

CODE	DEFECATION	CONDITIONS SCORE					
D6a	Constipation	Yes (1)	No (0)				
D6a 1	Frequency	1		2		3	>3
D6a 2	Quantity of	Small		Middle			Large (3)
D6a 3	Hardness of	Very	Hard(2)	Medium	Soft	Muddy	Watery
D6a 4	Color of Stool	Blackish		Middle			Yellowish
D6a 5	Odor of Stool	Strong		Medium			Weak (3)
D6a 6	Feeling after	Bad (1)		Fine (2)			Very fine
D6a 7	Regular use of	Yes(1)	No (0)				

D. Subject's Medical History

DISORDER	CO DE	YE S (1) N O (0)	DIAGNO SED IN YEAR	DURATI ON (Yrs)	Medicat ion name	Dosage and Freque ncy	Freque ncy of disorde r
OBESITY	D1						
HYPERTENS ION	D2						
DIABETES (DM)	D3						
CHD	D4						
Valve replacement	D4a						
RENAL DISORDER	D5						
Frequency of UTI	D5a						
ARF	D5b						
GI DISORDERS	D6						
Constipation	D6a	Refer Detailed Information on Defecation					
Use of Laxatives	D6a ₁						
Flatulence	D6b	Refer Detailed Information on Flatulence					
Diarrhoea	D6c						
Abdominal Pain	D6d						
Heart burn/ Acidity	D6e						
GI Ulcers	D6f						
GI Surgery	D6g						
DENTAL PROBLEMS	D7						
Bad Breath	D7a						
Dry Mouth	D7b						
Cavities	D7c						
Bleeding/sw ollen Gums	D7d						
LOCOMOTO R DISORDERS	D8						
Knee joint pain	D8a						
Swollen feet	D8b						

Back pain	D8c						
Osteoporosis	D8d						
Osteoarthritis	D8e						
THYROID	D9						
Hyper	D9a						
Hypo	D9b						
SKIN DISORDER	D10						
CANCER	D11						
AUTO IMMUNE DISORDER	D12						

E. Personal Habits

Addiction	Co de	Dail y	Wee kly	Fort nig	Mont hly	Quate rly	Yea rly	Occassi onally	Neve r
		7	6	5	4	3	2	1	0
Alcohol	E1								
Cigarette/Bidi	E2								
Tobacco Powder	E3								
Tobacco Paste	E4								
Snuff	E5								
Tea (>	E6								
Coffee (>4	E7								
Aerated drinks	E8								
TOTAL SCORE									

F. Physical Activity Pattern (GPAQ Version 2 :Who 2007)

Physical Activity		
<p>Next I am going to ask you about the time you spend doing different types of physical activity in a typical week. Please answer these questions even if you do not consider yourself to be a physically active person.</p> <p>Think first about the time you spend doing work. Think of work as the things that you have to do such as paid or unpaid work, study/training, household chores, harvesting food/crops, fishing or hunting for food, seeking employment. <i>[Insert other examples if needed]</i>. In answering the following questions 'vigorous-intensity activities' are activities that require hard physical effort and cause large increases in breathing or heart rate, 'moderate-intensity activities' are activities that require moderate physical effort and cause small increases in breathing or heart rate.</p>		
Questions	Response	Code
Activity at work		
1	<p>Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate like <i>[carrying or lifting heavy loads, digging or construction work]</i> for at least 10 minutes continuously?</p> <p><i>[INSERT EXAMPLES] (USE SHOWCARD)</i></p> <p>Yes 1</p> <p>No 2 <i>If No, go to P 4</i></p>	P1
2	<p>In a typical week, on how many days do you do vigorous-intensity activities as part of your work?</p> <p>Number of days <input type="text"/></p>	P2
3	<p>How much time do you spend doing vigorous-intensity activities at work on a typical day?</p> <p>Hours : minutes <input type="text"/> : <input type="text"/></p> <p>hrs mins</p>	P3 (a-b)
4	<p>Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate such as brisk walking <i>[or carrying light loads]</i> for at least 10 minutes continuously?</p> <p><i>[INSERT EXAMPLES] (USE SHOWCARD)</i></p> <p>Yes 1</p> <p>No 2 <i>If No, go to P 7</i></p>	P4
5	<p>In a typical week, on how many days do you do moderate-intensity activities as part of your work?</p> <p>Number of days <input type="text"/></p>	P5
6	<p>How much time do you spend doing moderate-intensity activities at work on a typical day?</p> <p>Hours : minutes <input type="text"/> : <input type="text"/></p> <p>hrs mins</p>	P6 (a-b)
Travel to and from places		
<p>The next questions exclude the physical activities at work that you have already mentioned.</p> <p>Now I would like to ask you about the usual way you travel to and from places. For example to work, for shopping, to market, to place of worship. <i>[insert other examples if needed]</i></p>		
7	<p>Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?</p> <p>Yes 1</p> <p>No 2 <i>If No, go to P 10</i></p>	P7
8	<p>In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?</p> <p>Number of days <input type="text"/></p>	P8
9	<p>How much time do you spend walking or bicycling for travel on a typical day?</p> <p>Hours : minutes <input type="text"/> : <input type="text"/></p> <p>hrs mins</p>	P9 (a-b)
Recreational activities		
<p>The next questions exclude the work and transport activities that you have already mentioned.</p> <p>Now I would like to ask you about sports, fitness and recreational activities (leisure). <i>[insert relevant terms]</i>.</p>		
10	<p>Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like <i>[running or football]</i> for at least 10 minutes continuously?</p> <p><i>[INSERT EXAMPLES] (USE SHOWCARD)</i></p> <p>Yes 1</p> <p>No 2 <i>If No, go to P 13</i></p>	P10
11	<p>In a typical week, on how many days do you do vigorous-intensity sports, fitness or recreational (leisure) activities?</p> <p>Number of days <input type="text"/></p>	P11
12	<p>How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?</p> <p>Hours : minutes <input type="text"/> : <input type="text"/></p> <p>hrs mins</p>	P12 (a-b)

Physical Activity (recreational activities) contd.			
Questions		Response	Code
13	Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that causes a small increase in breathing or heart rate such as brisk walking, (cycling, swimming, volleyball) for at least 10 minutes continuously? [INSERT EXAMPLES] (USE SHOWCARD)	Yes 1 No 2 If No, go to P16	P13
14	In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?	Number of days <input type="text"/>	P14
15	How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P15 (a-b)
Sedentary behaviour			
The following question is about sitting or reclining at work, at home, getting to and from places, or with friends including time spent [sitting at a desk, sitting with friends, travelling in car, bus, train, reading, playing cards or watching television], but do not include time spent sleeping. [INSERT EXAMPLES] (USE SHOWCARD)			
16	How much time do you usually spend sitting or reclining on a typical day?	Hours : minutes <input type="text"/> : <input type="text"/> hrs mins	P16 (a-b)

G. Hunger And Satiety Scale (Zero Day)

Sr. No	Meal Time	Hunger	Satiety
1	Breakfast		
2	Lunch		
3	Evening		
4	Dinner		
	Total Score		
	Mean Score		

Scale	Score
Famished, starving	1
Headache, weak, cranky, low energy	2
Want to eat now, stomach growls and feels empty	3
Hungry - but could wait to eat, starting to feel empty but not there yet	4
Not hungry, not full	5
Feeling satisfied, stomach feels full and comfortable	6
Feeling full, definitely don't need more food	7
Uncomfortably full	8
Stuffed, very uncomfortable	9
Bursting, painfully full	10

H. Beck's Depression Inventory

1.
 - 0 I do not feel sad.
 - 1 I feel sad
 - 2 I am sad all the time and I can't snap out of it.
 - 3 I am so sad and unhappy that I can't stand it.
2.
 - 0 I am not particularly discouraged about the future.
 - 1 I feel discouraged about the future.
 - 2 I feel I have nothing to look forward to.
 - 3 I feel the future is hopeless and that things cannot improve.
3.
 - 0 I do not feel like a failure.
 - 1 I feel I have failed more than the average person.
 - 2 As I look back on my life, all I can see is a lot of failures.
 - 3 I feel I am a complete failure as a person.
4.
 - 0 I get as much satisfaction out of things as I used to.
 - 1 I don't enjoy things the way I used to.
 - 2 I don't get real satisfaction out of anything anymore.
 - 3 I am dissatisfied or bored with everything.
5.
 - 0 I don't feel particularly guilty
 - 1 I feel guilty a good part of the time.
 - 2 I feel quite guilty most of the time.
 - 3 I feel guilty all of the time.
6.
 - 0 I don't feel I am being punished.
 - 1 I feel I may be punished.
 - 2 I expect to be punished.
 3. I feel I am being punished.
7.
 - 0 I don't feel disappointed in myself.
 - 1 I am disappointed in myself.
 - 2 I am disgusted with myself.
 - 3 I hate myself.
8.
 - 0 I don't feel I am any worse than anybody else.
 - 1 I am critical of myself for my weaknesses or mistakes.
 - 2 I blame myself all the time for my faults.
 - 3 I blame myself for everything bad that happens.
9.
 - 0 I don't have any thoughts of killing myself.
 - 1 I have thoughts of killing myself, but I would not carry them out.
 - 2 I would like to kill myself.
 - 3 I would kill myself if I had the chance.
10.
 - 0 I don't cry any more than usual.
 - 1 I cry more now than I used to.

- 2 I cry all the time now.
 - 3 I used to be able to cry, but now I can't cry even though I want to.
- 11.
- 0 I am no more irritated by things than I ever was.
 - 1 I am slightly more irritated now than usual.
 - 2 I am quite annoyed or irritated a good deal of the time.
 - 3 I feel irritated all the time
- 12.
- 0 I have not lost interest in other people.
 - 1 I am less interested in other people than I used to be.
 - 2 I have lost most of my interest in other people.
 - 3 I have lost all of my interest in other people.
- 13.
- 0 I make decisions about as well as I ever could.
 - 1 I put off making decisions more than I used to.
 - 2 I have greater difficulty in making decisions more than I used to.
 - 3 I can't make decisions at all anymore.
- 14.
- 0 I don't feel that I look any worse than I used to.
 - 1 I am worried that I am looking old or unattractive.
 - 2 I feel there are permanent changes in my appearance that make me look unattractive
 - 3 I believe that I look ugly.
- 15.
- 0 I can work about as well as before.
 - 1 It takes an extra effort to get started at doing something.
 - 2 I have to push myself very hard to do anything.
 - 3 I can't do any work at all.
- 16.
- 0 I can sleep as well as usual.
 - 1 I don't sleep as well as I used to.
 - 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
 - 4 I wake up several hours earlier than I used to and cannot get back to sleep.
- 17.
- 0 I don't get more tired than usual.
 - 2 I get tired more easily than I used to.
 - 2 I get tired from doing almost anything.
 - 3 I am too tired to do anything.
- 18.
- 0 My appetite is no worse than usual.
 - 1 My appetite is not as good as it used to be.
 - 2 My appetite is much worse now.
 - 3 I have no appetite at all anymore.
- 19.
- 0 I haven't lost much weight, if any, lately.
 - 1 I have lost more than five pounds.
 - 2 I have lost more than ten pounds.

- 20.
- 3 I have lost more than fifteen pounds.
 - 0 I am no more worried about my health than usual.
 - 1 I am worried about physical problems like aches, pains, upset stomach, or constipation. 2 I am very worried about physical problems and it's hard to think of much else.
 - 4 I am so worried about my physical problems that I cannot think of anything else.
- 21.
- 0 I have not noticed any recent change in my interest in sex.
 - 1 I am less interested in sex than I used to be.
 - 2 I have almost no interest in sex.
 - 3 I have lost interest in sex completely.

I. Food Frequency

Food Items	Daily	2-3 Times A Week	Once A Week	Fort-Nightly	Monthly	Rarely	Never
Total Dietary Fiber							
Cereals							
Bajra							
Jowar							
Maize, Dry							
Ragi							
Rice							
Wheat							
Pulses And Legumes							
Dals, Dehusked							
Dals With Husk							
Legumes							
Vegetables							
Green Leafy							
Roots And Tubers							
Other Vegetables							
Nuts And Oil Seeds							
Nuts (Dry Fruits)							
Oil Seeds (Peanut, Til Seeds Etc)							
Condiments And Spices							
Aniseed (Sauf)							
Cardamom (Elaichi)							
Fenugreek							
Garlic							
Ginger							
Onion							
Fruits Consumed: Days Per Week _____							
High Fiber (G%) : > 5							
Sapota							
Custard Apple							
Amla							
Dates , Dry							
Dates, Fresh							
Fig							
Guava							
Moderate Fiber (G%): 4.99 – 3.0							
Zizyphus							
Apple							
Jack Fruit							
Jambu							
Pear							
Low Fiber (G%): 2.99 – 0.5							
Papaya							
Banana							
Cherry							
Grapes, Green							

Sweetlime							
Mango							
Musk Melon							
Water Melon							
Orange							
Peach							
Pineapple							
Plum							
Pomogranate							
Strawberry							

J. Dietary Pattern (24 Hr Dietary Recall Method)

Meal And Time	Foods Taken	Ingredients	Amount
EARLY MORNING: (Time:_____)			
BREAKFAST: (Time:_____)			
MID MORNING: (Time:_____)			
LUNCH: (Time:_____)			
EVENING : (Time:_____)			
DINNER: (Time:_____)			

Standard Measures: 1 Cup (Katori) = 200 MI
 1 Tea Cup =150 MI
 1 Glass =200 MI