APPENDIX-1(A)

OBSERVATION SHEET FOR PRELIMINARY INFORMATION

Topic: “An Ergonomic Assessment of Selected Activities Carried Out In Food Units”

1. Today’s date:

2. Name of the food unit:

3. Work site location (building/ floor/ suite):

4. Address:

5. Contact Details: mobile: Phone:

6. Is your food unit registered under SSI or not:

7. Name of the owner:

8. Sex:

9. Opening time:

10. Closing time:

11. How many items you manufacture:

12. How many months do you manufacture the following food product in a year?

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the food item</th>
<th>Production quantity in (kg)</th>
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<tbody>
<tr>
<td></td>
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<td>Daily</td>
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</tbody>
</table>
13. How many hours in a day you spend on activities during:
   a. Peak season ____________ hours.
   b. Lean season_____________ hours.

14. Peak period of manufacturing:

15. Activities performed:
   a. Manufacturing □
   b. Packaging □
   c. Both □

16. No. of Workers:
APPENDIX-1(B)

Title: “An ergonomic assessment of selected activities carried out in food unit”

P. G. Department of Home Science
Sardar Patel University
Vallabhbh Vidyanagar

Interview Schedule for General Survey

As part of ergonomics programme, this questionnaire has been designed to gather baseline information on the signs and symptoms you may be experiencing. This information will help identify areas where ergonomic solutions might be needed to improve your health, comfort and performance at work. The questions ask general information which will help identify where specific problems might exist followed by questions on how your body feels after your shift.

NAME AND TYPE OF INDUSTRY:

PART-A PERSONAL DETAIL:

1. Today’s date: Day         Month     Year
2. Name of the respondent: ______________________
3. Gender: Male ☐ Female ☐
4. Education: Illiterate ☐ Primary ☐ Secondary ☐
   Higher secondary ☐ Any other ☐
   Please specify _______________
5. Date of birth: Day      Month     Year
7. What is your height? ft ☐ in ☐ cm ☐☐☐
8. Are you right or left handed? Right ☐ Left ☐ Able to use both hands equally ☐☐☐
9. What is your job title? ______________________
10. Years of experience at this job? _____ Years
12. Number of Breaks (recess) in a day
   __________________
   Official:
   __________________
   Break taken on our own:
   __________________
   Time Interval: hrs. __ mins. __

13. Food Pattern at work:
   Full Meal
   Nashta
   Tea

14. Water Intake per day
   ________

15. Do you work (rotating) in shifts? Yes ☐ No ☐

16. No. of overtime hours in a month
   __________________

17. Percentage of attendance in last 1 month
   ☐ 100% ☐ 80% ☐ 50% ☐ < 50%

18. How many hours per week do you work (including regular overtime!)?
   _____ hours per week.

19. How many days per week do you work?
   ________ days per week.

20. Do you have other jobs (paid or unpaid)?
    If paid?
    Yes ☐ No ☐
    If unpaid?
    Yes ☐ No ☐

21. How do you usually travel to your work (more than one answer is possible)?
    Once 2-4 times 5-10 times more than 10 times in a week.
    On foot ☐ ☐ ☐ ☐
    Autorickshaw ☐ ☐ ☐ ☐
    Bus ☐ ☐ ☐ ☐
    Train ☐ ☐ ☐ ☐
    Bicycle ☐ ☐ ☐ ☐
    Any other ☐ ☐ ☐ ☐
    If yes, specify ________________________
PART-B GENERAL HEALTH QUESTIONNAIRE

1. How is your health status in general?
   Good □  Average □  Poor □

2. Have you had any complaints about your health in last six months?
   Yes □  No □

3. Have you consulted your doctor the past six months?
   (Other than for a routine check –up)
   Yes □  No □

4. Are you under any medical treatment currently?
   Yes □  No □

5. Have you been absent from work the last six months because of an illness or an accident?
   Yes □  No □

6. Are you taking drugs on a doctor’s prescription?
   Yes □  No □

7. Do you have habit of: {please tick (✓) mark}
   - Chewing tobacco □
   - Smoking □
   - Pan Masala □
   - Alcohol □
   - Any other □

8. Do you feel tired after work?
   Yes □  No □

9. Do you feel tired when getting up in the morning?
   Yes □  No □
10. How often do you experience any of the following symptoms during or after work? For each symptom, put a tick in the appropriate box.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Frequently</th>
<th>Sometime</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headaches</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Disturbed vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pain in joints</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Back pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Leg pain</td>
<td></td>
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</tr>
</tbody>
</table>
11. Severity of symptoms occurred:

Body Map Technique For Assessing Body Part Discomfort
Note: Refer “Universal Pain Assessment Tool” for Q:11.

Below given are some body regions if you have pain in the following portion of the body. Please fill up wherever applicable.

LOW BACK PAIN:

12. Please indicate your age when you experienced your low back pain for the first time.

_____ Year.
13. What may be the cause for your low back pain

- Sports injury? Yes ☐ No ☐
- Accident? Yes ☐ No ☐
- Sudden movement? Yes ☐ No ☐
- The lifting of a heavy load? Yes ☐ No ☐
- A bad posture during a long period? Yes ☐ No ☐
- Stress? Yes ☐ No ☐
- Climate (draught, coldness, moisture)? Yes ☐ No ☐

(Only for females)
- Pregnancy, delivery Yes ☐ No ☐
- Menstruation? Yes ☐ No ☐

14. Is your low back pain associated with your work?

Yes ☐ No ☐

15. Did your low back pain start during your current work?

Yes ☐ No ☐

16. Did your low back pain started suddenly? Yes ☐ No ☐

17. Is your low back pain causing trouble when:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>NT</th>
<th>LT</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing for a long period</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Sitting for a long period</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Moving loads (more than 5 kg)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Moving heavy loads (more load 20 kg)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Performing jobs which require exertion of arms/ hands</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Working with vibrating tools</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Driving in vehicles</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Working in uncomfortable postures</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Working in the same postures for a long period.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Note: NT: no trouble, LT: little trouble and MT: much trouble.
18. Are you partly disabled due to your low back pain?  Yes ☐ No ☐

19. Is your low back pain getting worse?  Yes ☐ No ☐

20. Is the severity of your low back pain varying widely?  Yes ☐ No ☐

21. How many times during the past 12 months did your low back pain cause you to:
   - consult a physician  ☐
   - consult a physiotherapist, chiropractor or osteopath?  ☐

22. Did you had:
   - lumbago?  Yes ☐ No ☐
   - a herniated (slipped) lumbar disc?  Yes ☐ No ☐
   - a medical treatment due to your low back pain?  Yes ☐ No ☐
   - a hospitalization due to your low back pain?  Yes ☐ No ☐

23. Do you have a numb, dead or tingling feeling in the legs when you have to?
   - Sneeze  Yes ☐ No ☐
   - Cough  Yes ☐ No ☐
   - Strain  Yes ☐ No ☐

24. Frequency of low back pain during the past 12 months?
   - Once  ☐
   - Between 2-4 times  ☐
   - Between 5-10 times  ☐
   - More than 10 times  ☐
   - My complaints are always there  ☐

25. Longest spell of your low back pain during the past 12 months?
   - Less than one day  ☐
   - 1-7 days  ☐
   - 1-4 weeks  ☐
   - 5-7 weeks  ☐
   - Between 8 weeks and 3 months  ☐
   - 3-12 months  ☐
26. Please describe the last period of your low back pain

<table>
<thead>
<tr>
<th>Description</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured completely within few days</td>
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<tr>
<td>Cured completely, but it took few weeks</td>
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<td></td>
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<tr>
<td>Cured not entirely, sometimes symptoms do recur</td>
<td></td>
<td></td>
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<tr>
<td>Not cured, my symptoms persisted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not cured, but my symptoms started only recently</td>
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<td></td>
</tr>
</tbody>
</table>

27. Did you have radiating low back pain (to the legs) during the past 12 months to:

<table>
<thead>
<tr>
<th>Location</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The left and/or right knee?</td>
<td></td>
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</tr>
<tr>
<td>The left and/or right ankle/foot?</td>
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</tbody>
</table>

28. Duration of absenteeism from work due to your low back pain?

<table>
<thead>
<tr>
<th>Duration</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>1-7 days</td>
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<tr>
<td>8-14 days</td>
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<td>15-28 days</td>
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<tr>
<td>Between 1-3 months</td>
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<tr>
<td>Longer than 3 months</td>
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</tbody>
</table>

29. Does your back pain persist during holidays?  Yes  No

30. Are your workplace, tools or working hours adjusted due to your low back pain?  Yes  No

31. Did you change your work in the past due to your low back pain?  Yes  No

32. Is your low back pain associated with leisure time activities?  Yes  No

33. Does your low back pain hinder your sleep?  Yes  No

34. Are you getting up in the morning with a stiff feeling in your lower back?  Yes  No

**Neck and/or Shoulder Pain:**

35. Please indicate your age when you experienced your neck and/or shoulder pain for the first time.  _________
36. What caused your neck and/or shoulder pain:

- Sports injury? Yes ☐ No ☐
- Accident? Yes ☐ No ☐
- Sudden movement? Yes ☐ No ☐
- The lifting of a heavy load? Yes ☐ No ☐
- Bad posture during a long period? Yes ☐ No ☐
- Stress? Yes ☐ No ☐
- The climate (draught, coldness, moisture) Yes ☐ No ☐

(only for females)

-Pregnancy, delivery Yes ☐ No ☐

37. Is your neck and/or shoulder pain associated with your work? Yes ☐ No ☐

38. Is your neck and/or shoulder pain associated with leisure time activities? Yes ☐ No ☐

39. Did your neck and/or shoulder pain start during your current job? Yes ☐ No ☐

40. Frequency of spells of neck and/or shoulder pain during the past 12 months?

- Once ☐
- Between 5-10 times ☐
- More than 10 times ☐
- My complains are always there ☐

41. How many days you were on sick leave during the past 12 months due to your neck and/or shoulder pain?

- None ☐
- 1-7 days ☐
- 8-14 days ☐
- 15-28 days ☐
- Between 1-3 months ☐
- Longer than 3 months ☐
42. How long was the longest spell of your neck and/or shoulder pain during the past 12 months?

- less than one day  
- 1-7 days  
- 1-4 weeks  
- 5-7 weeks  
- Between 8 weeks and 3 months  
- 3-12 months

43. Did you have radiating neck and/or shoulder pain (to the arms) during the past 12 months to:

- the left and/or right upper arm/elbow?  
- the left and/or right forearm/wrist/hand?

44. Please describe the last period of your neck and/or shoulder pain:

- cured completely within a few days  
- cured completely, but it took a few weeks  
- cured not entirely, sometimes my symptoms do recur  
- not cured, my symptoms stayed  
- not cured, but my symptoms started only recently

45. Is your neck and/or shoulder pain getting worse?  
46. Is the severity of your neck and/or shoulder pain strongly varying?  
47. Did your neck and/or shoulder pain start suddenly?  
48. Does your neck and/or shoulder pain hinder your sleep?  
49. Does your neck and/or shoulder pain persist during holidays?  
50. Are you getting up in the morning with a stiff feeling in your neck or shoulders?  
51. Do you have a dead or twinkling feeling in your arms or hands?  
52. Does your neck and/or shoulder pain radiate into the arms when you have to sneeze, cough or squeeze?
53. Did you ever had:

- a frozen shoulder? [ ] Yes [ ] No
- a herniated cervical disc? [ ] Yes [ ] No
- A medical treatment due to your neck and / or shoulder pain? [ ] Yes [ ] No
- A hospitalization due to your neck and /or shoulder pain? [ ] Yes [ ] No

54. How many times during the past 12 months did you have your neck and /or shoulder pain:

- consult a physician [ ]
- Consult a physiotherapist, chiropractor or osteopath? [ ]

55. Is your neck and/or shoulder pain causing trouble when:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>NT</th>
<th>LT</th>
<th>MT</th>
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<tbody>
<tr>
<td>Standing for a long period</td>
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<tr>
<td>Driving in vehicles</td>
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</tr>
<tr>
<td>Working in uncomfortable postures</td>
<td></td>
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</tr>
<tr>
<td>Working in the same postures for a long period</td>
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</tr>
<tr>
<td>Making repetitive movements with arms or</td>
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<tr>
<td>Hands.</td>
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</tbody>
</table>

**Note**: NT: no trouble, LT: little trouble and MT: much trouble
WORK ENVIRONMENT ASSESSMENT:

1. Ambient Temperature ____________________
2. Noise level ______________________ db.
3. Light level  
   a. Natural __________ lux.  
   b. Artificial __________ lux.
4. Body temperature of the worker ______________________
5. Type of safety apparel worn
   a. Helmet [     ]
   b. Uniform/Apron [     ]
   c. Hand gloves [     ]
   d. Shoes [     ]
6. Safety devices supplied ________________________________
7. Use of safety devices by workers ________________________________
8. First Aid Availability: Yes [     ]  No [     ]
9. Housekeeping of food unit:
   a. Dust bin [     ]
   b. Toilet blocks [     ]
   c. Cleaning regularity [     ]
APPENDIX-2

Title: “An ergonomic assessment of selected activities carried out in food unit”

P. G. Department of Home Science
Sardar Patel University
Vallabhbhai Vidyanagar

Signs and Symptoms Interview Schedule for Experimental Study

Section: A  Personal Detail:

1. Today’s date: Day Month Year

2. Name of the respondent: ______________________

3. Gender: Male  Female  

4. Education: Illiterate  Primary  Secondary  
Higher secondary  Any other  
Please specify ____________

5. Date of birth: Day Month Year


7. What is your height? ft  in  cm

8. Years of experience at this job?  _____ Years


10. Water Intake per day  (glasses)

11. Do you work (rotating) in shifts?  Yes  No

12. No. of overtime hours in a month  ___________

13. How many hours per week do you work  _______ hours per week.  
(including regular overtime!)?
14. Do you have other jobs (paid or unpaid)?
   If paid?                     [ ] Yes  [ ] No
   If unpaid?                   [ ] Yes  [ ] No

15. How do you usually travel to your work (more than one answer is possible)?

<table>
<thead>
<tr>
<th></th>
<th>Yes/No</th>
<th>Once</th>
<th>2-4 times</th>
<th>5-10 times</th>
<th>more than 10 times in a week.</th>
</tr>
</thead>
<tbody>
<tr>
<td>On foot</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Autorickshaw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Bicycle</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Any other</td>
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</tbody>
</table>

If yes, specify _________________________

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Section: B  General Health:

1. Have you had pain or discomfort during the last year?
   [ ] Yes  [ ] No

2. If yes, Below given are some body regions if you have pain in the following portion of the body. Please fill up wherever applicable.
Body Map Technique For Assessing Body Part Discomfort

3. Check area:

[ ] Neck      [ ] Shoulder      [ ] Elbow/Forearm      [ ] Hand/Wrist
[ ] Fingers    [ ] Upper Back    [ ] Low Back          [ ] Thigh/Knee
[ ] Low Leg    [ ] Ankle/Foot
4. Please put a check by the words that best describes your problem

- [   ] Aching
- [   ] Numbness (asleep)
- [   ] Weakness
- [   ] Pain
- [   ] Tingling
- [   ] Stiffness
- [   ] Cramping
- [   ] Burning
- [   ] Swelling

5. Have you had the problem in the last 7 days?

- [   ] Yes
- [   ] No

6. How would you rate this problem right now? (Universal Pain Assessment Tool).

![Moderate Universal Pain Assessment Tool](image)

*Note: Refer “Universal Pain Assessment Tool”*

7. Have you had medical treatment for this problem?

- [   ] Yes
- [   ] No

8. If NO, why not?