

PRACTICAL BOOK
UNIT – I HUMAN DEVELOPMENT AND FAMILY STUDIES
PRACTICAL - 1
STRENGTH AND WEAKNESS OF ADOLESCENTS

Development process and their characteristics during adolescence period have been thoroughly studied in various chapters. While studying these chapters you must have compared given concepts to yourself. Write down in your practical file about your any of two strength and their maximum utilization and any two weaknesses and their solution. For example, strength of each development and their maximum utilization and weakness of each development and their solution is given in Table 1-2 so that, you can perform this practical well

Table: 1 Strength of self and their maximum utilization during adolescent period.

Development	Strength	Maximum utilization
1. Physical	Appropriate height and weight	- Participate in various games
2. Motor	Good Muscle Coordination	- Perform physical activity
		- Practice in Dance, Exercise, Swimming and Gymnastics.
3. Sexual	Proper Maturation at right time	- Occupation can be selected in future among these by proper training and strong motivation.
4. Emotional	Curious Attitude/Nature	- Adolescent participation in each activity with confidence, excitement and interest
		- Adolescents, curiosity is centralized on the physical changes among them. Curious nature can be decentralized on a special area which can be helpful in gaining knowledge and creativity development.
5. Social	Verbal Intelligence	- Adolescents can impress everyone through their verbal intelligence. By this goodness, among them they can raise their voice against superstition and orthodox nature of society can change the mind set of aged and provide important contribution in society.
6. Cognitive	High I/Q	- They can score higher marks in science, maths and other subjects and achieve success by this power.

Table-2: Weakness and their solution among Adolescents.

Development	Weakness	Solution
1. Physical	Weak	- Adolescent should take balance diet to overcome this problem. Timely treatment of the disease is necessary to regain work efficiency.
2. Motor	Lack in Muscular Coordination	- Improvement in this, one should not make fun of them and motivate oneself with strong learning, proper guidance and practice so that, adolescent can at least perform mediocre.
3. Sexual	Slow development rate and late maturity	- Adolescent feel inferior in front of their age mates. Sometimes delay in physical development affects sexual development so take balance diet. Inferior adolescent can concentrate on creative activity instead of their physical structure so that they can overcome this.
4. Emotional	Angry Nature	- Adolescents not only harm others but themselves too when angry. To control anger adolescents should remain busy in interesting work.
5. Social	Shy Personality	- Adolescent should participate in social functions as much as possible and communicate with maximum persons and can mix with people, age mates and friends. Teachers and parents can help adolescents to overcome this problem.
6. Cognitive	Low I/Q	- Adolescent with low IQ can concentrate o physical skills like drawing, dance, carpenting etc instead of mental skills

On the basis of these tables teacher can organize a discussion in the class on various strength and their maximum utilization and weakness and their solutions. By this practical adolescent can get better knowledge about their changes, causes and adjustments. This practical will help students to maximize their strength and improve their weakness.

PRACTICAL - 2
PREPARE A CASE STUDY PERFORMA
FOR ADOLESCENT BOYS AND GIRLS

Name of Adolescent

1. Age
2. Educational Qualification
3. Physical structure
4. Length – Weight, Muscles, Hairs, Eyes and Physical Work Ability
5. Motor Development- Muscles and Facial Expressions.
6. Emotional Development- Anger, Curiosity, Fear, Anxiety, Jealousy, Competition, Affection, Joy
7. Social Development- Nature, Friendship, Group Formation, Family Adjustments, Social Adjustments
8. Sexual Development- Primary and Secondary Sex Characteristics

PRACTICAL - 3

OLD AGE PROBLEMS AND SUGGESTIONS

Old age includes many physical, social, mental and emotional changes like other stages of life cycle, with these changes they face many other problems. For real life experience observe aged male or female in your family or neighborhood and list out their various problems after interviewing them. Also suggest the solutions of these problems. Write down this practical in your practical file according to the following table:

Table: 3.1 Old Age Problems and Their Suggestions

Problems	Suggestions
(a) Physical (i) Internal (ii) External (b) Mental (c) Social (d) Emotional (e) Economic (f) Personality	

UNIT II - FOOD AND NUTRITION

PRACTICAL - 4

REFERENCE UNIT OF FOOD GROUPS

I Reference unit of food Groups :

In this chapter you have read about meal planning in detail. In order to plan balanced diet various food groups have been used to make it easy. It is very necessary to know reference unit before you plan a meal using food groups. With the help of a teacher actual amount of reference unit can be calculated. i.e. 30gm of cereal/pulse actual weight should be carried out by doing the practical. In the same way 100 gm of fruit, vegetable like- potato, onion, lady finger, spinach, banana and mango weighs how much.

From food group choose at least two foods like cereal, pulses, milk, roots & tubers, green leafy vegetable, fruit, sugar, ghee etc. Concerned teacher make it feasible for students by weighing actual amount and convert it into table.

According to the availability of food products changes have been made in the table. Its amount can be increased as per requirement. Reference unit for egg, meat, fish and poultry can also be studied.

II. Recipes for Meal planning :

Along with Reference unit meal planning, knowledge of various recipes for raw and cooked items is also necessary. For in one reference unit how 30 gm of wheat flour when made into chappati will look ? How much of 30gm Dal/Dalia will weigh. Many times to prepare various recipes 2 or 3 food group mixture are required. By doing this in specific recipe there is change in reference unit of food group. For example, for preparing 1 bowl of kheer we require 2 unit of milk i.e 250 ml, 10 gm sugar with 10 gm rice.

Table 4.1 : Food groups and its weight

S. No	Food groups	Ingredients
1.	Cereals	Wheat flour. Rice
2.	Pulses	Moong/urad/Bengal gram dal/gram flour
3.	Milk	Milk, curd
4.	Roots and Tubers	Potato, onion
5.	Green leafy vegetables	Spinach, cabbage, fenugreek leaves, amaranthus
6.	Other vegetables	Okra, Brinjal, Gourds,
7.	Fruits	Guava, Banana, Mango, Apple, Papaya
8.	Sugar	Jaggery, sugar
9.	Ghee/ oil	Ghee, oil

We are giving table of raw and cooked food items which are normally cooked in our home for your help. In school, subject teachers should give

demonstration in front of students that how much raw food is cooked and measure its amount. For practice you can make this at your home also.

Table 4.2 : Raw and cooked food amount for general dishes

S.no	Dishes	Food stuffs (in gm)	Amount	Serving size	Ready
1.	Roti/bati/ puri/ paratha	Whole wheat flour Ghee	30 As per requirement	1	1
2.	Stuffed paratha/ kachori	Wheat flour Stuffing (potato) Oil	30 30 As per requirement	1 1	1
3.	Samosa	Refined wheat flour Stuffing (potato, peas) Oil	30 25+25 10	1 $\frac{1}{4} + \frac{1}{4}$ For frying	2
4.	Plain dalia	Dalia Ghee	30 As per requirement	1	1 plate
5.	Sweet dalia	Dalia Jaggery/ sugar Ghee	30 10 As per requirement	1 2	1 plate
6.	Dal dalia	Dalia Moong dal ghee	30 15 As per requirement	$\frac{1}{2}$ $\frac{1}{2}$	1 plate
7.	Upma	Semolina Onion Oil	30 10 5	1 1	1 plate
8.	Halwa	wheat flour/ semolina/ gram flour ghee sugar	30 20 30	1 4 6	1 plate
9.	Plain rice	Rice Ghee	30 As per requirement	1	$\frac{1}{2}$ plate
10.	Pulav	Rice Potato, onion, peas Oil	30 50 5	1 $\frac{1}{2}$ 1	1 plate
11.	Sweet rice	Rice Ghee Sugar	30 5 10	1 1 2	$\frac{1}{2}$ plate

12.	Poha	Flaked rice Potato, onion Oil	30 25 5	1 $\frac{1}{4}$ 1	1 plate
13.	Idli urad	Rice Dal	30 10	1 $\frac{1}{3}$	4 small
14.	Khichidi	Rice Dal Ghee	20 10 As per requirement	$\frac{2}{3}$ $\frac{2}{3}$	1 plate
15.	Plain dal (any)	Dal Ghee/ oil	30 5	1 1	1 bowl
16.	Rajma/ chole	Rajma Onion, tomato Oil	30 25 5	1 $\frac{1}{4}$ 1	1 bowl
17.	Dal palak	Moong dal Spinach Oil	20 25 5	$\frac{2}{3}$ $\frac{1}{4}$ 1	1 bowl
18.	Sambhar	Red gram Vegetables (bottle gourd, cluster beans, potato, onion, tomato) Oil	10 45 5	$\frac{1}{2}$ $\frac{1}{2}$ 1	1 bowl
19.	Pakoda	Besan Potato, onion Other vegetables oil	40 40 For frying	$1\frac{1}{2}$ $\frac{1}{2}$ -	1 plate
20.	Potato vada	Besan Potato Oil	20 25 For frying	$\frac{2}{3}$ $\frac{1}{4}$ -	2
21.	Dahi vada	Urad dal Moong dal Curd Oil	25 50 For frying	1 $\frac{1}{2}$ -	2
22.	Ladoo	Flour/ besan Ghee Sugar	30 15 20	1 3 4	2
23.	Milk	Milk Sugar	200 5	2 1	1 glass/ 2 cup
24.	Tea/ coffee	Milk sugar	50 5	$\frac{1}{2}$ 1	1 cup
25.	Kheer	Milk Rice Sugar	250 10 10	$2\frac{1}{2}$ $\frac{1}{3}$ 2	1 bowl
26.	Vermicelli kheer	Milk Vermicelli Sugar	150 5 10	$1\frac{1}{2}$ - 2	1 bowl

27.	Custard	Milk Sugar Fruit Custard powder	100 10 25 5	1 2 $\frac{1}{4}$ -	1 bowl
28.	Curd	Curd	100	1	1 bowl
29.	Raita	Curd Vegetable/fruit	50 25	$\frac{1}{2}$ $\frac{1}{4}$	1 bowl
30.	Bundi raita	Curd Bundi	50 10	$\frac{1}{2}$ -	$\frac{3}{4}$ bowl
31.	Dry vegetables	Okra/ potato/ colocasia/ pumpkin/ brinjal etc Oil	75 5	$\frac{3}{4}$ 1	$\frac{3}{4}$ bowl
32.	Curry vegetable	Potato Tomato Oil	50 25 5	$\frac{1}{2}$ $\frac{1}{4}$ 1	1 bowl
33.	Curry vegetable	Bottle gourd/ taroi Oil	100 5	1 1	1 bowl
34.	Fruit	Different varieties- apple/ grapes/banana/ orange	100	1	1
35.	Fruit chat	Sugar	100 5	1	1 plate
36.	Fruit juice	Orange/ mosambi/ tomato	400	4	1 glass
37.	Boiled egg	Egg	50	1	1

In above table these amount of food items can be changed in the recipe. In recipes amount of ghee/ oil/sugar can be changed according to your requirement. Peels and seed of fruits and vegetables are not used in the table. Amount of fruit and vegetable is also from its edible part. For example if we buy $\frac{1}{2}$ kg of spinach, after cleaning only half of its amount is left i.e 250 to 300 gm.

Standard medium size bowl i.e its depth is 4 cm

and diameter is 8 cm and for plate it is of medium size used in table whose diameter is 6 inch. One cup tea/ coffee, 1 glass milk or 1 bowl dal/ kheer means that we are measuring it with household measurements which is not upto the brim but slightly on lower side.

Teachers should guide student regarding raw and cooked food, with reference unit. Both the practicals above will help students to plan meal for different age group.

PRACTICAL - 5

MEAL PLANNING DURING CHILDHOOD

Rate of growth and development slows down after infancy during childhood. Physical, mental, cognitive and motor development is rapid in this stage. Active and more inclined towards games due to inquisitive nature. They are least bothered about food, but it is necessary to provide balanced diet to them in order to maintain the rate of growth and development and to save from malnutrition.

Table 5.1 : Balanced diet for childhood (Reference unit)

Food group	Portion size	1-3 years	4-6 years	7-9 years	0-12 years	
					Girls	Boys
Cereal	30	4	7	9	11	9
Pulses	30	1	1.5	2	2	2
Milk(ml)	100	5	5	5	5	5
Roots and Tubers	100	0.5	1	1	1	1
Green leafy vegetables	100	0.5	0.5	1	1	1
Other vegetables	100	0.5	0.5	1	1	1
Fruits	100	1	1	1	1	1
Sugar	5	5	6	6	7	6
Ghee/oil	5	4	5	5	5	5

Note: For Non-vegetarian, egg/fish of one unit(50g) can be replaced by one unit of dal (30g). Meal planning of 3 years preschool and 9 years school going children can be done by referring the values given in table 2 to 5.

Table 5.2 : One day meal planning for 3 years preschool children

Time of meal	Menu /recipe	Portion size	Ingredients	Amount (g/mg)	Food group unit
1	2	3	4	5	6
Morning 8:00 am	milk	1 cup	Milk Sugar	100 5	1 1
Breakfast 9:00am	Poha	1 plate	poha (cereal) Potato, onion(tuber) Oil	30 10 2.5	1 - ½

Lunch 12:30pm	Stuffed paratha Raita	2 1 bowl	Wheat flour/maida(cereal)	45	1½
			Spinach (green leafy),	50	½
			Moong dal (pulses)	15	½
			Oil	7.5	1½
			Curd (milk)	100	1
			Potato,(tuber)	25	¼
After lunch 3:00pm	Fruit chat	½ plate	Apple, banana, grapes, lemon (fruit)	75	¾
Evening tea 5:00pm	Biscuit	2	Wheat flour(cereal)	15	½
			Ghee	5	1
			Sugar	5	1
	Banana shake	½ glass	Milk	100	1
			Banana(fruit)	25	¼
			Sugar	5	1
Dinner 7:30 pm	Rice	½ plate	Rice (cereal)	30	1
	Dal	1 bowl	Lentil dal(pulses)	30	1
			Ghee	5	1
	Salad	½ plate	Carrot (tuber)	25	¼
			Cucumber	25	¼
	Sweet	1 piece	Mawa (milk)	25	1
			Coconut powder	5	-
			Sugar	5	1
Before sleep	Milk	1 cup	Milk	100	1
			Sugar	5	1

Table: 5.3 : Division and total of food units in the meal for a day

Food group	Morning 8:00 am	Breakfast 9:00 am	Lunch 12:30	After lunch 3:00 pm	Evening tea 5:00 pm	Dinner 7:30pm	Before sleep 8:30 pm	Total
Cereal	-	1	1 ½	-	½	1	-	4
Pulses	-	-	½	-	-	1	-	1 ½
Milk	1	-	1	-	1	1	1	5
Tubers	-	-	¼	-	-	¼	-	½
Green leafy vegetables	-	-	½	-	-	-	-	½
Other vegetables	-	-	-	-		¼	-	¼
Fruits	-	-	-	¾	¼	-	-	1
Sugar	1	-	-	-	1+1	1	1	5
Ghee/oil	-	½	1 ½	-	1	1	-	4

Table 5.4 : One day meal planning for school going children (9 years)

Food timing	Menu		Ingredients	Amount (g/mg)	Unit
1	2	3	4	5	6
Morning tea 7:00	Milk	1 glass	Milk	200	2
	Upma	1 plate	Sugar	5	1
			Semolina (cereal)	45	1½
			Carrot, onion (tuber)	10	-
			Oil	2.5	½
Tiffin 11.00	Bathua paratha	2	Wheat flour (cereal)	60	2
			Bathua (green leafy)	50	½
			Oil	5	1
	Carrot and peas sabji	1 carrot	Carrot (tubers)	50	½
			Peas (other vegetables)	25	¼
			Oil	2.5	½
	Khoa sweet	1 piece	Mawa (milk)	25	1
			Sugar	5	1
			Coconut powder	5	-
Lunch 2:00	Chapatti	2	Wheat flour (cereal)	60	2
			Ghee	2.5	½
	Rice	½ plate	Rice (cereal)	30	1
			Tuar (dal)	30	1
	Dal	1 bowl	Ghee	2.5	½
	Lady's finger sabji	½ bowl	Lady's finger (other vegetable)	50	½
			Oil	2.5	½
			Curd (milk)	50	½
	Raita	1 bowl	spinach (green leafy)	25	¼
Evening snack 6:00 pm	Bhel puri	1 plate	Rice flakes (cereal)	15	½
			Potato, onion (tuber)	25	¼
			Tomato (fruit)	25	¼
	Fruit juice	½ glass	Fruit	200	2
Dinner 8:00pm	Bati	2	Wheat flour (cereal)	60	2
			Ghee	5	1
	Dal	1 bowl	Urad, chana, moong (pulses)	30	1
			Ghee	2.5	½
			Wheat flour (cereal)	15	½
	Churma laddoo	1 laddoo	Sugar	10	2
			Ghee	7.5	1½
			Beet root (tuber)	25	¼
	Salad	½ plate	Cucumber (other vegetable)	50	½
	Green coriander chutney	1 tbsp	Green coriander, mint, (green leafy vegetables)	25	¼
Before sleeping	Milk	¾ glass	Milk	150	1½
			Sugar	5	1

Note : spices, green chilly, green coriander, ginger, garlic etc are used in very less quantity. Therefore their amounts are not included in above calculation.

Table 5.5 : Division and total of food units in meal for a day

Food group	Breakfast	Tiffin	Lunch	Evening snack	Dinner	Before sleeping	Total
Cereal	1½	2	2+1	½	2+½	-	9½
Pulses	-	-	1	-	1	-	2
Milk	2	1	½	-	-	1 ½	5
Tubers	-	½	-	¼	¼	-	1
Green leafy vegetables	-	½	¼	-	¼	-	1
Others vegetables	-	¼	½	-	½	-	1¼
Fruits	-	-	-	¼ + 2	-	-	2¼
Sugar	1	1	-	-	2	1	5
Ghee/oil	½	1 + ½	½+½+½	-	1+½+½	-	6½

Meal can be prepared/planned for other sex and age from the above mentioned food table.

PRACTICAL - 6

MEAL PLANNING DURING ADOLESCENCE

Adolescence is the age in which physical growth and development is fast after childhood. Requirement for food and nutrient increase in this age. Apart from this, emotional development is also taking place and they have to cope up with that also. Balanced diet for adolescent girls and boys is given in table 1. One day meal planning for 17-18 years adolescent is given in table 2. In table 3 whole day meal division information is given.

Table 6.1 : Balanced diet for adolescent boys and girls

Food groups	Amount (gm)/ reference unit	13-18 years	
		Boys	Girls
Cereals	30	14	10
Pulses	30	2	2
Milk (in ml)	100	5	5
Tubers	100	2	1
Green leafy vegetables	100	1	1
Other vegetables	100	1	1
Fruit	100	1	1
Sugar	5	7	6
Ghee/ oil	5	5	5

Note : For non vegetarian boys/girls one serving (30 gm) pulses can be replaced with (50 gm) meat/fish/ egg.

Table 6.2 : One day meal planning for 17-18 years adolescent boys

Meal/ time	Menu	Amount	Ingredients	Amount	Serving size
1	2	3	4	5	6
Morning breakfast 8-8:30 am	Milk	1 glass	Milk	200	2
			Sugar	10	2
	Sandwich	4	Bread-4 Potato (tuber)	100	3
			Green peas (other vegetable)	75	3/4
				50	1
			Oil	5	1

Afternoon lunch	Chappati	3	Wheat flour	90	3
			Ghee	2.5	1/2
	Rice	1 plate	Rice	60	2
	Rajmah	1 bowl	Rajma (pulse)	30	1
			Tomato	25	¼
			Onion (tuber)	25	¼
			Oil	5	1
	Ladys finger sabji	½ bowl	Okra (other vegetable)	75	¾
			Oil	2.5	½
	Pumpkin raita	1 bowl	Curd (milk)	50	½
			Pumpkin (other vegetable)	25	1/4
Evening tea 5-5.30 pm	Tea	1 cup	Milk	50	½
			Sugar	5	1
	Besan chilla	2	Besan (pulse)	30	1
			oil	2.5	½
	Fruit chat	1 bowl	Apple, papaya, grapes, banana (fruit)	100	1
			Sugar	10	2
Dinner 8-8:30 pm	Chappati	5	Wheat flour (cereal)	150	5
			Ghee		
	Palak paneer vegetable	1 bowl	Spinach (green leafy vegetable)	5	1
				100	1
			Paneer (milk)	25	1
			Tomato (fruit)	25	¼
			Onion (tuber)	25	¼
			Oil	2.5	1
			Milk	100	1
	Vermivelli kheer	¾ bowl	Vermicelli	5	-
	Salad	1 plate	Sugar	7.5	1 ½
			Carrot (tuber)	50	½

Note : masalas, green chilli, green coriander, ginger, garlic etc are used in moderation

Table 6.3 : Division and total of food unit in one day meal

Food groups	Breakfast	Lunch	Evening tea	Dinner	Total serving
Cereals	3	3+2	-	5	13
Pulses	-	1	1	-	2
Milk (in ml)	2	½	½	1+1	5
Tubers	¾	¼	-	¼ + ½	1 ¾
Green leafy vegetables	-	-	-	1	1
Other vegetables	½	¾ + ¼	-	-	1 ½
Fruit	-	¼	1	¼	1 ½
Sugar	2	-	1 + 1½	1 ½	6
Ghee/ oil	1	½ +1 + ½	½	1 + ½	5

In above table 3 unit of different food in reference to food group is given. Meal planning can be changed according to age and sex of other group in adolescent. This meal is not meant for each and every individual change should be made. For example in table 2 one day meal planning is given for 17-18 years adolescent. An adolescent can change his diet by incorporating suggestions.

1. Number of chapattis served in lunch and dinner can be reduced or the amount of breakfast can be reduced for 13-15 years age group adolescent. Other planning should remain same because balanced diet table explains that according to age and sex, change should only be done on cereals and not in other food stuffs.
2. Those who carry tiffin to college can either reduce amount of breakfast or can take light lunch.
3. Adolescent who cannot consume 3-4 chapattis at one time can take biscuit, toast, popcorn or puffed rice in between to compensate.
4. They can take burger, noodles, chowmein, stuffed paratha, nutritious upma, dalia, kachori, chat, moong chat, idli, dosa, uttapam, fruit chat etc. in evening snack, inspite of sandwich.
5. Pulses can be consumed in the form of sprouts, pakoda, laddoo, paratha, papad, halwa etc.
6. Green leafy vegetables should be consumed at least once in a day. This can be in the form of stuffing, raita or chutney etc.
7. Include dal-bati, kadahi-chawal, makki roti, sarso sag, idli, dosa and sambhar in dinner inspite of chapatti, dal and vegetable.
8. Oily and fried food should be taken once in a day as amount of fat in diet will increase and can bring pimple on face.
9. Economic status of family should be considered while planning meal.
10. Meal planning should be done according to the eating habit of adolescent.

PRACTICAL - 7

MEAL PLANNING DURING ADULTHOOD

Meal planning of adolescence depends on sex, occupation, physical activity, age, climate and its food habits. Male require more food than female. Climate also affects food intake.

Occupation and activity are opposite factors. As physical activity increases its occupational status decreases, their paying capacity reduces. Sedentary workers and white collar job person has more money as compared to heavy workers. Balanced diet is given in table according to activity and sex.

Table 7.1 : Balanced diet for adult (Reference unit NIN, 2010).

Food groups	Portion size	Amount of food (gm)					
		Sedentary worker		Moderate worker		Heavy worker	
		Male	Female	Male	Female	Male	Female
Cereal	30	12.5	9	15	11	20	16
Pulses	30	2.5	2	3	2.5	4	3
Milk(ml)	100	3	3	3	3	3	3
Tubers	100	2	2	2	2	2	2
Green leafy vegetables	100	1	1	1	1	1	1
Other vegetables	100	2	2	2	2	2	2
Fruits	100	1	1	1	1	1	1
Sugar	5	4	4	6	6	11	9
Ghee/oil	5	5	4	6	5	8	6

Note : Non-vegetarian individual can replace one unit of egg, meat, poultry with 30g dal.

Expensive food items have been included for high income group example - thandai, palak paneer, cutlets,etc. while for low income group Bengal gram, palak, and guar has been included which are nutritious and are cheap also.

Table 7.2 : Comparative meal for various income group and activity.

Food timing	High income Sedentary worker	Middle income moderate worker	Low income heavy worker
Morning tea	Tea -	Tea, toast	Tea -
Break fast	Bread poha -	Sprouted green gram paratha	Chapatti Garlic chutney
	Thandai	Milk seasonal fruits	Buttermilk -

Lunch	Chapatti/nan Shahi pulao Dal makhanni Baked capsicum Shrikhand	Chapatti Rice Dal Baked tomato/ other seasonal vegetables Bathua raita	Coarse grain-bajra/ maize/chapatti - Kadi Potato bringjal curry - Salad
After lunch	-	-	Tea
Evening tea	- Cutlet - Orange juice	- Sandwich Peanut chikki Lemon water	Tea Jaggery- chana Seasonal fruits
Dinner	Chapatti Palak paneer Navratan korma Papad Fruit Salad	Chapatti Moong dal palak Potato,cabbage, sabji Salad Vermicelli kheer	Maize/pearl millet/wheat Chana-dal-palak - Rab

Table 7.3 : One day meal planning for high income sedentary worker (male)

Food timing	Menu	Serving	Ingredients	Amount (g/mg)	Unit
1	2	3	4	5	6
Morning tea 7:00 am	Tea	1 cup	Milk Sugar	50 5	½ 1
Break fast 8:00am	Bread poha	1 plate	Bread 4 big(cereal) Potato, onion(tuber) Sugar	90 25 7.5	3 ¼ 1 ½
Lunch 1:00-1:30 pm	Chapatti/nan Shahi pulao Dal makhan Baked capsicum Shrikhand	3(cereal) 1plate 1 plate 2 ½ bowl	Wheat flour/maida Ghee Rice(cereal) Cashew, raisins, cherry, peas Oil Rajma, urad/moong(pulses) Tomato(fruit) Onion (tuber) Butter Capsicum(other veg) Potato,onion (tuber) Oil Curd (milk) Sugar	90 2.5 50 15 2.5 30 15 25 2.5 50 50 2.5 100 10	3 ½ 1 ½ - ½ 1 - ¼ 1 ½ ½ 1 2
Evening snack 5:00pm	Orange juice Cutlet Moong dal (roasted)	½ glass 2 1 bowl	Orange (fruit) Rice flake (cereal) Potato (tuber) Oil Green gram dal	200 30 25 2.5 30	2 1 ¼ ½ 1

Dinner 8:00pm	Tomato soup	1 cup	Tomato(fruit)	100	1
	Chapatti	4	Wheat flour(cereal)	120	4
			Ghee	5	1
			Spinach (green leafy),	100	1
	Palak paneer	1 bowl	Paneer (milk)	25	1
			Oil	2.5	½
			Carrot (tuber), green matar, cauliflower, capsicum(other	25	¼
	Navratan korma	1 bowl	vegetables	100	1
			Oil	2.5	½
	Papad	1 big	Moong (pulses)	15	½
	Fruit salad	½ cup	Apple, banana, papaya,sapota, grapes	100	1

Table 7.4 : Division and total of food unit for meal per day

Food group	Morning tea	Break fast	Lunch	Evening snack	Dinner	Total
Cereal	-	3	3+1½	1	4	12½
Pulses	-	-	1	1	½	2½
Milk	½	¼+1	1	-	1	3¾
Tubers	-	¼	¼+½	¼	¼	1½
Green leafy vegetables	-	-	-	-	1	1
Other vegetables	-	-	½	-	1	1½
Fruits	-	-	-	2	1+1	4
Sugar	1	1½	2	-	-	4½
Ghee/oil	-	½	½+½+½+½	½	1+½+½	5

Table 7.5 : One day meal planning for middle income moderate worker (male)

Food timing	Menu	Serving size	Ingredients	Amount (g/mg)	Unit
1	2	3	4	5	6
Morning tea 7:00	Tea toast	1cup	Milk	50	½
			Sugar	5	1
			Refined flour	45	1½
Breakfast	Sprouted green gram paratha	2	Wheat flour(cereal)	60	2
			Whole gram(dal)	15	½
			Oil	5	1
	Milk	1cup	Milk	100	1
			Sugar	5	1
			Guava (fruits)	100	1
	Seasonal fruits	1 medium			

Lunch 1:00	Chapatti	4	Wheat flour(cereal)	120	4
			Ghee	5	1
	Rice	½ plate	Rice (cereal)	30	1
			Ghee	2.5	½
	Dal	1 ½	Whole lentil(dal)	45	1½
			Ghee	5	1
	Baked tomato	2	Tomato (fruit)	50	½
			Potato,ginger(tuber)	50	½
Evening snack 5:00 pm			Oil	2.5	½
	Bathua raita	1 bowl	Curd	50	½
			Bathua(green leafy)	25	¼
	Lemon water	1 glass	Lemon(fruit)	20	-
			Sugar	5	1
	Sandwich	2 big	Bread (cereal)	50	1½
			Cucumber (other vegetable)	50	½
			Tomato (fruit)	25	¼
Dinner 8:00pm	Peanut chikki	1 bite	Peanut	10	-
			Jaggery/sugar	10	2
	Chapatti	5	Wheat flour(cereal)	150	5
			Ghee	5	1
	Dal palak	1 bowl	Green gram(pulses)	15	½
			Spinach(green leafy)	25	¼
			Ghee	5	1
	Potato cabbage curry	½ bowl	Potato(tuber)	50	½
			Cabbage(green leafy)	50	½
			Oil	2.5	½
			Carrot,radish(tuber)	50	½
	Salad	1 plate	Kakri (other vegetable)	100	1
			Vermicelli(cereal)	10	-
	Vermicelli kheer	1 bowl	Milk	150	1½
			Sugar	10	2

Table 7.6 : Division and total of food unit for meal per day

Food group	Morning tea	Breakfast	Lunch	Evening snack	Dinner	Total
Cereal	1 ½	2	4+1	1 ½	5	15
Pulses	-	½	1 ½	-	½	2 ½
Milk	½	1	½	-	1 ½	3 ½
Tubers	-	-	½	-	½ + ½	1½
Green leafy vegetables	-	-	¼	-	¼ + ½	1
Others vegetables	-	-	-	½	1	1 ½
Fruits	-	1	½	¼	-	1 ¾
Sugar	1	1	-	1+2	2	7
Ghee/oil	-	1	1+ ½ + 1+ ½	-	1+1+ ½	6 ½

Table 7.7 : One day meal planning for high income heavy worker male

Food timing	Menu	Serving size	Ingredients	Amount (g/mg)	Unit
1	2	3	4	5	6
Morning tea 6-6:30	Tea	1cup	Milk Sugar	25 7.5	$\frac{1}{4}$ $1\frac{1}{2}$
Break fast 7:30-8:00am	Missi chapatti Garlic chutney Buttermilk	3 2 big spoon 1 glass	Wheat flour(cereal) Besan (pulses) Radish (tuber) Spinach/fenugreek/bathua/gram leaves(green leafy) Vanapati ghee Garlic/onion(tuber) Oil Buttermilk (milk)	120 60 15 50 10 25 5 50	4 2 - $\frac{1}{2}$ 2 $\frac{1}{4}$ 1 $\frac{1}{2}$
Lunch 1-1:30pm	Bajra ki roti Kaddi Potato bringjal curry Salad	5 $1\frac{1}{2}$ bowl 1 bowl 1 plate	Pearl millet(cereal) Vanapati ghee Buttermilk (milk) Besan (pulses) Oil Potato(tuber) Brinjal (other vegetable) Oil Carrot (tuber)	240 10 300 15 5 50 200 5 50	8 2 $\frac{3}{4}$ $\frac{1}{2}$ 1 $\frac{1}{2}$ 2 1 $\frac{1}{2}$
After lunch 3:00	Tea	1 cup	Milk Sugar	25 7.5	$\frac{1}{4}$ $1\frac{1}{2}$
Evening tea	Tea Gur- channa Seasonal fruit	1 cup 1 bowl 1	Milk Sugar Jaggery(sugar) Roasted Bengal gram Banana	25 7.5 30 30 100	$\frac{1}{4}$ $1\frac{1}{2}$ 6 1 1
Dinner 8-8:30 pm	Corn roti Rab	4 $1\frac{1}{2}$ bowl	Corn flour (cereal) Vanapati ghee Chana (pulses) Palak (green leafy) oil Butter milk Porridge of corn	210 5 15 50 5 300 30	7 1 $\frac{1}{2}$ $\frac{1}{2}$ 1 $\frac{3}{4}$ 1

Note : Spices, green chilli, green coriander, ginger, garlic, etc. used in small amount. It is not mentioned in above table.

Table 7.8 : Division and total of food unit in meal per day

Food Group	Morning tea	Break fast	Lunch	After Lunch	Evening tea	Dinner	Total
Cereals	-	4	8	-	-	7+1	20
Pulses	-	2	$\frac{1}{2}$	-	1	$\frac{1}{2}$	4
Milk	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{4}$	$2\frac{3}{4}$
Tubers	-	$\frac{1}{2}$	$\frac{1}{2} + \frac{1}{2}$	-	-	-	$1\frac{1}{4}$
Green leafy vegetables	-	$\frac{1}{2}$	-	-	-	$\frac{1}{2}$	1
Others vegetables	-	-	2	-	-	-	2
Fruits	-	-	-	-	1	-	1
Sugar	$1\frac{1}{2}$	-	-	$1\frac{1}{2}$	$1\frac{1}{2} + 6$	-	$10\frac{1}{2}$
Ghee/ oil	-	2+1	2+1+1	-	-	1+1	9

Above all three food tables have included almost all food items in recommended amount. Recommended meal is said to be balanced if it contains slightly less or more amount of food.

PRACTICAL - 8

MEAL PLANNING DURING OLD AGE

This is also groups very important stage like all other age for meal planning. In this age according to physical activities and to maintain good health it is necessary to include all good groups in meal and it should be done through given table.

Table 8.1 : Balanced diet for male and female elderly (NIN - 2010)

Food groups	Amount (g m)	Man	Women
Cereals	30	9.5	7
Pulses	30	2.5	2
Milk	100	3	3
Tubers	100	2	2
Green leafy vegetables	100	1	1
Other vegetables	100	2	2
Fruits	100	2	2
Sugar	5	4	4
Oil/fats	5	5	4

Note : Non vegetarian elderly can replace 50gm of egg, meat, fish and poultry with 30gm dal.

One day meal is given in table in sample form elderly (male). Meal should be changed according to his physical and nutritional problems for eg. if a person is diabetic then sugar and sugar product should be consumed in less amount. If denture problem then semi-solid or liquid food should be given

Table 8.2 : One day meal planning for elderly (male)

Food time	Menu Dishes	Serving amount	Ingredients	Amount (gm/ml.)	Serving size
1	2	3	4	5	6
Morning tea 6.00 AM	Tea Biscuit (Salty)	1 Bowl 4	Milk Sugar Wheat flour	50 5 15	½ 1 ½
Breakfast 8.00 am	Milk Corn flakes Upma	1 ½ 1	Milk Corn flakes(cereals) Sugar Semolina Onion, carrot Oil	100 30 5 30 25 5	1 1 1 1 ½ 1

Mid morning breakfast 10.00 am Lunch 1.30 pm	Papaya Chapatti	1 plate 2	Papaya	100	1
			Wheat flour (cereals)	60	2
	Rice(cereals) Masoor dal Spinach, potato and tomato curry	1 plate	Ghee	2.5	½
			Rice(cereals)	30	1
		1 bowl	Pulses	30	1
		1 bowl	Ghee	2.5	½
		Spinach potato tomato oil	Spinach	100	1
			potato	50	1
tomato			50	½	
oil			5	1	
Evening tea 5.00pm	Apple shake Bhelpuri	1 glass	Apple(fruit)	100	1
		1 plate	Milk	100	1
			Sugar	5	1
			Murmure (cereals)	30	1
			Salty (pulses)	10	-
			Potato, onion (tubers)	25	½
			Curd (milk)	50	½
			Before dinner soup 7.00 pm Dinner 8.00pm	Loki soup	1 glass
Chapati	2	wheat flour(creals)		60	2
		Ghee		2.5	½
Porridge (salty)	1 bowl	Porridge (cereals)		30	1
		Moongchilkaa (pulses)		15	½
Peas, potato curry	1 bowl	Ghee		2.5	½
		Peas		100	1
		Potato		50	½
		Oil		5	1
Papad	1 big	Moongdaal		15	½
Post Dinner 9.00 pm	Milk	1 cup		Milk	100
			sugar	5	1

Note: Spices like green chill, green coriander, ginger, garlic etc. should be used in less amount, above table does not mention these things.

Table 8.3 : Division and total of food unit in meal per day

Food groups	Morning tea 6.00 am	Break fast 8.00 am	Mid - morning 10.00 am	After meal 1.30 pm	Evening tea 5.00 pm	Before dinner 7.00 pm	Dinner 8.00 pm	Post Dinner 9.00 pm	Total
Cereals	½	1+1	-	2+1	1	-	2+1	-	9 ½
Pulses	-	-	-	1	-	-	½+½	-	2
Milk	½	1	-	-	1+ ½	-	-	1	4
Tubers	-	½	-	½	½	-	½	-	2
Green leafy vegetable	-	-	-	1	-	-	-	-	1
Other vegetable	-	-	-	-	-	1	1	-	2
Fruits	-	-	1	½	1	-	-	-	2½
Sugar	1	1	-	-	1	-	-	1	4
Fats/Oil		1	-	½+½+ 1=2	-	-	½+½+ 1=2	-	5

Meal planning table has taken care of food which is semi-solid and liquid for old age and also frequency has been included. It suffice the nutritional requirement of elderly, for female you can plan meal by your own.

PRACTICAL - 9

MEAL PLANNING DURING PREGNANCY

You have read physical and nutritional changes taking place in pregnant women in this chapter. She should take balanced diet from different food groups in order to take care of foetus growing in her womb and also her own health given in table.

Table 9.1 : Balanced diet for pregnant women (RDA,2010)

Food groups	Reference unit/gm	Type of work			
		Sedentary working women	Moderate working women	Heavy working women	
Cereals	30	9	11	16	-
Pulses	30	2	2.5	3	-
Milk (m.l)	100	3	3	3	+2
Roots and tubers	100	2	2	2	-
Green leafy vegetables	100	1	1	1	+0.5
Other vegetables	100	2	2	2	-
Fruit	100	1	1	1	+1
Sugar	5	4	6	9	-
Fat/oil	5	4	5	6	+2

A sample of diet for a day, division of consumption unit and total is depicted in above table.

Table 9.2 : Table of meal planning for moderate working women per day

Time of meal	Menu/dishes	Serving amount	Ingredients	Amount (gm/m.l.)	
1	2	3	4	5	6
Morning tea 6.30 am	Tea Toast	1 cup 2	Milk Sugar Wheat flour (cereals)	50 5 50	½ 1 1½
Breakfast	Khaman	¼	Bengal gram (pluses) Lassi Oil	30 - 5	1 - 1

	Green chatani Sauce Mathari	- - 2	- - Flour (cereals)	- - 50	- - 1½
	Coconut barfi	1	Oil Mava (milk)	5 100	1 1
	Tea	1 cup	Coconut Sugar Milk	- 5 50	- 1 ½
	Fruit chat	1 plate	Sugar Apple, banana, guava, grapes, lemon (salt and black paper)	5 190	1 1
Lunch	Chapatti	3	Wheat flour (cereals)	90	3
	Rice	½ plate	Ghee	5	1
	Pulses	1 bowl	Rice (cereals)	30	1
	Spinach, potato	1 bowl	Plan masoor (dal)	30	1
			Ghee	2.5	½
			Spinach (green vegetables)	100	1
			Potato (roots and tuber)	50	½
			Tomato (other vegetables)	50	½
			oil	5	1
After lunch 4.00 pm	Lassi	1 glass	Lassi (milk)	200	½
	Apple shake	1 glass	Apple	50	1½
			Milk	100	1
			Sugar	150	1½
Evening Tea 5.30 pm	Katori chaat	1 plate	Wheat flour (cereals)	30	1
			Sprouted moong (pulses)	15	½
			Potato, onion	50	½
			Oil	5	1
			Green chatani (coriander, mint)	-	-
			Sweet chatani(sonth)	-	-
	Lemon squash	1 glass	Lemon		
			Sugar	5	1
Dinner 8.00 pm	Bottle guard tomato soup	1 glass	Bottle guard	75	¾
	Chapatti	3	tomato	25	¼
			Wheat flour	90	3
			ghee	5	1
	Peas & potato vegetable	1 bowl	peas	100	1
			potato	75	¾
			onion	25	¼
			tomato	25	¼
			oil	5	1
	Fruit custard	1 bowl	milk	100	1
			fruit	50	½
			sugar	5	1

Note : Spices, green chilly, green, coriander, garlic should be used in minimum quantity. It is not mentioned in above table.

Table 9.3 : Division and total of food unit in meal per day

Food groups	Morning tea	Break fast	Mid-day meal	Lunch	After meal	Evening tea	Dinner	Total
Cereals	1½	1½		4		1	3	11
Pulses		1		1		½		2½
Milk	½	1½		½	½	-	1	5
Tuber and roots	-	-	-	½				2
Green leafy vegetables				1				1
Other vegetables							2¼	2¾
Fruits			1	-	1		½	2½
Sugar	1	2	-	-	1	1	1	6
Fat/oil	-	2	-	2½	-	1	2	7½

Female who is moderate worker will get all the nutrients from the planned meal from above table. You can prepare a diet for a sedentary and heavy work pregnant women according to above planning by keeping the instructions in the mind given in chapter.

PRACTICAL - 10

MEAL PLANNING DURING LACTATION

Birth till 6 months and 6-12 months infant are completely or partially dependent on mother's milk. Appropriate amount of milk is to be secreted from mother's breast and for the same mother should take balanced diet accordingly so that she can maintain herself as well as to tackle infant's health.

Table 10.1 : Balanced diet of lactating mothers per day (NIN, 2010)

Food Groups	Gram/ portion size	Type of work			Additional unit for lactating mothers
		Sedentary active	Moderate active	Heavy active	
Cereals	30	9	11	16	+1
Pulses	30	2	2.5	3	+2
Milk (in ml)	100	3	3	3	+2
Tubers	100	2	2	2	-
Green leafy vegetables	100	1	1	1	+0.5
Other vegetables	100	2	2	2	-
Fruit	100	1	1	1	+1
Sugar	5	4	6	9	-
Ghee/ oil	5	4	5	6	+2

Note :

- (1) One unit (30gm) of dal can be replaced by (50gm) of egg/fish/meat for non-vegetarian lactating mother.
- (2) Requirement of dal can be fulfilled by dry fruits in lactation.
- (3) Mother should gradually reduce the amount to normal after 6-12 months of lactation. In below table shows a day meal planning for mother who is sedentary worker and is in 2-6 months of lactation and other is moderate working and is in 6-12 months of lactation has been given.

Table 10.2 : One day meal planning for sedentary working lactating mother (0-6 months)

Meal timing	Menu	Serving size	Ingredients	Amount (gm/ml)	Unit of serving
Morning tea 7:00 am	Tea	1 cup	Milk	50	½
	Salted biscuit	4	Sugar Wheat flour	2.5 30	½ 1
Breakfast 8:00 am	Milk	1 glass	Milk	200	2
	Ladoo	1	Sugar	2.5	½
			Wheat flour(cereal)	30	1
			Ghee	10	2
			Sugar	10	2
			Cashew, almond, raisin, khopra, gond, pista, butter (dry fruits)	30	-
Mid morning 11 am	Dalia	1 bowl	Dalia (cereal)	30	1
			Moong dal(pulses)	15	½
			Bottle gourd	50	½
			Ghee	2.5	½
Lunch 1:30 pm	Chapatti	4	Wheat flour (cereal)	120	4
	Ridge guard vegetable	1 bowl	Ghee	2.5	½
			Ridge guard (other vegetables)	150	1 ½
	Colocasia dry vegetable	1 bowl	Oil	2.5	½
			Colocasia (tubers)	100	1
	Salad	1 plate	Oil	2.5	½
		1 big	Cucumber(other vegetable)	100	1
After lunch 4 pm	Fruit	1	Moong Dal (pulses)	15	½
			Pomegranate	100	1
Evening tea 5:30 pm	Tea	1 cup	Milk	50	½
	Sprouts	1 plate	Sugar	2.5	½
			Sprouted moong dal (pulses)	30	1
Before dinner 7:00 pm	Carrot and tomato soup	1 glass	Oil	2.5	½
			Tomato (fruit)	100	1
Dinner 8:30 pm	Chapatti	3	Carrot (tubers)	50	½
			Wheat flour (cereal)	90	3
	Dal moong	1 bowl	Ghee	2.5	½
			Moong (pulses)	30	1
	Spinach, potato,tomato vegetable	1 bowl	Ghee	2.5	½
			Spinach (green leafy veg)	150	1 ½
			Potato (tubers)	50	½
			Tomato (fruit)	50	½
			Oil	2.5	½
			Moong dal papad(pulses)	15	½
	Papad	One big			
Bed time 9:00 pm	Milk	1 glass			
			Milk	200	2
			Sugar	2.5	½

Table 10.3 : Division and total of food unit in meal per day

Food Groups	Morning tea 7:00 am	Break fast 8.30 am	Mid morning 11 am	Lunch 1.30 pm	After lunch 4.00 pm	Evening tea 5.30 pm	Before dinner 7.00 pm	Dinner 8.30 pm	Bed time 9.00 pm	Total
Cereals	1	1	1	4	-	-	-	3	-	10
Pulses	-	-	½	½	-	1	-	1 + ½	-	3½
Milk (ml)	½	2	-	-	-	½	-	-	2	5
Tubers	-	-	1	-	-	½	½	-	-	2
Green leafy vegetables	-	-	-	-	-	-	-	1 ½	-	1½
Other vegetables	-	-	½	1½	-	-	-	-	-	2
Fruit	-	-	-	-	1	-	1	-	-	2
Sugar	½	½	2	-	-	½	-	-	½	4
Ghee/ oil	-	2	½	1½	-	½	-	1 ½	-	6

Table 10.4 : One day meal planning for moderate working lactating mother (6-12 months)

Meal/ time	Menu	Amount	Ingredients	Amount (gm/ml)	Serving unit
1	2	3	4	5	6
Morning tea 7 .00 am	Tea	1 cup	Milk	50	½
	Toast	2 big	Sugar	5	1
			Wheat flour (cereal)	30	1
Breakfast 8.30 am	Tea	1 cup	Milk	50	½
			Sugar	5	1
	Moong dal	1 plate	Moong dal (pulses)	30	1
	mogar		Oil	2.5	½
	Semolina	1 plate	Semolina (cereal)	30	1
	utappam		Curd (milk)	50	½
			Cabbage	25	¼
			Potato, onion (tubers)	50	½
			Coriander leaves, green chilli (for taste)	-	-
	Green chutney	1 teaspoon	Oil	5	1
			Coriander leaves, green chilli, lemon	-	-
	Sauce	1 teaspoon	Tomato, ginger, garlic	-	-
Mid morning 11.00 am	Milk dalia	1 bowl	Dalia (cereal)	30	1
			Milk	100	1
			Sugar	10	2
			Ghee	2.5	½

Lunch 1.30 pm	Chappati	3	Wheat flour (cereal)	90	3
			Ghee	2.5	½
	Rice	1 plate	Rice (cereal)	30	1
	Dal (masor)	1 bowl	Dal	30	1
			Ghee	2.5	½
	Pumpkin vegetable	1 bowl	Pumpkin (other vegetable)	100	1
			Oil	2.5	½
	Bundi raita	1 bowl	Curd	100	½
Evening tea 5.30 pm	Papad	1 big	Bundi (pulses)	15	½
	Salad	½ plate	Moong dal	15	½
			Radish, carrot (tubers)	100	1
	Orange juice	1 glass	Orange (fruit)	200	2
			Sugar	5	1
	Chana dal cutlet	4	Bread slices (2 pcs)	30	1
			Chana dal	30	1
			Spinach (green leafy veg)	100	1
Dinner 8.30 pm			Oil	5	1
	Green chutney	1 teaspoon	Coriander leaves, green chilli, lemon	-	-
	Sauce	1 teaspoon	Tomato, ginger, garlic	-	-
	Chappati	4	Wheat flour (cereal)	120	4
			Ghee	2.5	½
	Bottle gourd vegetable	1 bowl	Bottle gourd (other veg.)	100	1
			Oil	2.5	½
	Fenugreek leaves and potato vegetable	1 bowl	Fenugreek leaves (green leafy veg)	100	1
Bed time 9.30 pm			Potato	50	½
			Oil	2.5	½
	Salad	½ plate	Cucumber (other vegetable)	50	½
	Papad	1 big	Moong dal (pulses)	15	½
	Milk	1 glass	Milk	200	2
			Sugar	5	1

Table 10.5 : Division and total of food unit of meals per day

Food Groups	Morning tea 7:00 am	Break fast 8.30 am	Mid morning 11 am	Lunch 1.30 pm	Evening tea 5.30 pm	Dinner 8.30 pm	Bed time 9.30 pm	Total
Cereals	1	1	1	4	1	4	-	12
Pulses	-	1	-	1+½+½	1	½	-	4½
Milk (ml)	½	½	1	1	-	-	2	5
Tubers	-	½	-	1	-	½	-	2
Green leafy vegetables	-	¼	-	-	1	1	-	2¼
Other vegetables	-	-	-	1	-	1½	-	2½
Fruit	-	-	-	-	2	-	-	2
Sugar	1	1	2	-	1	-	1	6
Ghee/ oil	-	1½	½	1½	1	1½	-	6

PRACTICAL - 11

MEAL PLANNING FOR DIARRHOEA AND FEVER PATIENT

Doctors consultation, medicine, hygiene and rest should be taken along with proper diet is to be taken prevent and control the disease. Therapeutic diet given in chapter. Plan one day meal for any age group individual suffering with fever and diarrhea.

Table 11.1 : One day meal planning for acute diarrhoea patients

S.no.	Food/Time	Menu/Recipes	Serving size	Food quantity (gm/mg)

Table 11.2 : One day meal planning for chronic diarrhoea patient

S.no.	Food/Time	Menu/Recipes	Serving Size	Food quantity(gm/mg)

Table 11.3 : One day meal planning for patient of fever

S.no.	Food/Time	Menu/Recipies	Serving Size	Food quantity(gm/mg)

Table 11.4 : Prepare ORS

Write down a procedure of ORS as per guidelines mentioned on the packet available in the market and given in the chapter :

PRACTICAL - 12

TESTS FOR DETECTION OF FOOD ADULTERATION

Foodstuff	Test	Observation	Results
• Cereals	Place them in water	Some particles sink to the bottom.	These may be stones, chips.
• Pulses	Mix 5 gms. Of pulse with 5 ml. of water. Add few drops of hydrochloric acid.	Pink colour may be seen.	Metanil yellow has been added to enhance colour. Keasri dal may have been added.
	Visual observation.	Difference in shape and colour of dal.	Difference in shape due to inferior quality being mixed.
	Bajra soaked in 20% salt solution.	Some particles found floating, while bajra sink.	Presence of ergot etc.
	Visual observation.	Unusually bright sink.	This show the presence of coaltar dyes.
	Pass a magnet over food stuff.	Small fine iron filling cling to it.	Presence of iron fillings.
• Milk	Use a lactometer to measure specific gravity.	Should range between 1.030 to 1.034.	Presence of water if not within this range.
	Add a drop of iodine to little milk	If it turns blue or grey.	Starch has been added to thicken it.
• Fats and oils	Add 2-3 drops of furfural solution to equal quantities of butter/ghee and HCL. Shake well and let it stand for a few minutes.	Pink colour may appear at the bottom of acid layer.	Presence of Vanaspati in butter/ghee.
	Iodine test.	Turns blue.	Show presence of starch and potatoes.
	Add solution of washing soda.	Frothing on the top.	Cheap oils have been added to Vanaspati. Argemone oil has been added.
	Heat mustard oil with washing soda.	Red colour appears.	Artificial oil has been added.

• Tea	Moisten tea leaves and place on blotting paper.	Colour imparted to paper.	Powdered seeds of tamarind/dates have been added.
	Place coffee powder on blotting paper and sprinkle a few drops of potassium hydrochloride.	Brown colour appears around edges.	Chicory sinks to the bottom.
	Sprinkle coffee powder on water.	Coffee floats and some particles sink below.	Chalks, dirt, dust etc. present.
	Dissolve in water.	Some particles settle below.	Chalks, dirt, dust etc. present.
• Jaggery and sugar	Add HCL to jaggery solution.	Turns magenta red.	Metanil yellow has been added.
	Dissolve brown sugar in water, add HCL.	Effervescence seen, red litmus turns blue.	Washing soda has been added.
	Dissolve in water.	Colour imparted to water and some particles settle to the bottom.	Artificial colouring matter has been added.
• Condiments and spices	Dissolve spices in carbon tetrachloride.	Spices dissolved fully, some particles settle to the bottom.	Presence of dirt, sand and dust.
			Dust, dirt, grit, etc. added.
• Asafoetida	Dissolve asafoetida in water.	Milky solution formed dissolved.	Resin or gum added if milky solution not had.
• Cardamom	Hold over a flame.	Burns with a bright flame.	Does not burn with bright flame if it is gum/resin.
	Place cardamom on palm and rub well.	Fine powder observed on finger and palm.	Presence of talc used to freshen them after essential oil has been removed.
• Beverages	Taste them.	Aromatic taste present.	Indicates removal of essential oils.

UNIT III - CLOTHING AND TEXTILE

PRACTICAL - 13

BASIC STITCHES AND APRON MAKING

Stitching of cloth is an ancient art. Even before the invention of sewing machine clothes were being stitched. Due to advancement of technology, sewing machines were invented. Some stitches require machine while some are hand stitch.

By using hand and machine stitching of garment can be made attractive, comfortable and useful. Some of the hand and machine stitches used for making a garment are :

1. **Running Stitch :**

The running stitch is the most basic of the hand sewing stitches, and has many variations. It's used for gathering, mending, and tucking. Depending on its use, you can either knot your thread or take a couple of back stitches to lock it into place. In its longer form, it becomes a basting stitch.

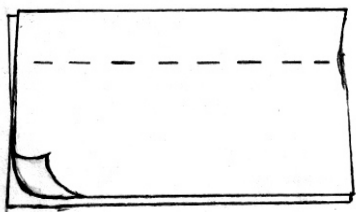


Fig. 13.1 : Running Stitch

Bring your needle through the fabric from the back (wrong side). Once the knot hits the fabric, make a stitch to the left or right. Bring the thread back up and repeat.

2. **Backstitch :**

It is the strongest stitch made by hand.

All clothes were made by layer upon layer of backstitches before sewing machines were invented.

Working from left to right, take a small stitch, then insert the needle at the end of the previous stitch, bringing it out beyond the point where the thread emerges. Continue, always inserting the needle in the end of the previous stitch.

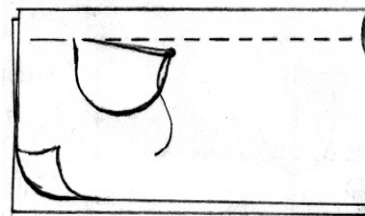


Fig. 13.2 : Backstitch

3. **Hemstitch or hem-stitch :** is a decorative drawn thread work or openwork hand-sewing technique for embellishing the hem of clothing or household linens. Unlike an ordinary hem, hemstitching can employ embroidery thread in a contrasting color so as to be noticeable.

In hemstitching, one or more threads are drawn out of the fabric parallel and next to the turned hem, and stitches bundle the remaining threads in a variety of decorative patterns while securing the hem in place. Multiple rows of drawn thread work may be used.

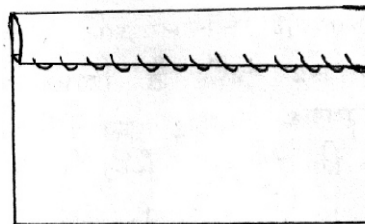


Fig. 13.3 : Hemstitch or hem-stitch

Hand hemstitching can be imitated by a hemstitching machine which has a piercer that pierces holes into the fabric and two separate needles that sew the hole open.

4. Basting Stitch :

Use the same technique as the running stitch, but make longer stitches (between 1/4 inch and a 1/2 inch).

Today, we tend to pin baste more than hand baste our garments and projects, but hand basting can still be useful, especially with both lightweight (silk and chiffon) and heavyweight (leather and Melton) wools.

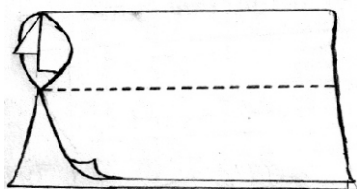


Fig. 13.4 : Basting Stitch

1. Interlocking :

This is used to secure stitches around the corners of baby's garment, blankets. Other than this it is also used to make neckline designs around the edges in frock, blouse etc. this is also known as loop stitch. This is hand stitched. Basically, the interlock stitch employs many of the same steps as used in creating a buttonhole stitch. The difference is that interlock stitches double back on themselves at each row of the stitch pattern. To begin the loop back, begin by anchoring the thread on the underside of the garment. From that point, run the thread up to the first cross thread used in the buttonhole stitch, taking care to run under, or interlock with the cross thread. Move on to the next square in the design, repeating the process until you have completed the length that you wish to work with. All this lays out the basis for beginning the second phase of the interlocking process.

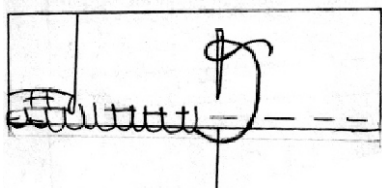


Fig. 13.5 : Interlocking

2. Types of fasteners :

A fastener is the essential part of a fastening system used to hold together at least two pieces of material. It is typically a single item (button) that often works in concert, with another device (buttonhole). Apparel fasteners may be permanent or temporary. Permanent fastenings, such as stitching and fusing, create form and shape in tailored garments. Temporary fasteners take many forms, including basting used to hold fabrics in place before permanent machine stitching is applied. Temporary fasteners, such as hook and eye closures for bras, can adjust garment size. Zippered fly front openings in men's trousers provide access for bodily functions. However, one most often thinks of apparel fastening as providing a method of "donning and doffing" garments for everyday dressing.

- (i) **Button hole :** Secure the thread on the wrong side of the fabric, then with the right side facing upward, insert the needle from back to front through the fabric 1/8 inch from the edge. Wrap the working head around behind the eye end of the needle, then behind the point. Pull the needle through, bringing the knot to the fabric edge. Continue, making closely spaced stitches and knot. The eyelet version is worked in a circle, with the wrapped edge to the inside.

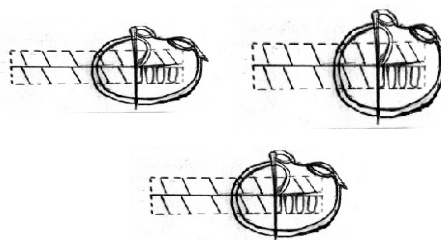


Fig. 13.6 : Button hole

- (ii) **Buttons :** A button is a small fastener, now most commonly made of plastic, but also frequently made of metal, wood or seashell, which secures two pieces of fabric together. In archaeology, a button can be a significant artifact. In the applied arts and in craft, a button can be an example of folk art, studio craft, or even a miniature work of art. Buttons are most often attached to articles of clothing but can also be used on containers such as wallets and bags. However, buttons may

be sew onto garments and similar items exclusively for purposes of ornamentation. Buttons serving as fasteners work by slipping through a fabric or thread loop, or by sliding through a buttonhole.

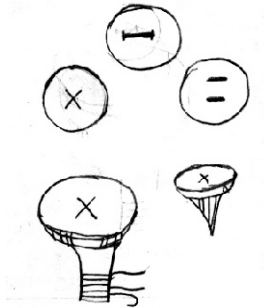


Fig. 13.7 : Buttons

(iii) **Hook and eye :**

Hook : This fastener is mostly used for ladies garments. Hook is made from such material that does not rust. Hooks are placed on the right side of the buttonhole. First, mark the place where hook is to be attached. Stitch around inside of the hook three to four time. This will secure it in place. Run the thread under the hook and through the underside of the fabric and then up into the center of the top hole.

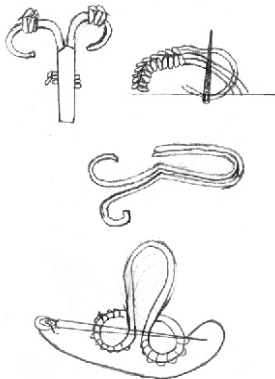


Fig. 13.8 : Hook and eye

Eye : Thread loops are often used to replace the metal eyes for a cleaner more couture look. Begin by securing a knotted, double strand of thread with a double stitch in the location of the intended thread loop. Make four consecutive stitches all in the same place less than ¼" long. This forms the base of the thread loop. Adjust the length for a larger or smaller than average wire or metal hook. Also, don't make these stitches too loose. They should be snug, but not

tight. Starting at the top of the loop, direct the needle (blunt end first) under the stitched thread loop. Then direct the needle through the loop the strand of thread creates. This once again is the process of creating a blanket stitch. Repeat this process until the thread loop is covered. To lock the new loop in place stitch under the thread loop and create one more blanket stitch.

3. Zipper or chain : This is mostly known as chain or zip. It is used for the garments of male, female and children. It is easy to apply. The zips are attached to the nylon cloth band. The bands are place on the cloth and stitched over.

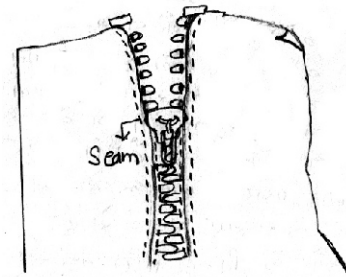


Fig. 13.9 : Zipper or chain

4. Mending and patching : Due to continuous use of garments sometimes tear occurs. Sometimes the garment gets stuck in sharp edges. Sometimes cloth is torn through friction. The whole garment keeps in strength except the torn portion. So mending is required. There are two types of repairing done on damaged clothes.

(i) Darning : Darning is the "reweaving" of fabric in a damaged area, and can be done by hand or sewing machine. Machine darning is faster but more noticeable. Hand darning, which can be invisible to the unknowing eye, is time consuming and requires patience and skill. Position the area to be darned over/on a hard surface which duplicates the shape of the garment area, i.e. curved or flat. Using single thread and a very small, fine needle, make a "bridge" of horizontal or vertical threads connecting the edges of the area to be darned. Using the bridge threads just

created, weave additional thread over and under vertically or horizontally, carefully filling in the damaged area.

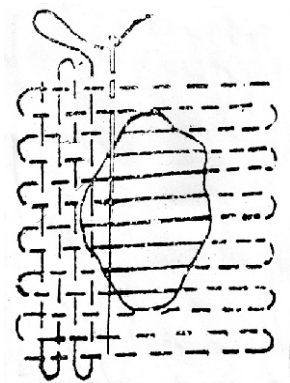


Fig. 13.10 : Darning

- (ii) **Patching :** Patching is often used when the damaged area is large or is not suited to darning. The repair can be almost invisible, or very decorative in nature. Patching is a sturdy method of garment repair. Before determining which type of patching method to use, consider carefully the damage location, type of garment, individual who wears the garment, type of fabric and how garment is used. Patching materials can be self-fabric, contrasting fabric, lace, or trim. The methods of patching include fusing, gluing, hand and machine stitching. It is also possible to use a combination such as fusing and machine stitching as in a decorative appliquéd patch.

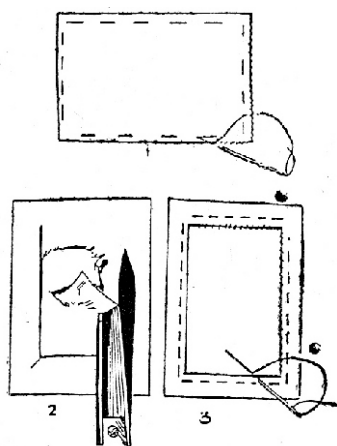


Fig. 13.11 : Patching

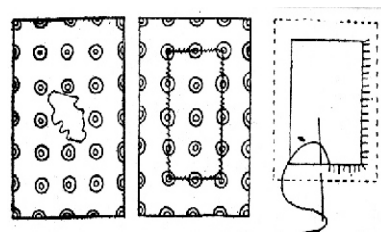


Fig. 13.12 : Mending on Printed Fabric

Apron making:

Measurements:

Length= 32"

Width=24"

Estimated cloth = printed 1 meter

Plain cloth ½ m (for piping)

Drafting:

Make drafting on brown paper.

Fold the patterned brown paper. Give name to all the sides of the cloth as a, b, c, d.

Where,

$a-b=12''$

$a-b= 32''$

$ad=bc$

$ab+dc$

$a-y= \frac{1}{2}''$

$b-x= 10''$

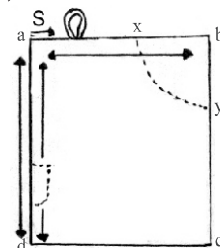


Fig. 13.13 : Design

from y to x join by forming a downward curve.

Cut this ready draft inot paper pattern.

Cutting Apron :

- Stitch a strip of 40-50 inch
- Make piping around the edges
- Leave 10 inch both sides on the armhole and join the piping.
- Make neck line by keeping 10-12 inch allowances.
- Fold the double piping and stitch it
- Apply piping on the bottom edges also.
- Attach pocket of desired designs.

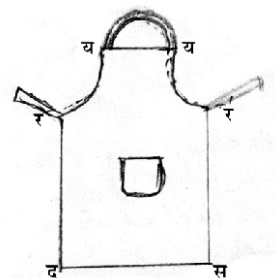


Fig. 13.14 : Apron

PRACTICAL - 14

EVALUATION OF READYMADE GARMENTS

We surely choose dress, apparel from market for our family member. So, evaluate any one costume (frauk/ salwarkameez) based on the following points and write the results in the experimental booklet.

Costume name.....

Age..... Gender.....

S. NO	Point of investigation	Resulte
1.	Measurement of costume	
2.	Fabrics	
3.	Stitching	
4.	Seams	
5.	Button bar/pleats	
6.	Belt	
7.	Lace/piping/doriya/kashida	
8.	Lable	

Conclusion :

PRACTICAL - 15

METHODS OF STAIN REMOVAL

By identifying different types of spots and knowing their classes and their nature, this method should be used carefully to clean the spots. Do not hurry to get rid of spots but should be removed with patience. There is a possibility of garment to be damaged due to hurriedness and less knowledge. In the process of stain removal, the nature and texture should be kept in mind and the color should not be used. Do not use bleaches so that the color of the clothes get spoiled. Here the method of stain removal is given. Remove spot and write in the experimental manual

Methods of making dilute solution of reagent :

In general, most of the spots are removed from use of soap-water. But to get rid of some spots, the use of absorbers, solvents, chemicals and reactions is needed. The use of these chemicals can harm the cloth, it should be diluted before using and the methods of making it :

Sodium hypochlorite : Mix one part hot water and one part sodium hypochlorite and make dilute solution

Sodium perborate : In one pint of hot water add one tea spoon sodium perborate and make solution.

Hydrogen peroxide : Add one part hydrogen peroxide to six part cold water to make solution.

Washing soda : Add one teaspoon washing soda in one pint of water and make solution

Borax : Mix one tablespoon borax powder in one pint of hot water

Oxalic acid : Add $\frac{1}{2}$ tea spoon oxalic acid in one pint of water keep the solution in wooden utensil.

Sodium hydrosulphate : Add $\frac{1}{2}$ oz of sodium hydrosulphate in a 2 pint of water and make solution.

Table 15.1 : Different type of stains removing methods

S. No.	Stain	Condition	Clothes		
			Cotton white & linen	Silk and woollen	Artificial
1	Tea, coffee	Fresh	(i) Put hot water on the edge of spot	White cotton fabric	clean with dilute solution of Sodium perbonate
			(ii) Quickly wash with soap water		
			(iii) Apply lemon and salt and heat it with hot water		
		Old/dry	(i) From the dilute solution of glycerin and borax	Dilute solution of Hydrogen peroxide	Like Silk and woollen fabric

2	Curry	Fresh	Wash with soap and lukewarm water and dry in the sun	White cotton fabric	Like white cotton fabric Sodium perbonate
		Old/dry	Dilute solution of borex	Hydrogen Paroxide solution after cleaning with Borax solution	
3	Butter and ghee	Fresh	(i) wash in dilute solution	Like White cotton fabric	Like White cotton fabric
			(ii) Wash with a hot soap solution		
		Old/dry	(i) Put the absorbent material on the clothes and keep it between two bloating paper and press hot	Like White cotton fabric	Like White cotton fabric
			(ii) Wash with detergent with hot water and rinse the cloth		
4	Egg	Fresh	Wash hot and cold water	Like cotton fabric	Like cotton fabric
		Old/dry	Keep the garment in the solution of salt without soaking.	Solution of salt	Solution of salt
5	INK	Fresh	(i) Blot tomato juice	Like cotton fabric	Like cotton fabric
			(ii) From sour curd or raw milk		
			(iii) Salt and lemon		
		Old/dry	(i) Soak in dilute oxalic acid and clean it in solution of borax	Like cotton fabric	Like cotton fabric
			(ii) Clear with soap-water before		
6	Lipstick	Fresh	(i) Clean with soap water	Like cotton fabric	Like cotton fabric
			(ii) Spirit on a cotton ball and sponge it.		
			(iii) Apply blotting paper on top of the spots and heat it		
		Old/dry	(i) Repeat the above method again	Like cotton fabric	Solution and kerosene oil or

7	Blood	Fresh	(i) Wash with hot and cold water and solution of detergent	Wash in cold water	Wash in cold water
			(ii) Wash with dilute solution of ammonia	Like cotton fabric	Like cotton fabric
		Old/dry	(i) Remove the stain by rubbing	Allow the thick starch mixture to dry, scrub it with brush to clean	Like Silk and woollen fabric
			(ii) Soak in cold water and solution of salt then wash with soap (1 oz salt and half liter water)		
8	Grease	Fresh	(i) Wash with warm water and soap	(i) Like cotton fabric	(i) Like cotton fabric
			(ii) Place the stain between the blotting paper and iron over it	(ii) If old or fresh stain does not remove then use absorbent material,place between blotting paper and iron over it	(ii) Like silk or woollen
		Old/dry	(i) Any solution like petrol carbon tetrachloride and methylated spirit using sponge to clean	Like cotton fabric	Like cotton fabric
		9	Rust	Fresh	(i) Put lemon or curd on the stain and wash with warm water
(ii) Apply kerosene oil and wash with soapy water					
(iii) Use solution of oxalic and borax					
(iv) In the mixture of lime salt.					
Old/dry	soak the stain and used javel water to clean	Like cotton fabric	Like cotton fabric		
10	Colour	Fresh	(i) Wash with soap and water	(i) Like cotton fabric	(i) Like cotton fabric
			(ii) Use mixture of water, acid and alkali.	(ii) Make light solution of acid	(ii) Like silk and wool
		Old/dry	(i) Use alcohol, ammonia or acetic acid	(i) Wash dark coloured fabric with purifying materials and use javel water immediately.	
			(ii) Use purifying materials (be careful about colour fabrics)		
			(iii) Use javel water		

Table 15.2 : Complete the table after removal of stains

S.No.	Stain	Identification method	Nature of stain	Substances used	Methodology to remove stain	Result

PRACTICAL - 16

EFFECT OF WATER TEMPERATURE ON CLOTHES

Table 16.1 : Effect of temperature of water on clothes

S. No.	Cloth	Temperature of water	Effect
1.	White cotton	Cold/ Hot water	No effect. Hot water can be used for very dirty clothes.
2.	Cotton or linen colored clothes	Cold, Hot water	No side effect. Soaking colored clothes in water can damage color
3.	Woolen clothes	Cold water Hot water Lukewarm water	No side effect Harm on woolen clothes. Fiber sticks with each other due to hot water, flexibility and finishes damages. Can be used for very dirty clothes.
4.	Silk clothes	Cold water Hot and lukewarm water	No side effects(Dry cleaning should be used for silk fabric) Can be harmful leads to shrinkage of fiber.

Under the teacher's direction or supervision wash clothes in hot cold and lukewarm water and write down the result in practical notebook.

PRACTICAL - 17

METHOD OF SOAP AND DETERGENT PREPARATION

a) Soap

Material required :

Caustic Soda 250 gram

Oil (Coconut, linseed, til or mahua oil) 1 1/4 liter

Water 1 liter

Maida or gram flour 250 gram

Procedure :

1. Put caustic soda in a earthen ware and add water slowly. Leave this solution for 6 hours.
2. Add oil in gram flour in another container.
3. Add this solution in the caustic soda pot and stir with wooden plank till the solution becomes thick.
4. Set this solution of soap in the tray or tub. Cut the bricks with the help of knife or strong thread after cooling.

b) Detergent powder :

Material Required :

Soda ash – 4 kg

Soda bi carbonate - 1 kg

Acid slurry - 1 kg

Water - 500 ml

Color- 2 gm

Procedure :

1. Wear rubber or plastic glove in hands.
2. Strain soda ash and soda bi carbonate with the help of strainer.
3. Pour lukewarm water in bucket.
4. Add slurry in the water slowly and mix with the help of wooden stick.
5. Make agglomerate of soda and pour slurry in it.
6. With the help of stick mix color in this mixture.
7. Strain this mixture and pack it after air drying.

UNIT IV - FAMILY RESOURCE MANAGEMENT

PRACTICAL - 18

PRACTICALS RELATED TO BANK

(A) Fill form to withdraw and deposit money :

(a) To withdraw money :

- (i) use withdrawl form or cheque to withdraw money from bank.
- (ii) Bank issue a cheque book for transaction of money with that account should not have balance less then Rs. 500 or amount laid by bank.
- (iii) Cheque is enclosed with withdrawl form than only bank withdraw the money. Details of transaction mention in passbook.

(a) Cheque : It is kind of authority letter and issuing authority give instructions to bank to pay the amount mention in cheque to the cheque bearer. Following information require to fill in cheque.

- Name of person/company or to receive money.
- Write word only in the end after filling amount in figure and words
- On the top of cheque has the space for date, left to bottom bears account number similarly right bottom carry the signature of account holder.

(b) Types of cheque : Types of cheques are as follows :

- (i) **Bearer cheque :** Word bearer is written over it. Immediate payment is made using this cheque. Any one can use it but is has disadvantages. It is not safe. Transaction

can be made if it is lost or stolen by some one. Person should inform bank authority in that case so that payment is not done.

- (ii) **Order cheque :** Person whose name written over cheque can get money, if mention person is not able to visit bank, he may atleast the signature of other person backside of cheque. It is safe.

- (iii) **Crossed cheque :** It is most safest cheque. Money is deposited direct to the account of person for whom cheque is issued instead of cash payment. Two diagonol lines are drawn on the left top and A/c payee return in it.

- (iv) **Traveller cheque :** It is very unsafe to carry big cash when person on long journey. Hence, traveller cheques are arranged to avoid this problem. Amount to deposited in account before getting the cheque of definite amount. It can be used in all over the India. When the bank receipt such cheques it bears signature and depositer and one side is blank. It is sign by a person when he withdraw money in presence of bank authority.

- (v) **Gift Cheque :** Indian bank issue the cheques of various amount Rs.11, Rs.21 and Rs.51 issued on various festivals and occasion in very attractive form. They can obtain without any investment. Few banks announces interest or prizes on such cheques.

(B) Open account in bank :

In last chapter, you have studied the importance of saving in detail. You have acquired the knowledge of various ways of investments for saving. Alongwith theoretical knowledge, one should know to open the account in post office or bank, how to deposit saving and the withdrawal the money whenever required time to time. Hence, learn to fill the forms and other formalities needed to open account. Visit the bank or post office either alongwith teacher or may call the bank officer. However, information regarding open account is given in the following points :

To open account :

- (i) Get the form from bank related to type of bank account want to open.
- (ii) Fill all the formalities like name, name of father or husband etc.
- (iii) Along with this, submit affidavit regarding agreement on all terms and condition.
- (iv) Put signature on form and one card for record maintenance which you use it at the time of transaction of money.
- (v) Put thumb impression if person does not know to sign and verified by gazetted officer. One passport size photo be pasted on pass book of account.
- (vi) Account form is endorsed by a person who proposed to open account and it may be a staff member of bank or any one whose known to bank.
- (vii) Get the receipt of money deposited in bank account.
- (viii) Bank manager open the account once he assure that all the information is complete and correct.
- (ix) Bank issue a passbook containing information of name of account holder, account number, date of issue and details of all transaction inside the passbook.
- (x) Inform bank if passbook is lost or change in home address.

PRACTICAL - 19

PREPARATION AND EVALUATION OF LABEL

(I) Evaluation of labels on different items :

You have earned the knowledge of standard mark put on product theoretically from all consumer related chapter. Practical knowledge is essential about this. Therefore, visit places that is school, neighbours, relatives and friends house to get the information and identification of standards. Comparison of labels be filled in table given below :

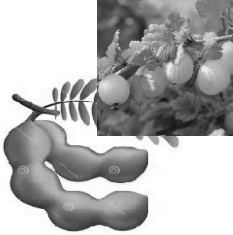
S.No.	Name of object	Brand/ mark	Quantity mark		Type of mark	Right/w rong	Mark		Mark	
			Yes	No			clear	Vague	On packet	On bottle
1	2	3	4		5	6	7		8	9
1	Wheat									
2	Flour									
3	Salt									
4	Turmeric									
5	Coriander powder									
6	Chilli powder									
7	Butter									
8	Ghee									
9	Oil									
10	Pickle									
11	Sharbat									
12	Jam									
13	Biscuit									
14	Bulb									
15	Other									

(II) Prepare a Label :

A small scale industry run by your family at home and preparing following products :

(i) Spices (ii) honey (iii) ghee (iv) papad (v) soap (vi) vadi (vii) pickle.

Prepare label any one as per instructions mentioned in chapters. Sample of label is portrayed below.

 NALINI KESH KANTI for Long Hairs <div>Amla-Reetha</div> Made in India	Kesh Kanti Reetha Hair cleaner
	: Ingredient : Amla, Reetha, Shikakai, Bhrungraj, Heena, Neem. : Instruction : Reduces hair loss. : How to apply : Take 2-3 drops and apply on wet hairs and rinse with water : Net volume : 5.5 ml : Expiry date : Best before 2-3 months of packing : Packing : 6/10/2012 : Address : ABC Pvt. Ltd. Jaipur (Rajasthan)

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