



LATE SHREE FAKIRBHAI PANSARE EDUCATION FOUNDATION'S LOKMANYA HOMOEOPATHIC MEDICAL COLLEGE

Near Elpro Company, Behind Prof. Ramkrishna More Auditorium, Chinchwad, Pune - 411033.
Ph.: (020) 27357552, 27352503, E-mail : chincom@rediffmail.com, Website : www.lmfhc.com
P.T.R. No. : F/37677/PUNE
Affiliated to Maharashtra University of Health Science, Nashik, Recognised by N.C.H., New Delhi.

Maharashtra University of Health Sciences, Nashik Homoeopathy Faculty

ANNEXURE - IV

Academic Year 2024 - 2025

Academic Activities/Webinar/Workshop/CME/Activities in Last One Year.

Name of College/Institute : LSFPEF's LHMC, Chinchwad, Pune-411033

College Code: 142102

Dept:- Physiology

Academic Planner/Advanced

Teaching Plan Time Table (Year
wise)

Details from 1st January to 31st December

Sr. No.	Details	Total Number in Hours
1.	Lecture	240
2.	Symposium	-
3.	Practical/Clinics	298
4.	Inter-Departmental Seminars	2
5.	Seminar	15
6.	Case presentation	-
7.	Journal Club	-

No. of Webinars Arranged, Guest Lectures,
Workshops & CME (Publish details on college
website)

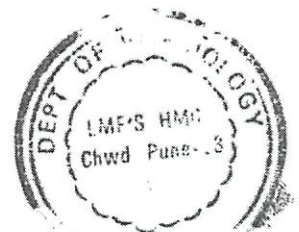
Sr. No.	Details of Webinars, Guest Lectures, Workshop & CME
1	Guest Lecture on Cardiac cycle by Hussainy Sir
2	Guest Lecture on ECG by Hussainy Sir
3	Guest Lecture on organ donation
4	Guest Lecture on Anemia



Dr. Mrs. N. S. Joshi
PRINCIPAL
LSFPEF's Lokmanya
Homoeopathic Medical College
Chinchwad, Pune - 411 033.

Department of Physiology

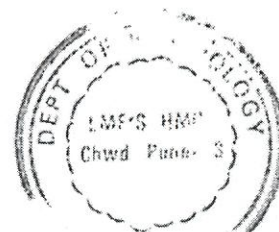
MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
MAY			
1	INTRODUCTION OF PHYSIOLOGY, CELL STRUCTURE AND ORGANIZATION	1	DR.KULKARNI
2	EPITHELIAL TISSUE	1	DR.KULKARNI
3	CONNECTIVE TISSUE	1	DR.KULKARNI
4	MUSCLE TISSUE AND NERVE TISSUE	1	DR.KULKARNI
5	BLOOD COMPOSITION AND FUNCTIONS	1	DR.KULKARNI
6	SPECIFIC GRAVITY, VISCOSITY, BLOOD VOLUME AND PLASMA PROTEIN	2	DR.KULKARNI
7	RBC STRUCTURE AND FUNCTIONS WITH ERYTHROPOIESIS	1	DR.KULKARNI
8	ABNORMAL FORMS OF RBCs AND ANAEMIA	2	DR.KULKARNI
9	5 LEVELS AND DEVELOPMENT OF ORGANS	1	Dr.Joshi
10	Structure of Heart	1	Dr.Joshi
11	Properties of cardiac muscles	1	Dr.Joshi
12	Junctional tissues of Heart	1	Dr.Joshi
13	Heart Sounds	2	Dr.Joshi
14	Cardiac output	2	Dr.Joshi
15	Cardiac cycle	2	Dr.Joshi
	TOTAL LECTURES = 20		



Department of Physiology

MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
Jun-			
1	Anterior Pitutary Gland & Hormones	4	DR.KULKARNI
2	WBC Types & fuctions	3	DR.KULKARNI
3	Platelet structure & functions	2	DR.KULKARNI
4	Blood Coagulation	2	DR.KULKARNI
5	ESR & PCV	2	DR.KULKARNI
6	Blood Groups	2	DR.KULKARNI
7	R E System	2	DR.KULKARNI
8	Lymph Composition function & circulation	2	DR.KULKARNI
9	Lymph node & Spleen	2	DR.KULKARNI
10	Respiratory organs,functions and histology	2	Dr.Joshi
11	Mechanisum of respiration and control	3	Dr.Joshi
12	Lung volume and capacity	1	Dr.Joshi
13	Artificial respiration	1	Dr.Joshi
14	Pulminary circulation	1	Dr.Joshi
15	Abnormal respiration	1	Dr.Joshi
16	Pulmonary function tests	1	Dr.Joshi
17	Post. Pitutary hormones	2	DR.KULKARNI
18	Adrrinal glands and hormones	2	DR.KULKARNI
19	Pulse	2	Dr.Joshi
20	Blood pressure	1	Dr.Joshi
21	Blood pressure rugulation	1	Dr.Joshi
22	Endocrine Organs & Hormones	1	DR.KULKARNI
23	Thyroid Gland	2	DR.KULKARNI
24	Anterior Pitutary Gland & Hormones	2	DR.KULKARNI

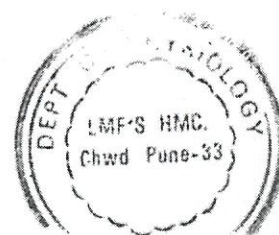
TOTAL LECTURES =36



Department of Physiology

MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
Jul-2020			
1	Properties of skeletal muscles and SMC	2	Dr. Kulkarni
2	Effect of single stimuli and repeated stimuli	2	Dr. Kulkarni
3	Skin - structure and functions	1	Dr. Kulkarni
4	Coronary circulation and triple response	1	Dr. Kulkarni
5	Balanced diet and BMR	2	Dr. Kulkarni
6	CNS - Neuron and neuroglia	2	Dr. Joshi
7	SYNAPSE AND REFLEXES	3	Dr. Joshi
8	Myonural junction, action potential	2	Dr. Joshi
9	Parts of brain- cerebrum structure and functions	2	Dr. Joshi
10	Cerebral circulation	1	Dr. Joshi
11	Thalamus structure and functions	1	Dr. Joshi
12	Basal ganglia	1	Dr. Joshi
13	Hypothalamus	2	Dr. Joshi
14	Medulla	1	Dr. Joshi
15	Insulin and blood glucose regulation	1	Dr. Kulkarni
16	Histology of digestive system	1	Dr. Kulkarni
17	Tongue, salivary glands and saliva	2	Dr. Kulkarni
18	Stomach and gastric juice	1	Dr. Kulkarni
19	Pulse	2	Dr. Joshi
20	Blood pressure	1	Dr. Joshi
21	Blood pressure regulation	2	Dr. Joshi
22	Endocrine Organs & Hormones	1	DR.KULKARNI
23	Thyroid Gland	2	DR.KULKARNI
24	Anterior Pituitary Gland & Hormones	2	DR.KULKARNI

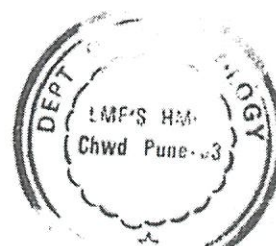
TOTAL LECTURES = 38



Department of Physiology

MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
<u>AUG</u>			
1	Structure and functions of kidney	2	Dr. Kulkarni
2	Neohron types and parts	3	Dr. Kulkarni
3	JGA	2	Dr. Kulkarni
4	Urine formation and counter current mechanism	4	Dr. Kulkarni
5	Normal and abnormal constituents of urine	3	Dr. Kulkarni
6	Tracts classification	3	Dr. Joshi
7	Pyramidal and extra pyramidal tracts	4	Dr. Joshi
8	Sleep and EEG	2	Dr. Joshi
9	CSF	2	Dr. Joshi
10	Cerebellum	3	Dr. Joshi

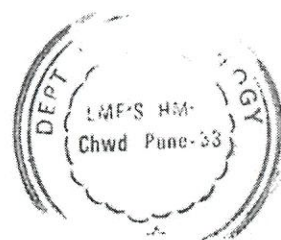
TOTAL LECTURES = 28



Department of Physiology

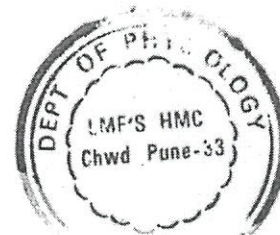
MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
SEPT.			
1	Vitamins Definition and classification	1	Dr. Kulkarni
2	Fat soluble vitamins	4	Dr. Kulkarni
3	Water soluble vitamins	4	Dr. Kulkarni
4	Special sense organs introduction	1	Dr. Joshi
5	Taste buds and taste pathway	2	Dr. Joshi
6	Eye and optic pathway	2	Dr. Joshi
7	Errors of refraction	1	Dr. Joshi
8	Ear and auditory pathway	2	Dr. Joshi
9	Deafness and hearing tests	1	Dr. Joshi
10	Nose and olfactory pathway	2	Dr. Joshi
11	Digestion and absorption of CHO	2	Dr. Kulkarni
12	Digestion and absorption of Proteins	2	Dr. Kulkarni
13	Digestion and absorption of Lipids	2	Dr. Kulkarni

TOTAL LECTURES = 26



Department of Physiology

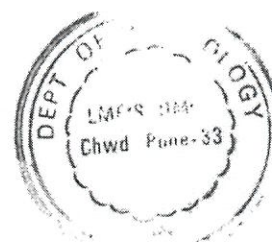
MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
OCTOBER			
1	Body temperature regulation	2	Dr .Joshi
2	Immunity	1	Dr .Joshi
3	Osmosis	1	Dr .Joshi
4	Diffusion	1	Dr .Joshi
5	Surface tension	1	Dr .Joshi
6	Colloids	1	Dr .Joshi
7	Female organs of reproduction	1	Dr .Joshi
8	Ovary and oogenesis	1	Dr .Joshi
9	Ovulation and menstrual cycle	2	Dr .Joshi
10	Female hormones	2	Dr .Joshi
11	Testis	1	Dr .Joshi
12	Sperm and spermatogenesis	2	Dr .Joshi
13	Male sex hormones	2	Dr .Joshi
14	Pregnancy and pregnancy tests	2	Dr .Joshi
15	Puberty and menopause	2	Dr .Joshi
16	Breast and lactation	2	Dr .Joshi
17	Liver and bile	2	Dr. Kulkarni
18	Liver function tests	1	Dr. Kulkarni
19	Small intestine and large intestine	2	Dr. Kulkarni
20	Metabolism of Proteins	2	S Chavan
21	Metabolism of Lipids	2	S Chavan
22	Pancreas and pancreatic juice	2	Dr. Kulkarni
23	Movements of GIT	2	Dr. Kulkarni



Department of Physiology

MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
NOV.			
1	Minerals-Calcium	1	Dr. Kulkarni
2	Potassium	1	Dr. Kulkarni
3	Sodium and chloride	1	Dr. Kulkarni
4	Iron, iodine and magnesium	1	Dr. Kulkarni
5	Liver function tests	1	Dr. Kulkarni
6	Small intestine and large intestine	2	Dr. Kulkarni
7	Metabolism of Proteins	2	Dr. Joshi
8	Metabolism of Lipids	2	Dr. Joshi
9	Pancreas and pancreatic juice	2	Dr. Kulkarni
10	Movements of GIT	2	Dr. Kulkarni
11	Acidosis	1	Dr. Joshi
12	Alkalosis	1	Dr. Joshi
13	Acid base balance	2	Dr. Joshi
14	Buffers	2	Dr. Joshi
16	Breast and lactation	2	Dr. Joshi
17	Liver and bile	2	Dr. Kulkarni
18	Liver function tests	1	Dr. Kulkarni
19	Small intestine and large intestine	2	Dr. Kulkarni
20	Metabolism of Proteins	2	Dr. Joshi
21	Metabolism of Lipids	2	Dr. Joshi
22	Pancreas and pancreatic juice	2	Dr. Kulkarni
23	Movements of GIT	2	Dr. Kulkarni

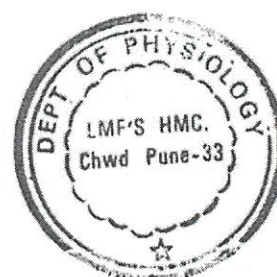
TOTAL LECTURES = 36



Department of Physiology

MONTH	TOPIC	NO. OF LECTURES	TAKEN BY
DEC 20			
1	Chemistry of proteins	2	Dr. Kulkarni
2	Classification and properties of proteins	3	Dr. Kulkarni
3	Protein tests	2	Dr. Kulkarni
4	Monosaccharide	2	Dr. Kulkarni
5	Disaccharide	2	Dr. Kulkarni
6	Polysaccharide	2	Dr. Kulkarni
7	Lipids	2	Dr. Kulkarni
8	Krebs cycle	2	Dr. Kulkarni
9	Urea cycle	2	Dr. Kulkarni
10	Enzymes, coenzymes and isoenzymes	2	Dr. Joshi
11	Pancreas and pancreatic juice	2	Dr. Kulkarni
12	Movements of GIT	2	Dr. Kulkarni
14	Metabolism of CHO	2	Dr. Joshi
15	Metabolism of Proteins	2	Dr. Joshi
16	Metabolism of Lipids	2	Dr. Joshi
17	Pancreas and pancreatic juice	3	Dr. Kulkarni
18	Movements of GIT	2	Dr. Kulkarni

TOTAL LECTURES = 36



Skin → Integumentary System

epidermis

① 1st layer

- stratum corneum
- enucleate

secretion

filagrin

② stratum granulosum

granules - in keratinocyte cld keratohyline granule.
 release intercellular cementing sub^s

contain

③ adherent by spinous process

odland /

cld desmosomes i.e why it cld

Granular

stratum spinosum

bodies.

④ stratum basale

cell from basale layer goes up to become anucleate
 is cld process of keratinizaⁿ → 28 days.

* in condⁿ psoriasis turnover time ↓ due to this nucleated

turnover / transit time.

cell appear in s. corneum also seen actinic keratosis
 Bowen's disease. cld parakeratosis

* each keratinocyte contain keratin intermediate filament

→ this filament is $K_5 K_4$ in basale layer & in supra basale layer is $K_1 K_{10}$

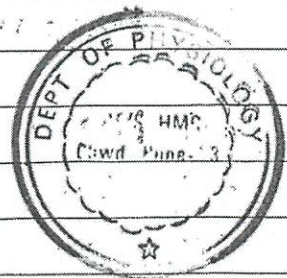
→ defect in $K_5 K_4$ result in epidermolysis Bullosa simplex.

→ to glow this filament need filagrin

Scorium

↑ toughness ↑

↑ basal



Dept of Physiology

① Skin → Integumentary system organ.

→ Skin is protective covering which minimises water loss, temp regulation of the body.

- Epidermis → superficial layer made up of stratified squamous epithelium.
- dermis →
- endodermis → mainly contain fats

epidermis is divided into 5 layers.

① stratum corneum → most superficial.

→ cell of this layer are enucleated.

→ This layer is toughest layer becoz it has direct contact with surrounding.

② This layer is thickest at sole and palm & thin at lips.

→ Hair, loop, nail, feathers & scales are some outgrowth of this layer.

② stratum Lucidum

→ This is thin layer 3 to 5 cell place deep to stratum corneum

→ This cell contain few droplet of eludin which is precursor of keratin.

→ many of time definit stratum Lucidum is not seen.

③ stratum granulosum.

→ consist of 3 to 5 layer of flattened polyhedral cell filled with keratohylin granule which as odland or granular bodies which secrete intercellular cementing sub³.

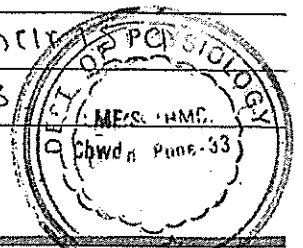
→ which give deep stain to haematoxylin.

(4) Stratum spinosum: This layer is broad layer of variable thickness and made up of polyhedral cells.

- Cells of this layer are adherent by spinous process i.e. desmosome the way it is called stratum spinosum
- Cells of this layer are called prickly cells. These cells move forward and keratin is synthesised in them
- The cells called Langerhans cells are scattered all around the layer
- The function of this cell is to synthesise DNA.

(5) Stratum germinativum: (Stratum malpighi)

- This layer is composed of single layer of columnar epithelium which has got transverse thin, short cytoplasmic process on its basal lamina by means of which they anchor the epithelium to underlying lamina
- This cell produces new cells which go upward and replace the cells of uppermost layer, this process is called as keratinization & become enucleated
- This process takes 28 days → this period is called turnover or transit period
- In condition like psoriasis, actinic keratosis, Bowen's disease this turnover time decreases due to which this new cell remains nucleated. This condition is called parakeratosis.
- This mitotic activity occurs in rhythmic diurnal cycle i.e. the greatest activity occurs in rhythmic human during hours of sleep.
- At junction of epidermis & dermis there are melanin containing cells called melanocytes



processes

They send signal to malpighian cell and melanin
int in deeper cell of stratum. malpighi is produce
by these melanocyte.

→ cytorine secret transfer the fully form melanin granule from melanocyte to malpighian cell.

→ ratio of melanocyte to basal epidermal cell is 1 to 4 & 1 to 10

Dermis (cutis vera or true skin)

→ made up of connective tissue & support & bind underlying tissue

→ chiefly made up of collagenous & elastic fibre which provide it tensile strength.

→ This layer is utilised for the production of leather after chemical processes.

→ superficial part of dermis is compact & for the papillary layer because it send papillae into the prickle cell layer.

→ deeper part of dermis loose connective tissue and infiltrated with fat.

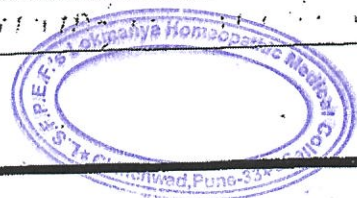
This layer constitutes the reticular layer of dermis. Which emerges into subcutaneous layer of fat.

cell of: dermis

→ fibroblast are cell of dermis from which fibrous tissue develop

→ This cell belong to reticulo endothelial cell / system which protect body from invading bacteria.

→ Some fibroblast have melanin pigm in it called melanophores.



Blood vessel of the dermis

→ Though the epidermis is devoid of blood supply dermis gets a large blood supply of capillary blood vessel which form network which hairpin loops supply the tip of dermal papillae.

→ blood vessel supply play important role in temp regulation and has got rich vasomotor innervation.

→ dermis also have Lymphatic system

dermis also have sensory nerve ending of various type

Glands of dermis.

→ Sweat gland reach deep in dermis and act as island for regrowth of epidermis in case of injury or burn

→ Sebaceous gland located in dermis open into the hair follicle and secrete oily material called sebum.

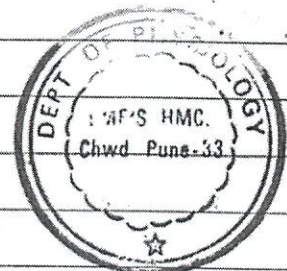
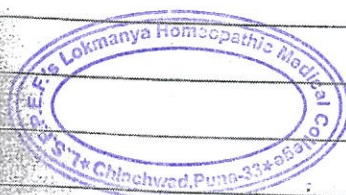
muscle of dermis

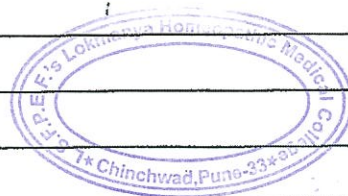
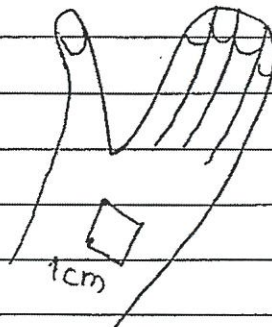
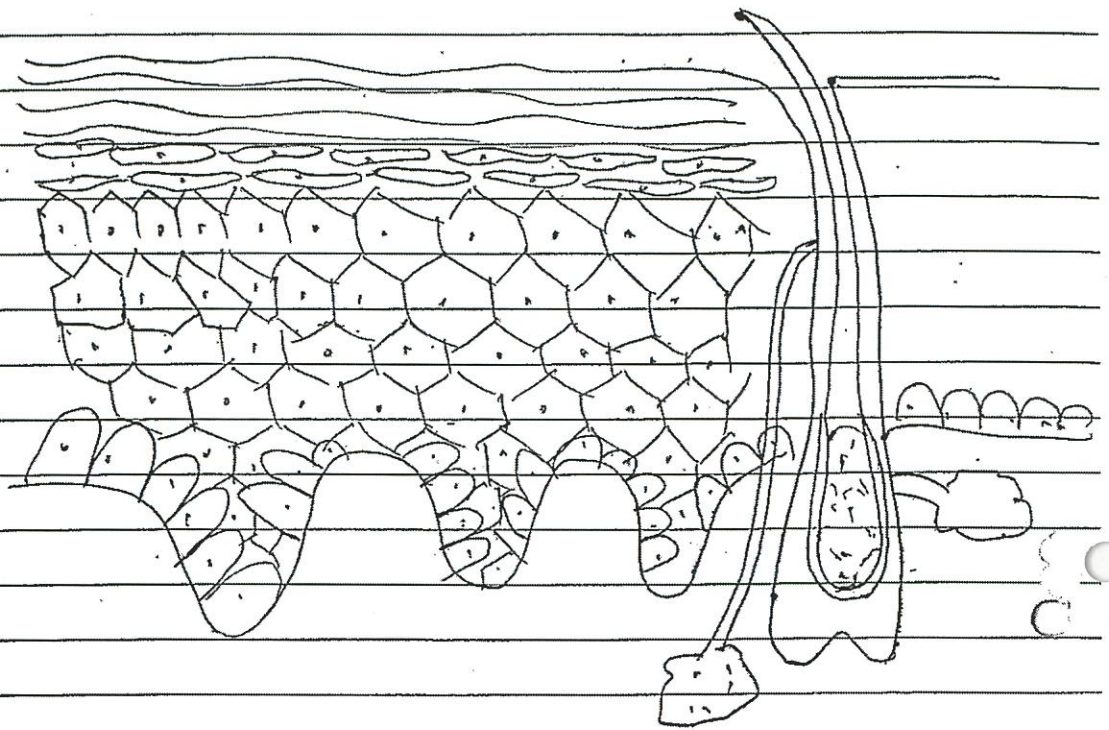
Arrectores pilorum

↓
involuntary muscle
attach to hair causing
them to stand on end

tunica dartos

↓
involuntary muscle of
skin of penis, nipple
areola & deep in dermis





Name - Ashwini Gopal Dharmak Roll No - 30

Balanced diet assignment.

Define balanced diet, write 6 proximate principles of and explain balanced diet of pregnant lady

A diet that contains the proper proportions of carbohydrates, fats, proteins, vitamins, minerals and water necessary to maintain good health

The requirement for a healthy diet can be met from a variety of plant-based and animal based foods although a non-animal source of vit B₁₂ is needed for those following a vegan diet

Principals of balanced diet planning.

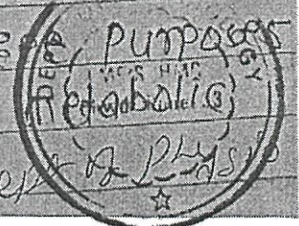
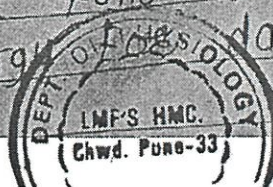
In nutrition of human being or any animal, the intake of food stuff must, always be sufficient to supply the metabolic need of body

We also require food for other purposes these include

- (i) supplying of vitamins and essential amino acids i.e substance which cannot be synthesised in the body
- (ii) Even regarding substances which cannot be synthesised in the body, for that source of the raw materials is the food only

For the children and convalescents, food is the main source for growth and replacements of materials which are lost during the sickness. In short food serve the following three purposes

SHOT ON REDMI NOTE



- (ii) Formation of tissue of the body during growth and replacement during wear and tear
 (iii) Maintenance of body temperature

Principle of balanced diet

Balance diet means a diet contain protein, carbohydrate, fat, vitamins and minerals etc are in proportion to the body need

- (i) These calorie need must be satisfied and extra calories provided for ~~blam~~ growing children and during illness. Undersupply of calories lead starvation and excess calories produce obesity both conditions are harmful

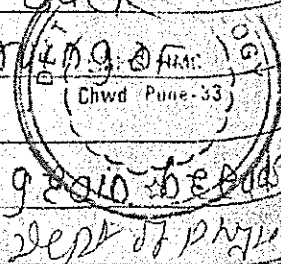
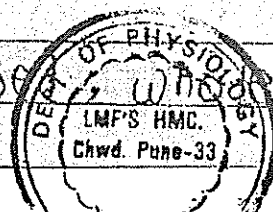
Average physiologically available energy in each gram of these different foodstuff in the diet is as follows

carbohydrate	4.0 calories
protein	4.0 calories
Fat	9.0 calories

balanced diet of pregnant lady

A pregnant woman should include in their daily diet at least:

- five servings of fresh fruits and vegetables (including at least one serving of a dark orange vegetable, two serving of dark green leafy vegetables, and one serving of citrus fruit)
- six servings of enriched grain bread and cereals



Breakfast

- (i) poha with lots of vegetables
- (ii) oats porridge
- (iii) vegetable omelet
- (iv) mixed bean curlet or patties

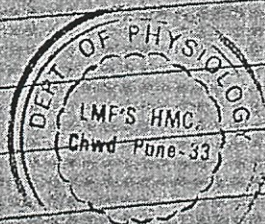
Lunch

- (i) salad
- (ii) dal
- (iii) vegetables
- (iv) medium sized roti
- (v) curd/veg

Dinner

- (i) salad
- (ii) vegetables
- (iii) curd

Citrus fruits are ~~help~~ good for pregnant lady as they are full of vitamin C. and that is responsible for bones growth.



Dept of Physio



DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY

S No	Items	Required	Available
1	Physiology		
1	Medical Microscope	25	25
2	Equipment for ESR estimation/ Westergren's pipette for ESR on stand	25 (with spare pipettes)	25
3	Haematocrit tubes	30 (with spares)	30
4	Auto Analyzer or Semi Auto Analyzer	01	1
5	Haemoglobinometer (Sahli)	25(with spare)	25
6	Haemocytometer	25(with spare)	25
7	Sphygmomanometer	25	25
8	Stethoscope	25	25
9	Clinical thermometer (Digital)	25	25
10	Knee hammer	25	25
11	Tuning forks to test hearing (32-10000 hzs)	01 set	01 set
12	Stethographs or pneumographs	05	05
13	Electrocardiograph (ECG Machine)	01	01
14	Electronic Stop Watches (1/10 sec.)	04	04
15	Glass Distillation (double) apparatus	01	01
16	Centrifuge (Medium speed)	02	02
17	Colorimeter (photo electric)	02	02
18	pH Meter (electric)	01	02
19	Colour perception lantern (Edridge Green)	01	01
20	Incubator	01	01
21	Educational CD	As required	Available
	DVD	As required	Available
	Films/ Transparencies	As required	Available
	Slides	As required	Available
	Models	As required	34



		Audio Visual Aids	As required	Available
S No		Items	Required	
22		Perimeter	03	03
23		Spirometer	01	01
24		Tonometer	01	01
25		Handgrip dynamometer	01	01
26		Bicycle Ergometer	01	01
		Facility for Animal Experiments demonstration with the help of Audio-visual Aids.		Available
2		Number of additional items available		Available
3		Biochemistry		
1		Electronic/Monopan Balance	01	01
2		Centrifuge	01	01 Hand Operated
3		Balance, chemical/ordinary	02	02
4		Water baths	02	02
5		Urinometer	25	25
6		Hydrometer (0.700 to 1.00)	02	02
7		Albuminometers	10	10
8		Glucometer	10	10
9		Thermometer	10	10
10		Colorimeter	01	01
11		Hot air oven 14"x14"x14" (Electric)	01	01
12		Double Distillation apparatus Glass	01	01
13		Centrifuge, medium speed, electric	01	01
14		Glass ware like	As required	
		Pipette		Available
		Beakers		Available
		Burettes		Available
		Wire gouge with asbestos	As required	01
		Centre hot plate	As required	Available
		Stove	As required	25



		Syringes	As required	Available
		Burners	As required	Available
		Rubber tubing	As required	Available
		Stands, clamps	As required	Available
		Flask	As required	Available
	15	pH meter	01	01
4	Number of additional items available			Available
5	Total number of Charts			432

