CNDV. Syllabus

PART-I

Paper-I ⟶ 100 marks

Group-A :- Nutritional Biochemistry :- 50 marks

Group-B :- Human Physiology :- 50 marks

Paper-II ⟶ 100 marks

Group-A - Food Microbiology :- 30 marks

Basic Nutrition :- 20 marks

Group-B :- Human Physiology (Practical) :- 25 marks

Food Microbiology (Practical) :- 25 marks

Memorial Girls' College Kolkata

28/11/2020

UNIVERSITY OF CALCUTTA

SYLLABUS FOR THREE YEAR DEGREE COURSE
IN
CLINICAL NUTRITION AND DIETETICS
(VOCATIONAL)

Part I A

PAPER I : GROUP A : NUTRITIONAL BIOCHEMISTRY : 50 MARKS
(THEORY)

1. Molecular aspect of transport, passive diffusion, faciliated diffusion, active transport, nutrients and energy needs. Coupled reactions.

2. Biological Oxidation : Electron transport mechanism NADH, dehydrogenase, cytochromes, electron transport chain, oxidative phosphorylation, energy conservation, high energy phosphate bond, storage and release of high energy phosphate, myokinase reaction.

3. Genetic Control of Metabolism : Nucleic acids, compirents, structure, replication, RNA compirents, types, structure, replication.

Genetic repair mechanisms.

Genetic Code - protein biosynthesis.

Viruses and recombinate DNA and bioengineering.

4. Major Metabolic Pathways :

a) Carbohydrate metabolism : Digestion, absorption, glucose transport. Glycolysis, metabolism of lactate and pyruvate, citric acid cycle, gluconeogenesis, pentose phosphate pathway.

b) Lipid metabolism : digestion, absorption, intestinal resynthesis of triglycerides, transport oxidation of fatty acids, biosynthesis of fatty acids, mobilisation of fat, ketogenesis, metabolism of phospholipids, glycolopids and cholesterol (in brief).

c) Amino acid metabolism : Digestion, absorption, transport. General pathways biochemical transformations and metabolism.

5. Hormones - pituitary, adrenocortical thyroid, and reproductive hormones - Hormones of adrenal cortex.

Mode of action.

Prostaglandins,
control of homeostasis.

REFERENCES :

1. Rao, K.R. (1986) Textbook of Biochemistry, III Edition, Prentce Hall of India Private Ltd., New Delhi - 110001.

2. Murray, R.K. Granner, P.A. Mayes, V.W.Rodwell (1988) harper's Biochemistry. 21st Edition. Prentice - Hall of Australia Pvt. Ltd.

Contd.....P/2.

3. Lehninger, A.L. (1987) Principles of Biochemistry - CBS. Publishers and Distributors.

4. J.M. Orten & O.W. Neuhans (1982), Human Biochemistry. The C.V. Mosby Company, Toronto, London, 10th Edition.

PAPER I : GROUP B : HUMAN PHYSIOLOGY (THEORY):50 MARKS

1. The skeleton - A general account of axial skeleton and appendicular skeleton.

2. Blood and blood circulation :

Blood composition, functions, clotting, Blood groups - Blood Vessel - artery, vein, capillary, structure of heart, cardiac cycle.

ECG and its significanco, Blood pressure - pulse, systolic, diastolic - Anaemia, Leukemia, Varicose Veins, Atherosclerosis, Angina sections.

3. Lymphatic systems - Lymph glands and its functions spleen - structure and functions.

4. Respiratory system :

Organs of respiration - Nose, larynx, Trachea, bronchi, lungs and its capacity - structure and functions. Mechanism of respiration-Chemical respiration - Tissue respiration.

Common diseases like TB, Asthma, pleurisy.

Cough, hiccups.

5. Digestive system :

a) Organs, structure, functions - Teeth, tongue, salivary glands - saliva - composition and function.

Oesophagus, stomach, small intestine large intestine. Glands - Liver, pancreas, gallbladder.

b) Metabolism (brief) Diabetes millots.

c) Vomiting, constipation, diarrhoea.

d) Abdominal pain, peptic and duodenal ulcers - piles.

6. Excretory system :

Organs, structure and functions.

Kidney, Ureter, Urinary bladder -

Formation of Urine, Comparison of Normal Urine. Abnormal Constituents of Urine and diseases associated with it.

Nephritis, Nephrosis, Renal stones.

Significance of Urine examination.

7. Skin - structure, and function.

Disorders of skin - Dandruff, dermatitis and burns.

8. Other sense organs :

a) Eye - structure and functions - Physiology of vision. Defects in vision - myopia and hypermetrophia.

Common diseases of the eye.

Conjunctivitis, trachoma, cataract.

Contd.....P/3.

b) Ear - structure and functions.

Mechanism of hearing

Common ear diseases - deafness, vertigo, motion sickness.

9. Muscular system : General account of the system - Types of muscles - striated, non-striated, cardiac similarities differences. Muscular contraction.

10. Nervous system : Structure of a nerve cell, nerve fibre. Classification of nervous system.

Central Nervous system - Brain and spinal cord.

Functions of different parts of the brain -

Peripheral nervous system.

Automatic and sympathetic nervous system - their functions. Nerve impulse, synpase, Reflex action, Voluntary action.

11. Reproductive system :

Female reproductive organs - structure and functions - Ovary, fallopiantubes, uterus, vagina, External genitation. Male Reproductive Organs - Structure and functions - Testics, Vas deferens. Urethra, Penis, prostrate glands. Menstruation, puberty - Menopause. Fertilisation of ovum with sperm. Development of fertilised ovum - placenta its function, parturition.

12. Endocrine System :

Hormones - Endocrine glands - their structure and functions.

a) Pituitary,
b) Thyriod,
c) Parathyroid,
d) Adrenal
e) Hormones of reproduction.

under

Endocrine system - disorders of over and their secretion.

REFERENCES :

1. Keele, C.A. and Neil. E. (1978), Samson Wright's Applied Physiology, Oxford University Press.

2. Tortora G.J. and N.P. Anagnostakos (1984), Principles of Anatomy and Physiology, Harper and Row Publisher, New York.

PAPER II : GROUP A : FOOD MICROBIOLOGY AND BASIC NUTRITION:50 MARKS

FOOD MICROBIOLOGY (THEORY) : 30 MARKS

1. Introduction to microbiology and its relevance to everyday life - General morphology of microorganisms - general characteristics of bacteria, fungi, virus, protozoa, algas.

2. Control of micro-organisms - growth curve - Effect of environmental factors on growth of micro organisms - pH, water activity - oxygen availability, temp. & others.

3. Microbiology of different foods - Spoilage and contamination - sources, types, affects on the following :

a) Cereals & cereal products.
b) Sugar & Sugar products.

Cont'd . . . P/4.

c) Vegetables & Fruits.
d) Meat & Meat Products.
e) Fish & other sea foods.
f) Eggs & poultry.
g) Milk & milk products.
h) Canned foods.

4. Environmental microbiology - water, air, sort and sewage.

5. Microbial intoxications and Infections - sources of contamination of foods, toxin production and physiological action. Sources of infection of foods by pathogenic organisms - symptoms & method of control.

6. Beneficial effect of micro-organisms.

7. Relevance of microbiological standards for food safety.

REFERENCES :

1. Frazier, W.C. "Food Microbiology" 4th ed. 1988. Mc Graw Hill, New York.

2. Kawata K. "Environmental Sanitation in India" 1963. Lucknow Publ. House.

3. Pelezar M.J. and Rober D. "Microbiology" 2nd ed. 1968 Mc Graw Hill, New York.

4. Banwart G.T. "Basic Food Microbiology" 1987. CBS Publ. New Delhi.

5. Jay, J.H. "Modern Food Microbiology". CBS Pub. New Delhi.

BASIC NUTRITION (THEORY) : 20 MARKS

1. Introduction to nutrition - food as a source of nutrients, function of foods, definition of nutrition, nutrients, adequate, optimum and good nutrition, malnutrition.

2. Inter-relationship between nutrition and health-visible symptoms of good health.

3. Food guide - Basic five food groups - how to use food guide.

4. Use of food in body-digestion, absorption, transport, utilization of nutrients in the body.

5. Water - as a nutrient, function, sources, requirement, water balance - effect of deficiency.

6. Carbohydrates - composition, classification, food sources, functions, storage in body.

7. Fat and Oils - composition, saturated, unsaturated fatty acids, classification food sources, functions of fats,

8. Proteins - composition, sources, essential, non-essential amino acids, source of proteins, functions, protein deficiency (very brief).

9. Energy - unit of energy, food as a source of energy, energy value of food. The body's need for energy B.M.R. activities, for utilization of food to fat energy requirement.

Contd.....P/5.

10. Acid - base balance.

11. Minerals - Functions, sources, Bio-availability, and deficiency of following minerals - calcium, iron, iodine fluorine, sodium, potassium (in very brief).

12. Vitamins - classification, units of measurement, sources, functions and deficiency (very brief) about following vitamins :

a) Fat soluble vitamins D - vitamin A
b) Vitamin D
c) Vitamin E
d) Vitamin K

Water soluble vitamins :

a) Ascorbic acid
b) Thiamin
c) Riboflavin
d) Niacin
e) Other member of B-complex such as B6, Folic acid and B-12.

REFERENCES :

1. Guthrie, Hele, Andrews, Introductory Nutrition, 6th ed.St. Louis, Times Mirror/Mosby College, 1988.

2. Mudambi S.R., M.V. Rajagopal., Fundamentals of Foods & Nutrition (2nd ed.) Wiley Eastern Ltd., 1990.

3. Swaminathan S. : Advanced Text Book on Foods Nutrition Vol. I,II (2nd ed. revised & enlarged) B.app C. 1985.

4. Willson, EVAD Principles of Nutrition, 4th ed. New York John Willey & Sons, 1979.

PAPER II : GROUP B : HUMAN PHYSIOLOGY & FOOD MICROBIOLOGY (PRACTICAL) - 50 MARKS

per - II Gr - B. HUMAN PHYSIOLOGY (PRACTICAL) - 25 marks. - 3 hrs.

1. Microscope and its use.
2. Fresh mount of blood, stained blood smear - study under Microscope.
3. Estimation of Haemoglobin - Sahli's method.
4. Determination of coagulation time, bleeding time.
5. R.B.C. count, W.B.C. Count (total and differential).
6. Determination of blood group and determination of E.S.R.
7. Recording of Blood Pressure. Effect of exercise on pulse rate and respiration.
8. Histology of Epithelial, connective, muscular and nervous tissue.
9. Identification of the prepared slides - Trachea, Lung section, Kidney, skin, stomach, Intestine, Liver, Artery and Vein.

FOOD MICROBIOLOGY (PRACTICAL) 25 marks. 3 hrs.

1. Steam sterilization of Laboratory glass wares, media etc.,
2. Preparation of medium :
   (a) Liquid, (b) Agar slopes.
3. Inoculation and growth of micro-organism.
4. Staining of Organism and study of morphology of bacteria, fungi under light microscope.
5. Test for proper pasteurization of milk and milk products.
6. Identification of bacteria in Foods (e.g., Bread, vegetables, cheese).
7. Identification of water borne organism like Coli form, salmonella etc. by simple biochemical tests.

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PART-II - 200 marks

Paper - III ⟶ 100 marks

Group:- A Food Commodities → 50 marks (P C mam/M.S mam)

Group:- B Family Meal Management - 50 marks (P.A mam)

Paper - IV ⟶ 100 marks (S.S. Sir)

Quantity Food Production and Service

Food Service Equipment and Layout

Sanitation and Hygiene

UNIVERSITY OF CALCUTTA

PART II B EXAMINATION : TOTAL MARKS- 200
Paper III (Theory) : Full Marks - 100
Paper IV (Theory) : Full Marks - 100

SYLLABUS OF

Paper III (Theory) - Full Marks- 100

GR - A Food Commodities

and

GR - B Family Meal Management

C. B. BANERJEE

Memorial Girls' College
Kolkata
20/11/2020

Paper – III

FOOD COMMODITIES (THEORY)

OBJECTIVES:

To understand the basic commodities both raw and processed, used in catering and various aspects of their production and distribution.

To discuss the qualities and standards of available commodities and their suitability for different purposes.

C.R-A. FOOD COMMODITIES (THEORY)

		No. of Periods
I.	Cereals & Pulses: Cereals and millets, breakfast cereals, cereal products, structure, processing, use in variety of preparations, selection, variety storage, nutritional aspects and cost. Pulses & Legumes Production (in brief) selection and variety, storage, processing, use in variety of preparations, nutritional aspects.	6
II.	Milk and milk products Composition, classification, quality processing, storage, spoilage, uses, nutritional aspects of milk curds, butter milk, paneer, khoa, cheese, ice-cream, kulfi and various kinds of processed milk.	8
III.	Eggs Composition, grade, quality, selection, storage, spoilage, uses, and nutritional aspects.	4
IV.	Fish, Poultry and meat Selection, storage, uses, and nutritional aspects, spoilage of fish, poultry & meat.	4
V.	Vegetables & Fruits Variety, selection, purchase, storage, availability, uses and nutritional aspects of raw and processed vegetables and fruits.	4

Contd...(2)

VI. Sugar & Sugar Products — 2

Different forms of sugar (Sugar, jaggery, honey syrup), selection, storage & use preserves.

VII. Fats & Oils — 6

Types and sources of fats and oils (animal and vegetable) processing, uses, storage and nutritional aspects.

VIII. Raising agents — 1

Types, constituents use in cookery and bakery, preservation methods.

IX. Food adjucts — 2 + 2

Spices, condiments, herbs, extracts, concentrates, essences, & food colours origin, classification, description, uses, specifications, procurement and storage.

X. Convenience Foods — 3

Role, types, adventages, uses, and contribution to diet, Fast food.

XI Salt — 1

Types, uses in the diet.

XII. Tea, coffee, chocolate and cocoa powder — 2 + 1

Processing and nutritional aspects.

GR - B.

II FAMILY MEAL MANAGEMENT

Topic

1. Introduction to meal management - Balanced diet - Food guide - Basic 5 food groups. — 2

2. Basic principles of meal planning objectives - steps in meal planning, food cost. — 2

3. Nutrition in Pregnancy - Phyiological stages of pregnancy - Nutritional requirements - Food selection - Complications of pregnancy. — 6

(8)

4. Nutrition during Lactation - Physiology of lactation - nutritional requirements. 3

5. Nutrition during Infancy - Growth & development - nutritional requirements - Breast feeding - Infant formula - Introduction of supplementary foods. 4

6. Nutrition during Early Childhood (Toddler/Pre-school) Growth & nutrient needs - Nutrition related problems - Feeding pattern. 3

7. Nutrition of school children - Nutritional requirement - Importance of snacks - School lunch. 2

8. Nutrition During Adolescence Growth & nutrient needs - Food choices - Eating habits - factors Influencing. 3

9. Geriatric Nutrition - Factors affecting food intake & nutrient use - nutrient needs - nutrition related problems. 3

References:

1. Arora K and K.V. Gupta - Theory of Cookery.
2. Lavies, B. Food Commodities - London, Heinemann Ltd.1988.
3. Hugges O, Introductory Foods, Macmillan & Co., New York.
4. Pyke, M. Catering Service and Technology. London, John Murray Pull, 1974.
5. Dowell P and A. Bailey - The Book of Ingredients, Dorling Kinderley Ltd., London, 1980.
6. Guthrie H.A. & Others. Introductory Nutrition 1986, 6th ed. Times Mirroe / Mosby College Pub. St. Louis.
7. Anderson L & Others Nutrition in Health & Disease, 1982 17th ed. J. B. Lippincott Co. Philadelphia.
8. Whitney E.N., Hamilton E.N. & Roffes S.R. Understanding Nutrition 5th ed. West Pub. Co. New York.
9. Recommended Dietary Intakes for Indians I. CM. R. 1989.

SYLLABUS OF:

Paper IV (Theory) : Full Marks - 100

Quantity Food Production, Food Service Equipment & layout including Sanitation and Hygiene:

(A. S. BANERJEE)

Dean ... Science

Post ...

(Calcutta University)

QUANTITY FOOD PRODUCTION AND SERVICE

Code No. FSN 310 Credits - 2

Course Contents:	No. of Lectures
1. Aims and objectives of different food service outlets. a) Industrial, b) Institutional, c) Hospitals	3
2. Different food and beverage outlet	1
3. Menu planning - sequence of course - Indian (regional i.e. North Indian, South Indian, West Indian and Gujaratis, Western and others. Technique of writing menus (give exercises for planning menus).	6
4. Types of meals - and styles of service breakfast, lunch, dinner, afternoon tea, snacks (table d'hote and a'la Carte menu). BF (1), ala carte (2), TDH (3).	6
5. Beverages, alcoholic and non-alcoholic hot and cold. Classification of beverages, use and importance in meals and snacks. Suitable glassware for beverage service and five types of services of food and beverages.	2
6. Staff organisation of different outlets (a'la carte and table d'hote), Manager, Hostess, Supervisor, Steward, Waiter.	2

FOOD SERVICE EQUIPMENT AND LAYOUT (THEORY)

7. Introduction to basic and special equipment for food production and service; Factor for selection of equipment - electrical and non-electrical equipment for food Storage, preparation, food serving, dishwashing and laundering, Cleaning of the equipment, care and use of the equipment — cutlery, glass & silver.	10
8. Basic concept, safety consideration, electrical parts and wiring to suit installation and use of different kinds of equipment.	
9. Kitchen design equipment and systems - (i) Structure and layout of food premises, (ii) Selecting and installing kitchen equipment.	

10. Planning food service unit

Layout of food plants, plans of area of food (Preparation), cooking, cleaning, storing, serving and dining, different work centres. Their sizes and finishes, storage units, lighting and ventilation, working weight in relation to equipment, selection and their relationship. 2

Municipal Rules and Legislation - outsider Revision. 2

11. Management and sanitation of Kitchen, food production Plant and equipment : 1

Maintenance , sanitation of plant, safety, security, garbage disposal (solid and liquid waste), pest control.

SANITATION AND HYGIENE (THEORY)

12. The relationship of micro-organisms to sanitation. Role of microbiology - Environmental effects of microbial growth : 5

Effects of micro-organisms on food degradation and food borne illnesses - Bacteria, Virus, molds, yeasts and paracites. 3

13. Other Food hazards - Chemicals, antibiotics, harmones, ~~mark~~ metal contamination - poisonous foods.

14. Food contamination - sources and transmissions 7

Water, air, sewage and soil as reservious of infection and ways of spread.

Other agents of contamination -

Hurmans, domestic animals, vermins, birds.

15. Importance of personal hygiene of food handler- Habits - clothes, illness Education of food handler in handling and serving food. 5

16. Safety in food procurement, storage, handling and preparation - control of spoilage - safety of left of left over foods. 6

17. Cleaning methods - Sterilisation and disinfection - products and methods - use of detergents, heat, chemicals, tests for sanitiser strength. 4

contd.. (3)

College Copy

PART - III

Paper V ⟶ 100 marks

Clinical Nutrition and Dietetics including Community Nutrition.

Paper - VI ⟶ 100 marks

Unit - I :- Family Meal Management and Dietetics → 50 marks (Practical)

Unit - II :- Quantity Food Production and Service → 50 marks (Practical)

Paper - VII ⟶ 100 marks

On - Job - Training

Paper - VIII ⟶ 100 marks

Entrepreneurship Development

SYLLABUS

OF

PART III OF EXAMINATION

OF

CLINICAL NUTRITION AND DIETETICS

(VOCATIONAL COURSE)

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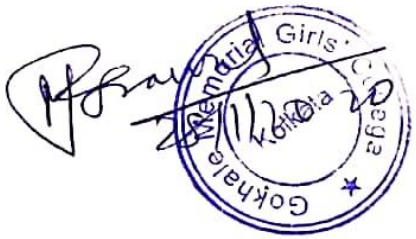
TOTAL MARKS - 400

Paper V (Theory) :	Full Marks -	100
Paper VI (Practical) :	Full Marks -	100
Paper VII (On Job Training) :	Full Marks -	100
Paper VIII (Entrepreneurship development Course) :	Full Marks -	100

20/1/2020

PAPER V (Theory) - Full Marks 100

"Clinical Nutrition and Dietetics
including Community Nutrition"



PAPER - V (THEORY)

FULL MARKS: 100

CLINICAL NUTRITION AND DIETETICS INCLUDING COMMUNITY NUTRITION

1. Concept of Diet therapy : Purpose and principles of therapeutic diets, modification of normal diet, Classification of therapeutic diet.

2. Routine Hospital diets - Regular diet, light diet, soft diet, full liquid diet.
Basic concepts and methods of (i) oral feeding, (ii) Tube feeding, (iii) parenteral nutrition and (iv) Intravenous feeding.

3. Nutrition and infection - relationship. Immunisation and its importance.

4. Role of Dietetian in the Hospital and community. Definition of nutitional care, interpersonal relationship with patient.

5. Nutrition and Diet counselling.
Nutritional assessment of patients, dietary prescription and counselling follow up, patient education and diet. Psychology of feeding of the patient.

6. Diet and drug interactions.

7. Diet in surgical conditions, burns, cancer ~~infection~~ and fever. Diet in influenza, Typhoid fever, Recurrent Malaria and Tuberculosis.

8. Causes, complications and health effects. Dietary treatment of obesity and Leanness.

9. Diet in gastritis, peptic-ulcer, etiology.

10. Symptons ~~and~~ clinical findings, treatment, dietary modifications. A four stage diet (liquid-soft-convalescent - liberaliged diet).

11. Diet in disturbances of the small intestine and colon :
(a) Diarrhoea (Child and adult), classification, modification of diet, (b) constipation and flatulence-dietary consideration, (c) ulcerative colities - symptons and dietary treatment, (d) dietary treatment of disaccharide intolerence and coeliac disease.

12. Diet in diseases of the liver and gallbladder. Etiology, sympton and dietary treatment in jaundice, hepatitis, cirrhosis of liver and hepatic coma.
Dietary treatment in cholecystitis and cholelithasis and pancreatitis.

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contd....P/2.

12. Diet in Diabetes Mellitus : Incidence, predisposing factors, symptoms, types, tests for detection, metabolism and meal management. Complications of diabetes, Hypoglycemic agents, insulin and its type.

13. Diet in cardiovascular diseases.
Role of nutrition in cardiac efficiency. Incidence of athero-sclerosis, dietary principle, dietary treatment of hyperlipidemia and chronic diseases of the heart, sodium restricted diet, source of sodium and danger of sodium restriction.

14. Diet in Renal diseases.
causes, Symptoms and dietary treatment in acute and chronic glomerulo-nephritis, nephroses, renal failure and dialysis.
Causes and dietary treatment of urinary calculi. Acid and alkaline producing and neutral food.

15. Diet in allergy - Definition, classification and dietetic treatment.

16. Gout : Causes, symptoms and diet.

Community Nutrition:

17. (a) Nutrition and Health in National Development,
(b) Nutritional problems confronting our country --- the causes of malnutrition in India --- Balance between food and population growth.

18. Methods of assessment of nutritional status --- sampling technique -- identification of at risk group. Direct assessment -- Diet surveys, anthropometry, clinical and Biochemical estimations. Indirect assessment, Food balance sheets and agricultural data, Ecological parameters and vital statistics. Use of growth chart.

19. Nutrition intervention scheme in the community, lecture and method demonstrations, nutrition exhibitions and visual aids.

20. National and International agencies in Community nutrition. ICDS, SNP, ANP, Midday meal programme, FAO, WHO, UNICEF, CARE, AID, ICMR, ICAR, CSIR, NIN, CFTRI.

21. Recent advances in Community Nutrition research -- Fortification, enrichment of foods.

NS - B. Srilakshmi.

PAPER VI (Practical) : Full Marks - 100

Unit - I : " Family Meal Management and Dietetics" : Full Marks 50

Unit - II : " Quantity Food Production and Service " : Full Marks 50

PRACTICAL

FULL MARKS : 100

UNIT - I : Full Marks : 50

'FAMILY MEAL MANAGEMENT AND DIETETICS'

UNIT -II : Full Marks : 50

'QUANTITY FOOD PRODUCTION AND SERVICE'

UNIT - I: Family meal management

1. Elimentary idea of weight and measure.
2. Planning and preparation of diet for adult man and woman during different physical activities and different cost.
3. Planning and preparation of a balanced diet for a pregnant and lactating woman. Modification of dietary pattern during various complications of pregnancy.
4. Preparation of weaning food. Planning and preparation of diet for a toddler.
5. Preparation of diet form a preschool and school child.
6. Planning and preparation of meal for a senior citizen.

Dietetics:

7. Planning and preparation of liquid diet, soft diet, high and low calorie diet with modified fat and carbohydrate level.
8. Planning and preparation of diet for viral hepatitis, cirrhosis of liver, hypertension, atherosclerosis, Diabetes mellitus, nephritis, nephrotic syndrone, peptic ulcer.
9. Planning and preparation of low and medium cost diet for PEM anaemia and Vitamin A deficiency.
10. Planning and preparation of diet with modified :
    (a) Consistency,
    (b) Fibre and residue,
    (c) Diet for diarrhoea.

UNIT - II: Quantity Food Product and Service:

1. Visit to Catering Institute to make an idea for organising, preparing and serving food for three different meals for 50 members or more.
2. Setting up the Restaurant - laying of table cloth, changing, setting up the silvers and other table.
3. Service of beverages - tea, coffee, juices, alcoholic beverages.

contd...P/2.

4. Laying of for break-fast.

5. Tray service.

6. Order taking, making out checks bills, presentation of bills.

7. Up keep and cleaning of cutlery, crockery and other equipment.

8. Rice preparation - Plain and fried rice, Pulao, tomato rice, biryani (mutton or chicken).

9. Wheat preparation - Chapati, Paratha (Plain and stuffed), Puri, nan, Bhatura.

10. Pulse preparation - Punjabi-dal, Sambar, dalfry, Masala rajmah, Aluchole.

11. Vegetable preparation - Alumotor, alupalak, damalu, vegetable kofta, vegetable korma, Palak Paneer.

12. Fish and meat preparation - Chicken-curry, prawn-curry, Fish-curry, roghanjosh, Mutton-Palak.

13. Salad - Decorative salad, Tossed salad, Russian salad, ~~xxx~~ moulded salad.

14. Sanacks - Variety of sandwiches, vegetable puffs, fried snacks, fermented and steamed snacks.

15. Sweets - Kheer, burfi, sandesh, gulabjamun, halwa.

16. Sauces - White sauce, Cheese ~~xxxxx~~ sauce, mayonnase sauce, curry sauce.

17. Entrees - Vegetable pie, Vegetable burger, hamburger.

18. Vegetable - Baked cauliflower, savonry vegetables, baked stuffed capsicum, Vegetable and Mutton-patties.

19. Breads - Different kinds of rolls, doughnuts, breads.

20. Cakes and cookies - Plain Cake, fruit Cake, Varieties of cookies.
Different types of icings.

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Kolkata
28/12/2020

PAPER VII : Full Marks - 100

" On-Job-Training "

CRITERIA FOR EVALUATION OF ON THE JOB TRAINING IN THE VOCATIONAL SUBJECT " CLINICAL NUTRITION AND DIETETICS"

1. Time schedule of training : Total time of training 6 - 8 weeks.

2. TRAINING AREA/FIELD : Training should cover the various topics of CND in the following organisation/Institution.
   a) Any reputed Medical college or Nursing Home where Dietetitions work

   b) N.G.O.like CINI CHETNA, WVHAI/ICDS project Centre of Health centre.

   c) Large community centre, Catering Institute/Hotel/Restaurant/Dairy Farm/Bakery/Tea Board. Motel

   d) Cold storage for fruits, Vegetables and Fish etc. and super Market/ centre for manufacturing and preservation of different food commoditie

3. ATTENDANCE AND PRATICIPATION : A daily diary is to be maintanined by the student. A certificate to be issued to the individual student by the Head of the Institute/Organisation duly endorsed by the teacher guide and countershgned by the principal/Co-ordinator of the Institution/Organisation where on the job training takes place xxxx.

   A confidential report to be issued th the convenor of the course of the parent Institution covering the following aspects.

   A) Attendance and punctuality Marks : 2

   B) Attitude and Co-operation " : 4

   C) Knowledge and Report/Project " :10

   D) Applicatio n of performance " : 4

4. PRESENTATION OF REPORT :
   A) Duplicate copies of report/Project to be submitted by the student.

   B) Volume of the report/project as required .

   C) Report/Project may be neatly hand written/typed.

   D) Report/Project must be submitted in bound form.

   Reports of all sectors/branches of on-the-job training undergone by the students to be submitted to the convenor before the candidates are sent up for part-II Examination.

5. EVALUATION : Evaluation to be made jointly by Internal and External examiners of the subject concerned.

   : DISTRIBUTION OF MARKS :

	Marks
A) Written report/Project	60%
B) Computation of marks alloted by different Organisation/ Institution where on-job-training takes place	20%
C) Viva	20 %

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UNIVERSITY OF CALCUTTA

Draft Syllabus
in
Entrepreneurship Development
(a Compulsory paper for Three Year B.A./B.Sc./ b.Com. Degree Courses with vocational subjects)

Classification	Topics/Subjects	No. of periods
a) ENTREPRENEUR : SHIP BUILDING	1) Meaning-Importance-Psychological Sociological Factors and Distinctive Competence. Entrepreneurship Process. Identification of Opportunities-Choice of Technology-Make or Buy Decision- Biography of Indian Entrepreneurship - Status of Worldwide Entrepreneurship.	3
	2) Need Scope and Characteristics of Entrepreneurship Special Schemes for Technical Entrepreneurs, STED.	2
	3) Social responsibility and business ethics.	1
	4) Environmental Awarness.	1
	5) Human Resource Management, Management of self and understanding human behaviour. Leadership, Motivation Attitude - Belief, Communication, Group Dynamics, Delegation, Setting of Goals, Self assessment, Transactional Analysis, Creativity, Problem Solving - Strength Weakness Opportunity and Threat (SWOT) Techniques - Decision Making-Stress Management- Positive Reinforcement, Recruitment, Selection, Training.	5
	T O T A L :	12

SOURCE OF FACULTY :

1) In house experts and faculty members.
2) Director, Cottage & Small Scale Industries, W.B. New Secretariat Buildings (9th floor), 1, Kiron Sankar Roy Road, Calcutta-700 001.
3) SISI, Calcutta, 111 & 112, B.T.Road, Calcutta-35.
4) GM/DIC of respective District.
5) BNCCI/WEBCON.
6) Any successful Entrepreneur of the locality.
7) IIM, Calcutta.
8) Experts from BE College (D.U.)
9) IISWBM, Calcutta.

MARKETING MANAGEMENT :	1) Exposure to demand based, resource based, service based, Import substitute & Export promotion Industries.	3
	2) Market survey techniques.	3
	3) Elements of marketing & Sales management.	1
	4) Nature of product and market strategy – Packing & advertising – After sales service.	2
	5) Touch on Import-Export procedure & methods.	1
	6) Analysing marketing opportunities, planning marketing strategy, forecasting, marketing mix, advertising the marketing programme & sales management.	4
	TOTAL :	14

SOURCE OF FACULTY :

1) In house experts & faculty members.
2) IIM, Calcutta.
3) Deptt. of Business Management, C.U.
4) Experts of BE College (D.U.).
5) SISI, Calcutta.
6) GM/DIC of respective district.
7) IISWB.

E) MONITORING & FOLLOWUP :	1) Sickness in small scale industries and their remedial measures.	1
	2) Coping with uncertainties, stress management & positive reinforcement.	1
	TOTAL :	2

SOURCE OF FACULTY :

1) In house experts & faculty members.
2) Directorate of Cottage & Small Scale Industries, WB.
3) Expert from BE College (D.U.).
4) Expert from Jadavpur University.

F) PROJECT FORMULATION:	1) Needs, scopes and approaches.	1
	2) Stages and methodology in Project identification, selection of a project format, Project Report Writing.	1
	3) Analysis and evaluation of a project report.	1
	4) Critical decision making Areas – Money – Market – People.	1
	5) Interaction with appraisal authority and Financial Institutions, project outline of relevant professions.	1

Contd....P/4.