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म. ज्यो. फु. रुहेलखण्ड विश्वविद्यालय, बरेली
M. J.P. ROHILKHAND UNIVERSITY, BAREILLY

Ref. No. २०१०/समिति/१०/

Dated 09-12-2010

प्राचार्य,
कृष्णा कॉलेज,
बिजनौर ।
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विषय : एम०एस०सी० [होम साइन्स] फाइनल स्तर 2010-11 पठन-पाठन के सम्बन्ध में ।
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महोदय,

दिनांक 23-11-2010 को विश्वविद्यालय में सम्पन्न हुई एम०एस०सी० [होम साइन्स] की सम्पन्न हुई पाठ्य समिति की बैठक में एम०एस०सी० होम साइन्स फाइनल का पाठ्यक्रम तैयार किया गया है जिसकी एक प्रति आपको इस आशय से संलग्न कर प्रेषित की जा रही है कि तदनुसार अपने महाविद्यालय में पठन-पाठन की व्यवस्था अपने स्तर से सुनिश्चित करने का कष्ट करें ।

संलग्नक: यथोपरि ।
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भवदीय,


कुलसचिव
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प्रतिलिपि: निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित :-
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- 01- अधीक्षक, अति-गोपनीय । - *Recd copy*
02- प्रभारी, कम्प्यूटर । *10-12-10*


Recd
10/12/10


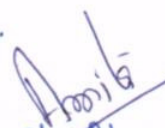
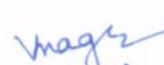

कुलसचिव
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Meeting of Expert Committee of Home Science held on
Dt 22/12/09 in the Administrative Hall of Rohailkhand
Bareilly University.

Sub: To discuss syllabus of MSc Home Science
as the committee suggests the following points in
the proposed syllabus.

Suggestion

- (i) The 02(two) practicals of concerned subjects
should be 50 marks each; ~~instead~~ of 100
marks, i.e. The Two practicals in MSc previous
i.e. $50 + 50 = 100$ marks each 
- (ii) All theories paper of MSc^(P) should be 100
marks each. There is no need of Internal
assessment. Total 400 marks for theory for
(MSc previous in Home Science).
Each
- (iii) ~~The~~ Theory period should be of One hour
(for MSc Home Science). In a week there should
3 periods / 3 hour per week, for each theory paper.
And 4 hour / period per week for each practical
- (iv) To teach this syllabus teachers should be
appointed as per UGC norms.

 (Dr M. K. Dhasmana) (Prof Sunita Mishra) (Dr Amita Bhargava) (Dr Veenu Nag
Smishra.  

Proposed Syllabus
M.Sc. Previous (Home Science)
(Food & Nutrition)

Paper - I BIOCHEMISTRY

Theory : 75 marks

Internal Assessment : 25 marks

Section (A)


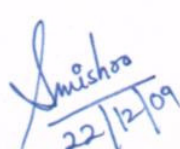
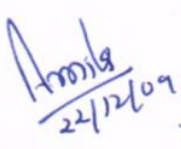
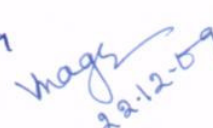
- (1) An introduction to Biochemistry as a science and an overview of its goals.
- (2) Carbohydrates : Sources, chemistry and functions of mono, oligo and polysaccharides, dietary fibre and its functions, simple chemical reaction of carbohydrates.
- (3) Lipids : General characteristics and classification, saponification, Iodine value, Acid value, Reichert Miesel, Peroxide and Acetyl numbers of fat. Main biological functions of lipids. Rancidity of fat.

Section (B)

- (1) Proteins : Structure and simple chemical reactions of amino acids. Protein classification and biological functions. Plasma protein and their functions.
- (2) Enzymes : Enzymes as biological catalyst, introductory account of IUB system of enzyme classification, concept of active site, specific activity, turn over number, units of enzyme activity. Effect of substrate concentration on the velocity of single substrate enzyme catalyzed reactions. Michaelis constant (K_m) and Maximal velocity (V_{max}). Line weaver burk plott. Effect of pH and temperature on enzymes inhibition, iso enzymes.
- (3) Nucleic Acids : Components of nucleic acids, structure of nucleic acids. Significance of DNA as genetic material.

Section (C)

- (1) Vitamins : Sources, absorption and biochemical role of vitamins A, D, E, K, Thiamine, Riboflavin, Niacin, Pyridoxin, Biotin, Folic acid, B₁₂ and L-Ascorbic acid.
- (2) Minerals : Sources, absorption, transport, utilization and functions of Magnesium, calcium, Phosphorus, Iron, Iodine, copper and zinc.
- (3) Detoxication of foreign compounds. Various reactions of detoxication. Role of liver in detoxication. Role of hepatic micro somal enzyme in detoxication.

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Paper - II PROBLEMS IN HUMAN NUTRITION

Theory : 75 marks

Internal Assessment : 25 marks

Section (A)

Prevalence, etiology, biochemical and chemical manifestation, preventive and therapeutic measures for the major nutritional problems :

1. Protein energy malnutrition.
2. Vitamin - A deficiency
3. Nutritional Anaemia
4. Iodine deficiency disorders
5. Fluorosis
6. Osteoporosis

Section (B)

Prevalence, causative factors, preventive measures, dietary management and biochemical and clinical manifestation of :

1. Obesity
2. Diabetes Mellitus
3. Cardiovascular disease
 - Coronary Heart disease
 - Hypertension
4. Cancer

Paper - III COMMUNITY NUTRITION

Theory : 75 marks

Internal Assessment : 25 marks

Section (A)

Introduction to Community Nutrition :

1. Interface of community nutrition with other disciplines, health, education, agriculture, economics, demography.

National Nutrition Programmes :- A review and critique of

1. Integrated child development services
2. Mid day meal programmes.
3. Anaemia Prophylaxis and vitamin-A prophylaxis programmes
4. Goitre control programme.

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Section (B)

Nutrition Programme Management :

1. Introduction to Management- Definitions, objectives and components of :
 - (a) Planning
 - (b) Implementation
 - (c) Evaluation
2. Types of supervision- relevance of supervision to nutrition programme management.
3. Monitoring and evaluation.

Section (C)

(A) Other measures to combat under nutrition :

1. Nutrition in Primary health care.
2. Nutritional surveillance
3. Nutritional rehabilitation
4. Nutrition- Health education and importance of health and nutrition for human development.

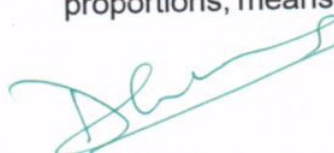
(B) Women and Nutrition :

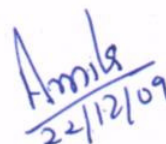
1. Situation of women in global, national and local context.
2. Improving their nutritional and health.
3. Interventions throughout the life cycle.

Paper - IV RESEARCH METHODS AND BIOSTATISTICS **Theory : 75 marks**
Internal Assessment : 25 marks

- (1) Meaning & scope of statistics, classification & tabulation.
- (2) Graphic and diagrammatic representation of data (frequency curve, ogiv-curves, histogram graphs, bar-diagram & pie charts).
- (3) Measure of central tendency & Dispersion (Mean, Median, Mode, Quartiles, Range, Mean-Deviation, Standard Deviation, Skewness & Kewtosis.)
- (4) Correlation & Regression : Correlation & its interpretation. Product Moment & Rauh Correlation Coefficient Regression Equations.
- (5) Elementary ideas on probability (simple probability), simple problems.
- (6) Elements of testing a statistical Hypothesis- Formulation of the problem, definition of type I & II errors, levels of significance, critical reason, large sample test for proportions, means & difference in means.

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(4)

- (7) Application of students test for small samples for single mean, difference in means, significance of correlation, coefficient for equality of variance.
- (8) Design of Experiments : Analysis of variance, basic ideas, completely randomised and random block design.
- (9) Non-Parametric Inference : Sign, Median, Run-tests & X-test (goodness of fit).
- (10) Signs & Scientific methods, research design, purpose of Research design, type of research design- experimental & descriptive.
- (11) Definition & identification of a research problem, selection of problem, hypothesis, basic assumptions & limitations of the problem.
- (12) Data gathering instruments, questionnaires & schedule, questionnaire construction, interview techniques, measurements & scales, reliability & validity of measuring instruments.
- (13) Methods of collecting information, census & sampling, benefits of sampling, evaluating a sample various sampling schemes, methods of estimating population, mean and its standard error in simple random sampling & stratified random sampling.
- (14) Planning, executing and analysis of large scale surveys with special emphasis on surveys in home science. Presentation & preparations of report for publication.

Practical 1: Nutritional Biochemistry

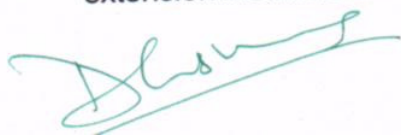
100 marks

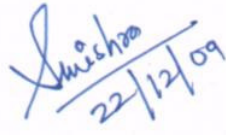
1. Estimation of total, free and conjugated bilirubin in blood serum.
2. Estimation of calcium in food by titration.
3. Estimation of Protein by micro Kjeldhal method.
4. Prep Assay of Alkaline Phosphatase activity in serum.
5. Assay of the activity of transaminases (SGOT, SGPT) in serum.
6. Estimation of L-Ascorbic acid by titration method.

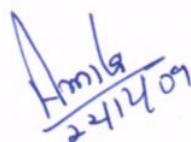
Practical 2: Applied Nutrition and Community

100 marks 50 Marks

1. Planning, preparation, serving and nutrition counselling of diet for following disorder:- PEM, Vit-A deficiency, Anaemia, Obesity, Diabetes mellitus, hypertension and other osclerosis.
2. Planning and conducting nutrition education projects for a community using different extension methods and audio visual aids.




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Proposed Syllabus
M.Sc. Previous (Home Science)
(Human Development)

Paper - I THEORIES OF HUMAN DEVELOPMENT **Theory : 75 marks**
Internal Assessment : 25 marks

Principles, basic concepts, critique, implications and comparative analysis of following theories :

- (i) Psycho analytic theory of Freud, Anna Freud and New Freudians.
- (ii) Cognitive theory of Piaget, Bandura.
- (iii) Social Theory of Erikson.
- (iv) Learning theories with reference to Pavlov, Watson, Skinner, Harlow, Bandura, Walter Sears and Vygotsky.
- (v) Adler's theory and Jung's theory.
- (vi) Allport, Maslow's theories.
- (vii) Ecological theory of Bronfenbrenner.
- (viii) Attachment theory of Bowlby.

Paper - II PRINCIPLES OF HUMAN DEVELOPMENT **Theory : 75 marks**
Internal Assessment : 25 marks

- ▶ **Basis of Human Development :**
Genes and Chromosomes, Heredity and environment, meaning and interaction of heredity and environment, role of Nature and Nurture in determining intelligence, personality and behaviour.
- ▶ **Prenatal Development :**
Stages, genetic and environmental factors, critical influence, birth process and complications.
- ▶ **INFANCY:-**
 - (a) The neonate upto 4 weeks - Physical, Physiological, Cognitive and social capabilities.
 - (b) 4 weeks upto 2 yrs. - Physical and motor, social and emotional, cognitive and language development.

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- ▶ **EARLY ENVIRONMENT (Critical periods) :-**
Importance, need for desirable, child-rearing practices, effects of environmental deprivations, maternal-child interactions, effects of maternal deprivation.
- ▶ **EARLY CHILDHOOD YEARS :-**
Developmental milestones, physical, moral, social and emotional, cognitive and language development.
- ▶ **MIDDLE CHILDHOOD :-**
Physical and moral skills, developmental factors
 - (a) Emotional Development :- Development of positive and negative emotions, influencing factors.
 - (b) Social and Moral Development :- Growth trends, measurement, culture and class.
 - (c) The functions of the family, school and community in the growth of children during middle childhood.
- ▶ **ADOLESCENCE :-**
Physical changes and health needs, changes in social behaviour, development of emotional maturity, trends in adolescent thinking, personal and social, recreational and vocational interests, heterosexual relationships, problems at home & school, family relationship & relationship with teachers, outside influence on adolescents.
- ▶ **ADULTHOOD :-**
 - (a) Early/Young Adulthood :- Physical & cognitive development, psychosocial development, Sexual identity and gender roles, inter personal relations.
 - (b) Middle Adulthood :- Physical & cognitive development, psychosocial development-dealing with stresses of Adulthood. Menopause and interpersonal relationship.
 - (c) Late Adulthood/old age :- Physical & cognitive changes, Physiological theories of aging, Psychosocial development in late adulthood. Effects of natural environment on aging. Health and other body systems. Dieing and spirituality.

Paper - III **EARLY CHILDHOOD EDUCATION**

Theory : 75 marks

Internal Assessment : 25 marks

- (1) Development of early childhood education, historical review of early childhood

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(3)

education, contribution and philosophies of pestallozzi, froebel, dewey, Rousseau, Montessori, Gandhi, Tagore, Tarabai- Modak.

- (2) Goals of Early Childhood Education- Significance of first few years of childhood, theoretical perspective and Empirical data.
- (3) Early Childhood Education, Early childhood in National development plans.
- (4) Organisational Set up :-
 - (a) Pre-school building, site and location, elements of building, plans for various types, space allotment for indoor and outdoor play.
 - (b) Play equipment, Principles of selection, equipment for various developments, care & use of play equipment, indigenous play equipments.
 - (c) Pre-school staff & other personnel, selection of staff, academic qualification, personality characteristics, functioning of personal.
 - (d) Programme, principles, long & short term planning, songs & stories, dramatisation, science experiences, creative activities, field trips, functions & celebrations, development of concepts.
 - (e) Teaching strategies curriculum models in ECE.
 - (f) Records & Registers, values & types, using & maintaining records.
 - (g) Home- School Relationship, Need, methods, parent education.
 - (h) Evaluation, developing techniques and devices for evaluation of children and programmes.

Paper - IV RESEARCH METHODS AND BIOSTATISTICS **Theory : 75 marks**

Internal Assessment : 25 marks

- (1) Meaning & scope of statistics, classification & tabulation.
- (2) Graphic and diagrammatic representation of data (frequency curve, ogiv-curves, histogram graphs, bar-diagram & pie charts).
- (3) Measure of central tendency & Dispersion (Mean, Median, Mode, Quartiles, Range, Mean-Deviation, Standard Deviation, Skewness & Kewetosis.)
- (4) Correlation & Regression : Correlation & its interpretation. Product Moment & Rauh Correlation Coefficient Regression Equations.

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- (5) Elementary ideas on probability (simple probability), simple problems.
- (6) Elements of testing a statistical Hypothesis- Formulation of the problem, definition of type I & II errors, levels of significance, critical reason, large sample test for proportions, means & difference in means.
- (7) Application of students test for small samples for single mean, difference in means, significance of correlation, coefficient for equality of variance.
- (8) Design of Experiments : Analysis of variance, basic ideas, completely randomised and random block design.
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- (11) Definition & identification of a research problem, selection of problem, hypothesis, basic assumptions & limitations of the problem.
- (12) Data gathering instruments, questionnaires & schedule, questionnaire construction, interview techniques, measurements & scales, reliability & validity of measuring instruments.
- (13) Methods of collecting information, census & sampling, benefits of sampling, evaluating a sample various sampling schemes, methods of estimating population, mean and its standard error in simple random sampling & stratified random sampling.
- (14) Planning, executing and analysis of large scale surveys with special emphasis on surveys in home science. Presentation & preparations of report for publication.

PRACTICALS

1. PRINCIPLES OF HUMAN DEVELOPMENT

-100 Marks

- (1) Observing infants in various setting.
- (2) Recording all round development of children below 10 years.
- (3) Changes in adolescents personal & social.

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- (4) Interviewing adults with regard to their role in the family.
- (5) Motivating the aged to participate in social activities.
- (6) Case study of children on their all round development.
- (7) Visit to old age home.

2. EARLY CHILDHOOD EDUCATION

-100 Marks

- (1) Visit to various centres of early childhood education. (NGO, Anganwadi, Balwadi).
- (2) Observation and participation in the laboratory, nursery school, pre-school, mobile creche and day care centres.
- (3) Planning and executing programmes for children.
- (4) Planning and preparing teaching aids and materials needed for young children.
- (5) Planning, preparation and serving of nutritional supplements for pre-school children.

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Swishu
22/12/09

Amila
22/12/09

Vinay
22.12.09