



RIHS MEDICAL & DENTAL COLLEGE INTEGRATED CURRICULUM



**REPRODUCTION MODULE
MODULE 20204**

Session 2022-23

**SECOND YEAR MBBS
STUDY GUIDE**

**PLANNED AND DESIGNED BY:
PROF. SABIHA M HAQ**

RIHS Medical & Dental College, 2023 yearly grid

Second year MBBS Batch 2022-23

Block IV 12 weeks		Block V 13 weeks including Eidul Fitr Holidays		Holidays & Eidul Adha	Block VI 12 weeks		Resit & University Assessments				
9 th Jan. to 19 th Feb	20 th Feb. to 26 th March	27 th March to 2 nd April	3 rd April to 14 th May Eidul Fitr 21-25 April	15 th May to 22 nd June	23 rd June to 27 th June	28 th June to 30 th July EidulAdha 28 June-2 nd July	31 st July to 17 th September	18 th September to 15 th October	16 th October to 22 nd October	23 rd October to 19 th November	December 2023
GIT & Nutrition Module 20101	Renal Module 20102	Block I Revision & Assess- ment	Endocrine & Maxillo facial Module 20203	Repro- duction Module 20204	Block II Revision & Assessment	Summer break	Neuro- sciences Module 20305	Special senses Module 20306	Block III Revision & Assessment	Resits and Pre- Assessment leave	Written & Practical Assessments
06 weeks	05 weeks	01week	05+1 weeks	06 weeks	01 week	04 weeks	07 weeks	04 weeks	01 week	04 weeks	03 weeks

*Each Module consists of integrated teaching of normal structure and function of the human body and their clinical context. In order to help the students, acquire knowledge, skills and professional behavior, special focus is placed on involving multiple teaching and learning strategies and Assessment modalities.

**Islamic studies is taught as one LGIS per week throughout all Modules

***Communication skills, Medical Ethics, Professionalism & Behavioral Sciences are taught in the relevant modules as parallel subjects

****There is continuous Formative & Summative Assessment throughout the Modules by relevant disciplines, in addition to end Block Assessment

Module 20102: REPRODUCTION MODULE

Session 2022-23

Placement in curriculum: Module code: 20204 (Year 2, block- 02, module 04) Prerequisite: First & second block modules

Teaching faculty & Curriculum committee members

	Disciplines	Name of Faculty
1.	Principal & HOD Surgery	Prof. Dr. Shakaib Anwar
2.	Anatomy	Prof. Dr. Sabiha M. Haq
3.	Physiology	Prof. Dr. Jan Alam
4.	Biochemistry	Prof. Dr. Rehan Khwaja
5.	Pathology	Prof. Dr. Bushra
6.	Pharmacology	Prof. Dr. Azam Zia
7.	Community Medicine	Prof. Dr. Mirza Inamul Haq
8.	Behavioural Sciences	Dr. Sabika Husain
9.	Medicine	Ms. Nargis Munir
10.	Surgery	Prof. Dr. Nadia Shams
Module duration		06 weeks
Module planner		Prof. Dr. Sabiha M Haq
Module co-planner		Prof. Dr. Mirza Inamul Haq

Module Coordinator	Dr. Maria Irum
Integrated Curriculum	<p>The Integrated Curriculum is becoming an increasingly popular concept internationally in the field of Medicine.</p> <p>The goal of integration is to break down barriers between the basic and clinical sciences, currently in practice as a result of traditional curricular models.</p> <p>Integration should promote retention of knowledge and acquisition of Skills through repetitive and progressive development of concepts and their applications.</p> <p>There are three areas in need of improvement and clarification for successful integration:</p> <ol style="list-style-type: none"> 1. Ensuring synchronous presentation of teaching material 2. Avoiding the tendency to diminish the importance of the basic sciences, and 3. Using unified definitions <p>(MEDICAL TEACHER)</p> <p>The model adapted in this institution is an Integrated, modular, system based, spiral curriculum.</p> <p>Arrangement of spirals: Two years + one year + two years</p>
Students as a curriculum Coordinator and class representative	<p>Student involvement in an integrated curriculum is the key to the process of making him a self-directed, competent and ethical learner who can adjust and compete with the latest trends in medical education in today's and tomorrow's world. In order to achieve this:</p> <ol style="list-style-type: none"> 1. Students will help the Module coordinators in accomplishing all tasks assigned to him/her. 2. They will be a part of curriculum planning and implementing team. 3. They will inform/discuss the ongoing activities/problems in teaching and learning with module coordinators and curriculum chairperson.

Module Rationale

Reproductive system plays an important role in person life although it does not

contribute to homeostasis and is not essential for survival of individual for example, the manner in which people relate as sexual beings contributes in significant ways to psychosocial behaviour and has an important influence on how people view themselves and how they interact with others.

Reproductive function also has a profound effect on society. The universal organization of societies into family units provides a stable environment that is conducive for perpetuating our species.

On the other hand, the population explosion and its resultant drain on dwindling resources have recently let to worldwide concern with the means by which reproduction can be limited.

Reproductive capabilities depend on intricate relationship among the hypothalamus, anterior pituitary, reproductive organs and target cells of sex hormones. In addition to these basic biologic processes, sexual behaviour and attitudes are deeply influenced by emotional factors and sociocultural mores of the society in which individual lives.

This module is expected to build students basic knowledge about normal structure, organization, functions and development of reproductive system. This knowledge will serve as a fabric on which the students will weave further knowledge about the aetiology, pathology and pathogenesis of diseases of reproductive system and principles of their management

Module Outcomes

At the end of the module the student should be able to:

KNOWLEDGE:

1. Identify & interpret the obstetrics and gynaecology terms & use them appropriately
2. Describe the topography of the different parts of pelvis and perineum.
3. Describe the physiology of female and male reproductive system.

	<p>4. Describe the pharmacokinetics and pharmacodynamics of various hormones of the female and male reproductive system along with their synthetic analogues. female and male reproductive system</p> <p>5. Describe the role of drugs used in puberty, pregnancy and for contraception.</p> <p>6. Emphasize on the importance of antenatal care.</p> <p>7. Describe the indicators and the measures to control maternal mortality.</p> <p>8. Describe health aspects & scope of family planning.</p> <p>9. Describe the anatomy and physiology of breast during puberty, pregnancy and lactation and pathology of breast abscess</p> <p>SKILL:</p> <ol style="list-style-type: none"> 1. Demonstrate effective Skills of obstetrical/gynaecological history taking. 2. Perform obstetrical examination on subject/ simulators. 3. Perform urine pregnancy test. 4. Perform Breast examination on subject/ simulators <p>ATTITUDE:</p> <ol style="list-style-type: none"> 1. Demonstrate effective communication Skill strategies while taking history and examining the patients/simulators with reproductive health problems. 2. Display the personal attributes of compassion, honesty and integrity in relationships with patients, families, communities and the medical profession. <p>Demonstrate a professional attitude, team building spirit and good communication Skills through effective participation in cooperative problem solving, especially in small group exercises.</p>
<p>Teaching and Learning methodology</p>	<p>Large Group Interactive Sessions (LGIS): The goal of interactive lecture is to engage the students' attention, through ways to interact with the content, the instructor, and their classmates. Accordingly, interactive lectures include segments of knowledge transfer, combined with segments where students interact. One of the things that makes the lecture interactive is the ability of the instructor to select the content of the lecture segments based on the students' needs. This demands a prior search for the baseline knowledge of the students at the start of the lecture. If students have difficulty answering a question, or an</p>

	<p>activity fails to develop the concept in most student groups, it's time to find a new and better way to deal with the material. LGIS clearly gives a better concept of the content and keeps students' attention captured throughout, as compared to yester years' didactic lectures.</p> <p>Small Group Discussion (SGD): 'The purpose and technique of small group teaching is to keep it learner-centered, with all students joining in free discussion on a particular topic. A typical 'small group' is around eight to 12 learners facilitated by a teacher. The steps of SGD are Forming, Storming, Norming & Performing. The teacher acts only as a facilitator. Students are allowed to use their books or other search material during the discussion. SGD is a good method to clear the concepts and develop communication and conflict solving Skills in the students.</p> <p>Departmental lab. Teaching: This is a teaching & learning methodology where students learn handling of laboratory equipment, machines, their practical uses and safety rules.</p> <p>Skill lab. Teaching: This is performance -based teaching & learning methodology where students learn to physically examine the patients and get hands on training on various clinical Skills.</p> <p>Dissection and demonstration: Teaching of gross Anatomy is aided by cadaver dissection and demonstration on plastic models.</p> <p>Assignments and Presentations: Both of these methodologies are meant to make the students self-directed learners and good communicators by seeking knowledge from multiple sources and presenting it in front of facilitators and peers.</p>
Assessment methodology	<p>Multiple Choice Questions (MCQs): Structured Viva: Objective Structured Practical/Clinical Examination (OSPE /OSCE):</p>

NO.	Content	Discipline	Learning objectives: At the end of the module should be able to:	Teaching strategy	Assessment methodology
1.	Pelvis I	Anatomy	<ul style="list-style-type: none"> Identify the gross features of bony pelvis Describe the sexual dimorphism seen in the pelvis 	1 SGD	OSPE/VIVA
2.	Pelvis II	Anatomy	<ul style="list-style-type: none"> Identify Pelvic Diaphragm Identify the structures in the Perineum 	1 SGD	OSPE/VIVA
3.	Female reproductive tract -1	Anatomy	<ul style="list-style-type: none"> Identify the location, support, structure and function of the ovaries. 	1 SGD	OSPE/VIVA
4.	Introduction to reproductive system	Physiology	<ul style="list-style-type: none"> Describe the components and importance of reproductive system 	1 LGIS	MCQs
5.	Female reproductive tract -2	Anatomy	<ul style="list-style-type: none"> Identify the location, structure and function of the oviducts, uterus and vagina relate structure to function Describe the female external genitalia 	1 SGD	OSPE/VIVA
6.	Nitrogen metabolism	Biochemistry	<ul style="list-style-type: none"> Describe the Amino acid pool Protein turnover <ul style="list-style-type: none"> ➤ Rate of protein turn over ➤ Protein degradation 	1 LGIS	MCQs
7.	PBL Ovarian cyst				
8.	Gonadotropic hormones and Posterior pituitary hormone	Physiology	<ul style="list-style-type: none"> Enlist the gonadotropic hormones Discuss their biochemical role Discuss the formation, transport, storage release and actions of oxytocin 	1 LGIS	MCQs
9.	Female reproductive tract	Anatomy	<ul style="list-style-type: none"> Describe the histological structure of: 	2 LGIS	MCQs

	Histology		<ul style="list-style-type: none"> • Ovary • Uterine tube • Uterus 		
10.	Transport of amino acids	Biochemistry	<ul style="list-style-type: none"> • Describe the transport of amino acids into the cell. 	1 LGIS	MCQs
11.	Histology of female reproductive tract	Anatomy	<ul style="list-style-type: none"> • Identify the slides under the microscope and enumerate the characteristics of each: <ul style="list-style-type: none"> • Ovary • Uterine tube • Uterus 	1 LGIS	OSPE/VIVA
12.	Gonadotropic hormones and Posterior pituitary hormone	Physiology	<ul style="list-style-type: none"> • Discuss Human Chorionic Gonadotropin) • Discuss MOA, adverse effects, clinical uses and contraindications of synthetic Gonadotropic hormones • Discuss the MOA, adverse effects, clinical uses of Oxytocin antagonist. 	1 LGIS	MCQs
13.	Ovarian hormones	Physiology	<ul style="list-style-type: none"> • Enumerate synthetic Estrogen and progesterone preparations • Discuss the MOA, adverse effects, clinical uses and contraindications of synthetic estrogen and progesterone 	1 LGIS	MCQs
14.	Formation of ammonia-I	Biochemistry	<ul style="list-style-type: none"> • Discuss the process of transamination. • Funneling of amino groups to glutamate • Aminotransferases • Mechanism of action of aminotransferases • 	1 LGIS	MCQs
15.	Ovarian hormones	Physiology	<ul style="list-style-type: none"> • Enumerate synthetic Estrogen and 	1 SGD	MCQs

			<p>progesterone preparations</p> <ul style="list-style-type: none"> • Discuss the MOA, adverse effects, clinical uses and contraindications of synthetic estrogen and progesterone 		
16.	Male reproductive tract-1	Anatomy	<ul style="list-style-type: none"> • Describe the system of ducts that spermatozoa travel through from the testis to external meatus • Identify the location and function of the male accessory glands 	1 SGD	MCQs
17.	Male reproductive tract-2	Anatomy	<ul style="list-style-type: none"> • Describe the location and process of spermatogenesis • Describe the path that spermatozoa take through the male and female reproductive tracts to reach the ova. 	1 LGIS	MCQs
18.	Formation of ammonia-II	Biochemistry	<ul style="list-style-type: none"> • Discuss the process of Oxidative deamination by glutamate dehydrogenase • Clinical significance of glutamate dehydrogenase • Metabolic significance of Glutamate dehydrogenase • Non-oxidative deamination by amino acid dehydrogenase 	1 LGIS	MCQs
19.	PBL Testicular tumor				
20.	Histology of male reproductive tract	Anatomy	<p>Describe the Histology of:</p> <ul style="list-style-type: none"> • Testis and epididymis • Prostate • Seminal vesicles 	1 LGIS	MCQs
21.	Histology of male reproductive tract	Anatomy	<ul style="list-style-type: none"> • Identify the slides under the microscope and enumerate the characteristics of each 	1 Skill lab	OSPE/VIVA

			<ul style="list-style-type: none"> • Testis and epididymis • Prostate • Seminal vesicles 		
22.	Female reproductive hormones	Physiology	<ul style="list-style-type: none"> • Identify the role of female reproductive hormones during reproductive life 	1 Skill lab	OSPE/VIVA
23.	Male reproductive hormones	Physiology	<ul style="list-style-type: none"> • Identify the role of male reproductive hormones during reproductive life 	1 Skill lab	OSPE/VIVA
24.	Testicular hormones	Physiology	<ul style="list-style-type: none"> • Describe the Synthesis, Transport and biochemical role of male sex hormones (testosterone and dihydrotestosterone). 	1 LGIS	MCQs
25.	Transport of ammonia	Biochemistry	<ul style="list-style-type: none"> • Describe the transport of ammonia from peripheral tissues to liver. (K)Transport of ammonia in form of glutamine • Transport of ammonia in form of alanine 	1 LGIS	MCQs
26.	Role of Testicular hormones	Physiology	<ul style="list-style-type: none"> • Describe the functions of testosterone during fetal development. • Describe the effects of testosterone on the development of primary and secondary sexual characteristics. 	1 LGIS	MCQs
27.	Male hormones	Physiology	<ul style="list-style-type: none"> • Describe the control of male sexual functions by hormones from the Hypothalamus and Anterior Pituitary Gland. 	1 LGIS	MCQs
28.	Male and Female Reproductive organs- Development	Anatomy	<ul style="list-style-type: none"> • Identify the primary and secondary sex organs in the male and female reproductive systems • Explain how the male and female reproductive organs are formed from embryonic structures 	2 LGIS	MCQs

			<ul style="list-style-type: none"> Identify the homologous genital structures in the male and female 		
29.	Male and Female Reproductive organs- Anomalies	Anatomy	<ul style="list-style-type: none"> Enumerate the developmental anomalies of male and female genital tracts and organs Give a brief description of each 	1 LGIS	MCQs
30.	Urea cycle-I	Biochemistry	<ul style="list-style-type: none"> Describe the reactions of the urea cycle. Overall stoichiometry of urea cycle 	1 LGIS	MCQs
31.	Urea cycle-II	Biochemistry	<ul style="list-style-type: none"> Describe the significance and regulation of urea cycle. 	1 LGIS	MCQs
32.	Estimation of serum urea level	Biochemistry	<p>Demonstrate the following:</p> <ul style="list-style-type: none"> Blood sample collection Method of estimation Calculation for estimation Reference range comparison Interpretation of result Relate the above to clinical significance 	1 Skill lab	OSPE/VIVA
33.	Stages of growth & development	Behavioral sciences	<ul style="list-style-type: none"> Define neonate, infant and child. Understand the difference between child and adult physically and emotionally. Define puberty and compare male and female characteristics of the period Understand the pattern of congenital and acquired diseases at various pediatric ages. Define growth and development and explain the methodology of monitoring growth in infants and children using FOC, weight and height. Understand the use of percentile charts for monitoring growth parameters. 	1 LGIS	MCQs

			<ul style="list-style-type: none"> Enumerate four stages of development i.e., gross motor fine motor language and hearing and social adaptive Skills. 		
34.	Ammonia intoxication	Biochemistry	<ul style="list-style-type: none"> Describe ammonia intoxication. Hepatic encephalopathy 	1 LGIS	MCQs
Conception					
35.			<ul style="list-style-type: none"> Describe the maturation of female ovum. Describe the fertilization of female ovum. Describe the transport of fertilized ovum through fallopian tubes. Describe the implantation of fertilized ovum. 	1 LGIS	MCQs
36.	Amino acid metabolism-I	Biochemistry	<ul style="list-style-type: none"> Discuss amino acid degradation and synthesis. Glucogenic amino acids Ketogenic amino acids 	1 LGIS	MCQs
37.	Reproductive hormone assay	Biochemistry	<ul style="list-style-type: none"> Identify the chemistry of male and female reproductive hormones 	2 Skill labs	OSPE/VIVA
38.	Adolescence to Menopause	Gynecology & Obstetrics	<ul style="list-style-type: none"> Define Adolescence & Conception Enlist the factors which effect the life of women during their reproductive life cycle. 	1 LGIS	MCQs
39.	Antenatal care	Community medicine	Define Antenatal care <ul style="list-style-type: none"> Enlist Objectives of Antenatal care Enlist the preventive services provided to mothers during antenatal care. Define Risk Approach Describe the identification of High Risk? 	1 LGIS	MCQs
40.	Obstetric history taking	Gynecology & Obstetrics	Describe the components of obstetric history taking.	1 LGIS	MCQs

41.	Intra-natal and postnatal care	Gynecology & Obstetrics	<ul style="list-style-type: none"> Define Intra-natal care, Briefly describe Domiciliary & Institutional care Define Postnatal care Briefly discuss objectives of Postnatal care 	1 LGIS	MCQs
42.	Gynecological history taking	Gynecology & Obstetrics	<ul style="list-style-type: none"> Describe gynecological history taking. 	1 Skill lab	OSPE/VIVA
43.	Pregnancy test	Biochemistry	<ul style="list-style-type: none"> Perform pregnancy test on given urine sample. 	1 Skill lab	OSPE/VIVA
44.	Infertility, pregnancy & Post-natal psychological disturbances	Behavioral sciences	<ul style="list-style-type: none"> Discuss Psychosocial aspects of infertility and pregnancy Describe the physiological changes in mother during pregnancy. Discuss Comment on post-natal psychological disturbance 	1 LGIS	MCQs
45.	Amino acid metabolism-II	Biochemistry	<ul style="list-style-type: none"> Describe the metabolism of aliphatic side chain containing amino acids. Metabolism of glycine Synthesis of glycine Catabolism of glycine Metabolic fates of glycine Metabolic disorders of glycine 	1 LGIS	MCQs
46.	Metabolism of branched chain amino acids	Biochemistry	<ul style="list-style-type: none"> Describe the metabolism of branched chain amino acids Valine Isoleucine Leucine Metabolic disorders of branched chain amino acids 	1 LGIS	MCQs
Parturition					

47.	Parturition Normal labor	Physiology	<ul style="list-style-type: none"> Describe the hormonal factors that cause increase uterine contractility near term. Describe the mechanical factors that cause increase uterine contractility near term. 	1 LGIS	MCQs
48.	Parturition Normal labor	Physiology	<ul style="list-style-type: none"> Describe the mechanism of parturition. Enlist the stages of labor Describe the involution of uterus after parturition. 	1 LGIS	MCQs
49.	Metabolism of aromatic amino acids-I	Biochemistry	<ul style="list-style-type: none"> Discuss the metabolism of Phenylalanine Tyrosine Fates of tyrosine Disorders of phenylalanine and tyrosine metabolism 	1 LGIS	MCQs
50.	Placental hormones	Biochemistry	<ul style="list-style-type: none"> Name the hormones of the placenta. Discuss the functions of Hormones of the Placenta 	1 LGIS	MCQs
51.	Supplements during pregnancy	Comm. Medicine	<ul style="list-style-type: none"> Role of supplements during pregnancy (Folic acid, Iron, and Calcium) 	1 LGIS	MCQs
52.	Maternal mortality	Comm. Medicine	<ul style="list-style-type: none"> Define Maternal mortality & morbidity Enlist the common indicators related to Maternal Health Enlist the causes & risk factors for Maternal Mortality Describe the measures taken to reduce the maternal Mortality. 	1 LGIS	MCQs
53.	Metabolism of aromatic amino acids-II	Biochemistry	<ul style="list-style-type: none"> Discuss the metabolism of tryptophan. Metabolic fates of tryptophan Metabolic disorders of tryptophan 	1 LGIS	MCQs

54.	Estimation of total proteins	Biochemistry	<p>Demonstrate the following:</p> <ul style="list-style-type: none"> • Blood sample collection • Method of estimation • Calculation for estimation • Reference range comparison • Interpretation of result • Relate the above to clinical significance 	1 Skill lab	OSPE/VIVA
55.	Tocolytic agents	Pharmacology	<ul style="list-style-type: none"> • Enlist various tocolytic agents • Discuss their Pharmacological effects, adverse effects and contraindications. 	1 LGIS	MCQs
56.	Reproductive health	Comm. Medicine	<ul style="list-style-type: none"> • Define Reproductive Health • Describe Reproductive tract infections • Describe the WHO strategies for safe motherhood 	1 LGIS	MCQs
57.	Oxytocic agents	Pharmacology	<ul style="list-style-type: none"> • Enlist various oxytocic agents (Oxytocin, Ergometrine, Prostaglandins) • Discuss their MOA and adverse effects • Enumerate their indications and contraindications. 	1 LGIS	MCQs
58.	One carbon metabolism	Biochemistry	<ul style="list-style-type: none"> • Discuss the role of folic acid in amino acid metabolism. • Sources and recipients of one carbon groups 	1 LGIS	MCQs
59.	Fetal and Neonatal Physiology	Physiology	<ul style="list-style-type: none"> • Discuss how fetal and neonatal physiology is different from adult physiology • Enumerate steps of care of newborn at delivery • Discuss the steps of care of newborn during first 6 hours 	1 LGIS	MCQs
60.	Metabolism of sulfur containing amino acids	Biochemistry	<ul style="list-style-type: none"> • Describe metabolism of sulfur containing amino acids. • Metabolism of methionine • Metabolism of cysteine and cysteine 	1 LGIS	MCQs

			<ul style="list-style-type: none"> Metabolic disorders of sulfur containing amino acids 		
61.	Metabolism of acidic and basic amino acids	Biochemistry	<ul style="list-style-type: none"> Describe metabolism of acidic and basic amino acids. Metabolism of acidic amino acids Metabolism of basic amino acids 	1 LGIS	MCQs
62.	Family planning	Comm. Medicine	<ul style="list-style-type: none"> Define family planning Enlist objectives of family planning Describe health aspects & scope of family planning Define Eligible couple, Target couple & couple protection rate 	1 LGIS	MCQs
63.	Contraceptive methods	Comm. Medicine	<ul style="list-style-type: none"> Classify contraceptive methods Enlist merit demerits, indication, contraindications of spacing methods 	1 LGIS	MCQs
64.	Contraceptive methods	Comm. Medicine	<ul style="list-style-type: none"> Describe Hormonal methods of contraception. Enlist Merit, demerits indication, contraindications of Terminal methods 	1 LGIS	MCQs
65.	Metabolism of serine and proline	Biochemistry	<ul style="list-style-type: none"> Describe metabolism of: Serine Proline 	1 LGIS	MCQs
Breast feeding					
66.	Breast	Anatomy	<ul style="list-style-type: none"> Describe the Anatomy of non-lactating and lactating breast Enumerate the sources of blood supply of breast and its venous drainage Describe milk line, development of breast and its anomalies. 	1 LGIS	MCQs

			<ul style="list-style-type: none"> Describe the lymphatic drainage and discuss lymph node stations/ levels the spread of malignant tumors. 		
67.	Breast Histology	Anatomy	<ul style="list-style-type: none"> Describe the gross and microscopic Anatomy of Non-lactating breast <ol style="list-style-type: none"> Breast during pregnancy Breast during lactation Breast after menopause 	1 LGIS	MCQs
68.	Breast Histology	Anatomy	<ul style="list-style-type: none"> Identify the slides under microscope Draw and label the slides showing <ol style="list-style-type: none"> Non-lactating breast Breast during pregnancy Breast during lactation Breast after menopause 	1 Skill lab	OSPE/VIVA
69.	Effect of hormones on breast	Physiology	<ul style="list-style-type: none"> Describe the breast development under the influence of endocrine hormones. Describe the process of milk secretion. Describe the hypothalamic control of prolactin secretion 	1 LGIS	MCQs
70.	Biogenic amines	Biochemistry	<ul style="list-style-type: none"> Explain what biogenic amines are 	1 LGIS	MCQs
71.	Infant feeding	Physiology	<ul style="list-style-type: none"> Describe the process of suppression of female ovarian cycle in nursing mothers. Describe milk Let- down process. 	1 LGIS	MCQs
72.	Hormones acting on breast	Biochemistry	<ul style="list-style-type: none"> Discuss the release & functions of prolactin Describe the synthesis of lactose 	1 LGIS	MCQs
73.	Hormones acting on breast	Pharmacology	<ul style="list-style-type: none"> Enumerate various Prolactin antagonist Discuss the MOA, adverse effects, clinical uses and 	1 LGIS	MCQs

			contraindications of Prolactin antagonist.		
74.	Common breast problems	General Surgery	<ul style="list-style-type: none"> • Define and Classify mastalgia. • Enumerate causes of mastalgia • Enumerate differential diagnosis of mastalgia • Enumerate features in history and clinical examination important for assessment of mastalgia • Enumerate investigations for assessment of mastalgia. • Enumerate treatment options for mastalgia. 	1 LGIS	MCQs
75.	Infant feeding	Pediatrics	<ul style="list-style-type: none"> • Discuss composition of breast milk • Discuss advantages of breast feeding to the baby and mother as compared to bottle feeding • Enumerate techniques of breast feeding • Enumerate signs of good attachment to the breast • Enumerate principles of breastfeeding • Define weaning • Enumerate principles of weaning • Describe the steps of weaning foods 	1 LGIS	MCQs

Learning Resources:

Anatomy

Text Books

1. Regional Anatomy by Snell
2. Embryology by Langman's
3. Snell's Neuro Anatomy
4. Histology by Janquira
5. General Anatomy by Laique Hussain

Reference Books:

6. Clinical Anatomy by Keith L. Moore
7. Histology by Laique Hussain
8. Histology by Difiore
9. Student Gray's
10. Embryology by Keith L. Moore

Physiology

11. Text Book of Medical Physiology by Guyton & Hall
12. Physiology by Lippincott

Biochemistry

13. Lippincott Biochemistry.
14. Harper's Biochemistry
15. Mushtaq's Biochemistry

Pathology

16. Pathologic Basis of Disease by Robbins and Cotran.

Pharmacology

17. Lippincott pharmacology.
18. Katzung Pharmacology. Biochemistry

Behavioural Sciences

19. Introduction to Psychology by Edward. E Smith.
20. Behavioural Science by Lippincott Williams.

Community Medicine

21. Text book of Preventive and Social Medicine by JE. Park

Medicine

22. Davidson's Text book of Medicine

Surgery

23. Text book of Surgery by Bailey & Love



**FOR ENQUIRIES CONTACT:
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**STUDY GUIDE, REPRODUCTION & BREAST MODULE FOR 2ND YEAR MBBS, RAWAL INSTITUTE
OF HEALTH SCIENCES ISLAMABAD**