

SWARNAMOYEE JOGIENDRANATH MAHA VIDYALAYA
 DEPARTMENT OF PHYSIOLOGY
 DEPARTMENTAL TEACHING PLAN FOR SESSION: 2023-24

TEACHERS NAME: Seblina Pradhan

SEMESTER : 3rd Sem

PAPER : DSC-10

| SL. NO | COURSE NUMBER: DSC-10 (CC-3) TOPIC: NERVE-MUSCLE PHYSIOLOGY, NERVOUS SYSTEM, SKIN AND BODY TEMPERATURE REGULATION | APPROXIMATE NUMBER OF CLASSES TO BE TAKEN TO COMPLETE |
|------------------|--|---|
| THEORY | | |
| 1. | Nerve-Muscle Physiology | 25 |
| 2. | Nervous System. | 25 |
| 3. | Skin and Body temperature regulation. | 7 |
| PRACTICAL | | |
| 1. | Isolation and Staining of nerve fibres with nodes of Ranvier (AGNOS) | 2 |
| 2. | Staining of skeletal and cardiac muscles by Methylene Blue stain. | 2 |
| 3. | Measurement of grip strength. | 1 |
| 4. | Recording of body temperature | 1 |
| 5. | To study the response of the skin to blunt injury (tripk response) demonstration. | 1 |
| 6. | Experiments on Superficial (Plantar) and deep (Knee jerk) reflex. | 2 |
| 7. | Reaction time by stick drop test. | 1 |
| 8. | Two point discrimination test. | 1 |
| 9. | Study of kymograph, including cold, key and other instruments used to study mechanical response of skeletal muscle. | 1 |

| SL NO. | COURSE NUMBER: DSC-1CC(CO-3) | APPROXIMATE NUMBERS OF CLASSES TO BE TAKEN TO COMPLETE |
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| 10. | Kymographic recording of mechanical responses of gastrocnemius muscle to a single stimulus and two successive stimuli. | 1 |
| 11. | Kymographic recording of the effects of variations of temperature and load (after load) on single muscle twitch. | 1 |
| 12. | Calculation of work done by the muscle. | 1 |

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TEACHERS NAME: Deblina Paulhan
 SEMESTER: 1st Sem (Minor)
 PAPER: MI-1

| S.NO | COURSE NUMBER: MI-1 (INTRODUCTION TO PHYSIOLOGY - I) TOPIC: BLOOD, BODY FLUID AND FUNDAMENTAL CONCEPT OF IMMUNE SYSTEM, CARDIOVASCULAR SYSTEM, PHYSIOLOGY OF RESPIRATORY SYSTEM THEORY | APPROXIMATE NUMBERS OF CLASSES TO BE TAKEN TO COMPLETE |
|-----------|---|--|
| 1. | Blood, body fluid and Immune System. | 1 |
| 2. | Blood, body fluid | 15 |
| 3. | Fundamental Concept of Immune System. | 15 |
| 4. | Cardiovascular System | 15 |
| 5. | Physiology of Respiratory System | 10 |
| PRACTICAL | | |
| 1. | Preparation of blood film of your own blood. Staining of the blood film with Leishman's stain. | 2 |
| 2. | Identification of different types of blood corpuscles. | 2 |
| 3. | Determination of TC of RBC and WBC by haemocytometer. | 2 |
| 4. | Differential count of WBC. | 2 |
| 5. | Determination of Blood Groups | 2 |
| 6. | Determination of ESR of human Blood. | 1 |

| Sl. No. | COURSE NUMBER: MI-1 (INTRODUCTION TO PHYSIOLOGY-I) | APPROXIMATE NUMBERS OF CLASSES TO BE TAKEN TO COMPLETE |
|---------|---|--|
| | TOPIC: BLOOD, BODY FLUID AND FUNDAMENTAL CONCEPT OF IMMUNE SYSTEM, CARDIO VASCULAR SYSTEM, PHYSIOLOGY OF RESPIRATORY SYSTEM | |
| 7. | Estimation of haemoglobin by haemoglobinometer. | 2 |
| 8. | Preparation of haem in crystals. | 2 |
| 9. | Determination of clotting time, bleeding time, Prothrombin time. | 1 |
| 10. | Measurement of arterial blood pressure by sphygmomanometer test, Calculate the mean arterial blood pressure (MAP) | 2 |
| 11. | Measurement of heart rate and pulse rate (30 beats method) during rest condition. | 1 |
| 12. | Measurement and study of blood pressure with the changes of postures (standing, supine, sitting) | 1 |
| 13. | Study of pulse rate as an effect of breath holding. | 1 |
| 14. | Study of pulse rate with the variation of static work load. | 1 |
| 15. | Determination of physical fitness index (PFI) of an individual by Modified Harvard Step test | 2 |

TEACHERS NAME : Seelina Pradhan
SEMESTER : 4th SEM
PAPER : DSC-1D

| SL. NO. | COURSE NUMBER: DSC-1D (CC-A) | APPROXIMATE NUMBER OF CLASSES TO BE TAKEN TO COMPLETE |
|---------|--|---|
| | TOPIC : SENSORY PHYSIOLOGY, ENDOCRINOLOGY AND REPRODUCTIVE PHYSIOLOGY RENAL PHYSIOLOGY. | |
| | THEORY | |
| 1. | Sensory Physiology. | 3 |
| 2. | Olfaction and Gustation. | 4 |
| 3. | Audition and Equilibrium. | 4 |
| 4. | Vision. | 7 |
| 5. | Endocrinology. | 6 |
| 6. | Hypothalamo-hypophysial axis. | 4 |
| 7. | Pituitary gland. | 5 |
| 8. | Thyroid gland. | 4 |
| 9. | Parathyroid gland. | 2 |
| 10. | Adrenal Cortex. | 2 |
| 11. | Adrenal Medulla. | 2 |
| 12. | Pancreas. | 3 |

| Sl. No. | COURSE NUMBER: DSC - 1D (CC-1) | APPROXIMATE NUMBERS OF CLASSES TO BE TAKEN TO COMPLETE |
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TOPIC: SENSORY PHYSIOLOGY, ENDOCRINOLOGY AND REPRODUCTIVE PHYSIOLOGY, RENAL PHYSIOLOGY

| | | |
|-----|-------------------------|----|
| 13. | Reproductive physiology | 10 |
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|-----|------------------|---|
| 14. | Renal physiology | 6 |
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PRACTICAL

| | | |
|----|---|---|
| 1. | Staining and identification of kidney and uterus. | 2 |
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| 2. | Silver nitrate preparation of corneal cell space. | 2 |
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| 3. | Study of estrous cycle. | 1 |
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| 4. | Identification of normal and abnormal constituents of urine | 1 |
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|----|----------------------------|---|
| 5. | Tests for urinary deposits | 1 |
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| 6. | Estimation of albumin in urine | 2 |
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|----|---|---|
| 7. | Detection of specific gravity of urine. | 1 |
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| 8. | Determination of visual acuity by Snellen's chart / Landolt's chart. | 1 |
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|----|---|---|
| 9. | Determination of colour blindness by Ishihara chart | 1 |
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| Sl. NO. | COURSE NUMBER: ISC-IB (CE-1) | APPROXIMATE NUMBER OF CLASSES TO BE TAKEN TO COMPLETE |
|---------|--|---|
| | TOPIC: SENSORY PHYSIOLOGY, ENDOCRINOLOGY, AND REPRODUCTIVE PHYSIOLOGY, RENAL PHYSIOLOGY. | |
| 10. | Exploration of conductive and Perceptive deafness by tuning Fork method. | 1 |
| 11. | Sperm Count and Sperm motility in rat. | 1 |
| 12. | Study of the effects of oxytocin on uterine contraction. | 1 |
| 13. | Study of the effects of adrenaline on intestinal / uterine movements. | 1 |
| 14. | Estimation of estrogen by Spectrophotometric method. | 2 |
| 15. | Pregnancy test from human urine by kit method. | 2 |
| 16. | Quantitative estimation of urea in Urine. | 2 |
| 17. | Surgical techniques Principles of surgery in endocrinology, Ovariectomy, hysterectomy, castration and vasectomy in rats. | 2 |
| 18. | Human vaginal exfoliate cytology. | 1 |

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TEACHERS NAME : Jeblina Pradhan.
 SEMESTER : 2nd Sem (MINS)

| SL. NO. | COURSE NUMBER: MI-2 (INTRODUCTION TO PHYSIOLOGY-II) | APPROXIMATE NUMBERS OF CLASSES TO BE TAKEN TO COMPLETE |
|-----------|---|--|
| THEORY | | |
| 1. | Cellular Physiology. | 10 |
| 2. | Biophysical Principles. | 15 |
| 3. | Chemistry of Biomolecules. | 20 |
| 4. | Overview of Digestive System and Metabolism. | 15 |
| PRACTICAL | | |
| 1. | Fresh tissue experiments. | 8 |
| 2. | Measurement of pH of various solutions using pH indicators and meter. | 2 |
| 3. | Preparations and study the properties of different buffer solutions. | 2 |

Rand 18/10/2023
 PRINCIPAL

Principal
 Swarnamoyee Jogendranath Mahavidyalaya
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J. Pradhan
 13/10/2023

HOD

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