



# GURUGRAM UNIVERSITY, GURUGRAM

(A State Govt. University established under Haryana Act 17 of 2017)

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GUG/Estt/T-10/2023/ 17 11

Dated : 29-12-2023

## NOTICE

**Subject :** Syllabus for written test for the post of Assistant Professor (on contract basis) to be engaged vide Advt. No. ET-10/2023.

**Reference :** The Advt. no. ET-10/2023 dt. 22.12.2023 vide which online applications for teaching posts on contract basis in various subject/disciplines were invited.

In continuation with the above referred advertisement, all candidates are hereby informed that the syllabus for the written test for the teaching post (on contract basis) in various disciplines are as follows:-

Sr.no.	Discipline/Subject	Syllabus
1	Physiotherapy	Attached at annexure-A
2	Pharmaceutical Sciences	As per latest GPAT
3	Management, Economics, Commerce and Psychology	As per latest NET
4	Computer Engg. and Electronic Engg.	As per latest GATE

Further informed that the written test will comprise of 50 multiple choice questions having one and only one correct option which are to be attempted in 01 hrs. It will be mandatory to secure a minimum of 50% marks (47.5% for SC/ST/PwD category) in this written test and the applications of only those who qualifies the written test will be entertained for evaluation of their eligibility and interview thereof, respectively. The schedule of written test will be notified shortly. All the applicants are advised to keep visiting University website for updates, if any.

Deputy Registrar (Estt)  
For Registrar

Copy to;

- I/C for uploading on university website.

**Syllabus for Asst Professor (Physiotherapy-Contractual-Advertisement No-  
ET-10/2023)**

**Cardiothoracic & Pulmonary Conditions**

1. Cardio-pulmonary assessment i) History taking ii) Observation iii) Palpation iv) Auscultation v) Percussion vi) Functional ability 2. Relevant diagnosis tests (for practical knowledge only) i) Hematology ii) ABG analysis iii) Spirometry iv) Invasive and Non-invasive techniques v) ECG vi) Echocardiography vii) Imaging • Plain X-ray • Computed Tomography • Magnetic resonance imaging viii) Cardiac catheterization ix) Radio nuclide Scanning x) Stress testing xi) Lung Function Testing xii) Biofeedback xiii) Humidification and Aerosol Therapy.

CARDIOLOGY i) Assessment of system of heart disease ii) Disorders of cardiac rate rhythm and conduction iii) Cardiac Arrest Course Code Subject MPT 03 Physiotherapy management of cardiopulmonary conditions 55 | P a g e iv) Shock v) Shock vi) Rheumatic fever vii) Congenital Heart Values viii) Disease of Heart Values ix) Infective endocarditis x) Ischemic heart disease xi) Hypertension xii) Ortho static hypertension xiii) C.P.R xiv) Pericarditis xv) Heart disease in pregnancy xvi) Inflammatory arterial disease xvii) Raynaud's Disease xviii) Venous Thrombosis xix) Peripheral Vascular Disease xx) Cardiomyopathy xxi) Disease of the pericardium PULMONOLOGY i. Obstructive Pulmonary Disease ii. Infections of the respiratory System iii. Interstitial and Infiltrative Pulmonary Diseases. iv. Pulmonary Disease due to Exposure to Organic an Inorganic Pollutants v. Pulmonary Disorders due to Systemic Inflammatory disease vi. Pulmonary Vascular disease vii. Disease of the Pleura viii. Respiratory Failure ix. Supplementary Oxygen and Oxygen Delivery in chronic Respiratory disease x. Neuromuscular Atrophic, Poliomyelitis, Motor Neuron Disease. Kyphoscoliosis Pectus carinatum, Pectus Excavatum xi. Pathophysiology of Paralytic-Restrictive Pulmonary Syndromes xii. Conventional Approaches to Managing Neuromuscular Ventilatory Failure xiii. Mechanical Ventilation: Concepts, Physiological effects and Complications CARDIOTHORACIC SURGERIES 1. Closed versus open Heart Surgeries 2 Incisions 3 Preoperative Assessment of Patients 4 Pre and Post-Operative Blood Exchange 5 Hemodynamics Performance of Patient 6 Emergencies in CTVS 7 AV Shunts 8 Heart Transplant 9 Left Ventricular Assistive Devises 10 Procedure on Sternum, Chest wall Diaphragm, Mediastinum and Esophagus 11 Cardiopulmonary Bypass 12 Maintaining and Removing Artificial always 13 All Pulmonary Surgeries like Lobectomy, Pneumonectomy Pleurectomy, Thoracotomy etc.

**Women's Health**

1. Historical insights female nomenclature 2. General female anatomy • The female breast • The female abdomen • The female pelvis • The bony pelvis • Biomechanics of the female pelvis • The reproductive tract • The abdominal muscles 3. Obstetric Concerns • Pelvic axes, position, obstetric diameters and shape • Abnormal bony pelvis • Mechanical Impact of the fetus on anatomic relations • influence of fetal weight on blood supply • Influence of fetal weight and postural changes • Hormonal impact of pregnancy on anatomic relations 4. Gynecologic concerns • Contents of the pelvic cavity • The urinary tract • The anorectal region • Neuroanatomy and neurophysiology of pelvic floor • Muscles of the pelvis and pelvic floor/ diaphragm • The perineum/external genitalia Part II The Adolescence Female Unit 1. Puberty and menarche. 2. Eating disorders 3. Urinary dysfunction in adolescence. 4. Diet for adolescence. Part III Physiology of Pregnancy Unit 1. The endocrine physiology related to reproductive

medicine 2. Physiology of ovulation and menstruation 3. Pregnancy and fetal development 4. Physical and physiological changes during pregnancy • Endocrine system • Reproductive system • Cardiovascular system • Respiratory system • Breasts • Skin • Gastrointestinal system • Nervous system • Urinary system • Musculoskeletal system Part IV Antenatal Period Unit 1. Pregnancy tests 2. Antenatal care 3. Antenatal education 4. Pre conceptual care 5. Diet and weight gain 6. Planning and leading labor and parent craft classes 7. Antenatal complications 8. High risk pregnancy 9. Urinary dysfunction during pregnancy 10. Adaptation of mother following musculoskeletal changes during pregnancy. Part V. The Physical and Physiological Changes during Labor and Puerperium Unit 1. Physical and physiological changes 2. Events of normal labor 3. Complications of labor 4. Post natal physical and mental condition 5. Psychological and emotional changes and coping with the demands of newborn Part VI Climacteric Unit 1. Physiological and endocrine changes of the menopause 2. Menopausal systemic changes and their management 3. Physical, psychological and emotional symptoms 4. Urinary dysfunction. Part VII Common Gynecological Conditions Unit 1. Gynecological health 2. Gynecological disorders and its management and PT treatment • Infective conditions • Cysts and new growths • Displacements and genital prolapsed • Disorders associated with menstruation • Back ache and abdominal pain • Polycystic ovarian syndrome • Infertility • Premature ovarian failure/Premature menopause • Psychosexual problems • Vulvodynia Part VIII Urinary Function and Dysfunction Unit 1. Normal urinary tract function 2. Lower urinary tract dysfunction 3. Incontinence of urine – common types 4. Voiding difficulties 5. Principles of urodynamic, radiological and electromyographical investigations 6. Pregnancy, childbirth and urinary incontinence Part IX Bowel and Anorectal Function and Dysfunction Unit 1. Normal bowel function 2. Bowel and anorectal dysfunction 3. Childbirth and anal incontinence Part XI Oncologic Issues with Women's Health Unit 1. Breast cancer and lymphodema Module II Physiotherapy Assessment Part X Assessment Unit 1. Antenatal period • Routine assessment • Evaluation of maternal musculoskeletal disorders 2. Assessment during labor 3. Postnatal period • Routine Assessment • Evaluation of postnatal problems 4. Pelvic floor assessment • Measurement of pelvic floor muscle function and strength and pelvic organ Prolapse Assessment of pelvic pain 6. Bladder and bowel dysfunction • Assessment of urinary dysfunction • Assessment of urinary incontinence in neurologically impaired patients • Physiotherapy assessment for fecal incontinence and bowel dysfunction 7. Pre and post operative assessment for gynaecological surgery 8. Assessment of lymphodema and osteoporosis.

### Sports & Rehabilitation

Emergency sports evaluation, biomechanics of running and jumping, medical problems of athletes, female athletic triad, emergency care athletes first aid and cardiopulmonary resuscitation, sports specific injury pattern -cricket, tennis, football, sports injuries to lower limb, spine, internal and external bleeding, role of physical exercise in high blood pressure & diabetic athlete, biomechanic and injury to cricket, Judo, tennis, badminton, swimming, Cyriax mobilization technique for peripheral joints and spine, capsular stretching, principle of Pilates, structural and functional adaptations to resistance training, environmental stress on exercise performance- medium and high altitude, thermal stress, energy expenditure during walking running and swimming.