

SCHEME AND SYLLABUS OF EXAMINATION FOR THE PURPOSE OF FILLING UP THE POST OF EMERGENCY AND TRAUMA TECHNICIAN UNDER THE SIKKIM STATE SUBORDINATE ALLIED AND HEALTHCARE SERVICE.

I. The mode of examination and setting-up of question-papers shall be both, i.e., conventional type and objectives type MCQs in paper I and II. The candidates are required to answer the objective type MCQs in the OMR Sheets and are required to follow the guidelines provided in the OMR Sheet while answering the questions.

II. The subject wise allotment of maximum marks shall be as under:

Syllabus:-		
General English	PAPER I	50 marks
General Knowledge		30 marks
Main Paper Emergency and Trauma Technician course	PAPER II	100 marks
TOTAL		180 marks
Viva voce/ interview		20 marks
Grand Total		200 marks

III. Syllabus for written examination for Emergency and Trauma Technician :-

Sl. No.	Course	
01	02	03
01	GENERAL ANATOMY & PHYSIOLOGY	01. Head , Neck & Brain 02. Upper limb anatomy 03. Visral organ of abdomen 04. Lower limb anatomy 05. Thorax:- a). Anatomy of upper respiratory tract (nose, oral cavity, pharynx , larynx). b). Anatomy of lower respiratory tract (trachea, bronchi , hilum , bronchial tree, alveolus).Anatomy of thoracic cage (bone , muscle, innervations. c). Anatomy of lung (pleura, lobes). 06. Cardiac Anatomy:- Pericardium , myocardium, endocardium, valves, chamber vascular system. 07. Respiratory physiology:- Physiology of breathing, Respiratory gas exchange, transport of O ₂ , CO ₂ . Acid base balance. 08. Cardio vascular physiology:- Heart sound, cardiac cycle , cardiac output, cardiac conducting system , blood pressure. Physiology of E.C.G..
02	APPLIED ANATOMY & PHYSIOLOGY	Respiratory system:- Medical terminology , pleura, lobes of long, bronchopulmonary tree, passage to deliver artificial respiratory gases, Surface marking of lungs, approach to different lobes, method of pulmonary drain , nebulization process, homeostasis, lung volume, O ₂ transport abnormality, CO ₂ transport abnormalities, ventilation and perfusion V/Q ratio, acid base balance , pulmonary function test, ABG.
		Regional circulation:- Coronary, cerebral, splanchnic regulation of rate, basic arrhythmias, Principles of ECG, Hypertension, mean pulse pressure , central line , central veions pressure ,CVP monitoring, Basic electrolytes
		CNS :- Central , peripheral and autonomic nervous system, pain pathway and pain modulation, Metabolic requirement of the brain ,consciousness, coma, brain injury, sedetion ,

03	PHARMACOLOGY	GENERAL PHARMACOLOGY – Defination , pharmacokinetics & pharmacodynamics, Adverse drug effects.
		RESPIRATORY SYSTEM DRUG – i). Drugs use for cough & bronehial asthma. ii). Drugs used for nebulization.
		DRUG ACTING ON CENTRAL NERVOUS SYSTEM – General anaesthesia , sedative- Hypnotics, drugs.
		DRUG ACTING ON KIDNEY – Diuretics & Anti diuretics drugs
		DRUGS AFFECTING BLOOD FORMATION – anticoagulants, antithrombotic & antiplatelet drugs.
		CARDIOVASCULAR DRUG – Cardiac glycosides and drug for CHF, Antiarrhythmic drug, antianginal& anti ischemic drugs, antihypertensive drugs.
		ESSENTIAL DRUG & DRUG USED IN EMERGENCY – Cardiac glycosides and drug for CHF, Antiarrhythmic drug, antianginal&antiischemic drug, antihypertensive drugs.
		EMERGENCY DRUGS i). Adrenaline : Mode or administration, dilution, dosage, ii).Isoprenaline iii). Atropine, bicarbonate, calcium, ephedrine, xylocard, iv).Ionotropes : dopamine, dobutamine, amidaron v). Aminophylline, hydrocortisone, antihistamlnics, potassium. vi). Cardiovascular drugs vii). Antihypertensives viii). Antiarhythmics ix). Beta - Blockers x).Ca - Channel blockers. xi). Vasodilators - nitroglycerin& sodium nitroprusside xii). Respiratory system - Bronchodilators, respiratory stimulants. Bronchiolytic agents xiii). Renal system - Diuretics,furoseמידe,mannitol
04	BASIC OF CRITICAL CARE SERVICES	i). Introduction ii). Cardiopulmonary resuscitation- basic & advanced iii). Advanced cardiac life support iv). Oxygen therapy v). Aerosol therapy vi). Mechanical ventilation vii). Patient para monitoring viii). Complication in ICU care ix). Nutrition for critically ill patients x). ICU infection xi). Ethics &behavior in ICU
05	CLINICAL MEDICINE	PUBLIC HEALTH i). Introduction of community medicine ii). Transmission of disease iii). Preventive of Disease iv). Principle of prevention of control & disease v). Hospital infection and & control of infection Disease vi). Hospital west management vii). Communicable disease viii). Health education & promotion ix). Accident as non communicable disease
		PATIENT CARE i). History taking ii). Physical examination iii). The unconscious patient iv). Diagnosis of emergency v). Diagnosis to brain death

		vi). Case presentation	75
		MEDICAL CARE i). Introduction of medical care & health care system ii). Hospital staff patient relationship iii). hemodynamics iv). First aid & emergency care	
06	CHAIN OF SURVIVAL IN EMERGENCY		
07	EMERGENCY MEDICAL SUPPORT & LIFE SAVING DRUGS		
08	TRIAGE -TECHNOLOGY	TRIAGE AND GENERAL EMERGENCIES i). Hospital infection ii). Shock, dehydration iii). Hypoglycemia&hyperglycemia iv). Anaphylaxis v). Extremity trauma vi). Head trauma vii). General traumatic condition viii). Spine injury ix). Chest injury x). Abdomen trauma xi). Bleeding condition xii). Oxygen Therapy xiii). IV fluid xiv). Sodium bicarbonate xv). rehydration Therapy xvi). Administration of xvii). Administration of Adrenalin xviii). Administration of atropine xix). Administration of antifailure xx). Blood transfusion xxi). BCLS(basic cardiac life Support) xxii). ACLS (Advance cardiac life Support)	
09	EQUIPMENT IN EMERGENCY	i). BP operatus ii). Pulse Oximeter iii). Thermometer iv). Personal Protective equipment v). MPM monitor vi). ABG Analyzer vii). Syringe pump viii). Infusion pump ix). maintenance therapy x). Glucometer xi). Defibrillator xii). Suction aperture xiii). Airway xiv). Trolley xv). Crash chart & their application xvi). Cervical collar xvii). Spine board/ scoop xviii). Stretcher xix). Pelvic binder.	



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