



Jharkhand State Paramedical Council

RIMS Campus, Bariatu, RANCHI 834009

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Basics of Computer (Practical)

Module 1: Introduction to Microsoft Word

Type a text of document save the document. Align the text with different formats. Align the text with different formats using Microsoft Word. Inserting a table ensuring Proper alignment of the table using MS word.

Module 2: Microsoft Power Point

Preparing a slide show with transition, animation and sound effect using MS – Power point. Customizing the slide show by inserting pictures and tables in the slides using MS – Power Point.

Module 3: Introduction to the Internet

Create an e – mail account. Use the internet to search for a subject of interest.

Theory Paper II (100 Marks)

Part A (50 marks)

Diploma in Cath. Lab. Technician

1. Electrocardiography (ECG)
 - (a) ECG Machine
 - (i) knowledge of ECG Machine and its different compartments
 - (ii) Operation and Maintenance of ECG machine
 - (iii) Identification of basic defects and repair
 - (b) Electrocardiography
 - (i) Electrophysiology
 - (ii) Einthoven's Law
 - (iii) 12 lead System & Standard limbs & Proper technique of its application
 - (iv) Recording of ECG
 - (v) Removal of leads
 - (vi) Interpretation of Normal and Abnormal ECG
 - (vii) Calculation of Heart-rate from an ECG tracing
 - (viii) Pitfalls in recording of ECG
 - (ix) Stress ECG – Protocol, Procedure, indication and contraindication
2. Hemodynamics Monitor and concepts of hemodynamic monitoring, Blood Pressure recording pluse oximeter
3. Ventilators
 - (i) Introduction to ventil ators
 - (ii) Indication for use
 - (iii) Modes of ventilation
4. Defibrillation
 - (i) Indication of defibrillation use



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(ii) Procedure

(a) direct current show

(b) Type – Monophasic and biphasic shock

(iv) Technique and indication of cardioversion

(v) complication of defrillation

5. Medical Ultrasound and Doppler

- Electrocardigraphic processing and display system

6. Radiology

(i) Principles of X-ray

(ii) Description and recognition of chest X-Ray

(iii) Different views of chest for identification of cardiopulmonary structure

(iv) Measure to reduce and protect from radiation exposure

7. Holter

(i) Indruduction to Holter test

(ii) Indications

(iii) Procedure of Holter test

(iv) Precautions to be token during holter testing

(v) Principle of Holter recording

(vi) Conncections of the Holter recorder

(vii) Holter analysis

(viii) Guidelines for ambulatory holter

Part B (50 Marks)

1. Diseases of Heart

(i) Congenital

(ii) Rheumatic

(iii) Myocardial and Pericardial

(iv) Coronary artery diseases

(v) Hypertension

(vi) Pulmonary thromboembolism and pulmomyary hypertension

(vii) Respiratroy failure

2. Arterial Blood gases – Technique and interpretation

3. Hemodynamic monitoring – Technique, recognition, indication, complication



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Part B (50 Marks)

1. Diseases of Heart
 - (i) congenital
 - (ii) Rheumatic
 - (iii) Myocard and Pericardial
 - (iv) Coronary artery diseases
 - (v) Hypertension
 - (vi) Pulmonary thromboembolism and Pulmonary hypertension
 - (vii) Respiratory failure
2. Arterial Blood gases – Technique and interpretation
3. Hemodynamic monitoring – Technique, recognition
4. Fluid and electrolytes
5. X-Ray imaging in cath lab
6. Intra aortic balloon – pulsation – Indication, Technique and complication
7. Cardiac catheterization
 - (i) Introduction
 - (ii) Equipments and catheters
 - (iii) catheter cleaning and packing
 - (iv) setting up cardiac catheter laboratory for diagnostic study
 - (v) Table Movement
 - (vi) Angioscopy – X-Ray generating system
 - Image intensifier
 - C-Arm
 - Constant Pressure injector
 - (vii) Transducer
 - (viii) Percutaneous transluminal coronary
 - Indications contra indications, instrument and Procedure failure
 - (ix) Percutaneous transluminal coronary angioplasty
 - Indication, instrument, contraindication and procedure
 - (x) Precath evaluation with clean list
 - (xi) Post cardiac catheterization management
8. Coronary angiographic
 - (i) coronary angiographic catheter
 - (ii) Angiographic views in coronary angiographic
 - (iii) Pre and Post procedural care
9. Pacemakers



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- (i) Definition
 - (ii) Indication
 - (iii) Modes
 - (iv) Types – temporary & Permanent
 - (v) Parts of pacemaker
 - (vi) Permanent pacemaker indications contraindication & Procedure
10. Basic life support
- (i) Cardiopulmonary resuscitation
 - (ii) Basic of recognition of Myocardial infarction, arrhythmias and cardiac disturbances

PRATICAL : (100 MARKS)

VIVA : (100 MARKS)



झारखण्ड राज्य पारामेडिकल परिषद

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सभी डिप्लोमा पाठ्यक्रमों का Paper-I, Common रहेगा, जबकी
विषयवार Paper-II का सिलेबस अलग-अलग रहेगा।
