

**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Basic Medical Assistance and Nursing Care (CBMANC)**  
**PAPER-I**

Time : 3 Hours.

Full Marks : 80

*Answer Eight questions in all, selecting at least Four questions from each Group.  
All questions carry equal marks.*

***Group-'A'***

1. Draw the diagram of Heart. Write about the Conduction system of heart. 10
2. Write about pulmonary circulation and systemic circulation. 10
3. Describe about nervous system explained about Brain. 10
4. What are the Endocrine glands present in the body Explain about thyroid gland. 10
5. Write short note on:- 10
  - (a) Intracath
  - (b) Platelet

***Group-'B'***

6. Write short note on:- 10
  - (a) CSF
  - (b) Pancreas
7. What is Blood. What are the function of blood and Explain about its components. 10
8. What are parts of digestive system & write about the stomach. 10
9. What is Respiratory system Draw the Diagram of lungs & Explained its function. 10
10. Write about male Reproductive system. 10



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Basic Medical Assistance and Nursing Care (CBMANC)**  
**PAPER-II**

Time : 3 Hours.

Full Marks : 80

*Answer Eight questions in all, selecting at least Four questions from each Group.  
All questions carry equal marks.*

**Group-'A'**

- |    |   |    |
|----|---|----|
| 1. | Explained about different routes of drug Administration.                          | 10 |
| 2. | What are basic equipments required for treatment of a patient and their function. | 10 |
| 3. | What is Pulse? What are the observations to be made while examining the Pulse?    | 10 |
| 4. | What is CPR? What are the steps of CPR?   | 10 |
| 5. | Write short note on: -  | 10 |
|    | (a) BP instruments  |    |
|    | (b) Air way   |    |

**Group-'B'**

- |     |  |    |
|-----|--|----|
| 6.  | Describe briefly about recording of body temperature. Mention the Sites for recording body temperature.    | 10 |
| 7.  | Describe in brief the steps of Intravenous injection and mention common sites of intravenous injection.    | 10 |
| 8.  | What is Blood Pressure? Write about systolic & diastolic blood pressure. Write the name of BP instruments. | 10 |
| 9.  | Give brief description of ECG recording techniques.  | 10 |
| 10. | Write short on:  | 10 |
|     | (a) Collection of blood sample by prick method.  |    |
|     | (b) First Aid  |    |



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Basic Medical Assistance and Nursing Care (CBMANC)**  
**PAPER-III**

Time : 3 Hours.

Full Marks : 80

*Answer Eight questions in all, selecting at least Four questions from each Group.  
All questions carry equal marks.*

**Group-'A'**

1. What is First Aid? What are the objectives and principles of First Aid ? 10
2. Define Fracture? How you should care of a fracture patient. 10
3. What is wound? Describe about the different types of wound. 10
4. What do you mean by Bleeding? Classify the different types of Bleeding. What are the three simple measure the first aider can help to stop bleeding? 10
5. Write short note on:- 10
  - (a) Preoperative preparation of a patient
  - (b) Bandage

**Group-'B'**

6. Write short on: 10
  - (a) Observation of a Patient
  - (b) Dislocation
7. Describe briefly about Bandage? 10
8. Describe in brief about ABCD. 10
9. What is vital sign? What are the vital sign you should take of a head injury patient. 10
10. What do you mean by Dressing? Explain the General rules for applying Dressing. 10



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Dental and Oral Hygiene (CDOH)**  
**PAPER-I**

**(General Dental Anatomy, Pharmacology and Oral Embryology)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Eight Questions. All questions carry equal marks.*

1. Discuss the responsibilities of dental assistant.
2. Name and describe the muscles of mastication.
3. What is local anesthesia and its mode of actions?
4. What are the difference between maxillary and mandibular molars?
5. Describe different types of teeth and their function.
6. What do you mean by the periodontal ligament? Describe the function of periodontal ligament.
7. Describe three stages of growth period of tooth.
8. Describe enamel and dentine in details.
9. Discuss the structures of face and oral cavity.
10. Show with figure, the anatomic parts of tooth.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Dental and Oral Hygiene (CDOH)**  
**PAPER-II**  
**(Basic Periodontia And Preventive Dentistry)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Eight Questions. All questions carry equal marks.*

1. What are Cariogenic Foods and how it creates cavity?
2. What is gingivectomy? What post gingivectomy instructions are to be given to the patient?
3. Describe scaling and root planning.
4. Describe the functions of periodontal ligament.
5. Describe different types of periodontal dressing.
6. Write in details about supra and sub gingival plaque.
7. Describe different methods of fluoride applications.
8. Write short notes on:-
  - (a) Dental Prophylaxes
  - (b) Periodontal Probing
9. What are interdental cleaning aids and how effectively it cleans the teeth?
10. Describe the formation of plaque and tarter.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Dental and Oral Hygiene (CDOH)**  
**PAPER-III**  
**(Sterilization and Dental Radiography)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Eight Questions. All questions carry equal marks.*

1. Describe in detail how you clean and sterilize the dental instruments before operation.
2. What are the procedures for cleansing room technique?
3. Discuss the criteria for diagnostic quality radiography.
4. Discuss the different types of accessories used in dental X-ray.
5. What do you mean by R.V.G.? How it is superior to conventional X-ray?
6. Discuss the process of Chemical Vapour Sterilization.
7. Describe about PPF and treatment room preparation procedure.
8. Write short notes on:-
  - (a) Antiseptics
  - (b) Class bead sterilizer.
9. What are critical, semi critical and non-critical items in dentistry?
10. What steps can be taken for laboratory disinfection?



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Medical Laboratory Technique (CMLT)**  
**PAPER-I**

**(Introduction to Laboratory Management and Hematology)**

**Time : 3 Hours.**

**Full Marks : 80**

*Question No. 1 of Section 'A' and Question No. 6 of Section 'B' are compulsory (each carrying 15 marks).  
Answer any 2 questions from Section 'A' and any 3 questions from Section 'B'.*

***Section-'A'***

1. Enumerate the various parameters in complete blood count CBC. Enumerate the steps of manual differential count WBC. 15
2. What do you mean by Accredited Laboratory medicine service? Enumerate five aspects which can increase the productivity of medical laboratory. 10
3. Enumerate the importance of medical waste management. What are the responsibilities of a medical technologist in Biomedical waste management? 10
4. Write short notes on: 10
  - a. Automated Hematology Analyzet.
  - b. Biosafety Cabinet.
5. Enumerate the uses of: 10
  - a. Electronic Centrifuge
  - b. Bio safety Cabinet

***Group-'B'***

6. Enumerate the Various steps for preparation of slide for Differential count of WBC type seen with well labeled diagrams. 15
7. Define Anemia. Enumerate the Blood picture of Aplastic Anemia. 10
8. Write short notes on 10
  - a. Automated ESR
  - b. WBC
  - c. Clotting time
  - d. Target cell
9. Define Leukemia. Enumerate the etiology of CML. 10
10. Fill in the blanks 10
  - a. Bleeding time is done by ..... Method.
  - b. Haemophilia is a type of ..... disorder.
  - c. Thalassemia is a type of ..... Anemia.
  - d. Sickle cell Anemia is diagnosed by .....



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Medical Laboratory Technique (CMLT)**  
**PAPER-II**  
**(Clinical Biochemistry & Serology)**

Time : 3 Hours.

Full Marks : 80

*Question No. 1 of Section 'A' and Question No. 8 of Section 'B' are compulsory (each carrying 15 marks).  
Answer any 5 questions from Section 'A' and any 2 questions from Section 'B'.*

**Section-'A'**

1. Describe the Dip strip method for chemical Examination of Urine. 15
2. Enumerate the various method of pregnancy test. 10
3. Enumerate the Renal function test. 10
4. Define jaundice. Enumerate the liver function test. 10
5. Write short notes on: 10
  - i. Serum Sodium
  - ii. Serum Bilirubin
  - iii. Serum Lipase
  - iv. Serum Calcium
  - v. SGPT
6. Enumerate the various tests done for Diabetes mellitus. 10
7. Write short notes on: 10
  - a. CSF
  - b. Seminal Examination

**Group-'B'**

8. Define Antigen. Antibody Reaction Describe Tube Agglutination test. 15
9. Describe briefly the steps of widal test. 10
10. Write the short notes on: 10
  - a. ELISA
  - b. CRP
11. Fill in the blanks. 10
  - a. Normal value of ASO Titer is .....
  - b. 2 method of detection of Rheumatoid factor are .....
  - c. .... test is done inclia method.
  - d. .... is done Nephelometry.





**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Medical Laboratory Technique (CMLT)**  
**PAPER-III**

**Microbiology (Bacteriology, Parasitology, Mycology, Virology)**

Time : 3 Hours.

Full Marks : 80

*Question No. 1 is compulsory (each carrying 20 marks). Answer any other  
Six questions. All questions carry equal marks.*

1. Enumerate the WHO validated test for pulmonary Tuberculosis. What are the various precautions to be taken in microbiology lab for T. B Cases? 20
2. Classify the different types of bacteria culture media. Write briefly the uses of culture media. 10
3. Enumerate the disease caused by staphylococcus. 10
4. Enumerate the tests done for diagnosis of Typhoid fever. 10
5. Define occult blood in stool. Describe briefly the procedure to demonstrate the presence of occult blood. 10
6. Write short notes on: 10
  - a. Laboratory diagnosis of malaria
  - b. Laboratory diagnosis of Typhoid fever
7. Differentiate between 10
  - a. Hot and Cold Staining for AFB
  - b. E. histolytica & E. Coli
8. Enumerate 10
  - a. 2 DNA Virus
  - b. 2 gram positive cocci
  - c. 2 Sexually transmitted viral disease
  - d. 2 gram negative cocci
  - e. 2 RNA Virus
9. Fill in the Blanks 10
  - a. Botulism is caused by .....
  - b. Diphtheria is caused by .....
  - c. Cholera is caused by .....
  - d. Dengue is caused by .....
  - e. Father of microbiology .....
10. Role of bacteria as biological weapon? 10



**Annual Examination, 2017**  
**Certificate in Medical Laboratory Technique (CMLT)**  
**PAPER-IV**  
**(Histology, Cytology and Blood Banking)**

Time : 3 Hours.

Full Marks : 80

*Question No. 1 of Section 'A' and Question No. 7 of Section 'B' are compulsory (each carrying 15 marks).  
Answer any 4 questions from Section 'A' and any 3 questions from Section 'B'.*

**Section-'A'**

1. Enumerate the steps of Decalcification. What are the main effect of decalcification? 15
2. Describe the method of tissue fixation. 10
3. Describe briefly the method of cellodinembedding. 10
4. Briefly describe the Structure of human cell. 10
5. Write short notes on: 10
  - a. Different stains used in cytology
  - b. Giant Cell
6. Fill in the blanks: 10
  - a. Cryostat is used for .....
  - b. Dark ground illumination done for demonstration of .....
  - c. Cervical cancer is diagnosed by .....
  - d. T. Pallidum is microscopically visible by ..... illumination.
  - e. PAP smear is done to diagnose .....

**Group-'B'**

7. Enumerate the various types of blood grouping method. Describe the method use for slide ABO grouping and Rh typing. 10
8. Describe the procedure for antiglobutin test. 10
9. Enumerate uses of platelet concentrate. 10
10. Write short notes on: 10
  - a. Fresh frozen plasma
  - b. Packed cells



**Certificate in Operation Theatre Assistance (COTA)**  
**PAPER-I**  
**(Anatomy, Physiology & General Pathology)**

**Time: 3 Hours.**

**Full Marks: 80**

*Answer any Eight Questions. Each question carries equal marks.*

1. Describe about structure of Heart and explain about the pulmonary circulation.
2. What is reproductive system? Explain about the female Reproductive system.
3. What are the parts of Digestive system? Describe about stomach.
4. What is Blood? What are the components of Blood & Explain the function of Blood?
5. Write short notes on
  - a. Pancreas
  - b. Liver
6. Write short notes on
  - a. Pituitary gland
  - b. Thyroid gland
7. What is Respiratory system? Draw the Diagram of lungs and explain its function.
8. What do you mean by Nervous system? Explain about different parts of Brain.
9. Write short notes on the following
  - a. Function of kidney
  - b. Biliary System
10. What is cell? Describe about the structure of cell.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Operation Theatre Assistance (COTA)**  
**PAPER-II**  
**(Microbiology, First Aid & Nursing)**

Time: 3 Hours.

Full Marks: 80

*Answer any Eight Questions. Each question carry equal marks.*

**Group-A**

1. What is infection? Explain about different sources and modes of infection. Classify bacteria according to shape. 10
2. What is hepatitis and describe different varieties of hepatitis? 10
3. What is First Aid? What are the objectives and principles of First Aid? 10
4. Define Bandages? What are the general rules of bandaging. Enumerate different types of bandage? 10
5. Write short note on:- 10
  - (a) Diphtheria
  - (b) Cholera

**Group-B**

6. Write short on: 10
  - (a) Sprain
  - (b) Fever
7. Describe about Tuberculosis. 10
8. Explain about ABCDE. 10
9. What is Temperature? Write common sites for taking body temperature and Describe about Thermometer? 10
10. Write short notes on: 10
  - (a) Bleeding
  - (b) Amputations



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Operation Theatre Assistance (COTA)**  
**PAPER-III**

*(Techniques of Operation Theatre Assistance, Equipment's and Instruments)*

Time: 3 Hours.

Full Marks: 80

*Answer any Eight Questions. All question carry equal marks.*

**Group-A**

1. What is sterilization? Explain about different method of sterilization.
2. Explain Scrubbing, Gowning and Gloving Techniques.
3. Define Sutures? What are the different types sutures?
4. What is draping and how it is done?
5. Write short note on:-
  - (a) Catheter
  - (b) Formalin chamber

**Group-B**

6. What are the different positions of patient used in surgery? Explain how it is done and give two examples of operation for each position?
7. Explain the preoperative preparation of a patient?
8. Differentiate between sterilization & Disinfection?
9. Explain about post operative care?
10. Write short on:
  - (a) Drains
  - (b) Endo tracheal tube



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Physiotherapy & Yoga therapy (CPYT)**  
**PAPER-I**  
**(Anatomy, Physiology & Pathology)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any **Two** questions from A Section*  
*Answer any **Two** questions from B Section*  
*Answer any **One** questions from C Section*

**Section 'A'**

1. What are the different types of Muscles? Describe them in details.
2. What do you mean by tissues? Describe the different types of tissues in details.
3. Write short notes on:-
  - a) Pancreas.
  - b) Kidney.
  - c) Endocrine glands.
  - d) Respiratory System.

**Section 'B'**

4. Describe Reproductive System among human being.
5. Discuss the Physiology and Mechanism of Digestion.
6. Write short notes on:-
  - a) Function of Blood.
  - b) Cerebro Spinal Fluid.
  - c) Tracheo-Bronchial Tree.
  - d) Vital Signs.

**Section 'C'**

7. Define Tumor. Discuss the different modes of spread of Tumors.
8. Write short notes on:-
  - a) Causative Bacteria of Tuberculosis & Leprosy.
  - b) Tetanus Toxoid & B.C.G. Vaccine.
  - c) Metastasis.
  - d) Dyspnea.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Physiotherapy & Yoga therapy (CPYT)**  
**PAPER-II**  
**(Physiotherapy and Physiotherapeutic Measures)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Five questions. All questions carry equal marks.*

**Section 'A' (Answer any Three questions)**

1. Describe in details about muscle strengthening technique by Physiotherapeutic means.
2. Describe methods of increasing range of motion of joints following injury.
3. Discuss the muscle responsible for shoulder movements. Describe in brief the cause of stiffness of shoulder.
4. Define Posture. Discuss the factors responsible for assuming good posture.

**Section 'B' (Answer any Two questions)**

5. Describe the methods, precautions and indications for mobilizing Elbow joints.
6. Discuss the role of Physiotherapist and Occupational Therapist in medical rehabilitation.
7. Write short notes on any four of the following:-
  - (a) Conical Traction.
  - (b) Short Wave Diathermy.
  - (c) T.E.N.S.
  - (d) Contrast Bath.
  - (e) Electric Stimulation.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Physiotherapy & Yoga therapy (CPYT)**  
**PAPER-III**  
**(Physiotherapy and Physiotherapeutic Measures)**

**Time: 3 Hours.**

**Full Marks: 80**

*Answer any Five questions. All questions carry equal marks.*

**Section 'A' (Answer any Three questions)**

1. Discuss the technique of Balance Training in Hemiplegic patients.
2. What are the measures taken for treating causes of Low Back Pain? Discuss in details.
3. Define the term Paraplegia. Discuss the causes and complications of Paraplegia.
4. Describe the symptoms and remedies for Periarthritis of Shoulder Joints.
5. What is MRC grading? Describe from 0 to 5 grades of muscle power.

**Section 'B' (Answer any Two questions)**

6. Describe the pre-operative counselling of patients with planned amputaries.
7. Describe the methods of post plaster stiffness of Knee Joint.
8. Write short notes on any four of the following:-
  - (a) Inflammation
  - (b) Pelvic Traction
  - (c) Physiotherapy during immobilization of Joints.
  - (d) Ankle Sprains.
  - (e) Equinus Deformity
  - (f) Scoliosis





**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Physiotherapy & Yoga therapy (CPYT)**  
**PAPER-IV**  
**(Yoga Therapy)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any **Five** questions. All questions carry equal marks.*

1. Discuss the types of Yoga. Distinguish between Yoga and Exercise.
2. Describe the technique of 'Vajra Ashna' and mention its benefits.
3. Discuss the types of 'Suryanamaskar' and mention its benefits.
4. Describe the technique of 'Kapalhati Pranayam' and mention its benefit.
5. Write short notes on:-
  - (a) Manibandha Naman
  - (b) Makrashana
6. Write short notes on:-
  - (a) Yog Mudra
  - (b) Ashwini Mudra
7. Describe the technique of 'Bhramari Pranayam' and mention its benefits.
8. What do you mean by Bandha? Write short notes on three Bandha.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Radiography and Imaging Technique (CRIT)**  
**PAPER-I**  
**(Anatomy, Physiology, and General Pathology)**

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Five Questions. All questions carry equal marks.*

1. Name the different parts of Respiratory organ with mechanism of Respiration.
2. What do you mean by Kidney? Explain about the structure and function of Kidney.
3. Write short notes of the following
  - a. Different types of Blood Cell
  - b. Thrombosis
  - c. Edema
4. What is joint and Explain about different types of joint.
5. What is cell? Draw the diagram of cell and Explain about its function.
6. What is Heart? Draw the Diagram of Heart. Explain about Pulmonary Circulation.
7.
  - a. Define Inflammation.
  - b. Sign of Inflammation.
  - c. Types of Inflammation.
8. Write short notes on any four
  - a. Electro cardiogram
  - b. Cerebrospinal fluid
  - c. Types of blood cells
  - d. Parts Brain
  - e. Mechanism
  - f. Stomach



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Radiography and Imaging Technique (CRIT)**  
**PAPER-II**  
**(Radiation Physics, Radiation Biology and Radiation Safety)**

Time : 3 Hours.

Full Marks : 80

*Answer any Five Questions. All questions carry equal marks.*

1. Describe about cancer cell. Explain properties of a cancer cell.
2. What are Electron, Proton and Neutron? How do they differ from each other?
3. Write short notes on:
  - a. DNA
  - b. Film Badge
4. Discuss the properties Alpha, Beta and Gama Rays.
5. Describe briefly Radiation Hazard Evaluation & Control.
6. Discuss the difference between X-ray and ordinary sun light.
7. Write short notes on any four of the following
  - i. Isotopes
  - ii. Quenching
  - iii. Photo electric absorption
  - iv. Beam filter
  - v. Pair Production
  - vi. TLD Badge
8. Write the difference between decay constant and half life.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Radiography and Imaging Technique (CRIT)**  
**PAPER-III**  
**(Radiographic and Dark Room Technique)**

Time: 3 Hours.

Full Marks: 80

*Answer any Five Questions. All questions carry equal marks.*

1. What do mean by MRI? What are the advantages of MRI? Explain the indication and contraindication of MRI.
2. How many bone present in the body? Write the name of different types of bone. Explain about different types of cartilage.
3. Write short notes on any four of the following:-
  - a. Ultrasonography
  - b. Haemodialysis
  - c. Mammography
  - d. Hyoidbone
  - e. Digital x-ray
4. What are the different types of views used in chest Radiography? Explain various steps in taking anterior posterior and posterior and anterior view of x-ray chest.
5. What is radiation? What are the adverse effect of radiation on human being and how to protect from it?
6. Describe Barium studies including Barium meal without following throgh.
7. Write short notes on any four:-
  - a. PET Scanning
  - b. CT Angiography
  - c. FDG
  - d. Atypical thoracic veftebra
  - e. X-ray.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Electro Cardiography Technique (CECGT)**  
**PAPER-I**  
***Cardio Vascular System and E.C.G. Machine.***

**Time : 3 Hours.**

**Full Marks : 80**

**Answer any Six questions. Question No. 1 is compulsory (carrying 15 marks)  
and other Questions carrying 13 marks.**

1. What is E.C.G.? Discuss the various types of E.C.G. Machine.
2. Discuss the different chambers of heart and name coronary arteries and its main branches.
3. Discuss the different part of conducting system of heart.
4. Discuss about Linearity Sencitivity, Time Constant and Stability or Drift.
5. Write short notes on:-
  - (a) Pericardium and Myocardium
  - (b) Depolarization and Repolarization
6. Write short notes on:-
  - (a) Aortic and Pulmonary Valve
  - (b) Cardiac Innervation
7. Following abbreviation stands for:

(a) LV	(b) AV	(c) IVS
(d) SVC	(e) IAS	(f) LAD



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Electro Cardiography Technique (CECGT)**  
**PAPER-II**  
***Recording and Interpretation of Electro Cardiaogram***

**Time : 3 Hours.**

**Full Marks : 80**

*Answer any Eight questions. All questions carry equal marks.*

1. Discuss the primary function of E.C.G. Machine. Also, describe the recording technique.
2. What E.C.G. Machine? Draw a sketch showing different leads positions of patient body.
3. How would you calculate heart rate per min. in E.C.G. graph by different methods.
4. What are the Artifacts? Describe AC interference. How to solve AC interference?
5. What do you mean by conduction disorder? Describe its features.
6. How would you diagnose LVH and RVH on E.C.G.?
7. Write short notes on:-
  - (a) E.C.G. Paper
  - (b) Q.R.S Axis
  - (c) Normal Valve
  - (d) Q-T Interval
8. Write full form of following:-
  - (a) LBBB
  - (b) PVC
  - (c) AV Block
  - (d) PSVT
  - (e) VF
  - (f) QRS
  - (g) RBBB
  - (h) BAE
  - (i) PAT
  - (j) VT
9. What is Einthoren Triangle? Explain?
10. Describe the changes in E.C.G. after digitalis toxicity.



**NALANDA OPEN UNIVERSITY**  
**Annual Examination, 2017**  
**Certificate in Electro Cardiography Technique (CECGT)**  
**PAPER-III**  
***Cardiovascular Diseases and Extra Cardiac Disorders***  
***Answer any Eight questions. All questions carry equal marks.***

1. What do you mean by myocardial intractation? Describe E.C.G. changes under such condition.
2. What is Pacemaker? If a patient is dependent on Pacemaker, what E.C.G. changes you will observe in his/her E.C.G. during recording?
3. Mention E.C.G. changes in Mitral Stenosis.
4. Mention E.C.G. changes in Pulmonary Embolism.
5. What are the types of bundle branch blocks? Draw separate sketch of both condition.
6. Mention E.C.G. changes in various types of coronary artery diseases.
7. Write short notes on:-
  - (a) Rheumatic Heart disease
  - (b) Digitalis Toxicity
  - (c) Hyperkalemia
  - (d) Hypothermia
8. Write full form of following:-
  - (a) ASD
  - (b) TOF
  - (c) LAHB
  - (d) TMT
  - (e) ESR
  - (f) AVC
  - (g) LAD
  - (h) REM
  - (i) PSVT
  - (j) Rh HD
9. What are conduction disorders of Heart?
10. Discuss the Endocrine diseases affecting E.C.G.

