

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2013
ANTOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 8 = 56)

ANATOMY

- Q. 1.** Boundaries, contents and applied anatomy of the cubital fossa
- Q. 2.** Venous drainage of the lower limb and its applied anatomy

PHYSIOLOGY

- Q. 3.** Define shock & enumerate it's type with suitable examples. Also explain the patho-physiology of hypovolumic shock. (1+2+3=06)
- Q. 4.** Write briefly on: (2 x 4 = 08)
- a.** Muscles of respiration
 - b.** Draw transverse section of spinal chord showing all ascending tracts.
 - c.** Functions of blood
 - d.** Glomerular filtration rate.

PHARMACOLOGY

- Q. 5.** Write short note on parenteral route of drug administration?
- Q. 6.** Write briefly about pre anaesthetic medication?
- Q. 7.** Write short note on Teratogenicity
- Q. 8.** Write short note on Halothane

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2013

ANTOMY, PHYSIOLOGY AND PHARMACOLOGY

PAPER FIRST (MCQ)

Time allotted for MCQ- 30 minutes

B : MCQs (Single response type):

(½ x 28= 14)

Select the most appropriate answer and encircle the alphabet against it

ANATOMY

1. All are features of the large intestine except:-
 - a. Appendices epiploicae
 - b. Haustrations
 - c. Taenia coli
 - d. Villi
2. Patella is an example of :-
 - a. Long bone
 - b. Short bone
 - c. Sesamoid bone
 - d. Flat bone
3. 7th cranial nerve is:-
 - a. Abducent
 - b. Facial
 - c. Hypoglossal
 - d. Trochlear
4. The number of spinal nerves in our body is:-
 - a. 29 pairs
 - b. 31 pairs
 - c. 30 pairs
 - d. 32 pairs
5. All are hamstring muscles except:-
 - a. Biceps femoris
 - b. Semitendinosus
 - c. Adductor magnus
 - d. Sartorius
6. Carcinoma prostate is common in:-
 - a. Apex
 - b. Peripheral zone
 - c. Base
 - d. Central zone
7. Gall bladder pain is referred to:-
 - a. Tip of left shoulder
 - b. Umbilicus
 - c. Back of the neck
 - d. Tip of right shoulder
8. Pulsations of the radial artery are felt against:-
 - a. Head of radius
 - b. Head of ulna
 - c. Lower end of radius
 - d. Styloid process of ulna
9. Number of bronchopulmonary segments in the right lung:-
 - a. 8
 - b. 6
 - c. 10
 - d. 12

10. Apex of the heart is formed by:-

- a. Left atrium
- b. Left ventricle
- c. Right ventricle
- d. Right atrium

11. All are parts of the corpus callosum except:-

- a. Rostrum
- b. Genu
- c. Fornix
- d. Splenium

12. All are branches of external carotid artery except:-

- a. Facial artery
- b. Occipital artery
- c. Lingual artery
- d. Ophthalmic artery

PHYSIOLOGY

13. External mechanism of clotting involves all EXCEPT:

- a. Ca^{++}
- b. Factor X
- c. Factor VII
- d. Factor XI

14. Expiratory muscles of respiration is:

- a. External inter-costal
- b. Serratus anterior
- c. Internal inter costal
- d. Diaphragm

15. 2nd heart sound is produced due to:

- a. Closure of AV valve
- b. Opening of AV valves
- c. Turbulence flow of blood
- d. Closure of semilunar valves

16. Chief cell secretes:

- a. HCL
- b. Pepsinogen
- c. Gastrin
- d. Intrinsic factor

17. Golgi tendon reflex is a type of:

- a. Disynaptic reflex
- b. Polysynaptic reflex
- c. Monosynaptic reflex
- d. Asynaptic reflex

18. Calcitonin is produced by:

- a. Thyroid
- b. Parathyroid
- c. Adrenal medulla
- d. Colon

P.T.O.

19. Cardiac output is defined as volume of blood:

- a. Ejected by both ventricle per min.
- b. Ejected by both ventricle per stroke
- c. Ejected by each ventricle per stroke
- d. Ejected by each ventricle per min.

20. Neuroglia cells are all EXCEPT:

- a. Microglia
- b. Oligodendrocytes
- c. Nephron
- d. Astrocytes

21. Lemniscal system of tracts carries all EXCEPT:

- a. Two point discrimination
- b. Fine touch
- c. Vibration
- d. Temperature

22. Property of cardiac muscle is:

- a. Automaticity
- b. Fatigue
- c. Occlusion
- d. Tetanus

23. The hormone produced in kidney is:

- a. ADH
- b. Aldosterone
- c. Erythropoietin
- d. Angiotensinogen

24. Functional unit of renal system is:

- a. Neuron
- b. Tubules
- c. Nephron
- d. Neuroglia

PHARMACOLOGY

25. Maximum bioavailability is seen with which route of drug administration?

- a. Oral
- b. Intravenous
- c. Transdermal
- d. Subcutaneous

26. Which of the following is a selective COX-2 inhibitor?

- a. Diclofenac
- b. Nimesulide
- c. Rofecoxib
- d. Paracetamol

27. Enzymes are:

- a. Proteins
- b. Chelating agent
- c. Chemical
- d. Antibiotics

28. All of the following are narrow spectrum antimicrobials EXCEPT:

- a. Chloramphenicol
- b. Tetracycline
- c. Cephalosporins
- d. Streptomycin

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2013
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY AND PATIENT CARE / EQUIPMENTS / MACHINES
PAPER TWO

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 9 = 63)

- Q. 1. Enumerate various types of automated hematology cell counters. What type of information you can get from these counters?
- Q. 2. Enumerate various component of blood prepared in blood bank. Write about their clinical indication of uses and how you will store them in Blood Bank.
- Q. 3. Which parameters are included in lipid profile? How you will prepare your patient for lipid profile tests?
- Q. 4.
 - a. What is diabetes? Give normal range of blood sugar levels: Fasting, post prandial and random. (4)
 - b. How you will prepare your patient for fasting and post prandial blood sugar estimation? (3)
- Q. 5. Define sterilization and disinfection. Write briefly on fumigation of OT.
- Q. 6. Write short notes on- (4+3=7)
 - a. Universal precautions.
 - b. Biomedical waste management.
- Q. 7. Write down the contents of check list for anaesthesia machine.
- Q. 8. How will you prepare a difficult intubation set/trolley?
- Q. 9. How will you monitor and transfer a three month old child operated for meningomyelocele repair, to postoperative ward?

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2013
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY AND PATIENT CARE / EQUIPMENTS / MACHINES
PAPER TWO (MCQ)

Time allotted for MCQ- 15 minutes

B : MCQs (Single response type):

(½ x 14= 7)

Select the most appropriate answer and encircle the alphabet against it

PATHOLOGY

1. Which of the following is not a type of blood grouping system?
 - a. ABO
 - b. MNS
 - c. Rh
 - d. QRS
2. Which blood group is known as universal donor blood group?
 - a. "O"
 - b. "AB"
 - c. "A"
 - d. "B"

MICROBIOLOGY

3. Hepatitis B is a
 - a. Bacteria
 - b. Virus
 - c. Fungus
 - d. Protozoa
4. Infected swab should be discarded in:
 - a. Black bin
 - b. Blue bin
 - c. Yellow bin
 - d. Metal bin

BIOCHEMISTRY

5. What is the level in mg/dl of creatinine in blood?
 - a. 1 – 2
 - b. 5 – 4
 - c. 6 – 8
 - d. 10 – 12
6. All are serum protein EXCEPT:
 - a. Albumin
 - b. Globulin
 - c. Fibrinogen
 - d. Glycogen
 - e.

PATIENT CARE/EQUIPMENTS/MACHINE

7. Oxygen flush is the part of which pressure system of anaesthesia machine:
 - a. High
 - b. Intermediate
 - c. Low
 - d. None

8. According to Mapleson system Magill circuit belongs to:
 - a. A
 - b. B
 - c. C
 - d. D
9. Pressure of the intermediate system in anaesthesia machine is:
 - a. 5 psi
 - b. 60 psi
 - c. 100 psi
 - d. 160 psi
10. Colour coding for 22G IV cannula is:
 - a. Green
 - b. Yellow
 - c. Blue
 - d. Pink
11. Type of oxygen cylinder attached to anaesthesia machine is:
 - a. A
 - b. D
 - c. B
 - d. H
12. Macintosh intubating laryngoscope blade are available in how many sizes :
 - a. 2
 - b. 3
 - c. 4
 - d. 5
13. Pin index for oxygen is :
 - a. 3, 5
 - b. 2, 5
 - c. 0, 7
 - d. 1, 6
14. Which is not a part of difficult intubation trolley :
 - a. Miller's laryngoscope
 - b. LMA
 - c. Combitube
 - d. Spanner

Regn. No.....

Paper Code: BOT- 101...

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2015
ANTOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 8 = 56)

ANATOMY

- Q. 1. Describe the boundaries, contents and applied anatomy of the cubital fossa.
- Q. 2. Describe the anatomy of the gall bladder. Add a note on its applied aspect.

PHYSIOLOGY

- Q. 3. Name the hormones secreted by anterior pituitary. What happens to levels of TSH in hypothyroidism?
Describe the physiological functions of thyroxin.
- Q. 4. Enumerate the components of blood and their functions. Discuss the mechanism of formation of a clot.

PHARMACOLOGY

Write in brief:

- Q. 5. Pre-anaesthetic medication.
- Q. 6. Antiplatelet drugs
- Q. 7. Management of Morphine poisoning
- Q. 8. Types of Adverse drug reactions.

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2015
ANATOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST (MCQ)

Time allotted for MCQ- 30 minutes

B : MCQs (Single response type):

(½ x 28= 14)

Select the most appropriate answer and encircle the alphabet against it

ANATOMY

1. The shaft of a growing long bone is called:-
 - a. Metaphysis
 - b. Diaphysis
 - c. Epiphysis
 - d. Epiphyseal plate
2. Which type of synovial joint is the hip joint?
 - a. Ball and socket
 - b. Ellipsoid
 - c. Condylar
 - d. Saddle
3. Muscle of the posterior compartment of the arm is:
 - a. Biceps brachii
 - b. Triceps brachii
 - c. Brachialis
 - d. Supinator
4. Foot drop is caused by injury to:-
 - a. Tibial nerve
 - b. Femoral nerve
 - c. Superficial peroneal nerve
 - d. Deep peroneal nerve
5. The right lung has:
 - a. Three fissures and two lobes
 - b. Two fissures and three lobes
 - c. Two fissures and two lobes
 - d. One fissures and two lobes
6. Clavicle is an example of:
 - a. Long bone
 - b. Short bone
 - c. Modified long bone
 - d. Irregular bone
7. The nerve which winds around the surgical neck of humerus is:-
 - a. Radial nerve
 - b. Axillary nerve
 - c. Ulnar nerve
 - d. Median nerve
8. Base of the femoral triangle is formed by:-
 - a. Lacunar ligament
 - b. Inguinal ligament
 - c. Sartorius
 - d. Adductor longus
9. Filum terminale is a modification of:-
 - a. Duramater
 - b. Piamater
 - c. Arachnoid mater
 - d. Conus medullaris
10. Name of the ninth cranial nerve is:-
 - a. Facial
 - b. Vagus
 - c. Glossopharyngeal
 - d. Accessory
11. All muscles of the tongue are supplied by hypoglossal nerve EXCEPT:
 - a. Hyoglossus
 - b. Genioglossus
 - c. Styloglossus
 - d. Palatoglossus
12. Largest lobe of the liver is:
 - a. Caudate lobe
 - b. Quadrate lobe
 - c. Left lobe
 - d. Right lobe

PHYSIOLOGY

13. Functional unit of renal system is
- Neuron
 - Glomerulus
 - Urinary bladder
 - Nephron
14. Muscles of inspiration are all except
- Diaphragm
 - Internal intercostal
 - Sternocleidomastoid
 - Ext intercostal
15. All are striated Muscles except:
- Skeletal Muscle
 - Cardiac Muscle
 - Smooth Muscle
 - Biceps
16. AB + Blood group will have:
- Antigen A
 - Antibody A & B
 - Antigen A & B
 - Antibody B
17. ECF comprise of all except
- Blood
 - Fluid in the cell
 - Lymph
 - Fluid in the sac
18. Acid in stomach is secreted by
- Chief cells
 - Gastrin cells
 - Mucin cells
 - Parietal cells
19. Cardiac output is defined as volume of blood:
- Ejected by both ventricle per min
 - Ejected by both ventricle per stroke
 - Ejected by each ventricle per stroke
 - Ejected by each ventricle per min
20. Volume of air that do not take part in exchange of gases in resting condition is called as :
- Dead space volume
 - Functional residual capacity
 - Inspiratory reserve volume
 - Residual volume
21. All are functions of kidney except:
- Glycogen storage
 - acid base balance
 - Water overload
 - Erythropoietin secretion

22. Nerve Conducting system of human heart comprises of all except:
- Sinus venosus
 - SA Node
 - Purkinje fibres
 - Bundle of his
23. Myelination in nerve cells in CNS is done by :
- Schwan cells
 - Glial cells
 - Oligodendrocytes
 - Microglia cells
24. Stimulation of parasympathetic nerve cause:
- Constriction of pupil
 - Fixation of pupil
 - Dilation of pupil
 - No change in pupil

PHARMACOLOGY

25. Atropine is used in all **except**:
- Preanaesthetic medication
 - Glaucoma
 - Antispasmodic
 - Mydriatic
26. Which of the following is a Morphine antagonist?
- Naloxone
 - Pentazocine
 - Carbidopa
 - Flumazenil
27. The first line drugs used in treatment of Tb are all **except**:
- Isoniazid
 - Rifampicin
 - Pyrazinamide
 - Ethionamide
28. Which of the following drugs is a anticholinergic.
- Adrenaline
 - Acetylcholine
 - Atropine
 - Diazepam

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2015
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE /EQUIPMENTS /MACHINES
PAPER TWO

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Pathology

- Q. 1. Classify anemia, and draw labelled diagram of peripheral smear findings in Iron deficiency anemia.
- Q. 2. Write difference between benign and malignant tumors

Biochemistry

- Q. 3. Which parameters are included in liver function tests? Write the normal range of each in serum.
- Q. 4. What are the instructions to be followed by patient for giving fasting, post-prandial and random blood sugar?

Microbiology

- Q. 5. Define sterilization and disinfection. Write a note on fumigation of OT.
- Q. 6. Write short notes on:
- a. Biomedical waste management
 - b. Universal precautions

Patient Care

- Q. 7. Discuss the preparations to be done in operations theatre before taking the patient under general Anaesthesia.
- Q. 8. Steps for preparation for I.V. cannulation.
- Q. 9. Checklist before starting blood transfusion in a patient in operation theatre?

No.....

Paper Code: BOT- 102...

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2015
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE /EQUIPMENTS /MACHINES
PAPER TWO (MCQ)

Time allotted for MCQ- 15 minutes

B : MCQs (Single response type):

(½ x 14= 7)

Select the most appropriate answer and encircle the alphabet against it

PATHOLOGY

1. Anemia is defined as
 - a. Reduction in RBCs oxygen carrying capacity
 - b. Decreased hemoglobin
 - c. Decreased red cell mass/hematocrit
 - d. All of the above
2. Features of malignant tumor is
 - a. Metastasis
 - b. Low mitotic activity
 - c. Usually encapsulated
 - d. All of the above

MICROBIOLOGY

3. Gloves are discarded in:
 - a. Yellow bin
 - b. Blue bin
 - c. Green bin
 - d. Metal container
4. Sharp instruments are discarded in:
 - a. Yellow bin
 - b. Blue bin
 - c. Green bin
 - d. Metal container

BIOCHEMISTRY

5. Which is the molecular Formula for glucose:
 - a. CH₃OH
 - b. C₆H₁₂O₆
 - c. C₁₂H₂₂O₁₁
 - d. C₆H₁₂O₅
6. Normal plasma protein levels varies in the range:
 - a. 3.2 – 5.8 g/10 ml
 - b. 3.2 – 5.8 g/100ml
 - c. 6.0 – 8.0 g/10ml
 - d. 6.0 – 8.0 g/100ml

PATIENT CARE/EQUIPMENTS/MACHINE

7. Pin index of oxygen is:
 - a. 2-5
 - b. 1-6
 - c. 7
 - d. 3-5
8. Cardiac compression is done to a depth of:
 - a. at least 5 cm
 - b. at least 2.5 cm
 - c. at least 7.5 cm
 - d. at least 10 cm

9. Total volume of local anaesthetic agent in bupivocain 0.5% ampoule used for spinal anaesthesia:

- a. 2 ml
- b. 4 ml
- c. 20 ml
- d. 5 ml

10. Colour of 25 G spinal needle is:

- a. Black
- b. Grey
- c. Orange
- d. Yellow

11. Laryngoscope blade used for intubation in paediatric patient less than 1 year is :

- a. MacCintosh blade
- b. Miller Blade
- c. McCoy Blade
- d. Tul-MacCintosh blade.

12. Inhalational agent of choice for induction in paediatric patient:

- a. Isoflurane
- b. Sevoflurane
- c. Ether
- d. Enflurane

13. Unconscious patient is nursed in:

- a. Lateral position
- b. Supine position
- c. Prone position
- d. Head up position

14. Cardiac compression is done to a rate of:

- a. at least 100/min
- b. at least 50/min
- c. at least 125/min
- d. at least 200/min

Regn. No.....

Paper Code: BOT- 101...

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2016
ANTOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 8 = 56)

ANATOMY

- Q. 1.** Write a short note on femoral triangle (Boundaries, Contents, Applied).
- Q. 2.** Write a short note on carotid sheath & its contents.

PHYSIOLOGY

- Q. 3.** Define blood pressure. What are the different methods of blood pressure measurement? Discuss briefly how blood pressure is regulated by different factors. (1+2+4=7)
- Q. 4.** What is the composition of blood? Discuss the role of plasma protein in blood. (3+4=7)

PHARMACOLOGY

- Q. 5.** Classify the General anaesthesia and write about the second gas effect.
- Q. 6.** Classify antimicrobial drugs. Write about the anti-microbial resistance.
- Q. 7.** Classify the various routes of drug administration. Write in brief about intravenous route.
- Q. 8.** Write mechanism of action, therapeutic uses and adverse effects of aspirin.

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2016
ANATOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST (MCQ)

Time allotted for MCQ- 30 minutes

B : MCQs (Single response type):

(½ x 28= 14)

Select the most appropriate answer and encircle the alphabet against it

ANATOMY

1. Pulsations of facial artery can be palpated at:-
 - a. Anterio-inferior angle of masseter
 - b. Posterio-inferior angle of masseter
 - c. Anterio-superior angle of masseter
 - d. Posterio-superior angle of masseter
2. Internal carotid artery supplies mainly the structures of:-
 - a. Neck
 - b. Scalp
 - c. Brain
 - d. Face
3. Dangerous area of face is:-
 - a. Lower lip
 - b. Upper lip
 - c. Upper lip & tip of nose
 - d. Cheeks
4. In adults spinal cord extends up to:-
 - a. Lower border of L3 vertebra
 - b. Upper border of L3 vertebra
 - c. Lower border of L1 vertebra
 - d. Upper border of L1 vertebra
5. All are Features of large intestine EXCEPT:-
 - a. Appendices epiploicae
 - b. Haustrations
 - c. Taenia coli
 - d. Villi
6. Portal vein is formed behind the:-
 - a. Head of pancreas
 - b. Neck of pancreas
 - c. Body of pancreas
 - d. Tail of pancreas
7. Gall bladder Pain is referred to:-
 - a. Tip of right shoulder
 - b. Tip of Left shoulder
 - c. Umbilicus
 - d. Back
8. Brodmann's number of primary visual area is:-
 - a. Area no.- 4
 - b. Area no-3, 1,2
 - c. Area no.- 8
 - d. Area no.- 17,18, & 19
9. Appendix is present in:-
 - a. Right hypochondrium
 - b. Left hypochondrium
 - c. Right iliac fossa
 - d. Left iliac fossa
10. Name of the first cervical vertebra is:-
 - a. Axis
 - b. Vertebra prominens
 - c. Atlas
 - d. None of the above
11. Circle of willis is formed by anastomosis of :-
 - a. Anterior, Middle & posterior cerebral artery
 - b. Anterior inferior cerebellar artery & posterior inferior cerebellar artery
 - c. Anterior cerebral artery & posterior inferior cerebellar artery
 - d. Posterior cerebral artery & anterior inferior cerebellar artery
12. Oesophageal opening is present in thoraco-abdominal diaphragm at the level of:-
 - a. T6 vertebra
 - b. T10 vertebra
 - c. T8 vertebra
 - d. T12 vertebra

PHYSIOLOGY

13. Pacemaker of heart is
 - a. SA node
 - b. AV node
 - c. Purkinje fiber
 - d. Left ventricle
14. Cardiac output in a normal healthy individual is
 - a. 2 L/min
 - b. 4 L/min
 - c. 5.4 L/min
 - d. 6.5 L/min
15. Which of the following is true about simple diffusion
 - a. Carrier protein is required
 - b. Na-K-ATPase helps
 - c. Energy is required
 - d. Concentration gradient is required
16. The junction between two neurons
 - a. Neuromuscular junction
 - b. Synapse
 - c. Gap junction
 - d. Axon
17. Skeletal muscle contraction is done by which of the following ion
 - a. Na^+
 - b. K^+
 - c. Ca^{++}
 - d. Cl^-
18. Maximum amount of plasma protein present in blood
 - a. Globulin
 - b. Albumin
 - c. Fibrinogen
 - d. Transferrin
19. Normal % of monocyte in peripheral blood smear
 - a. 1-2 %
 - b. 2-8%
 - c. 20- 30%
 - d. 50-70%
20. Normal partial pressure of CO_2 in arterial blood is
 - a. 40 mmHg
 - b. 46 mmHg
 - c. 95-100 mmHg
 - d. 100-104 mmHg
21. Respiratory centre is located in
 - a. Medulla
 - b. Pons
 - c. Lungs
 - d. Spinal cord
22. Normal tidal volume (TV) is
 - a. 500 ml
 - b. 1000 ml
 - c. 1300 ml
 - d. 3000 ml
23. Normal GFR is
 - a. 125 ml/min
 - b. 180 ml/min
 - c. 250 ml/min
 - d. 500 ml/min
24. Glucagon hormone is secreted from which cell of pancreas
 - a. Alpha cell
 - b. Delta cell
 - c. Beta cell
 - d. G cell

PHARMACOLOGY

25. The pharmacological effects of morphine include all except-
 - a. Urinary retention
 - b. Miosis
 - c. Respiratory depression
 - d. Diarrhoea
26. First local anesthetic used in clinical anesthesia was
 - a. Bupivacaine
 - b. Procaine
 - c. Lidocaine
 - d. Cocaine
27. Drug of choice for anaphylactic shock:
 - a. Adrenaline
 - b. Hydrocortisone
 - c. Chlorpheniramine
 - d. Dopamine
28. Intravenous anesthetic agent is
 - a. Nitrous oxide
 - b. Halothane
 - c. Isoflurane
 - d. Thiopentone

gn. No.....

Paper Code: BOT- 102...

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2016
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE /EQUIPMENTS /MACHINES
PAPER TWO

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 9 = 63)

Pathology

Q. 1. Describe anemia and its type.

Q. 2. Describe composition and function of blood.

Biochemistry

Q. 3. What are fasting, random and post prandial plasma glucose? Give their normal values. Name a common condition in which these levels are raised.

Q. 4. Write short notes on :

a. Liver function tests

(4)

b. Lipoproteins

(3)

Microbiology

Q. 5. Define Sterilization and Disinfection. What are the various methods of preservation of a specimen?

Q. 6. Write short notes on:

a. Hepatitis B vaccination

(4)

b. Universal work precautions

(3)

Patient Care

Q. 7. How will you prepare a patient in a ward scheduled for surgery?

Q. 8. Enumerate the steps for preparation of IV Cannulation.

Q. 9. Enumerate the instruments to be packed in a spinal tray.

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2016
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE /EQUIPMENTS /MACHINES
PAPER TWO (MCQ)

Time allotted for MCQ- 15 minutes

B : MCQs (Single response type):

(½ x 14= 7)

Select the most appropriate answer and encircle the alphabet against it

PATHOLOGY

1. Blood donors are screened for all of the following transmissible diseases EXCEPT
 - a. Hepatitis A
 - b. Hepatitis B
 - c. Hepatitis C
 - d. Syphilis
2. Prolongation of PT may be due to all EXCEPT:
 - a. Fibrinogen deficiency
 - b. Factor 7 deficiency
 - c. Prothrombin deficiency
 - d. Platelet deficiency

MICROBIOLOGY

3. Most commonly used disinfectant for endoscopes is:
 - a. Glutaraldehyde
 - b. Carbolic acid
 - c. Ethyl alcohol
 - d. Ethylene oxide gas
4. Who is called the Father of Microbiology
 - a. Robert Koch
 - b. Edward Jenner
 - c. Louis Pasteur
 - d. Joseph Lister

BIOCHEMISTRY

5. Following are kidney function tests **EXCEPT**:
 - a. Urea
 - b. Albumin
 - c. Creatinine
 - d. Glucose
6. Which is a plasma protein?
 - a. Albumin
 - b. Glucose
 - c. Cholesterol
 - d. DNA

PATIENT CARE/EQUIPMENTS/MACHINE

7. Pin index of oxygen
 - a. 2, 5
 - b. 3, 5
 - c. 7
 - d. 1, 5

8. Cardiac compression is done at rate of
 - a. 100-120/min
 - b. 130-150/min
 - c. 75-100/min
 - d. 200/min
9. Green colour iv Cannula is of-----G
 - a. 20G
 - b. 18G
 - c. 22G
 - d. 16G
10. Colour of nitrous oxide cylinder is
 - a. Blue
 - b. Black
 - c. Grey
 - d. Orange
11. Amount of normal saline to be added to 500 mg of thiopentone to make 2.5% solution
 - a. 10ml
 - b. 20ml
 - c. 30ml
 - d. 25ml
12. Propofol is dispensed as
 - a. 1% solution
 - b. 1% emulsion
 - c. 2.5% solution
 - d. 2.5% emulsion
13. Ampoule of atropine contains
 - a. 0.6 mg
 - b. 1.0 mg
 - c. 6 mg
 - d. 10 mg
14. Colour coding is present in anaesthesia for
 - a. Cylinders
 - b. Volatile anaesthetic agents
 - c. Both of above
 - d. None of above

Regn. No.....

Paper Code: BOT- 101...

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2017
ANATOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions

Draw suitable diagram wherever necessary

A : Short answer questions:

(7 x 8 = 56)

ANATOMY

- Q. 1. Describe the Femoral Triangle (Boundaries, Contents & Applied).
Q. 2. Describe Carotid Triangle (Boundaries, Contents and Applied).

PHYSIOLOGY

- Q. 3. Draw a labeled diagram of neuromuscular junction. Discuss how muscle contraction occurs. (3+4)
Q. 4. Define respiration. What are the functions of lungs? Give the mechanism of respiration. (1+2+4)

PHARMACOLOGY

- Q. 5. Classify the various routes of drug administration. Write the advantages & disadvantages of oral & parenteral routes.
Q. 6. Classify general anesthetic agents. Write in brief about pre-anesthetic medication.
Q. 7. Classify antimicrobial agents based on their mechanism of action. Enumerate the problems associated with their use.
Q. 8. Discuss the management of anaphylactic shock.

B.O.T. FIRST YEAR EXAMINATION, JUNE/JULY - 2017
ANATOMY, PHYSIOLOGY AND PHARMACOLOGY
PAPER FIRST (MCQ)

Time allotted for MCQ- 30 minutes

B : MCQs (Single response type):

($\frac{1}{2} \times 28 = 14$)

Select the most appropriate answer and encircle the alphabet against it-

ANATOMY

1. Axillary artery is continued as:
 - a. Subclavian artery
 - b. Ulnar artery
 - c. Radial artery
 - d. Brachial artery
2. Which vein is selected for withdrawal of blood from upper limb:
 - a. Axillary vein
 - b. Basilic vein
 - c. Median cubital vein
 - d. Cephalic vein
3. Which is the bone of arm?
 - a. Clavicle
 - b. Ulna
 - c. Radius
 - d. Humerus
4. In lower limb intramuscular injection is given in:
 - a. Leg muscles
 - b. Foot muscles
 - c. Front of thigh
 - d. Gluteal region
5. Everter of foot is:
 - a. Peroneus longus
 - b. Tibialis anterior
 - c. Tibialis posterior
 - d. Sartorius
6. CSF lies in:
 - a. Subarachnoid space
 - b. Subdural space
 - c. Extradural space
 - d. Muscle
7. Great saphenous vein drains into:
 - a. Short saphenos vein
 - b. Popliteal vein
 - c. Femoral vein
 - d. Dorsal venous arch
8. Scaphoid is:
 - a. Tarsal bone
 - b. Carpal bone
 - c. Collar bone
 - d. None
9. Function of fibula is:
 - a. Weight transmission
 - b. Bone grafting
 - c. Knee joint formation
 - d. Hip joint formation
10. Patella is:
 - a. Long bone
 - b. Short bone
 - c. Sesamoid bone
 - d. Flat bone
11. A structure nearer to the median plane of the body is:
 - a. Lateral
 - b. Medial
 - c. Anterior
 - d. Posterior
12. Hip joint is:
 - a. Synovial joint
 - b. Fibrous joint
 - c. Primary cartilagenous joint
 - d. Secondary cartilagenous joint

PHYSIOLOGY

13. Cardiac output in a normal healthy individual is:
 - a. 2 L/min
 - b. 4 L/min
 - c. 5.4 L/min
 - d. 6.5 L/min
14. Maximum concentration of cation in extra cellular fluid is:
 - a. Na^+
 - b. K^+
 - c. Ca^{++}
 - d. Mg^{++}
15. The functions of stomach include all except:
 - a. Digestion of fats
 - b. Digestion of proteins
 - c. Secretion of HCL
 - d. Secretion of intrinsic factor

16. Cardiac muscle contraction is done by which of the following ion?
- Na^+
 - K^+
 - Ca^{++}
 - Cl^-
17. Normal % of lymphocyte in peripheral blood smear is:
- 2 - 4%
 - 20 - 30%
 - 1 - 2 %
 - 50 - 70%
18. Normal partial pressure of CO_2 in venous blood is:
- 40 mm Hg
 - 46 mm Hg
 - 95-100 mm Hg
 - 100-104 mm Hg
19. The functions of kidney include all except :
- Formation of urine
 - To maintain acid base balance
 - To maintain hemostasis
 - To maintain homeostasis
20. Normal rate of urine formation per day in adult is:
- 500 - 1000 ml
 - 1000 - 1500 ml
 - 1500 - 2000 ml
 - 5000 - 6000 ml
21. Diabetes mellitus is due to deficiency of :
- Insulin
 - Glucagon
 - Growth hormone
 - Thyroid hormone
22. Bradycardia is when heart rate is:
- Less than 60 beats/min
 - More than 60 beats/min
 - More than 100 beats/min
 - More than 90 beats/min
23. Duration of ventricular systole in a normal cardiac cycle is:
- 0.1 sec
 - 0.3 sec
 - 0.5 sec
 - 0.7 sec
24. Which is most important hormone for calcium metabolism?
- Insulin
 - Thyroid hormone
 - Parathyroid hormone
 - Growth hormone

PHARMACOLOGY

25. Antidote for morphine toxicity is:
- Aspirin
 - Naloxone
 - Tramadol
 - Ondansetron
26. Warfarin is:
- Thrombolytic
 - Anticoagulant
 - Non-opioid analgesic
 - Antiplatelet drug
27. Local anaesthetic agents act by inhibiting:
- Sodium channels
 - Potassium channels
 - Calcium channels
 - Chloride channels
28. Selective COX-2 inhibitor is:
- Aspirin
 - Nimesulide
 - Celecoxib
 - Diclofenac

**B.Sc. MEDICAL TECHNOLOGY (OPERATION THEATRE)
FIRST YEAR EXAMINATION, JUNE/JULY - 2017
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE / EQUIPMENTS / MACHINES**

[Time allotted: Three hours]

[Max Marks: 70]

Note: Attempt all questions
Draw suitable diagrams wherever necessary

(7 x 9 = 63)

A : Short answer questions:

Pathology

- Q. 1. Describe types of wound healing. Also describe factors affecting wound healing.
- Q. 2. Describe types and etio-pathogenesis of blood transfusion reactions.

Biochemistry

- Q. 3. What are the parameters included in lipid profile? Which is the good and bad cholesterol? (5+2)
- Q. 4. What are the normal blood sugar levels? How is the blood sugar level regulated by the body? (3+4)

Microbiology

- Q. 5. What are the modes of transmission of Hepatitis B virus? Write briefly on vaccination against Hepatitis B virus.
- Q. 6. Write short notes on:
a. Fumigation of OT.
b. Universal precautions.

Patient Care

- Q. 7. Enumerate the items required and steps of preparation for i/v line.
- Q. 8. How will you prepare a patient before shifting to OT for surgery?
- Q. 9. Enumerate the steps and items needed to prepare the body part of patient for regional anaesthesia.

B.Sc. MEDICAL TECHNOLOGY (OPERATION THEATRE)
FIRST YEAR EXAMINATION, JUNE/JULY - 2017
PATHOLOGY, BIOCHEMISTRY, MICROBIOLOGY & PATIENT CARE / EQUIPMENTS / MACHINES
(MCQ)

Time allotted for MCQ - 15 minutes

B : MCQs (Single response type):

(½ x 14= 7)

Select the most appropriate answer and **encircle** the alphabet against it

PATHOLOGY

1. Samples for APTT are taken in _____ anticoagulant:
 - a. Sodium heparin
 - b. Sodium EDTA
 - c. Sodium citrate
 - d. Sodium fluoride
2. Biopsy specimen are to be transported to pathology lab in:
 - a. Normal saline
 - b. Formalin
 - c. Distilled water
 - d. Absolute alcohol

BIOCHEMISTRY

3. All are plasma proteins **except**:
 - a. Albumin
 - b. Globulin
 - c. Glycogen
 - d. Fibrinogen
4. The parameter assessed under liver function test is:
 - a. Urea
 - b. Creatinine
 - c. Sodium
 - d. Bilirubin

MICROBIOLOGY

5. After use needles should be discarded in:
 - a. Black bin
 - b. Blue bin
 - c. Yellow bin
 - d. Metal bin
6. Used gloves should be discarded in:
 - a. Black bin
 - b. Blue bin
 - c. Yellow bin
 - d. Metal bin

PATIENT CARE / EQUIPMENTS / MACHINE

7. Name the paediatric circuit among the following;
 - a. Mapleson A
 - b. Mapleson B
 - c. Mapleson C
 - d. Mapleson E
8. Colour of piped oxygen tube is:
 - a. White
 - b. Yellow
 - c. Blue
 - d. Black
9. Mapleson D is:
 - a. Closed circuit
 - b. Bain circuit
 - c. Open circuit
 - d. Pediatric circuit
10. All are used as analgesics **except**:
 - a. Fentanyl
 - b. Morphine
 - c. Propofol
 - d. Tramadol
11. The 18 G cannula has a colour coding of:
 - a. Yellow
 - b. Green
 - c. Blue
 - d. Pink
12. Pin index of CO₂ is:
 - a. 3, 5
 - b. 2, 5
 - c. 2, 6
 - d. 1, 5
13. LMA stands for:
 - a. Laryngeal mask airways
 - b. Lateral mask airways
 - c. Local mask airways
 - d. Laryngeal mouth airways
14. Commonly used laryngoscope is:
 - a. Macintosh
 - b. Magill
 - c. McCoy
 - d. Bullard