

SECTION-A

Time: 3 Hours

M.M. 70

Applied Anatomy (Max. Marks – 35)

*Note: All questions are compulsory. Make diagrams wherever required.***Q1 Describe any one:-****10X1=10**

- a Describe applied anatomy of heart
- b Describe brachial plexus injuries

Q2 Write short notes on any three:-**5X3=15**

- a Varicose veins
- b Prolapsed disc
- c Herpes zoster
- d Pigeon chest
- e Applied anatomy of diseases of joints

Q3 Write in very brief any five:-**1X5=5**

- a What is elephantiasis
- b What is tachycardia
- c Define arterio sclerosis
- d What is pleural effusion
- e What is cholecystitis
- f Define spleenomegaly
- g Enumerate causes of myocardial ischemia

Q4 Multiple Choice Question. Attempt all.**1X5=5**

- a Gastrectomy is the removal of
1 Stomach 2 Kidney 3 Spleen 4 None of the above
- b Poliomyelitis effects
1 Kidney 2 Heart 3 Spinal cord 4 Brain
- c Alzheimer disease effects
1 Heart 2 Kidney 3 Stomach 4 Brain
- d Ascites is define as increase of fluid in
1 Pleural cavity 2 Peritoneal cavity 3 Pericardial cavity 4 None of the above
- e Gastric ulcers are the ulcers of
1 Stomach 2 Liver 3 Kidney 4 All of the above

SECTION-B

Applied Physiology (Max. Marks – 35)

Q1. Long answer type questions. Attempt any one.**(10x1=10)**

- a. Draw a well labelled diagram of a Nephron. Describe the various functions of Kidney.
- b. Define Hypoxia .. Explain different types of hypoxia.

Q2. Short answer type questions. Attempt any three.**(5x3=15)**

- a. Balanced Diet
- b. Functions of Blood
- c. Functions of Spinal Cord
- d. Diabetes Mellitus
- e. Gigantism

Q 3. Very short answer type questions. Attempt any five.

(1x5=5)

- a. Anaemia
- b. Reflex Arc
- c. Peptic ulcer
- d. Cardiac Output
- e. Immunity
- f. Haemostasis
- g. Erythropoiesis

Q 4. Multiple choice questions. Attempt all.

(1x5=5)

- a. WBC stands for
 - i. White blood cells
 - ii. White bone cells
 - iii. White blood coat
 - iv. None of these
- b. Beta cells of pancreas secretes
 - i. Insulin
 - ii. Glucagon
 - iii. Pepsin
 - iv. Somatostatin
- c. Polycythemia denotes
 - i. Increase in all blood cells
 - ii. Increase in RBC Count
 - iii. Increase in WBC count
 - iv. Increase in Platelet Count
- d. Patchy loss of axon myelin sheath is
 - i. Multiple Sclerosis
 - ii. Parkinson's disease
 - iii. Myasthenia Gravis
 - iv. Inflammation
- e. An increase in heart rate is termed as
 - i. Bradycardia
 - ii. Tachycardia
 - iii. Hypertension
 - iv. None of these

**B.Sc. Operation Theatre Technology (BOTT)
IInd Year Examination
Subject: Clinical Pharmacology
Subject Code: BOTT- 202**

Time: 3 Hours

M.M. 70

Note: All questions are compulsory. Make diagrams wherever required.

Q1. Long answer type questions. Attempt any three.

(10x3=30)

- Classify Penicillines. Discuss mechanism of action, therapeutic uses and adverse effect of Penicillin G.
- Enumerate opioid analgesic drugs. Discuss mechanism of action, uses and adverse effects of Morphine.
- Classify Skeletal muscle relaxants. Discuss mechanism of action, uses and adverse effects of d-tubocurarine.
- Enumerate Adrenergic drugs. Describe the mechanism of action, therapeutic uses and adverse effect of Adrenaline.
- Enumerate various routes of drug administration and discuss advantage and disadvantage of Intramuscular route.

Q2. Short answer type questions. Attempt any five.

(5x5=25)

- Drug synergism
- Pre-anesthetic medication
- ACE inhibitors
- Amlodipine
- Cetirizine
- Hydrocortisone
- Transdermal therapeutic system.

Q 3. Very short answer type questions. Attempt any five.

(1x5=5)

- Name two drugs used in Pulmonary tuberculosis.
- Name two drugs used in bronchial asthma.
- Name two beta lactam antibiotic drugs.
- Name two Calcium channel blockers
- Name two drugs used in acute attack of angina.
- Name two drugs used in hyperlipidemia.
- Name two Diuretics drugs.

Q 4. Multiple choice questions. Attempt all.

(1x10=10)

- By which of the following route onset of action of a drug is rapid.
 - Subcutaneous
 - Oral
 - Sublingual
 - Intramuscular
- Azithromycin belongs to-
 - Macrolide
 - Beta lactam
 - Antitubercular
 - Antifungal
- Dicyclomine belongs to-
 - Cholinergic drug
 - Anticholinergic drug
 - Adnergic drug
 - Antianginal drug
- Which of the following drug is preferred for treatment of hypertensive emergency.
 - Nicardipine
 - Enalapril
 - Propanolol
 - Spironolactone
- Drugs that inhibit protein synthesis.
 - Azithromycin
 - Amphotericin B
 - Acyclovir
 - Aspirin
- All of the following are bronchodilators EXCEPT.
 - Beclomethasone
 - Salbutamol
 - Salmeterol
 - Terbutaline
- Therapeutic uses of cephalosporins includes.
 - Meningitis
 - Typhoid
 - Pneumonia
 - All of the above
- Which drug belongs to Alpha 1 blocker group-
 - Prazosin
 - Atenolol
 - Metoprolol
 - Atopine
- All of the following statins are long acting EXCEPT.
 - Atorvastatin
 - Rosuvastatin
 - Simvastatin
 - Pitavastatin
- Ofloxacin belongs to.
 - Fluoroquinolones
 - Macrolides
 - Beta lactam
 - Sulphonamide

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Paper Code : BOTT-203

B (SVSU:2022-23/R)

Enrollment No.

B.Sc. Operation Theatre Technology (BOTT) IInd Year

Subject: Clinical Pathology & Applied Microbiology

Subject Code: BOTT- 203

Time: 3 Hours

M.M. 70

Note: All questions are compulsory. Make diagrams wherever required.

Q1. Long answer type questions. Attempt any one.

(10x3=30)

- Explain the various methods of Antimicrobial resistance testing.
- Explain the various modes of disease transmission.
- Write about history and discovery of ABO and Rh blood group system and their types.
- Define museum technique. Give details about its procedure.
- Describe blood type and give details about common blood groups.

Q2. Short answer type questions. Attempt any three.

(5x5=25)

- O.T Fumigation
- Disinfection of Hospital wards
- Cultural Characteristics of *Streptococcus pyogenes*
- Discuss Hospital Acquired Infection.
- Explain about the CMV.
- Describe screening test in blood bank.
- Explain about Coomb's test.

Q 3. Very short answer type questions. Attempt any five.

(1x5=5)

- HAI
- Histology
- EBV
- Hot Air Oven
- Microtome
- Disinfection
- Role of CSSD

Q 4. Multiple choice questions. Attempt all.

(1x10=10)

- HIV cause the disease
 - AIDS
 - AIDS
 - Both I & ii
 - None of these
- Bacterial capsule protect he bacteria from
 - Phagocytosis
 - Cytolysis
 - Autolysis
 - None of these
- In ZN staining Methylene blue used as a
 - Mordant
 - Primary Dye
 - Secondary dye
 - Decolorizer
- Gram staining techniques was developed by
 - Paul Ehrlich
 - Ziehl & Neelsen
 - Hans.C.Gram
 - Robert Koch
- _____obligate intracellular parasite.
 - Parasite
 - Bacteria
 - Virus
 - Fungi
- Eosin, stain which part of the cell
 - Cytoplasm
 - Nucleus
 - Cell membrane
 - Mitochondria.
- Antiserum A contain dye
 - Trypan blue
 - Acetone
 - Methylene blue
 - Ethylene blue.
- Rh antigen also known as
 - "D" Antigen
 - "A" Antigen
 - "B" Antigen
 - All of these.
- Use of AHG in blood bank
 - Promote reaction
 - Demote reaction
 - Color production
 - None of these.
- DPX used as a
 - Fixative
 - Mounting
 - Clearing
 - Embedding.

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Paper Code : BOTT-204

A (SVSU:2022-23/R)

Enrollment No.

B.Sc. Operation Theatre Technology (BOTT) IIInd Year
Subject: Medical Ethics and Research Methodology

Time: 3 Hours

Note: All questions are compulsory. Make diagrams wherever required.

M.M. 70

Q1. Long answer type questions. Attempt any three.

(10x3=30)

- Write in detail about medical ethics
- Describe in detail about observational studies
- what are the various steps that are to be taken while conducting cohort study
- Describe in detail about experimental studies
- write in detail about analytical studies and its types

Q2. Short answer type questions. Attempt any five.

(5x5=25)

- Principals of medical ethics
- what are three core content in medical ethics
- Difference between descriptive and Analytical studies
- Difference between case control and cohort study
- Uses of epidemiology
- case control study
- How is cross-sectional study differ from case control study

Q 3. Very short answer type questions. Attempt any five.

(1x5=5)

- Role of consent in medical ethics
- Case report
- case series
- Full form of RCT
- what do you mean by confidentiality
- What studies comes under analytical study
- what are the types of experimental studies

Q 4. Multiple choice questions. Attempt all.

(1x10=10)

- Three core of medical ethics include
 - Information
 - Autonomy
 - Malpractice
 - Benefit
- Experimental study includes
 - Case control
 - Cohort
 - RCT
 - All
- Cohort study is
 - Prospective
 - Retrospective
 - Both
 - None
- RCT is
 - Random centre trial
 - Randomised control trial
 - Randomised control trend
 - Random control trial
- Duties of physicians to the sick
 - Confidential
 - Humanitarian duty
 - Loyal
 - All
- In which study we can find incidence of disease
 - Case control
 - Case series
 - RCT
 - Cohort
- In which study we find prevalence
 - Case series
 - Case control
 - RCT
 - None
- True about prevalence
 - It is a ratio
 - Prevalence rate is the ideal measure for studying disease etiology or causation
 - Increases with increase in duration of disease
 - Decreases with decrease in case fatality
- All are indicators of mortality except:
 - Case fatality rate
 - Life expectancy
 - Duration of sickness
 - Standardied death rate
- Incidence refer to
 - Only new cases
 - Only old cases
 - Both old and new cases
 - None

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Paper Code : BOTT-205

A (SVSU:2022-23/R)

Enrollment No.

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B.Sc. Operation Theatre Technology (BOTT) IInd Year

Subject: CSSD Techniques & Nursing Procedure

Subject Code: BOTT-205

Time: 3 Hours

Max. Marks: 70

Note: All questions are compulsory. Make diagrams wherever required.

Q1. Long answer type questions. Attempt any three.

(10x3=30)

- How will you prepare and pack different materials used in OT?
- Describe different occupational hazards related to OT.
- How waste is managed in the OT?
- Describe different routes of injection.
- Describe different methods for controlling the sterilization process.

Q2. Short answer type questions. Attempt any five.

(5x5=25)

- How will you monitor temperature in a patient?
- How will you do care of an unconscious patient.
- Describe steps of hand washing.
- Urinary catheterization in a female patient.
- How will you load the sterilizer correctly?
- Sterilization.
- Oxygen therapy.

Q3. Very short answer type questions. Attempt any five.

(1x5=5)

- What gas is used for sterilization of OT?
- Metallic instruments are sterilized by which technique.
- What percentage of hypochlorite solution is used for sterilizing equipments?
- What is the temperature for storage of platelet?
- Which bag is used for anatomical waste?
- How is arterial O₂ measured?
- What is the other name of glutaraldehyde?

Q4. Multiple choice questions. Attempt all.

(1x10=10)

- Following is not a PPE:-**
 - Gloves ()
 - Cap ()
 - Mask ()
 - None ()
- Capnography is used for monitoring:-**
 - Oxygen ()
 - CO₂ ()
 - N₂O ()
 - Air ()
- Autoclave is used as:-**
 - Dry Heat ()
 - Moist Heat ()
 - Both ()
 - None ()
- Urinary catheter is put in:-**
 - Penis ()
 - Vagina ()
 - Both ()
 - None ()
- IM injection is given in:-**
 - Artery ()
 - Vein ()
 - Muscle ()
 - None ()
- For sterilization following method is not used:-**
 - Hot Air ()
 - Autoclave ()
 - Cidex ()
 - Soap and Water ()
- Nebulization is done via:-**
 - Nasal prongs ()
 - O₂ Mask ()
 - JR Circuit ()
 - Bains circuit ()
- Following is not a category in BMW management:-**
 - Red ()
 - Yellow ()
 - Blue ()
 - Purple ()
- From the legal point of view which of the following is important before surgery:-**
 - Consent ()
 - Investigation ()
 - Advice for Surgery and PAC ()
 - All of the above ()
- Temperature in O.T. is maintained between:-**
 - 18-24°C ()
 - 10-12°C ()
 - 10-16°C ()
 - 0-4°C ()