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Paper Code: BOTT/OT(H.A)-201

B (SVSU:2023-24/R)

Enrollment No.

B.Sc Operation Theatre Technology (BOTT/BOTT(HA) 2nd Year

Subject: Human Anatomy and Physiology]

Time: 3 Hours

M.M. 70

Section A

Human Anatomy (Max. Marks – 35)

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

- Q1. Long answer type questions. Attempt any Two. (10X2=20)**
- Describe inguinal hernia
 - Describe types and applied anatomy of joints
 - Describe applied anatomy of breast
- Q2. Short answer type questions. Attempt any Two. (5X2=10)**
- Erb's paralysis
 - Applied anatomy of lungs
 - Angina pectoris
- Q3. Very short answer type questions. Attempt any Two. (1X2=2)**
- What is dyspnoea?
 - What is cholecystitis?
 - Define osteoporosis?
- Q4. MCQ. Attempt all. (1X3=3)**
- Pericardial effusion is a disease of
 - Heart
 - Kidney
 - Bones
 - Muscles
 - Elephantiasis is a disease of
 - Nervous system
 - Excretory system
 - Respiratory system
 - Lymphatic system
 - Prolapsed disc is a disease of
 - Muscles
 - Lungs
 - Heart
 - Vertebral column

Section B

Applied Physiology (MM: 35)

- Q1. Long answer type questions. Attempt any two. (10x2=20)**
- Enumerate hormones secreted from pituitary gland. Describe functions of growth hormone.
 - Define erythropoiesis. Describe the process of erythropoiesis & factors affecting it.
 - Define hypoxia. Classify hypoxia & explain its different features.
- Q2. Short answer type questions. Attempt any two. (5x2=10)**
- Describe the Synapse and its types,
 - Describe the Errors of refraction.
 - Describe the Juxtaglomerular apparatus.
 - Explain the Active transport.
- Q3. Very short answer type questions. Attempt any two. (1x2=2)**
- What is GFR?
 - What is Glycemic Index?
 - What is Tidal volume?
- Q4. Multiple choice questions. Attempt all. (1x3=3)**
- Immunity is most suppressed in
 - Liver failure
 - Patient on ACTH therapy
 - Anaemia
 - Renal failure
 - Integration of temperature information by CNS occurs mainly in
 - Spinal cord
 - Hypothalamus
 - Amygdala
 - None
 - Functional unit of kidney
 - Nephron
 - Neuron
 - Both
 - None

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Paper Code: BOTT/OT(H.A)-203

A (SVSU:2023-24/R)

Enrollment No.

B.Sc. O.T.Technology & O.T.Honors Anesthesiology -2nd Year

Subject: Clinical Pathology and Applied Microbiology

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)

- Define sterilization. Discuss the different methods of sterilization and highlight the role of autoclave.
- Discuss the health care associated infections and list the microorganisms which are associated with hospital acquired infection.
- Write the principle and procedure of coomb's test. How do you detect Rh antibody by direct coomb's test?
- Enumerate the steps of tissue processing technique.

Q2. Short answer type questions. Attempt any six.

(5x6=30)

- Explore the history and discovery of ABO and Rh blood group system.
- Define a short note on Rh antibody titer.
- Write the principle and procedure of ABO and Rh blood group system.
- Enumerate blood products? Write the utilization of blood products.
- Describe the various mode of transmission of Hepatitis b virus.
- Discuss the role of gaseous sterilization in medical health care settings.
- Discuss the symptoms and mode of transmission of mycobacterium tuberculosis.
- Write the working, principle and uses of hot air oven.

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

(1x5=5)

- Define asepsis.
- Write the time, temperature and pressure of autoclave.
- Write short note on ethylene oxide.
- Write the principle of cross match.
- Write the name of various fixative uses in histopathology lab.
- What is a pool cell?

Q4. Multiple choice questions. Attempt all.

(1x5=5)

- Fixative used in histopathology lab:
 - Paraffin wax
 - Alcohols
 - Xylene
 - None of these
- Which antibody contain antisera A:
 - IgA
 - IgM
 - IgD
 - IgG.
- Which method of sterilization utilizes high-pressure steam to eliminate microorganisms?
 - Autoclaving
 - Filtration
 - Radiation
 - Chemical Sterilization
- Which of the following is a drawback of using ethylene oxide sterilization?
 - High cost
 - Slow process
 - Leaves toxic residues
 - Limited material compatibility
- Which of the following is NOT a factor affecting the efficacy of autoclaving?
 - Time
 - Temperature
 - Pressure
 - pH level

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Paper Code: BOTT-204

B (SVSU:2023-24/R)

Enrollment No.

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

Subject: Medical Ethics and Research Methodology

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)

- Explain about Three Cor Contents in Medical Ethics.
- Explain the Ethics in Clinical Trials.
- Describe the Uses of Epidemiology.
- Describe the Observational studies.

Q2. Short answer type questions. Attempt any six.

(5x6=30)

- Write about Ethics and Mental health.
- Describe the Consent.
- Write about Cohort study.
- Describe the Case control study.
- Write about Confidentiality.
- Write about Quantitative vs qualitative research.
- Describe the Types of research.
- Describe the End of life and organ transplantation ethics.

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

(1x5=5)

- Define Case reports.
- Define Community trials.
- Define Field trials.
- Define Randomized control trials.
- Define Reproductive medicine.
- Define Genetics and ethics.

Q 4. Multiple choice questions. Attempt all.

(1x5=5)

- "Patient – physician" privilege best describes...**
 - Autonomy
 - Justice
 - Truth telling
 - Confidentiality
- Ethical concept central to dilemma in organ transplantation and who will receive them in priority is...**
 - Autonomy
 - Justice
 - Truth telling
 - Confidentiality
- Stopping a medication which is harmful is an example of...**
 - Non-Maleficence
 - Autonomy
 - Truth telling
 - Confidentiality
- All these are principals of medical ethics except...**
 - Autonomy
 - Justice
 - Honesty
 - Confidentiality
- All are observational studies except...**
 - Randomized controlled trial
 - Case series
 - Cohort
 - Case control

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Paper Code: BOTT-205

C (SVSU:2023-24/R)

Enrollment No.

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

Subject: CSSD Techniques & Nursing Procedure

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)

- Describe different physical area and different personnel of the sterilization plant.
- How nebulization is done in a patient.
- Describe different routes of injection.
- Describe different methods for controlling the sterilization process.

Q2. Short answer type questions. Attempt any six.

(5x6=30)

- Write a short note on disinfection.
- Personal protection equipment.
- Handling, transporting and storing materials used in OT.
- Validating the sterilization process.
- Failure in sterilization process.
- Sterilization.
- Oxygen therapy.
- Describe in brief steps of hand washing.

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

(1x5=5)

- What is the method of sterilization of OT using a gas called?
- What is the full form of PPE?
- All the non metallic items like face mask, ET tube are sterilized by which procedure?
- Sharp instruments are sterilized by which procedure?
- What is red bag is used for in BMW?
- Metallic instruments are cleaned by which method?

Q4. Multiple choice questions. Attempt all.

(1x5=5)

- (1x5=5)
- a) **Noninvasive method of estimation of arterial oxygen:-**
i. Pulse Oximetry () ii. ABG Analysis () iii. Capnography () iv. Pulmonary function test ()
- b) **Urinary catheter is put in:-**
i. Penis () ii. Vagina ()
iii. Both () iv. None ()
- c) **General waste in BMW is disposed in:-**
i. Red Bag () ii. Yellow Bag () iii. Black Bag () iv. None ()
- d) **IM injection is given in:-**
i. Artery () ii. Vein () iii. Muscle () iv. None ()
- e) **OT Sterilized by which method:-**
i. Autoclaving () ii. ETO ()
iii. U.V. Radiation () iv. Fumigation ()