

Printing Pages : 2

Paper Code: BOTT-201

A

(SVSU:2021-22/R)

Enrollment No.

B.Sc. Operation Theatre Technology (BOTT) 2nd Year**APPLIED ANATOMY & PHYSIOLOGY**

Time: 3 hours

Max. Marks: 70

Section-A**Subject: Applied Anatomy (Max. Marks: 36)**

Note: All questions are compulsory. Make diagrams wherever required

Q1 MCQs. Attempt all. Select the correct choice as applicable.**2 mark each (2x3=6)**

- a Hydrocephalus is a disease of
- | | |
|-----------|----------------------|
| i Stomach | ii Brain |
| iii Heart | iv None of the above |
- b Carpal bones are
- | | |
|---------------------|--------------------|
| i Long bones | ii Short bones |
| iii Sessamoid bones | iv Pneumatic bones |
- c Nephrectomy is removal of
- | | |
|------------------|-----------|
| i Stomach | ii kidney |
| iii Gall bladder | iv Spleen |

Q2 Fill in the blanks. Attempt all**2 marks each (2x3=6)**

- a Number of cranial nerves is -----pairs
- b In tracheostomy, an opening is made in -----
- c Duodenum is the part of.....

Q3 Write True or False. Attempt all.**2 marks each (2x2=4)**

- a Cerebellum is not part of nervous system
- b Superior vena cava opens in right atrium of heart

Q4 Attempt any two of the following.**5 marks each (5x2=10)**

- a Discuss applied anatomy of heart
- b Discuss applied anatomy of breast
- c Discuss applied anatomy of joints

Q5 Attempt any one of the following**10 marks each (10x1=10)**

- a Describe applied anatomy of liver
- b Describe applied anatomy of thyroid gland

Section-B
Subject: Applied Physiology (Max. Marks: 34)

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

Q1. MCQs. Attempt all. Select the correct choice as applicable.

2 Mark each (2x2=4)

- a. An increase in heart rate is termed as
i. Bradycardia iii. Hypertension
ii. Tachycardia iv. None of these
- b. The percentage of total body water in a normal healthy male is around----.
i. 45% iii. 80 %
ii. 60 % iv. 90 %

Q2. Fill in the blanks. Attempt all.

2 Marks Each (2x2=4)

- a. The normal platelet count is -----.
- b. Calcitonin hormone is secreted from endocrine gland.

Q3. Write True or False. Attempt all.

2 Marks Each (2x3=6)

- a. Trypsin helps in the digestion of fats.
- b. The site of erythropoiesis in adults is the liver.
- c. Decreased secretion of growth hormone leads to Acromegaly.

Q4. Attempt any two of the following:

5 Marks Each (5x2=10)

- a. Write a short note on anemia.
- b. Briefly discuss the functions of the liver.
- c. Write a short note on Heart Rate.

Q5. Attempt any one of the following:

10 Marks Each (10x1=10)

- a. Discuss the different phases of the menstrual cycle in females.
- b. Discuss the composition and functions of gastric juice.

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Paper Code : BOTT-202

C (SVSU:2021-22/R)

Enrollment No.

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B.Sc. (BOTT) IIInd Year

Clinical Pharmacology

Time: 3 Hours**Max. Marks: 70****Note: All questions are compulsory. Make diagrams wherever required.****Q1. Attempt any five MCQs. Select the correct choice as applicable. 2 Mark each (2x5=10)**

- a. Causes for reduced bioavailability include:
 - i. Reduced absorption
 - ii. Increase absorption
 - iii. IV drug administration
 - iv. High lipid solubility
- b. Beta lactam antibiotics include -
 - i. Penicillins
 - ii. Cephalosporins
 - iii. Carbapenems
 - iv. All the above
- c. Which of the following is the preferred route of drug administration for an unconscious patient -
 - i. I.V. route
 - ii. Oral route
 - iii. Subcutaneous route
 - iv. None
- d. Which drug is used in treatment of tuberculosis -
 - i. Rifampicin
 - ii. Streptomycin
 - iii. Pyrazinamide
 - iv. All the above
- e. Local anaesthetic (LA) drug -
 - i. Prilocaine
 - ii. Benzocaine
 - iii. Chloroprocaine
 - iv. All the above

Q2. Fill in the blanks. Attempt all.**2 Marks Each (2x5=10)**

- a. 100% bioavailability is shown by route of drug administration.
- b. NSAIDs stands for.....
- c. Name two calcium channel blocker drugs
- d. Name two diuretics drugs
- e. Name two antibiotic drugs

Q3. Write True or False. Attempt all.**2 Marks Each (2x5=10)**

- a. Acetylcholine is a cardiac stimulant drug .
- b. Domperidone used in treatment of vomiting.
- c. Rifampicin and ethambutol come under second line anti tubercular drugs (ATT).
- d. Aspirin is non-selective COX inhibitor drug.
- e. Ambroxol is used in treatment of productive cough.

Q4. Attempt any four of the following:**5 Marks Each (5x4=20)**

- a. Second generation anti histamines (H₁) drugs.
- b. Streptomycin
- c. Preanaesthetic medication
- d. Pantoprazole
- e. Cotrimoxazole

Q5. Attempt any two of the following:**10 Marks Each (10x2=20)**

- a. Enumerate different routes of drug administration. Discuss advantage and disadvantage of oral route.
- b. Enumerate antitubercular drugs. Explain the mechanism of action and adverse effects of Isoniazid.
- c. Classify drugs used in bronchial asthma. Discuss mechanism of action and adverse effects of salbutamol.

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Paper Code : BOTT-203 B (SVSU:2021-22/R)

Enrollment No.

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B.Sc. Operation Theatre Technology (BOTT) IIInd Year
CINICAL PATHOLOGY & APPLIED MICROBIOLOGY

Time: 3 Hours

Max. Marks: 70

Section-A (Max. Marks: 36)

Subject: CLINICAL PATHOLOGY

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

Q1. MCQs. Attempt all. Select the correct choice as applicable. 2 Mark each (2x3=6)

- a. Congo red stain is used to identify:
 - i. Carbohydrate iii. Amyloid
 - ii. Lipid iv. None of these
- b. Rh factor is a :
 - i. Protein iii. Amyloid
 - ii. Carbohydrate iv. All of above
- c. Platelets transfusion is given in which condition :
 - iii. Anemia iii. Thrombocytopenia
 - iv. Polycythemia iv. None of these

Q2. Fill in the blanks. Attempt all. 2 Marks Each

- a. Full form of PAP..... (2x3=6)
- b. Xylene use to.....tissue section in histopathology.
- c. Full form of SAGM.....

Q3. Write True or False. Attempt all. 2 Marks Each

- a. One unite PRBC raise 1 % hemoglobin. (2x2=4)
- b. According to Karl Landsteiner law corresponding antibody is present in blood.

Q4. Attempt any two of the following: 5 Marks Each

- a. Describe Coomb's test. (5x2=10)
- b. Describe tissue processing steps.
- c. Describe H & E staining.

Q5. Attempt any one of the following. 10 Marks Each

- a. What are blood components? Give details about their types and significance. (10x1=10)
- b. History of ABO blood group system. Write the technique for antigen detection on red blood cell.

Section B (Max. Marks: 34)
Subject: Applied Microbiology

Q.1: Attempt all multiple Choice Questions. Select the correct answer only. (2x2=4)

- a. Typhoid caused by
i. Mycobacterium ii. Salmonella typhi
iii. Pseudomonas iv. All of the above
- b. Streptococcus pneumoniae show resistance to beta lactam drug due to production of which enzyme
i. Protease ii. Lactamase iii. Elastase iv. All of the above

Q.2: Fill in the blanks. Attempt all. (2x3=6)

- a. MRSA stands for.....
- b. Hospital acquired infection caused by.....
- c.introduces techniques of Sterilization.

Q.3: Write True or False. Attempt all. (2x2=4)

- a. Meningitis is an inflammation of the membranes surrounding the brain and spinal cord ()
- b. Respiratory tract infection caused by E.coli. ()

Q.4: Write short notes on any two. (5x2=10)

- a. Disinfection of patient care unit.
- b. Ebola Virus
- c. Communicable disease.

Q.5: Write long notes on any one. (10x1=10)

- a. Principle of Autoclave and discuss its control?
- b. Catheter associated Urinary tract infection

Paper Code : BOTT-204

C (SVSU:2021-22/R)

Enrollment No.

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B.Sc. (BOTT) IInd Year

Medical Ethics & Research Methodology

University Examination

Time: 3 Hours

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

Max. Marks: 70

Q1. Attempt any five MCQs. Select the correct choice as applicable. 2 Mark each

(2x5=10)

- Which is not a type of study design
a. Case control b. Cohort c. Case report d. Pilot study
- In which experiment researcher knows but the participant doesn't know which condition participants are in.
a. Biased b. single-blind c. Random d. Confounded
- Informed consent is typically obtained:
a. During an experiment b. Before an experiment c. After an experiment d. It is not typical to obtain informed consent
- In epidemiological study we can measure
a. Incidence b. Prevalence c. Both d. None
- Epidemiology can be used to know
a. Distribution of health problem b. Magnitude of problem c. Risk factors d. All

Q2. Fill in the blanks. Attempt all.

2 Marks Each

(2x5=10)

- Incidence is measured by total number of cases.
- Number of phases in clinical trial are.....
-hypothesis and alternate hypothesis are formed in every research design.
- Written, informed should be taken from each participant of a study.
- In an experiment, the group that does not receive the intervention is called.....

Q3. Write True or False. Attempt all.

2 Marks Each

(2x5=10)

- Incidence is measured by number of new cases
- Informed consent is typically obtained after the experiment
- Experimental study also known as descriptive study
- Cohort is a type of observational study
- In an experiment, the group that receive the intervention is called control group

Q4. Attempt any four of the following:

5 Marks Each

(5x4=20)

- What are different uses of epidemiology?
- Describe Case control study
- What are different principles of medical ethics?
- Describe relationship between 'Doctors, Patient & Medical Profession'

Q5. Attempt any two of the following:

10 Marks Each

(10x2=20)

- Discuss various principals of medical ethics.
- Draw with explanation the diagram of research cycle
- Explain cohort study design in detail

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Paper Code : BOTT-205 A (SVSU:2021-22/R)

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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. Attempt any five MCQs. Select the correct choice as applicable. 2 Mark each****(2x5=10)**

- a) **Capnography is used for monitoring:-**
 i. Oxygen () ii. CO₂ ()
 iii. N₂O () iv. Air ()
- b) **Noninvasive method of estimation of arterial oxygen:-**
 i. Pulse Oximetry () ii. ABG Analysis ()
 iii. Capnography () iv. Pulmonary Function Test ()
- c) **Concentration of hypochlorite solution for sterilizing equipment and surface is:-**
 i. 0.5% () ii. 1% () iii. 1.5% () iv. 2% ()
- d) **How many steps are there in hand washing:-**
 i. 5 () ii. 6 () iii. 7 () iv. 8 ()
- e) **Autoclave is used as:-**
 i. Dry Heat () ii. Moist Heat ()
 iii. Both () iv. None ()
- f) **Following is not a PPE:-**
 i. Gloves () ii. Cap () iii. Mask () iv. None ()

Q2. Fill in the blanks. Attempt all. 2 Marks Each**(2x5=10)**

- a) Method of sterilization of OT using a gas is called.....
- b) Full form of PPE is.....
- c) All the non metallic items like face mask, ET tube are sterilized by.....
- d) Sharp instruments are sterilized by.....
- e)bag is used for plastic waste.

Q3. Write True or False. Attempt all. 2 Marks Each**(2x5=10)**

- a) Lead gown is used for protection from radiations.
- b) Goggles come under PPE.
- c) IV injection is given in artery.
- d) Metallic instruments are cleaned by soap and water.
- e) Biological indicator are best monitor for sterilization.

True / False
 True / False
 True / False
 True / False
 True / False

Q4. Attempt any four of the following: 5 Marks Each**(5x4=20)**

- a) How will you do care of an unconscious patient.
- b) Urinary catheterization in a female patient.
- c) Describe steps of hand washing.
- d) How will you load the sterilizer correctly?
- e) How will you monitor temperature in a patient?

Q5. Attempt any two of the following: 10 Marks Each**(10x2=20)**

- a) Describe different occupational hazards related to OT.
- b) How waste is managed in the OT?
- c) How will you prepare and pack different materials used in OT?