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B.Sc. Operation Theatre Technology (BOTT) Ist Year
Human Anatomy & Physiology

Time: 3 Hours

Max. Marks: 70

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

Section-A

Subject: Human Anatomy

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

2 Mark each (2x3=6)

- a. Which of the following is NOT a part of the large intestine?
 - i. Ascending colon
 - ii. Descending colon
 - iii. Duodenum
 - iv. Caecum
- b. The Arch of Aorta arises from:
 - i. Left atrium
 - ii. Left ventricle
 - iii. Right Atrium
 - iv. Right ventricle
- c. Number of spinal nerves is:
 - i. 12 pairs
 - ii. 6 pairs
 - iii. 13 pairs
 - iv. 31 pairs

Q2. Fill in the blanks. Attempt all.

2 Marks Each (2x3=6)

- Ureter opens in the bladder.
- The Thyroid is an Gland.
- The lungs are covered by

Q3. Write True or False. Attempt all.

2 Marks Each (2x2=4)

- The diaphragm is a muscle of respiration.
- Fibrous joints are freely movable joints.

Q4. Attempt any two of the following:

5 Marks Each (5x2=10)

- Discuss the external features and applied anatomy of Stomach.
- Explain the difference between skeletal muscles and cardiac muscles.
- Discuss classification of joints.

Q5. Attempt any one of the following:

10 Marks Each (10x1=10)

- a. Discuss the gross anatomy of heart. Describe the coronary circulation and its applied anatomy.
- b. What are the subdivisions of the nervous system? Describe the gross anatomy of spinal cord.

Section-B
Subject: Physiology

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

2 Mark each (2x2=4)

- d. Secretion of HCl by gastric parietal cells is needed for _____;
i. activation of pancreatic lipases iii. activation of salivary lipases
ii. activation of intrinsic factor iv. activation of pepsinogen to pepsin
- e. Which of the following transfusions will result in an immediate transfusion reaction?
iii. O Rh- whole blood to an O Rh+ iii. AB Rh- whole blood to an AB Rh+ patient
iv. A Rh- whole blood to a B Rh- patient iv. B Rh- whole blood to an B Rh- patient

Q2. Fill in the blanks. Attempt all.

2 Marks Each (2x3=6)

- d. The hormone responsible for increased body temperature after ovulation is.....
e. Normal glomerular filtration rate is..... ml/min.
f. The volume of air that remains in lungs after maximal expiration is known as.....

Q3. Write True or False. Attempt all.

2 Marks Each (2x2=4)

- c. Pulmonary artery carries deoxygenated blood.
d. The outermost layer of eyeball is choroid.

Q4. Attempt any two of the following:

5 Marks Each (5x2=10)

- d. Name posterior pituitary hormones and explain their actions.
e. Explain the functions of platelets.
f. What is diffusion? Describe the factors affecting diffusion across cell membrane.

Q5. Attempt any one of the following:

10 Marks Each (10x1=10)

- c. Describe the process of muscle contraction in skeletal muscle.
d. Describe the mechanism of digestion and absorption of fats.

Printing Pages : 2

Subject Code: BOTT-102 A (SVSU:2021-22/S)

Enrollment No.

B.Sc. Operation Theatre Technology (BOTT) Ist Year**Subject: General Pathology & Microbiology****Supplementary Examination****Section-A****(General Pathology)****Max. Marks: 70****Time: 3 Hours****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. The full form of HLA is:
 i. Human low antigen
 ii. Human lupus antigen
 iii. Human leukocyte antigen
 iv. High leukocyte antigen
- b. Cell involved in haemostasis:
 i. RBC ii. WBC iii. Platelet
 iv. Mast cell
- c. The molecular weight of hemoglobin:
 i. 65000 ii. 150000 iii. 190000
 iv. 180000

Q2. Fill in the blanks. Attempt all.**2 Marks Each (2x3=6)**

- a. Blood component is separated by.....
- b. CLL stands for.....
- c. Full form of DIC is.....

Q3. Write True or False. Attempt all.**2 Marks Each (2x2=4)**

- a. Erythropoiesis occurs in liver
- b. Fab classification is used for Anemia.

Q4. Attempt any two of the following:**5 Marks Each (5x2=10)**

- a. Write difference between necrosis and apoptosis.
- b. Write in detail about ESR estimation.
- c. Discuss various factors, which influence healing of wounds.

Q5. Attempt any one of the following:**10 Marks Each (10x1=10)**

- a. Write in detail about urine analysis.
- b. What is inflammation, write in detail about acute inflammation.

Section-B
Subject: General Microbiology

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

2 Mark each (2x2=4)

a. Bacterial cell wall is made up with _____:
i. Protein ii. Cellulose iii. Peptidoglycan iv. Chitin

b. Virus is obligate intracellular
i. Bacteria ii. Parasite iii. Fungi iv. All of these

Q2. Fill in the blanks. Attempt all.

2 Marks Each (2x3=6)

- a. Intestinal Amoebiasis is caused by
- b. Viral capsid protect the genetic material of virus and it's made up with.....protein.
- c. RT-PCR is stands for.....

Q3. Write True or False. Attempt all.

2 Marks Each (2x2=4)

- a. Antisepsis and disinfection both are the part of sterilization.
- b. ELISA is stands for Enzyme Lipase Immuno Sorbent Assay.

Q4. Attempt any two of the following:

5 Marks Each (5x2=10)

- a. Discuss the Biomedical Waste Management.
- b. Explain the general properties of Virus.
- c. Define immunity and their types.

Q5. Attempt any one of the following:

10 Marks Each (10x1=10)

- a. Discuss the various parts of bacterial cell along with the suitable diagram; explain the various properties of bacteria, write down the difference between bacteria and virus.
- b. Explain the morphology, life cycle and lab diagnosis of plasmodium.

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B.Sc Operation Theatre Technology (BOTT)- 1st Year

Subject: Medical Biochemistry

Supplementary Examination

Time: 3 Hours

Max. Marks: 70

Q.1: Multiple Choice Questions. Select the correct choice:-

(2x5=10)

- Which one of the following is a lipid:-
(i) Cholesterol (ii) Albumin (iii) Insulin (iv) None of these.
- Retinol is :-
(i) Vitamin A (ii) Vitamin B (iii) Vitamin C (iv) None of these.
- Which one of the following is suitable for the constituent of cell membrane:-
i. Lipids ii. Glycoproteins iii. Both of these iv. None of these.
- Which one of the following is suitable for immunochemical technique :-
i. Radioimmunoassay ii. EnzymeLinked Immunoassay iii. Both of these iv. None of these.
- Which one of the following chemical substances catalyzes biochemical reactions:-
i. Enzymes ii. Carbohydrates iii. Lipids iv. All of these.

Q.2: Fill in the blanks. Attempt all.

(2x5=10)

- Diabetes Mellitus is caused by the deficiency of
- Amino acids are linked through in the structure of proteins.
- is a digestive enzyme.
- Full form of ACTH is.....
- Pyruvate is formed in

Q.3: Write True or False. Attempt all.

(2x5=10)

- Citrate synthase is a regulatory enzyme in glycolysis.
- Cell membrane serves the function facilitated diffusion.
- Carbonic acid and sodium bicarbonate are the constituents of bicarbonate buffer system.
- Insulin regulates blood glucose level.
- Lactate dehydrogenase catalyzes the formation of lactate.

Q.4: Attempt short notes on any four of the following:

(4x5=20)

- Significance of glycolysis
- Diabetes Mellitus
- Bilirubin
- Classification of lipids
- Chromatography

Q.5: Attempt any two of the following:

(10x2=20)

- Define carbohydrates. Write its classification with examples.
- Describe the technique of electrophoresis.
- What do you mean by acid base balance? Explain it.

Printing Pages : 1

Subject Code: BOTT-104 C (SVSU:2021-22/S)

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B.Sc. Operation Theatre Technology (BOTT) Ist Year**Subject: Introduction to OT Technology****Supplementary Examination****Time: 3 Hours****Max. Marks: 70****Note: All questions are compulsory. Make diagrams wherever required.****Q1. Attempt all MCQs. Select the correct choice as applicable. 2 Mark each (2x5=10)****a. What is the purpose of fumigation?**

- | | |
|--------------------------------|--|
| i. Storage of clean equipment | ii. Sterilization of equipments. |
| iii. Storing sterile equipment | iv. Decontamination of operation theatre |

b. Which one of the following material is not sterilized by moist heat?

- | | |
|-----------------------------|--------------------------|
| i. Glass wares | ii. Metallic instruments |
| iii. Talcum and dry powders | iv. Linen |

c. What is the air cylinder colour?

- | | | | |
|----------------------------------|----------|-----------|------------|
| i. Grey body with white shoulder | ii. Blue | iii. Grey | iv. orange |
|----------------------------------|----------|-----------|------------|

d. Which one of the following inhalational agent is used for induction in children?

- | | | | |
|--------------|----------------|------------|-----------------|
| i. Halothane | ii. Isoflurane | iii. Ether | iv. Sevoflurane |
|--------------|----------------|------------|-----------------|

e. Which drug is given in GA for muscle relaxation?

- | | | | |
|-------------------|--------------|-----------------|--------------|
| i. Glycopyrrolate | ii. Propofol | iii. Vecuronium | iv. Tramadol |
|-------------------|--------------|-----------------|--------------|

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

- EtCO₂ is measured by.....
- Plastic syringes are sterilized by.....
- Sharp objects are disposed in
- Laparoscopic cholecystectomy is done inposition.
- Green colour Ryle's tube size is.....

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

- ABO system of blood groups was given by Karl Landsteiner?
- Temperature maintained in operation theatre is 16-20 degree celsius?
- Glycopyrrolate is given to reduce secretions during general anaesthesia.
- The anesthesia applied directly to the skin is local anaesthesia.
- Endotracheal tube with metal rings inside is called MLT Tube.

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

- Note on SpO₂ monitoring?
- Note on formalin?
- Note on Autoclaving?
- Note on instrument planning for open cholecystectomy?
- Note on lithotomy position?

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

- Write a long note on General Anaesthesia Techniques?
- Write a note on OT Techniques OT environment, control of infection scrubbing, theatre cloths including lead apron and goggles?
- Write a long note on Positioning of patients?

Printing Pages :2

Paper Code : BOTT/BOPT-105 B (SVSU:2021-22/S)

EnrollmentNo.

B.Sc. Operation Theatre Technology (BOTT) Ist Year**Subject: Computer Skills & Biostatistics****Time: 3 Hours****Max. Marks: 70****Note: All questions are compulsory. Make diagrams wherever required.****Section-A****Subject: Computational Skills****Q1. MCQs. Attempt all. Select the correct choice as applicable.****2 Mark each (2x3=6)**

- Which of the following is the extension of Notepad?
i. .txt ii. .xls iii. .ppt iv. .bmp
- Which of the following programs enables you to calculate numbers related to rows and columns?
i. Window program ii. Spreadsheet program iii. Graphics program iv. Word program
- Which type of program acts as an intermediary between a user of a computer and the computer hardware?
i. Operating System iii. Super User Thread
ii. User Thread iv. Application Program

Q2. Fill in the blanks. Attempt all.**2 Marks Each (2x3=6)**

- Hexa Decimal number system has Radix value of -----
- is a pointing device
- A string of 8 bit is -----

Q3. Write True or False. Attempt all.**2 Marks Each (2x2=4)**

- A group of 8 bits is called a Nibble
- Loading of operating system into computer memory is called Booting

Q4. Attempt any two of the following:**5 Marks Each (5x2=10)**

- Explain Operating System
- Explain WWW and other Internet services.
- Convert the following to Octal to Decimal
i) (334)₈ ii) (13)₈

Q5. Attempt any one of the following:**10 Marks Each (10x1=10)**

- Explain Binary, Octal and Hexa decimal number system
- Explain computer generations? Draw the basic structure of a computer and explain

Section-B**Subject: Biostatistics****Q1. MCQs. Attempt all. Select the correct choice as applicable. 2 Mark each (2x2=4)****a. . Yate's correction is applied when:**

- Expected frequency is less than 20
- Expected frequency is less than 11
- Expected frequency is greater than 20
- Expected frequency is less than 5

b. If mean median & mode are 18, 22, 30 respectively, the distribution is:

- (i) Symmetric (ii) Skewed
(iii) Can be symmetric, can be skewed (iv) None of above

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

(2x2=4)

a. The t-test statistic is used when n is.....

b. The median of the sample 5, 5, 11, 9, 8, 5, 8 is.....

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

(3x2=6)

- c. Two types of statistics are Descriptive and inferential.
d. Mean is a measure of Dispersion.
e. The median for 610,515,625,430,400 is 400.

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

(5x2=10)

- a. Write note on Scales of Measurement
b. Write properties, merits and demerits of Standard Deviation.
c. Importance of Biostatistics.

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

(10x1=10)

- a. Calculate the mean, median and modal number of colds experienced per person for the following distribution:

Colds Experienced:	0	1	2	3	4	5	6	7
8-10								
No. Of persons	: 30	40	20	15	10	5	3	2
1								

- b. Discuss in detail Presentation of Data?

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Subject: General English & Communication Skills

Time: 3 Hours

Note: All questions are compulsory.

Max. Marks: 70

Q1. Attempt any five MCQs. Select the correct choice as applicable. Each question carries 2 Mark (2x5=10)

- a) She shall _____ your ice-cream parlour soon because she _____ ice-cream.
1. Be visiting, like 2. Visit, likes 3. Have been visiting, is liking 4. Visiting, like
How do we generally end an application to the authority?
1. Your's sincerely 2. Yours faithfully 3. Your's faithfully 4. Yours sincerely
- b) Which one is the adjective in the following sentences?
(They are proud to be Indian.)
1. Proud 2. Be 3. They 4. Indian
- c) I _____ an appointment soon with the dentist.
1. Have made 2. Will make 3. Made 4. Make
- d) Convert the following active form to passive form:
(I was determined to mortgage the car.)
1. The car was determined to be mortgaged. 2. I am determined that car will be mortgaged.
3. I was determined that the car should be mortgaged. 4. I was determined that car will be mortgaged.
- a) Prime Minister has arrived _____ London.
1. At 2. To 3. In 4. From

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

- a) The steamer _____ yesterday. (sail)
b) The prizes _____ by the chief guest. (distribute)
c) The hospital will be _____ the left. (to)
d) There was a discussion going on _____ the group of students. (be)
e) We congratulate you _____ your achievement. (be)

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

- "I will come with you," he said. The above sentence is in direct speech.
- The jewellery store is behind the Italian restaurant.
- Crossed arms always indicate someone who is closed-off.
- When we have to tell about our daily routine we talk in the present simple tense.
- Verb is the person who does the action.

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

- a) Define articles. Explain the three types of articles.
- b) Explain the difference between past perfect tense and future perfect tense with suitable examples of the same.
- c) Describe in detail the importance of body language.
- d) Write a letter to the editor of a daily newspaper complaining about the construction work on your road in the middle of monsoon season causing inconveniences to the people of your locality.
- e) What is a debate? How you as a student would perform a debate, mention the correct steps or characteristics of a good debate.

Q5. Attempt any two out of the given four questions: 10 Marks Each (10x2=20)

- Discuss the different parts of speech in lieu of Grammar.
- Define group discussion. What are the do's and don'ts of a group discussion?
- What are the steps to perform a formal presentation? State a format.
- Discuss the interview tips as in what steps students are supposed to perform before and after the interview.