

Enrollment No.

B (SVSU:2021-22/R)

HUMAN ANATOMY & PHYSIOLOGY
BMLT, BOTT, BMIT and BOPT- 1st Year

Time: 3 hours

Max. Marks: 70

Section-A

Subject: Human 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 | Tibia is a bone of | 2 mark each (2x3=6) | | |
| | i Upper limb | ii Lower limb | iii Thorax | iv None of the above |
| b | Thyroid gland is a | | | |
| | i Exocrine gland | ii Endocrine gland | iii Salivary gland | iv none of the above |
| c | Shoulder joint is | | | |
| | i Pivot type | ii Ball and socket type | iii Saddle type | iv Hinge type |

Q2 Fill in the blanks. Attempt all

2 marks each (2x3=6)

- a Jejunum is a part of ----- intestine
b Number of cranial nerves is -----pairs.
c Sperms are formed in -----.

Q3 Write True or False. Attempt all.

2 marks each (2x2=4)

- a Ascending colon is a part of large intestine.
b Fibula does not participate in knee joint.

Q4 Attempt any two of the following.

5 marks each (5x2=10)

- a Discuss types of bones
- b Discuss external features of pancreas.

Q5 Attempt any one of the following

10 marks each (10x1=10)

- a Describe external features of stomach
b Describe structure of eye

Section B

Subject: Physiology (Max. Marks: 34)

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

- a) Leydig cells are located in
- seminiferous tubules
 - rete testis
 - interstitial space outside seminiferous tubules
 - Epididymis
- b) In man, normal duration of cardiac cycle is
- 0.4 sec
 - 0.1 sec
 - 0.8 sec
 - 1.2 sec

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

2 marks each (2x3=6)

- a. Scurvy is caused due to deficiency of -----.
- b. In a synapse receptor for neurotransmitter is present at..... membrane.
- c. Resting membrane potential of a neuron is.....mV.

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

2 marks each (2x2=4)

- a. Facilitated diffusion is an example of active transport across the cell membrane.
- b. Glucagon secretion increases during starvation.

Q.4: Write short notes on any two of the following:

5 marks each (5 x2=10)

- a. Goitre
- b. Functions of saliva
- c. Blood Groups

Q.5: Attempt any one of the following:

10 marks each (10x1=10)

- a. Explain the development of Action Potential in a neuron with its different phases and ionic basis.
- b. Elaborate the mechanics of respiration.

Printing Pages :2

Paper Code : BOTT-102

B (SVSU:2021-22/R)

Enrollment No.

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B.Sc. Operation Theatre Technology (BOTT) Ist Year**Time: 3 Hours****Max. Marks: 70****Section-A****Subject: General Pathology (Max. Marks: 36)***Note: All questions are compulsory. Make diagrams wherever required.***Q1. MCQs. Attempt all. Select the correct choice as applicable.****(2x3=6)**

- a. Which anticoagulant present in red cap vials:
 i. Heparin ii. Sodium citrate 1:9 iii. Sodium fluoride iv. None of these
- b. Urinometer is used for :
 i. Specific gravity of urine ii. Protein in urine iii. PH of urine IV. All of these
- c. Specific gravity of urine is:
 ii. 1.003- 1.030 ii. 1.020- 1.004 iii. 1.005- 1.030 IV. None of these

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

- a. EDTA stands for
- b. Normal urine color pale yellow due to.....pigment.
- c. PH of blood is.....

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

- a. Normal hemoglobin level in female is 13-16.
- b. Blood cells found in urine in normal condition.

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

- a. Define necrosis and discuss their types.
- b. Define hemoglobin. Write the various methods to estimate for Hemoglobin.
- c. Write in detail about Apoptosis.

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

- a. What is Leukemia? Write classification and their causes.
- b. What is urine? Give details about physical and chemical examination of urine.

Section-B**Subject: General Microbiology (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)**

- d. Fungal Cell wall is made up with _____:
 i. Protein ii. Cellulose iii. Peptidoglycan iv. Chitin
- e.mostly present as normal flora of human body.
 ii. Bacteria ii. Parasite iii. Fungi iv. Virus

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

- d. Malaria is caused by
- e. HSV is stands for
- f. Embryonated eggs are used to grow.....

Q3. Write True or False. Attempt all.

2 Marks Each (2x2=4)

- c. Autoclave works on the principle of moist heat sterilization.
- d. Bacteria are unicellular eukaryotic organism.

Q4. Attempt any two of the following:

5 Marks Each (5x2=10)

- d. Discuss the growth curve of bacteria.
- e. Discuss the term Mycosis and their types.
- f. Write down the difference between Bacteria and Virus.

Q5. Attempt any one of the following:

10 Marks Each (10x1=10)

- c. Discuss the Principle, Procedure and result of Z.N Staining Technique.
- d. Explain the morphology, life cycle and lab diagnosis of Plasmodium.

Printing Pages :1

Paper Code : BOTT-103

C (SVSU:2021-22/R)

Enrollment No.

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B.Sc. (BOTT)- Ist Year**Medical Biochemistry****Time: 3 Hours****Max. Marks: 70****Q.1: Multiple Choice Questions. Select the correct choice:-****(2x5=10)**

- The basic amino acid is:-
 - Arginine
 - Histidine
 - Lysine
 - All of these.
- The ATP Molecules are formed in Glycolysis :-
 - 2
 - 4
 - 6
 - 8.
- Which of the following test can be used for the estimation of protein:
 - Benedict test
 - Heat and Acetic acid test
 - Jaffe's test
 - None of these.
- Which organ is involved in the formation of glucose from non-carbohydrate precursor:-
 - Liver
 - Heart
 - Lungs
 - None of these.
- The Example of Polyunsaturated fatty acid is:-
 - Arachidonic acid
 - Oleic acid
 - Palmitic acid
 - None of these.

Q.2: Fill in the blanks. Attempt all.**(2x5=10)**

- The activation of fatty acid required ATP molecules
-is non-reducing sugar.
- Full form of RIA is.....
- Colorimeter is based on.....law.
- blood glucose level is regulated by.....

Q.3: Write True or False. Attempt all.**(2x5=10)**

- Glucose-6-Phosphate Dehydrogenase is the enzyme of HMP shunt.
- Starch is the homopolysaccharide.
- Methionine is the essential amino acid.
- Carnitine carrier system is used for the transportation of fatty acid.
- Passive transport mechanism required energy.

Q.4: Attempt short notes on any four of the following:**(4x5=20)**

- Describe the Phospholipids with example.
- Describe the classification of lipoprotein.
- Define the Krebs's cycle and its energetic.
- What is Enzymes? Define the classification of enzymes
- Write the principle and Instrumentation and application of Colorimetry

Q.5: Attempt any two of the following:**(10x2=20)**

- Describe the beta oxidation of fatty acid.
- Describe the structure of cell membrane and mention its functions.
- What is Carbohydrates? Define classification and function of carbohydrate.

Printing Pages : 1

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

Enrollment No.

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

- i. Storage of clean equipment
- ii. Providing sterile equipment to the operation theater
- iii. Storing sterile equipment
- iv. Pharmacy of the operation theater

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

- i. Glass wares
- ii. Paraffin
- iii. Talcum and dry powders
- iv. Linen

c. What is the N₂O cylinder colour?

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

d. Which one of the following is the sweet odour inhalational agent?

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

e. Which drug is given in GA to decrease secretions?

- i. Glycopyrrlate
- ii. Propofol
- iii. Vecuronium
- iv. Tramadol

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

- a. Tongue fall is prevented by
- b. Endoscope is sterilized by.....
- c. The purpose of CSSD is
- d. The earliest sign of syncope is.....
- e. Pink colour cannula size.....

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

- a. Is O is universal donor blood group?
- b. 1-3 sections are there in operation table?
- c. Fluorescent Lamps are present in the OT.
- d. The anesthesia applied directly to the skin is Topical anesthesia.
- e. Endotracheal tube with metal rings inside is called PVC ET Tube.

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

- a. Note on blood transfusion?
- b. Note on local anesthesia techniques?
- c. Note on Duties of Nurses- Ethics, behavior during surgery?
- d. Note on instrument planning for various surgical procedure and auxiliary instrumentation?
- e. Note on Positioning of patient?

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

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

Section-B

Subject: Biostatistics (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. What is mode in statistics?

(i) A.M.

(ii) difference between higher value and lower value

(iii) value of middle observation

(iv) most commonly occurring value

b. Best method of variability is:

(i) Mean

(ii) Median

(iii) Range

(iv) SD

Q2. Fill in the blanks. Attempt all. 2 Marks Each (2x2=4)

a. Nominal Scale is a measure

b. Mean value of diastolic BP 86,76,80,86,70,96,86,76,86 is.....

Q3. Write True or False. Attempt all. 2 Marks Each (3x2=6)

a. Two types of statistics are Descriptive and inferential.

b. Mean is a measure of Dispersion.

c. 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 importance of Standard Deviation and coefficient of variation?

c. What is Presentation of data and why is it important?

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

a. Pulse rate of 12 individuals are given as: 58,66,70,74,80,86,90,100,79,88,96 & 97

Calculate mean, median and mode.

b. Write a note on different test of significance?

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. The synonym of frail is -
 - i. weak
 - ii. active
 - iii. strong
 - iv. absent
- b. The antonym of sharp is -
 - i. intelligent
 - ii. straight
 - iii. delighted
 - iv. dull
- c. sentences are used for asking questions.
 - i. Imperative
 - ii. Declarative
 - iii. Interrogative
 - iv. None of these
- d. Communication are abilities you use when giving and receiving different kinds of information.
 - i. processes
 - ii. skills
 - iii. systems
 - iv. None of these
- e. Communication can be verbal and -
 - i. Adjectival
 - ii. void
 - iii. verbose
 - iv. Non-verbal
- f. In role play students take on specific.....
 - i. reasons
 - ii. reels
 - iii. reviews
 - iv. roles

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

(2x5=10)

- a. Your presentation needs to be built around what your is going to get out of the presentation.
- b. is something done consciously, that involve the analysis and understanding of the sounds you hear.
- c. An abstract is a concise of the entire paper.
- d. Corporate behaviour is important in strengthening within organisations between individuals, teams, and in the organisation as a whole.
- e. Formal letters are in nature.

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

(2x5=10)

- a. You should never try to include examples in the Group discussion.
- b. A simple example of body language is a relaxed facial expression that breaks out into a genuine smile – with mouth upturned and eyes wrinkled.
- c. When a person reads a text he engages in a complex array of psychomotor processes.
- d. Informal letters are personal in nature.
- e. The abstract should contain the most important key words referring to method and content.

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

(5x4=20)

- a. Analyze the importance of reading comprehension.
- b. Summarize the use of body language for interviews and negotiations.
- c. Discuss the importance of listening.
- d. Cite the office etiquettes.
- e. Define abstract writing.

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

(10x2=20)

- a. Explain the requisites of good paragraph writing.
- b. Outline the methods to succeed in Group Discussions.
- c. Identify the strategies for making effective formal presentations.