

**B.Sc. Allied Health Sciences Second Year (Semester-III)**

**March – 2014 Examination**

**B.Sc. Operation Theater Technology (OTT)**

**Time : 3 Hrs.**

**Paper – I**

**Max. Marks: 100]**

**Applied Pathology & Microbiology**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**(Use separate answer booklet for Section A & B)**

**Section – A**

**Applied Pathology (50 Marks)**

**Q.P Code : AHS-114**

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Define anemia, etiological classification of anemia. What are the investigations done in a case of iron deficiency anemia.
2. Define emphysema, types of emphysema, briefly write about etiopathogenesis, clinical features and complications of emphysema.

**SHORT ESSAY (Answer any three)**

**3 X 5 = 15 Marks**

3. Pulmonary congestion.
4. Chronic myeloid leukemia.
5. Polycythemia vera.
6. Causes and clinical features of pleural effusion.
7. Asbestosis.

**SHORT ANSWERS (Answer any five)**

**5 X 3 = 15 Marks**

8. Clotting time-list the different methods.
9. Mention the types of pneumoconiosis.
10. Principle of Sahli's method of hemoglobin estimation.
11. Causes of pulmonary edema.
12. Causes of polycythemia.
13. List the complication of pneumoconiosis.
14. Causes of lymphocytosis.

**Section – B**

**Applied Microbiology (50 Marks)**

**Q.P Code : AHS-115**

**(Use separate answer booklet for Section-B)**

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Discuss briefly the measures taken to control the infections in health care setting.
2. Discuss in detail about the principle of autoclaving and its sterilization control.

**SHORT ESSAY (Answer any three)**

**3 X 5 = 15 Marks**

3. Gaseous sterilization.
4. Methicillin resistant Staphylococcus aureus. (MRSA)
5. Ventilator associated pneumonia.
6. Rideal-Walker test.
7. Nosocomial infection.

**SHORT ANSWERS (Answer any five)**

**5 X 3 = 15 Marks**

8. High level disinfectants (definition and examples)
9. Incineration.
10. Precautions to be taken when loading articles into the Hot Air Oven.
11. Flash method of pasteurization.
12. Mention the Four areas of the sterilizing processing department.
13. Ionizing radiation.
14. Iodophores.

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Classify suture materials. Name absorbable and non absorbable suture materials and enumerate the difference between them.
2. Name the inhalational anaesthetic agents. Write the color coding of their vaporizers. Write the anaesthetic property of isoflurane.

**SHORT ESSAY (Answer any Ten)**

**10X 5 = 50 Marks**

3. Write short notes second gas effect.
4. Write short notes Oxygen cascade.
5. What is total intravenous anaesthesia? How do you monitor the depth of anaesthesia during total intravenous anaesthesia?
6. Name the characteristics of materials used for the constructions of endotracheal tubes.
7. What are the different types of cuff tubes used in anaesthesia practice? Enumerate the difference between them.
8. Name five different types of laryngoscope blades used in clinical practice. Write an indication for its use.
9. Write the general description of an oropharyngeal airway and name specific airways.
10. What are the different sizes of laryngeal mask airways available? How do you select the size of LMA for a given patient?
11. What are the advantages and complications of subarachnoid blockade?
12. Write short notes on oxygen therapy.
13. Write short notes on color coding of bags for segregation of biomedical waste.
14. Name the intravenous anesthetic agents and enumerate their clinical uses.

**SHORT ANSWERS (Answer any Ten).**

**10 X 3 = 30 Marks**

15. What are the advantages and disadvantages of thiopentone anaesthesia.
16. Write the formulas use to calculate endotracheal tube size in paediatric patients.
17. Write short note on intubation laryngeal mask airway.
18. Write a brief note on gauge of suture materials used.
19. Define sterilization. What are the different methods of sterilization?
20. How do you sterilize equipments used in anaesthesia practice?
21. What are the different types of packs prepared for orthopedic surgery cases?
22. Write short note on Plasma sterilization.
23. What is entanox? What are its clinical uses?
24. How do you segregate biomedical waste?
25. Write short note on monitored anaesthesia care.
26. Write short notes on Guedel airway.

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**Time : 2.30 Hrs.**

**Paper - III**

**Max. Marks : 80]**

**Pharmacology**

**Q.P Code : AHS-117**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

- ✓ 1. Describe the various routes of drug administration with suitable example. Enumerate the various merits and demerits of the oral route.
- ✓ 2. Classify BETA blockers. Describe the pharmacology, uses and adverse drug reactions of propranolol.

**SHORT ESSAY (Answer any Six)**

**6X 5 = 30 Marks**

- ✓ 3. Inducing agents.
4. Drug antagonism.
- ✓ 5. Sevoflurane.
6. Organo phosphorus compound poisoning-(Organo phosphorus compound).
- ✓ 7. Rocuronium.
- ✓ 8. List the therapeutic uses and adverse effects of morphine.
9. Pharmacogenetics.
- ✓ 10. Spinal anaesthesia.

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

- ✓ 11. Second gas effect.
- ✓ 12. Drug addiction.
- ✓ 13. Prazosin.
- ✓ 14. Mention the primary solutions.
- ✓ 15. Mention two disinfectants and two uses.
- ✓ 16. Mention three IV general anaesthetics.
17. Minimum alveolar concentration.
- ✓ 18. Therapeutic index.
- ✓ 19. Sub-lingual route.
- ✓ 20. Mention three inhalational general anaesthetics.
- ✓ 21. Tachyphylaxis.
22. Blood brain barrier.

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**Paper - IV**

**Max. Marks: 80]**

**Medicine Relevant to OT Technology**

**Q.P Code : AHS-118**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY**

**2 X 10 = 20 Marks**

1. Define diabetes mellitus, aetiopathogenesis, classification perioperative complications and treatment of diabetes mellitus.
2. A 25 years old female with full term pregnancy with PIH posted for emergency cesarean section. What are the perioperative complications you can anticipate and how will you manage peri operative complications?

**SHORT ESSAY (Answer any Six)**

**6X 5 = 30 Marks**

3. What is the prevalence and etiopathogenesis of bronchial asthma?
4. Physiological and anatomical changes in elderly patients
5. What are the principles of management of diabetic ketoacidosis
6. Define classification and clinical features of P.I.H
7. Peri operative complications and management of diabetes mellitus
8. Peri operative complications and management of ischaemic heart disease
9. Define COPD, etiopathogenesis and clinical features of COPD
10. Define anemia, classification and clinical features of anaemia

**SHORT ANSWERS (Answer any Ten)**

**10 X 3 = 30 Marks**

11. Hypertensive crisis
12. What are the pre disposing factors of asthmatic attack?
13. Define hypertension, classification and etiopathogenesis of hypertension
14. Perioperative complications and treatment of COPD
15. Physiological changes in pregnancy
16. Perioperative complications and treatment in elderly patient
17. Define obesity, classifications and etiopathogenesis of obesity
18. Management of perioperative complications of anaemia
19. Management of perioperative complications of obesity
20. Perioperative complications and treatment of hypertensive patient
21. What are the end organ damages caused by long standing hypertension
22. What are the signs and implications of autonomic neuropathy in the diabetic patients

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