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Paper Code : MMLT-B-301 A (SVSU:2020-21/R)

Enrollment No. | | | | | | | | | | | | |

M.Sc. Medical Laboratory Technology (MMLT) (B)

III Semester II Year

Subject: Diagnostic Biochemistry

Time: 3:00 Hours **Max. Marks: 70**

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

Q. I. Long Questions. Attempt any Three. (10x3=30)

1. Explain the role of buffers in the regulation of acid base balance. Write disorders of acid base balance in detail.
2. Write the steps in catabolism of bilirubin. Explain biomedical significance of bilirubin
3. Explain the clinical significance of liver status for biochemical parameters in diseased state.
4. Explain current analytical methodology for thyroid testing.

Q. II. Short Answer Questions. Attempt any Five. (5x5=25)

1. Define tumor markers. Write interpretation on any two.
2. Write short note on Liver Function Tests
3. What do you mean by imbalance of electrolytes? Write its biomedical significance
4. Disorders of acid base balance.
5. What is the clinical significance of electrolytes in reference to the assessment of renal function.
6. Disorders of heme catabolism.
7. Urine analysis
8. Clinical significance of enzymes
9. Renal Function Tests
10. Cholelithiasis

Q. III. Multiple Choice Questions. Attempt All. (1x15=15)

1. Deficiency of bile salts promotes:-
   (i) Gall stones (ii)Edema (iii)Marasmus (iv)None of these.
2. ALT & AST are concerned for the assessment of:-
   (i)Liver diseases (ii) Kidney diseases (iii)Heart diseases (iv) None of these.
3. Renal function markers are:-
   (i)Urea & creatinine (ii)Glucose & fructose (iii)Glucose & ketone bodies (iv)None of these.
4. Peptic ulcer has occurred in:-
   (i) Lungs (ii) Stomach (iii) Kidney (iv) None of these.
5. Which disease is caused due to overproduction of thyroid hormones?
   i.Grave's disease ii. Gigantism iii.Cushing's disease iv. None of these
6. Which one of the following is renal threshold for calcium in plasma?
   i. 10 mg/dL ii. 28 mg/dL iii.60 mg/dL iv. None of these
7. Zollinger-Ellison syndrome is concerned in:-
   i. Gastric Function Test ii. Liver Function Test iii.Renal Function Test iv. None of these
8. Which of the following is a constituent of alkaline phosphatase?
   (i)Zinc (ii) Magnesium (iii)Manganese (iv) None of these

(iv) All of these

10. Which isoenzyme catalyzes the formation of lactate from pyruvate during glycolysis:-

(i) Pyruvate dehydrogenase (ii) Lactate dehydrogenase (iii)Creatine Kinase (iv) None of these

11. Which one of the following is applicable for the screening of common type of cancer:-(i)PSA

(i) PSA (ii) CEA (iii) CA125 (iv) None of these

12. Which reference range is appropriate for hypernatremia:-

(i)130mEq/L (ii)140mEq/L (iii)>145mEq/L (iv) None of these.

13. Which one of the following hormone regulate blood calcium level:-

(i) Calcitonin (ii) Insulin (iii) Epinephrine (iv) None of these.

14. Which one of the following is a disorder for biosynthetic pathway of heme:-

(i) Porphyrias (ii) Cancer (iii) Diabetes Mellitus (iv) Gout.

15 Which one of the following is a gastrointestinal disease:-

(i)Diabetes Mellitus (ii) Atherosclerosis (iii) Insulinoma (iv)None of these.

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Paper Code : MMLT-H-301 C (SVSU:2020-21/R)

Enrollment No. | | | | | | | | | | | | | |

M.Sc. Medical Laboratory Technology (MMLT) (H)

III Semester II Year

Subject: Blood Banking & Transfusion

Time: 3 Hours ***University Examination*** ***Max. Marks: 70***

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

Q. I. Long Questions. Attempt any Three. (10x3=30)

1. Define blood transfusion reaction and classify them. What is TRALI. How will you investigate a case of Immediate immune haemolytic transfusion reaction?
2. Write in detail about Rh blood group system. Enumerate methods of blood grouping and describe one of them.
3. What is Haemolytic disease of newborn? Write aetiopathogenesis of HDN due to Rh incompatibility. How can it be prevented?
4. What is principle of Coomb's test? Write down indications and method of Indirect Coomb's test.
5. Enumerate blood components prepared in blood bank. Describe principle and methods of blood component preparation.

Q. II. Short Answer Questions. Attempt any Five. (5x5=25)

1. Cryoprecipitate, preparation storage and use
2. Write in brief about Apheresis
3. Autologous transfusion
4. Compatibility testing
5. Deferral of blood donors
6. Reverse blood grouping and its significance
7. Haemovigilance
8. Transfusion transmitted infections
9. Quality assurance in blood banking
10. Write in brief about CPDA-1 and SAGM

Q. III. Multiple Choice Questions. Select the correct choice. Attempt All. (1x15=15)

1. What is the concentration of RBC cell suspension prepared for reverse blood grouping:
   a. 2 -5% b. 5 -7 %
   c. 10% d. < 2 %
2. It is mandatory to screen blood for following infections, except:
   a. Hepatitis A virus b. Hepatitis B virus
   c. Human Immunodeficiency virus d. Syphilis
3. Naturally occurring anti A & anti B antibodies are:
   a. IgA b. IgM c. Ig D d. Ig G
4. Chemical nature of ABO group antigens is:
   a. Protein b. Lipid
   c. Carbohydrates d. None of above

5. Cryoprecipitate is a rich source of:
   a. Clotting factors II, V & X
   b. Clotting factors VII, VIII & XII
   c. Clotting factors VII & Albumin
   d. Clotting factors VIII, IX & fibrinogen

6. For mismatched haemolytic transfusion reaction all are true, except:
   a. Urine shows Haemoglobinuria
   b. Plasma haptoglobin level is decreased
   c. It can occur if blood is > 01 week old
   d. Patient may develop Acute renal failure

7. Anti Rh antibodies developed after transfusion of Rh +ve blood to Rh-ve patient are:
   a. IgA
   b. IgM
   c. Ig D
   d. Ig G

8. Platelet concentrate is stored in agitator with incubator at:
   a. 2 to 6^0 C.
   b. 20 to 22 ^{0}C
   c. -40 ^{0}C.
   d. 37 ^{0}C.

9. Following is the additive solution used to increase shelf life of PRBC:
   a. EDTA
   b. NADPH
   c. SAGM
   d. Sodium citrate

10.. How much CPDA-1 is added to 100 ml blood:
   a. 10 ml
   b. 18 ml
   c. 14 ml
   d. 08 ml

11. Bombay blood group individual's genotype is:
   a. HH
   b. AB
   c. hh
   d. Hh

12. In CPDA-1 containing blood bag, blood can be stored for:
   a. 21 days
   b. 35 days
   c. 120 days
   d. 28 days

13. For Indirect Coomb's test blood sample is collected in:
   a. EDTA vial
   b. Fluoride vial
   c. Citrate vial
   d. Plain vial

14. HDN occurs when :
   a. Mother is Rh –ve and fetus Rh +ve
   b. Mother is Rh –ve and fetus Rh -ve
   c. Mother is Rh +ve and fetus Rh +ve.
   d. Mother is Rh+–ve and fetus Rh -ve

15. Rh blood group genes are located on chromosome number:
   a. 1
   b. 3
   c. 9
   d. 12

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Subject Code: MMLT-M-301 C (SVSU:2021-22/R)

Enrollment No.													

M.Sc. Medical Laboratory Technology (MMLT) 3rd Sem 2nd Year

Subject: Virology & Mycology

Time: 3 Hours *University Examination* ***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. Which of the following stain can be used for Diagnosis of Fungal infections?
i Gram stain ii LCB iii India Ink iv All of the above

b. They do not grow in inanimate media?
i Virus ii Fungi iii Bacteria iv both A and C

c. Which of the following type of personal protective equipment is frequently used-
i. Safety glass ii. Lab coats iii. Gloves iv. All of te above

d. They do not grow on inanimate media
i. Virus ii. Bacteria iii.Fungi iv. All of the above

e. They are resistant to antibiotics-
i. Virus ii. Bacteria iii.Fungi iv. All of the above

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

a. Aspergillus fumigates may cause.....
b. Cryptococcosis may cause by.....
c. Mucor, Rhizopus and Absidia are associated with .....mycosis
d. Candida albicans causes.....
e. Ingestion of mycotoxin causes .....

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

a. Rhabdo viruses are bullet or rod shaped virus ( )
b. HBsAg also known as Australian antigen ( )
c. Hepatitis B is DNA virus while other hepatitis virus (A C, D, E,G) contain RNA genome. ( )
d. The largest virus is the smallpox virus. ( )
e. The smallest virus is parvovirus. ( )

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

a. Bacteriophage
b. Lactophenol cotton blue mount
c. General properties of fungi.
d. Fungi responsible for mycotoxicosis.
e. Difference between antigenic shift and antigenic drift.

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

a. Describe about morphology and laboratory diagnosis of HIV.
b. Cultivation of Viruses.
c. Laboratory diagnosis of Candida albicans.

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Paper Code :-MMLT-B-302 **B** **(SVSU:2022-23/R)**

Enrollment No.													

M.Sc. Medical Lab Technology (MMLT) III Semester II Year

Subject: Laboratory Management and Biomedical Techniques

Time: 3:00 Hours **University Examination** **Max. Marks: 70**

Q.1: Attempt all multiple Choice Questions. Select the correct answer only. **(2x5=10)**

a. Body air supplied, positive presser personnel suit is comes in to.....
i. BSL1 ii. BSL2 iii. BSL3 iv. BSL4

b. Which of the following type of personal protective equipment(PPE) is frequently used?
i. Safety glasses ii. Gloves iii. Face Shields iv. All of the above.

c. Which one is related to positive roles of codes of Ethics?
i. Infiltration ii. Inspiration. iii. Inhalation iv. Dehydration,

d. The polymerization of the gel used in PAGE occurs between polyacrylamide and
i. N,N–acrylamide ii. Bisacrylamide iii.N–methyleneacrylamide iv. N, N – methylene bisacrylamide

e. . Which technique is used to measure absorption of light in solution (at ultraviolet to visible range)
i. Spectrophotometry ii. Turbidimetry iii. Flame photometry iv. Conductometry

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

a. Full Form of NABL .....
b. The bar code error is comes into .....
c. Professional ethics is a sub division of .....
d. Full form of LIS is .....
e. Spectrophotometer based on the..... Law.

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

a. Sodium is the major cation found in extracellular fluid.
b. External quality control includes availability of sample from other laboratory
c. The documents are communicators of the quality management system.
d. CD4 and CD8 cells are counted by Flowcytometer.
e. The visible range of light spectrum is 380-720 nm.

Q.4: Write short notes on any four. **(5x4=20)**

a. Lab safety equipments.
b. Biological safety levels
c. Write notes on Gel permeation Chromatography.
d. What is principle and application of Spectrophotometer?
e. What is Electrophoresis? Describe the principle and application.
f. What are Ion selective Electrodes? Write the types of Electrodes.

Q.5: Write long notes on any two. **(10x2=20)**

a. Discuss about functional components of clinical laboratory. Give the diagrams if necessary.

b. What you think about laboratory information system? Discus about HIS.

c. Describe the Principle, Instrumentation and application of HPLC.

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Paper Code :-MMLT-H-302 **C** **(SVSU:2022-23/R)**

Enrollment No.													

M.Sc. Medical Lab Technology (MMLT) III Semester II Year

Subject: Laboratory Management

Time: 3:00 Hours **University Examination** **Max. Marks: 70**

Q.1: Attempt all multiple Choice Questions. Select the correct answer only. **(2x5=10)**

a. The fire triangle composed with .....
i. O_2 ii. Fuel iii. Heat iv. All of these

b.. The lab should be accredited with :-
i. CAP ii. NABL iii. ISO. iv. All of these

c. Rationale of LIMS?
i. Hardware ii. Software iii. Procedure iv. All of the above.

d. Which of the following type of personal protective equipment(PPE) is frequently used?
i. Safety glasses ii. Gloves iii. Face Shields iv. Iv. All of the above.

e. System applied for quality management and quality assurance standards is
i. ISO 9000 ii. ISO 10000 iii. ISO 22000 iv. ISO 14000

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

a. .....microscope is used to study living cells.

b. L-J graph is used for the .....

c. HIS is stand for.....

d. In a diagnostic laboratory you should avoid missing of acids with.....

e. Chemical, reagents and broth cultures should be pipette by.....

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

a. Continues flow analyzer waste the more reagents.
b. External quality control includes availability of sample from other laboratory
c. The documents are communicators of the quality management system.
d. Sample collection error is the post analytical error.
e. Artificial intelligences are used in modern laboratories.

Q.4: Write short notes on any four. **(5x4=20)**

a. What are the 3 most common accidents or incidents occur in the laboratory.
b. Electronic data exchange.
c. Describe Lab safety equipments.
d. Write notes External and Internal Quality control.
e. Write notes on Standard and reference material in laboratories.
f. Describe the biomedical waste and its types.

Q.5: Write long notes on any Two. **(10x2=20)**

a. Describe the laboratory information system and hospital information system in details.
b. Describe the general aspects of financial management of laboratories and National and international accreditation of laboratories
c. Discuss about functional components of clinical laboratory. Give the diagrams if necessary.

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Paper Code :-MMLT-M-302 **C** **(SVSU:2022-23/R)**

Enrollment No.													

M.Sc. Medical Laboratory Technology (MMLT) IIIrd Sem. IInd Year

Subject: Clinical Microbiology

Time: 3 Hours ***University Examination*** ***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. Suppurative infections is mostly caused by _____
- i. *Treponema pallidium*
- ii. *Staphylococcus aureus*
- iii. *Clostridium teatani*
- iv. None of these

b. Viruses can grown on _____
- i. Nutrient Agar
- ii. SDA
- iii. Cell lines
- iv. Broth

c. Amoebic dysentery is caused by_____
- i. Mycobacterium
- ii. E.histolytica
- iii. Influenza Virus
- iv. Shigella

d. Hospital acquired infections mostly occur due to _____
- i. Virus
- ii. Fungi
- iii. Bacteria
- iv. Parasite

e. Endocarditis is the infection of _____
- i. Blood
- ii. Heart
- iii. Brain
- iv. Bone Marrow

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

a. In gram staining technique _____used as a secondary dye.
b. Streptococcus pneumonia cause the disease _____
c. Endocarditis is caused by _____
d. Full form of PUO _____
e. Z.N staining technique was modified by _____ & _____

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

a. Gram staining is a differential staining technique.
b. Pap smear is prepared to rule out the hepatic cancer.
c. Shigella can cause wound infection.
d. Handing drop preparation is done to check the bacterial motility.
e. In negative staining technique glass slide instead of bacteria.

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

a. Explain the causes and clinical manifestation of sore throat.
b. Write about Food poisoning and bacteria responsible for food poisoning.
c. Describe PUO.
d. Explain the spread plate method technique.
e. Describe the hanging drop preparation technique

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

a. What is STD's? Discuss the various sexually transmitted diseases along with their clinical manifestation.
b. How to diagnose the urinary tract infections; explain various tools and test of urine analysis.
c. What is Meningitis? Explain its causes and clinical manifestations.

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Paper Code :-MMLT-H-303 **A** **(SVSU:2022-23/R)**

Enrollment No.													

M.Sc. Medical Laboratory Technology (MMLT) IInd Year

Subject: Recent Advances in haematology and Blood banking

Time: 3 Hours ***University Examination*** ***Max. Marks: 70***

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

Q1. Attempt all five MCQs. Select the correct choice as applicable. 2 Mark each (2x5=10)

a. All of following can be prepared in blood bank except :
   i. PRBC iii. Factor IX concentrate
   ii. FFP iv. Platelet concentrate

b. Seed extract of Dolichos biflorus is used in blood bank for confirmation of:
   i. Blood group A1 iii. Bombay Blood group
   ii. Blood group A 2 iv. None of these

c. All are true for immune haemolytic transfusion reaction except:
   i. Presence of haemoglobinuria iii. Positive direct Coomb's test
   ii. Decrease in serum Haptoglobin level iv. Increase in blood Urea level

d. RDW is abbreviation for :
   i. Random donation width iii. Red cell distribution width
   ii. RBC diameter width iv. None of these

e. Blood sample for CBC by haematology analyser is collected in:
   i. Plain vial iii. Double oxalate vial
   ii. EDTA vial iv. Citrate vial

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

a. Shelf life of PRBC collected with SAGM is .....days.
b. Injection given to Rh negative mothers for HDN prophylaxis is.....
c. Flowcytometer works on principle of.....
d. Window period of TTI can be minimized by replacing ELISA screening with.....
e. Blood component rich in factor VIII is .....

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

a. Haematology analyser works on principle of Electrical impedence.
b. A Plateletpheresis donor can again donate SDP after 24 hour.
c. Naturally occurring anti A & anti B antibodies are IgM in nature.
d. For Indirect Coomb's test blood sample is collected in plain vial.
e. Screening for Cytomegalo virus is mandatory before transfusion.

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

Short notes:

a. Principle and indications for Coomb's test.
b. Exchange blood transfusion – selection of blood components.
c. Bombay blood group.
d. Auto analysers.
e. Use of microwave oven in histopathology.

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

a. Write about bio medical waste management.
b. Write about Universal Safety precautions in a laboratory.
c. What is apheresis. Write down its uses and describe plateletpheresis.

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Paper Code :-MMLT-B-303 B (SVSU:2022-23/R)

Enrollment No.													

M.Sc. Medical Laboratory Technology (MMLT) III[rd] Semester 2[nd] Year

Subject: Recent Advances in Biochemistry

Time: 3 Hours *University Examination* *Max. Marks: 70*

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

Q.1: Attempt any five MCQs. Select the correct choice as applicable. (2×5=10)

a. Protein is purified using ammonium sulphate by:
i. Salting out ii. Ion exchange chromatography iii. Mass chromatography iv None

b. Western blotting is the technique for the identification of
i. DNA ii. RNA iii. Protein iv. Dot blot

c. Recombinant proteins can be best purified by .....
i. Salting out ii. SDS-PAGE iii. Affinity chromatography iv. Isoelectric focussing.

d. All of the following can determine protein structure, except:
i. HPLC ii. Mass spectrometry iii. X-ray crystallography iv. NMR spectrometry

e. The polymerization of the gel used in PAGE occurs between polyacrylamide and
i. N, N – acrylamide ii. Bisacrylamide iii. N – methyleneacrylamide iv. N, N – methylene bisacrylamide

f. Measure the average spacing's between layers or rows of atoms by
i. Spectrophotometry ii. Colorimetry iii. X-ray diffraction iv. None of these

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

a. Instrument Used in the trace metal analysis is.....
b. Full form of PAGE is.....
c. The most common type of gel used for DNA separation is....
d. A silica gel used as a stationary phase in .....
e. CD4 and CD8 cells are counted by.....

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

a. In Gel Permeation Chromatography smaller molecules will be eluted last
b. $N\lambda = 2d \sin\theta$ is known as Bragg's law
c. In SDS-PAGE, separation is based on Molecular weight.
d. A silica gel used as a stationary phase in paper chromatography.
e. A source of electron in X-ray diffraction is Tungston.

Q.4: Write short notes on any four. **(5x4=20)**

a. Describe the Application of enzymes in industry, diagnostics and medicine.
b. Define microarray techniques used in DNA.
c. Describe the principle and application of Gel Electrophoresis.
d. Describe the salting out process of Enzyme purification.
e. Define clinical and biomedical application of proteomics

Q.5: Write long notes on any two. **(10x2=20)**

a. Describe the principle, instrumentation and application of Flow cytometry.
b. Describe the principle, instrumentation and application of X-ray Crystallography.
c. What is Ion Exchange Chromatography? Describe types, principle and application of ion exchange chromatography.

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Paper Code :-MMLT-M-303 B (SVSU:2022-23/R)

Enrollment No.													

M.Sc. Medical Laboratory Technology (MMLT) 3rd SEM 2nd Year

Subject: Recent Advances in Microbiology

Time: 3 Hours *University Examination* *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. They do not grow on inanimate media
   i. Virus ii. Bacteria iii. Fungi iv. All of the above
b. They are resistant to antibiotics-
   i. Virus ii. Bacteria iii.Fungi iv. All of the above
c. They are plant pathogens-
   i. Viriods ii. Prions iii. Fungi iv. All of the above
d. Rabies is a natural infection of .....
   i. Mouth ii. Dogs iii. Human iv. Nose
e. Pneumocystis causes pneumonia in .....patients-
   i. HIV ii. Mycosis iii. Keratomycosis iv. Otomycosis

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

a. Hybridization involves.....
b. Dimorphic fungi exist as .....in the host tissue.
c. Dermatophytes fungi that infect only .....without involving the living tissue.
d. Candida albicans causes.....
e. Ingestion of mycotoxin causes .....

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

a. The largest virus is the smallpox virus. ( )
b. The smallest virus is parvovirus. ( )
c. Arboviruses (Arthropod borne viruses) are RNA viruses ( )
d. Hepatitis B virus is responsible for Hepato cellular carcinoma ( )
e. Hepatitis C virus can also be transmitted by needle stick injury. ( )

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

a. Nucleic acid amplification test (NAAT).
b. Centrifugal micro fluids.
c. Radioimmunoassay.
d. Precipitation test.
e. Laboratory diagnosis of fungal infections.

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

a. Laboratory diagnosis of Candida albicans.
b. Line probe assay.
c. Continues culture system and antimicrobial identification system.

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Paper Code :-MMLT-B/H/M-302 B (SVSU:2022-23/R)

Enrollment No.													

.Sc. Medical Laboratory Technology (MMLT) IIIrd Sem II[nd] Year

Subject: Research Methodology

Time: 3 Hours *University Examination* *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. Research is incomplete without?
   i. Results and discussion iii. Funds
   ii. Topic iv. conclusion

b. What is a synopsis ?
   i. A Research proposal iii. A Research Paper
   ii. A Journal iv. Research Methodology

c. What is review of Literature defined as?
   i. An Application iii. A Research Proposal
   ii. Previous established work iv. A Title

d. What is the source of fund for your project?
   i. Institute where you are studying iii. Self funded
   ii. Government or NGO iv. All of these

e. What is a questionnaire?
   i. Result iii. magazine
   ii. Details about patient/control iv. Material and Methods

f. What is title of the project?
   i. Theme iii. Broader view
   ii. Topic iv. Aim of the project

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

a. Material and .....include all the requirements of the research.
b. Plagiarism should be checked by institution to remove any copy_____Infrigment.
c. Intellectual _____Rights means no one can copy your work.
d. Mean, _____ and Mode are three central tendencies of statistics.
e. Copyright symbol is.....

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

a. Copyright claim is done by the original owner of the document or work done.
b. Aim of the project is known as title of the project.
c. Chi square test is one of the method used in biostatistics.
d. Control in any study is compulsory.
e. APA and MLA are not formats used to cite references for your articles.

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

a. Discuss the advantages and disadvantages of doing scientific Research?
b. Define hypothesis and give its example and types?
c. What is basic Research and Topic/title of the research?
d. How to identify new research topics and problems? Name any two?
e. What is bioethics? Explain with example.

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

a. (1)What are the different parts of the research paper ?(5)
   (2) How to write Abstract of research paper.(5)
b. What you understand by Good Clinical Practice (GCP). Is it required in Research?
c. What are intellectual property rights? How to claim your copyright if someone copies it?