PG/IS/BLM-101/19

M.Sc. 1st Semester Examination, 2019

BIOMEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER – BLM-101

Full Marks : 40

Time : 2 hours

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any *four* questions : 2 × 4

   (*a*) Why laboratory biosafety is important ?

   (*b*) Give two examples of chemical hazards.

   (*c*) What do you mean by good laboratory practices ?

   (*d*) How do you dispose off the used needles ?

(*e*) Name the items found in the First Aid box in the laboratory.

(*f*) What steps should be taken to remove an object lodged in ear ?

(*g*) Classify different types of fire with example.

(*h*) Which fire extinguisher should be used to extinguish electrical fire in the laboratory ?

2. Answer any *four* questions : 4×4

(*a*) What is the difference between primary and secondary barriers discuss with example ? 4

(*b*) What are the causes of burn in the laboratory ? How do you handle accidental burn patient in a laboratory ? $1 + 3$

(*c*) What are causes of chemical spillage in the laboratory ? What safety measures should be used on exposure of strong acid in laboratory ? $2 + 2$

(*d*) How do you handle eye accident in the laboratory ? 4

(*e*) Define risk group II and risk group III types of infectious agent with example. 2 + 2

(*f*) What are the criteria of water and carbondi-oxide extinguisher ? 2 + 2

(*g*) Give two examples of physical hazards and describe how each might be avoided or managed. 2 + 2

(*h*) How do you handle centrifugal machine and autoclave safely in the laboratory ? 2 + 2

3. Answer any *two* questions : 8 × 2

(*a*) What do you mean by biomedical waste ? Discuss the impact of waste on human health ? What is waste recycling ? 2 + 4 + 2

(*b*) What is HEPA filter ? What are the importance of the use of biosafely cabinet ? Discuss the different special practices require for BSL-4 laboratory. 2 + 2 + 4

(*c*) Discuss the electrical safely in the laboratory. How do you handle accidental swallowing of poisonous material in laboratory ? 4 + 4

(*d*) Define biohazards in a laboratory ? What safety precautions should be taken in specimen processing and disposal of specimen in laboratory. 2 + 3 + 3
