M. Sc.

2017

4th Semester Examination

BIO-MEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BLM-403

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

Answer Q. No. 1 *and any three from* the rest.

1. Answer any *ten* questions of the following : 10×1

(a) What is electrocardiograph ?

(b) Write any two applications of Southern blot.

(c) What do you mean by iso-electric pH ?

(d) Write the energy and wave length of diagnostic X-ray.

(e) Why g is important than rpm in centrifuge ?

(f) What are the filters used in spectro fluorometer ?

(g) What is frequency range of USG ?

(h) Write any two applications of MRI.

(i) What do you mean by Prob ?

(j) Write the full form of FSC and SSC in FACA.

(k) What is U-wave of ECG ?

(l) What are different types of EEG signals along with their frequency range ?

(m) Write any two major applications of centrifuge.

(n) Write the function of A.V. node in impulse generation.

(o) What is Montage ?

2. (a) Write the principle of Western blot.

(b) Why blocking step is very necessary in Western blot ?

(c) Write down the reasons of depurination at the time of Southern blot.

(d) Write short note on iso-electric focusing.

2+2+3+3

3. (a) Write different safety aspect for the use of different centrifuge machine.

(b) What do you mean by Einthoren's triangle ?

(c) Explain ECG signal in context to cardiac cycle, stating the normal amplitude and time period of normal adult male. 4+2+4

4. (a) Define fluorescence.

(b) Write the working principle of spectrofluorometer with labelled diagram of the different components.

(c) State the factors for sample preparation for FACA.

(d) Write the presentational way of the results of FACA. 2+4+2+2

5. (a) What is X-ray ?

(b) Describe the method of production of X-ray.

(c) What is the basic principle of ultra sonography and how does it works ? 2+5+3

6. (a) Enumerate the different ECG pattern during arousal and sleeping condition with its characteristic features.

   (b) What do you mean by Polysamnogram ?

   (c) State the any one type of Lead distribution of EEG diagramatically. 5+2+3

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