

M.Sc. 4th Semester Examination, 2013

**BIO-MEDICAL LABORATORY SCIENCE
AND MANAGEMENT**

PAPER—402 (Unit-27)

Full Marks : 40

Time : 2 hours

Answer all questions

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

MODULE – I

- 1. Answer any five of the following : 1 × 5,**
- (a) What do you mean by autoradiography ?**
 - (b) What is Grid ?**
 - (c) What is angiography ?**

(Turn Over)

- (d) Write down the full form of MCHC and EEG.
 - (e) What do you mean by screen canate film processing ?
 - (f) Write down the names of two contrast media.
 - (g) Write down the energy and wavelength of diagnostic X-ray.
 - (h) What is Doppler effect in Biomedical instrumentation ?
2. (a) What are MRI and CAT ?
- (b) Draw the schematic diagram of MRI scanner.
 - (c) Write down the advantage of CAT over conventional X-ray method. (1 + 1) + 4 + 2

Or

- (a) Write the precautionary measurements during EEG recording.

(3)

- (b) Write a short note on Flame photometer with diagram.
- (c) What is your idea about different lead placing during EEG. $2 + 4 + 2$
3. (a) Write short note on ultrasonic transducers.
- (b) What are *A*-scan, *B*-scan, and *M*-scan ?
- (c) Write down the range of ultrasound frequency used for diagnostic purposes. $3 + 3 + 1$

Or

- (a) Write a short note on electrocardiography.
- (b) Write down the components of endoscope.
- (c) Write down the different application of endoscopy. $3 + 2 + 2$

MODULE – II

4. Answer any *five* of the following : 1×5
- (a) Write any two features of EEG in epilepsy.

- (b) What do you mean by aminenergic neurons ?
 - (c) Write any two peptides release from hypothalamus having endocrine activity.
 - (d) What do you mean by hallucination ?
 - (e) What is mania ?
 - (f) What is resting potential of nerve fibre ?
 - (g) What is sleep paralysis ?
 - (h) Write the full form of GABA.
5. (a) Describe the electrical firing pattern during awakefulness and sleep cycle.
- (b) Discuss the chemical regulation of sleep. 5 + 3

Or

- (a) What do you mean ED ?
- (b) Discuss the neural mechanism of erection of male genitalia.
- (c) Write the different causes for ED. 2 + 4 + 2

6. (a) State the different types of amenorrhoea.
- (b) What are the psychological factors for the induction of amenorrhoea ?
- (c) Discuss the mechanism of psychological amenorrhoea. 2 + 2 + 3

Or

- (a) What do you mean by aminenergic-peptidergic axis ?
- (b) State the mechanism of aminenergic-peptidergic interaction for the controlling of anterior pituitary activity.
- (c) What do you mean by 'Grandmal' epilepsy ? 2 + 4 + 1