2016

M.Sc.

3rd Semester Examination

BIOMEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BLM-302

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 : 10×1

(a) What do you mean by azo dye ?

(b) Write the full form of TUNEL.

(c) How many antibody and antigen molecules are present in PAP Complex ?

(d) Write the name of one dehydrating media beside absolute alcohol.

(e) What are major two health hazards noted in histology laboratory ?

(f) What do you mean by controlled oxidizing agent ?

(g) Write the importance of mounting of stained section.

(h) Write the names of any two fluorescent molecule.

(i) What are the major two bonds noted between dye molecule and target molecule of the tissue ?

(j) Write the full form of the PAP technique.

(k) What do you mean by horning ?

(*l*) What do you mean by antigen retrieval ?

(m) Define auxochrome.

(n) Write the name of fixative where water is absent.

(o) Write the name of any two automated devices used in histology laboratory.

2. (a) Write the principle of ISEL method.

(b) Why ISNT is more confirmative than TUNEL when there are minimum nicks in DNA ?

(c) Write the fundamentals steps of TUNEL.

2+2+6

3. (a) What are the function of fixation of a tissue sample ?

(b) Write the composition of Carnoy fixative.

(c) Why lypobasic paraffin infiltration and impregnation are adopted in tissue block preparation ?

3+3+4

4. (a) Write the procedure of haematoxylon preparation in histology laboratory.

(b) Why available fixatives are not ideal fixative ?

(c) State the limitation of automated devices in histology laboratory.

4+2+4

5. (a) Write the principle of 'Flow Cytometry'.

(b) Why 'Flow Cytometry is preferred for cell analysis' study over microscopic technique ?

(c) Write the principle of assessment of spermviability testing using flow cytometry.

2+3+5

6. (a) Write the principle of 'Feulgen reaction'.

(b) Why 'Feulgen reaction' is unable to detect RNA ?

(c) State in brief about the principle of PAP immuno histochemistry technique.

3+2+5
