

M.Sc.**2017****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 question No.1 and any three from the rest.***1. Answer any ten questions of the following : 10×1**

- (a) What do you mean by basic dye ?
- (b) Write the full form of ABC and PAP with respect to histochemistry.
- (c) Write the name of any one fixative where Hg is one of the constituents.

(Turn Over)

- (d) Write the full form of ISEL.
- (e) Write the names of any two automated device used in histology.
- (f) What do you mean by routine fixative.
- (g) Define infiltration with respect to block preparation in histology.
- (h) Write any one application cryocut microtome.
- (i) Write any one feature of cancer cells from the view point of hitological observation.
- (j) How will you prepare 50 ml of 70% alcohol using 100% and 80% alcohol ?
- (k) What do you mean by immunoenzyme histochemistry ?
- (l) What is aukochrome ?
- (m) What is flowcytometry ?
- (n) Write the constituent of Bouin's fixative.
- (o) What do you mean by honing ?

2. (a) Write the steps of tissue dehydration after fixation.
(b) State the significance of tissue dehydration.
(c) Write in brief about the importance of clearing step of tissue fixation. 4+3+3
3. (a) Why periodic acid is used for oxidation purpose in PAS staining instead of other oxidising agents.
(b) Write the procedure of schiff reagent preparation.
(c) State the protocol of PAS staining. 3+3+4
4. (a) Why Sudan-IV known as colourant but not as dye molecule ?
(b) Write the principle of Sudan-IV-colouring of intracellular depot fat.
(c) Why Paraffin fixed tissue section is not suitable for fat detection in tissue ?
(d) Write the protocol of Sudan-IV staining. 2+2+3+3
5. (a) Write the principle of ABC technique in histochemistry.
(b) Write the protocol in general for ABC technique.
(c) State the importance of ABC technique for disease diagnosis. 3+4+3

6. (a) Why DNA but not RNA can be detected by 'Feulgen reaction'?
- (b) Write the reagent preparation of Feulgen staining.
- (c) State the protocol of Feulgen staining. 3+3+4
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