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PG/IIIS/BML-302/15

M.Sc. 3rd Semester Examination, 2015

BIO-MED. LAB. SC. AND MGT.

PAPER —BML - 302

Full Marks : 40

Time : 2 hours

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

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 ten of the following : 1 × 10

(a) Write the name of one fixative containing mercury.

(b) What do you mean by stropping ?

(c) Write the full form of ABC technique in immuno histochemistry.

(Turn Over)

(2)

- (d) What do you mean by mordant ?
- (e) Write the name of any two devices used in automated histological laboratory.
- (f) Write the melting point of paraffin used generally in histological laboratory.
- (g) Write the full form of PAS.
- (h) Write one application of ZN stain.
- (i) Write the name of any two clearing agent.
- (j) What is Karyotyping ?
- (k) Write the full form of FACS and FACA.
- (l) What do you mean by acidic dye ?
- (m) Define smear.
- (n) Write the full form of ISEL.
- (o) Write the name of major two parts of dye molecule.

2. (a) Write the principle of Millon's reaction in histochemistry.
- (b) Describe the steps adopted for detection of tyrosine in protein by Millon's reaction.
- (c) Write the principle of Feulgen reaction for detection of DNA. 3 + 4 + 3
3. (a) Write the principle of PAS staining.
- (b) Describe in brief the preparation PAS stain.
- (c) Why periodic acid is used in PAS staining ?
- (d) Describe in brief the steps followed in PAS staining. 2 + 3 + 2 + 3
4. (a) Write the significance of tissue fixation.
- (b) State the infiltration and impregnation techniques for tissue embedding.
- (c) Write the morphological features of a malignant cancer cell. 4 + 4 + 2

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5. (a) Write the principle of ABC technique in immuno enzymatic histochemistry.
 (b) Why PAP technique is prefer over ABC?
 (c) Why immuno histochemistry is prefers over histology for disease diagnosis? 3 + 4 + 3
6. (a) What is antigen retrieval step in immuno-histochemical staining?
 (b) Which solution is used as blocking solution in immuno histochemical stain and why?
 (c) When frozen sections are preferred in histochemistry? 3 + 3 + 4