

**M.Sc. 2nd Semester Examination, 2012**

**BIOMEDICAL LABORATORY SCIENCE  
AND MANAGEMENT**

**PAPER—BMLSM-201(U-9)**

*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) Write the full form of HOS test.
- (b) What do you mean by oligospermia ?

- (c) Write the names of two major hormones engaged in ovulation.
- (d) What do you mean by superovulation ?
- (e) Write the full form of MMP.
- (f) What do you mean by cryopreservation of sperm ?
- (g) Write the level of fructoze in human semen.
- (h) Write the acid phosphatase activity of semen in normal adult.

2. (a) Define ovulation.

(b) State the modern concept of ovulation.

(c) How you detect the ovulation ? 2 + 4 + 2

*Or*

(a) What do you mean by sperm dilution fluid. State the importance of the ingredients of this fluid.

(b) Write the preconditioning for the accuracy of sperm count.

- (c) State the method of sperm count using compound microscope.  $\left(1\frac{1}{2} + 1\frac{1}{2}\right) + 2 + 3$
3. (a) Discuss the synthesis of MMP in uterine endometrium for the regulation of uterine bleeding.
- (b) Describe the hormonal treatment regimens for super ovulation and state the importance of super ovulation.  $3 + (2 + 2)$

Or

- (a) Write the normal level of fructoze in semen.
- (b) State the procedure for fructose quantification in semen.
- (c) Write any four types of abnormal sperm.  $1 + 4 + 2$

### MODULE – II

4. Answer any five of the following :  $1 \times 5$
- (a) Write the full forms of FNA and IVF.
- (b) What do you mean by hypogonadal hypogonadism ?

- (c) In which technique micoinjection of sperm is adopted ?
  - (d) Write the full forms of IVI and ICI.
  - (e) What do you mean by swim up technique of sperm ?
  - (f) Write the use of Ham-F-10 Media.
  - (g) Write the importance of acrosome.
  - (h) Write the full form of GIFT.
5. (a) Write the condition where IUI is adopted.
- (b) State in brief the different steps adopted for IUI.
- (c) Why multi IUI is harmful for women ?      2 + 4 + 2

*Or*

- (a) State the major causes of female infertility.
- (b) "Sperm count is not the only test to assess the male fertility". Justify the statement mentioning any two tests adoped in laboratory.      4 + 4

6. (a) Write the process of nacked oocyte preparation in the technique of ICSI.
- (b) What are the different intervening factors those influence the success of ICSI ?
- (c) Write the conditions for adoption of IVF. 3 + 3 + 1

*Or*

- (a) Write the principle of alpha glucosidase activity assessment.
- (b) State the steps for the assessment of alpha glucosidase activity of sperm.
- (c) Write the importances of this test. 2 + 3 + 2
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