

M.Sc.

2014

2nd Semester Examination

BIOMEDICAL LABORATORY SCIENCE AND MANAGEMENT

PAPER—BLM-201 (UNIT-9)

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.

(Module — 1)

1. Answer any five questions of the following : 1×5

- (a) Write the full form MMP(s).
- (b) What do you mean by coagulation of Semen ?
- (c) Write the function of fructose in semen.
- (d) What do you mean by Oligospermia ?
- (e) What do you mean fetoplacental unit ?
- (f) What do you mean by Superovulation ?

(Turn Over)

- (g) What do you mean nidation ?
- (h) Why placenta is considered as 'seasonal endocrine gland' ?
2. (a) What are the major types of ovulation ?
- (b) Describe the mechanism of ovulation with special reference to 'Collagenase-depolymerase' joint effect.
- 3+5

Or

- (a) Write the time period of different trimester of pregnancy.
- (b) Explain the hormonal mechanism of pregnancy maintenance with special reference to progesterone—estrogen balance.
- 3+5
3. (a) State the role of MMP(s) and TIMMP(s) in implantation of blastocyst.
- (b) Write the process of hypoosmolarity test of sperm.
- 4+3

Or

- (a) Describe the superovulation process with special reference to hormone treatment.
- (b) State the importance of cryopreservation of sperm.
- 4+3

(Module — 2)

4. Answer any *five* questions from the following : 1×5
- (a) Write the full form of 'GIFT'.
 - (b) Write the full form of ICI and IVI.
 - (c) What is aerosome ?
 - (d) Write the name of background stain used in sperm viability.
 - (e) What is the function of neutral α -glucosidase ?
 - (f) Define infertility.
 - (g) Write the importance of leukocyte count in semen.
 - (h) Write the importance of acid phosphatase study in rape case.
5. (a) State the advantages of ICSI over IVF.
- (b) Describe the process of micro-injection of sperm in oocyte. 3+5

Or

- (a) Write the major causes of female infertility.
- (b) Discuss the supergrade quality of sperm collection in ART. 4+4

6. (a) Write the principle of Aerosome testing by using Gelatine coated slide.
- (b) State the steps adopted for assessment of sperm fertility through above mentioned test.
- (c) Write the reference value of the test. 2+4+1

Or

- (a) State the conditions when IUI is adopted to manage the infertility.
- (b) Describe the hormone treatment protocol for hormone-induced ovulation.
- (c) Why success rate of IUI is not very high ?

3+2+2