

M.Sc. 2nd Semester Examination, 2011

BIOMEDICAL LAB. SC. & MANAGEMENT

PAPER—201 (Unit - 9)

Full Marks : 40

Time : 2 hours

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 – 1

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

(a) Write the names of hormones used in contraceptive pills.

(b) What do you mean by teratospermia ?

(Turn Over)

- (c) Write the functions of acrosome.
- (d) What do you mean by coagulation and liquefaction of semen?
- (e) What is corpus luteum?
- (f) Write the importance of sperm mobility.
- (g) Write the role of sertoli cell in testis.

2. (a) Write the different phases of menstrual cycle.
- (b) State the hormonal changes in different phases of the cycle. 4 + 4

Or

(a) Write the hormonal regulation of luteal phase of pregnancy maintenance.

(b) State the role of feto-placental unit for the maintenance of pregnancy at placental phase. 3 + 5

3. (a) Write the method of sperm concentration assessment as per WHO protocol.

- (b) State the 95% confidence scale in connection with accuracy of sperm count. 4 + 3

Or

- (a) Write the principle of sperm hypo-osmotic swelling test.
- (b) Describe the steps of sperm hypo-osmotic swelling testing as per the method.
- (c) Write the reference value of this test and mention its importance in connection with male fertility. 2 + 3 + (1 + 1)

MODULE – 2

4. Answer any *five* of the following : 1 × 5
- (a) Write the full forms of ART and ICSI.
- (b) Define infertility as per WHO.
- (c) Write the full forms of SUZI and GIFT.
- (d) Mention any one importance of sperm aerosome.

- (e) What do you mean by ROS ?
- (f) Write the full form MAR test.
- (g) What do you mean by tubular cilia syndrome ?
- (h) Write the source of acid phosphatase in semen.
5. (a) Write the fundamental steps of ICSI followed for infertility management.
- (b) State the conditions where only ICSI should be adopted to challenge the infertility. 4 + 4

Or

- (a) Write the hormonal treatment regimen for superovulation.
- (b) What are the major causes of male infertility ? 5 + 3
6. (a) What do you mean by sperm viability testing ?

- (b) State the principle of sperm viability testing by 'Eosin-Nigrosin method.'
- (c) Write the different steps of this tests. 2 + 3 + 2

Or

- (a) Write the principle of acrosome testing using gelatin coated slides.
- (b) State the different steps of the test.
- (c) What do you mean by swimup technique of sperm separation? 2 + 3 + 2
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