Write short notes on:

1. a) Hemodynamics and mechanism of penile erection. (3+3) + 4
   b) Management of erectile dysfunction after radical prostatectomy.

2. a) Define ischaemic nephropathy. 2 + (4+4)
   b) Pathophysiology and management of ischaemic nephropathy.

3. Explain the concepts of blinding, allocation concealment and randomization in clinical trials. 3 + 3 + 4

4. a) Anatomical changes in urinary tract in pregnancy. 4 + 6
   b) Management of unilateral upper ureteric calculus in first trimester of pregnancy.

5. Metabolic and physiologic effects of pneumoperitoneum in laparoscopy. 5 + 5

6. a) What are the inhibitors and promoters of crystal formation in urinary tract? (3+3) + 4
   b) How will you investigate a case of recurrent stone former?

7. a) Define hyponatraemia. 1 + (2+3+4)
   b) Various types, clinical manifestations and treatment of hyponatraemia.

8. a) What are the indications of biopsy of renal mass? 3 + 3 + 4
   b) What is the sensitivity and specificity of a renal mass biopsy?
   c) What do the terms specificity and sensitivity mean?

9. a) Role of molecular markers in detection of prostate cancer. 5 + 5
   b) How do these markers differ from PSA in cancer detection?

10. Virtual reality and augmented reality as used in surgical navigation. 5 + 5

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