

M.Sc. 4th Semester Examination, 2011

BIOMEDICAL LAB. SCI. AND MANAGEMENT

PAPER—XIII (Unit-25)

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—1

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

(a) Mousy smell of urine is the indication of —.

(b) The color of normal urine is due to the pigment

(i) Bilirubin

(ii) Urobilin

(iii) Uroerythrin

(iv) Urochrome.

(c) A urine that produces a large amount of white foam when mixed should be suspected to contain increased amounts of

(i) Bilirubin

(ii) Protein

(iii) Urobilin

(iv) Urobilinogen.

(d) Which of the following will not influence the volume of urine produced ?

(i) Diarrhoea

(ii) Exercise

(iii) Caffeine ingestion

(iv) Carbohydrate ingestion.

(e) Urine pH normally ranges from

(i) 4.0 to 9.0

(ii) 4.5 to 7.0

(iii) 4.5 to 8.0

(iv) 5.0 to 9.9.

(f) What is Bence-Jones protein?

(g) What are the different conditions when Ketone bodies are formed?

(h) What is polyurea

(i) Write the name of different methods of specific gravity measurement.

2. (a) What is the significance of urine examination in case of an athlete?

(b) Write the procedure of urine collection for dope test.

(c) Discuss briefly about a very modern urine preservative.

$$2\frac{1}{2} + 3 + 2\frac{1}{2}$$

Or

(a) Define Cast.

(b) Classify different casts and describe with diagram.

(c) What is the clinical significance of different casts ? 2 + 4 + 2

3. How do you examine urine for heavy metal poisoning by an updated method ? Elaborate with its principle.

Discuss the merits and demerits of different estimation method of micro albuminuria. 4 + 3

Or

(a) Mention the significance of urinary glucose measurement in diabetes.

(b) How would you perform the test by dry reagent Benedict test ?

(c) What are the disadvantages of traditional urinary glucose detection procedure ? 2 + 3 + 2

MODULE—2

4. Answer any *five* of the following : 1 x 5

(a) What is synovial fluid ?

(b) What is the normal pH of gastric juice ?

- (c) What is pericardial fluid?
- (d) What is the difference between peritoneal and pleural fluid?
- (e) Write any one technique for the collection of urogenital swab.
- (f) What do you mean by skin exudates?
- (g) Write any one technique for sputum collection.
- (h) What is the process of ideal stool sample collection?
5. (a) How do you differentiate between gout and pseudogout by synovial fluid?
- (b) How you will perform cell count of synovial fluid? 3 + 5

Or

- (a) Discuss the difference between transudate and exudate.
- (b) How do you perform Occult test.
- (c) Mention the clinical significance of the test. 4 + 3 + 1

6. (a) By examination of CSF how you will differentiate pyogenic meningitis and tubercular meningitis.

(b) How you will identify cryptococcus in CSF?

(c) Describe its laboratory procedure of identification? 2+3+2

Or

Write short notes on : 3+2+2

(i) Gastric test meal

(ii) Kelling's test

(iii) Topfers test.
