

2013

M.Sc.

2nd Semester Examination

BIOCHEMISTRY

PAPER—BIC-204

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.

Group - A

1. Answer any five questions from the following : 2×5

(a) What is standard error of mean ?

(b) Define null-hypothesis.

(c) State two applications of chi-square test.

(Turn Over)

- (d) What is qualitative frequency distribution ?
- (e) What is conditional probability ?
- (f) What is Kurtosis ?
- (g) What is LAN & WAN ?
- (h) What is primary and secondary memory ?

2. Answer any *two* questions from the following : 2×5

- (a) Calculate the mean and the mode of the following distribution of achievement test scores in a sample :

5

Class intervals : 67-76 77-86 87-96 97-106 107-116 117-126

Frequency :	8	13	17	20	14	8
-------------	---	----	----	----	----	---

- (b) Write down the advantages and disadvantages of Network. 5
- (c) A small town in Tamilnadu has 20 textile companies of the same size. All the companies are experiencing excessive labour turnover. It has been found that the SD of the turnover is 75 employees if a sample of 5 companies is taken. Find the standard error of the mean. 5
- (d) Write down the difference of application software and system software. 5

3. Answer any two questions from the following : 10×2

(a) Rank correlation of the marks obtained by 10 student is 8. Difference in rank in two subject was wrongly taken as 7, instead of 9. Find correct rank correlation.

(b) Define operating system. Write down a short note on Unix. What are the difference types of DOS command available? Give example of each type. 2+3+3+2

(c) (i) The performance scores of the following individuals before and after practice are given below. Find whether there is significant difference of the scores before and after practice by computing t-value by difference method :

	1	2	3	4	5	6	7	8	9
Before practice :	157	122	140	166	138	148	148	130	147
After practice :	182	157	173	185	175	168	179	159	170

$$[t_{0.05(8)} = 1.860 ; t_{0.01(8)} = 2.896]$$

(ii) State two assumptions of t-test. 8+2

(d) (i) What do you mean by deviation and Range?

(ii) Compute mean and standard deviation of Ca^{++} concentration scores in body fluid of the following sample :

Class interval : 11.6-13.0 13.1-14.5 14.6-16.0 16.1-17.5 17.6-19.0

Frequencies : 7 13 20 14 6

4+6