

Code No: B2205/R10

R10

II B.Pharmacy II Semester Supplementary Examinations, Nov - 2016

BIOSTATISTICS

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) State the advantages and limitations of diagrammatic representation of data
 (b) 20, 25, 19, 17, 14 constitute a random sample from a population. Estimate the mean and standard deviation of the population. Also find the estimate of the S.E of Sample Mean. [6+9]
2. Two Identical boxes contain respectively 4-white and 3-red balls and 3-white and 7-red balls. A box is chosen random and a ball is drawn from it.
 (a) If the ball is white , what is the probability that it is from the first box.
 (b) If the ball is red , what is the probability that it is from the second box. [15]
3. (a) X is a Normal variate with mean 30 and S.D 5. Find $p(26 \leq X \leq 40)$; $p(X \geq 45)$
 (b) If $P(A) = 1/3$; $P(B) = 1/2$; $P(A/B) = 1/6$; find $P(B/A)$. [15]
4. The final position of 12 clubs in a football league of Culcutta and the average attendance of their home matches were as follows:

Club	A	B	C	D	E	F	G	H	I	J	K	L
Position	1	2	3	4	5	6	7	8	9	10	11	12
Attendance	27	30	18	25	32	12	19	11	32	12	12	15

 Calculate coefficient correlation by ranks and comment on your result. [15]

5. A group of seven week-old chickens reared on a high protein diet weigh 12, 15, 11, 16, 14, 14 and 16 ounce. A second group of five chickens similarly treated except that they receive a low protein diet weigh 8, 10, 14, 10 and 13 ounces. Test whether there is any sufficient evidence that additional protein has increased the weight of the chickens.
 (the table value of t for $v = 10$ at 5% level of significance is 2.33) [15]
6. Table shows the life times in hours of samples from three different types of television tubes manufactured by a company. Using the Kruskal wallis test for H-Test, test at 0.05 significance level whether there is a difference in the three types.
 Sample 1: 407, 411, 409
 Sample 2: 404, 406, 408, 405, 402
 Sample 3: 410, 408, 406, 408 [15]

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7. (a) Discuss briefly its need and utility in industry. Discuss the causes of variation in quality?
- (b) (i) what is meant by process control and product control?
(ii) Examine the need for quality control techniques in production? [7+8]
8. (a) write a short notes on :
- i. Quasi sampling
 - ii. sequential sampling
 - iii. Stratified sampling
- (b) What are the benefits of conducting an experimental study? [7+8]

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