

MANIPAL UNIVERSITY**FOURTH YEAR B.P.T./FOURTH SEMESTER B.Sc. H.I.A.
DEGREE EXAMINATION – DECEMBER 2014****SUBJECT: RESEARCH METHODOLOGY AND BIostatISTICS/EPIDEMIOLOGY & BIostatISTICS
(2009 & 2008 REGULATION/OR)**

Wednesday, December 17, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Describe the steps involved in a research process. (5 marks)
2. What are the characteristics of a good hypothesis? (5 marks)
3. List out the differences between discrete and continuous variables with examples. (5 marks)
4. Classify the following into different scales of measurements (Nominal, Ordinal, Interval and Ratio)
a) Name b) Age c) Intelligence Quotient (IQ)
d) Marital status e) Pain score (5 marks)
5. Define and distinguish probability and non-probability sampling. (5 marks)
- 6A. The following table shows tuberculin reaction measured in 206 persons who were never vaccinated. Present the data graphically by a histogram.

Reaction in mm	Number of persons
8 – 10	24
10 – 12	52
12 – 14	42
14 – 16	48
16 – 18	12
18 – 20	08
20 – 22	14
22 – 24	06

6B. The data gives the number of hours 45 hospital patients slept following the administration of a certain anesthetic. Construct frequency table taking class intervals 0 – 4, 4 – 8, 8 – 12, etc.

10	4	12	1	13	11	3	8	1
11	8	3	7	7	1	17	10	4
8	5	7	7	3	10	12	4	8
2	3	4	7	3	5	5	8	7
5	5	8	3	4	13	1	7	17

(5+5 = 10 marks)

7A. Calculate median and standard deviation of the following data:

Hb level (in gm%): 15 12 11 13 10 13 14 12 13 17

7B. Define coefficient of variation. Mean and standard deviation of pulse rate for a group of individuals is 76 and 3 beats per minute respectively. The mean and standard deviation of height is 64 and 2 inches respectively. Which of the two characteristics has lesser variability?

(5+5 = 10 marks)

8. A study on fasting blood glucose levels of patients reported a mean glucose level of 148mg/dl and a standard deviation of 11 mg/dl. Assuming normal distribution, what is the probability that any given individual will have blood glucose level,

8A. Between 126 and 159 mg/dl

8B. Less than 181 mg/dl

(5 marks)

9. With the help of scatter diagram, explain correlation.

(5 marks)

10. Define health information system. List its uses.

(5 marks)

11A. Explain the terms rate and ratio with examples.

11B. During the year 2010, there were 550 deaths in a town. The estimated mid-year population for 2010 for the town was 27500. Calculate the crude death rate.

(5+5 = 10 marks)

12. What do you mean by cross sectional studies? What are its uses? List the aims of epidemiology.

(10 marks)



MANIPAL UNIVERSITY

FOURTH SEMESTER B.Sc. H.I.A. DEGREE EXAMINATION – DECEMBER 2014

**SUBJECT: BASIC ACCOUNTANCY
(OLD REGULATION)**

Thursday, December 18, 2014

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. **Answer any TEN of the following:**

- 1A. Give the meaning of Assets and liabilities.
- 1B. What is a transaction?
- 1C. What are the branches of accounting?
- 1D. What is a balance sheet? How is it prepared?
- 1E. Define Book-keeping and accounting.
- 1F. What is the object of preparing the profit and loss account?
- 1G. What is personal accounts? What is its rule of debit and credit?
- 1H. Give the form of purchase book and sales book.
- 1I. What is a cash book? What are its importance?
- 1J. What is trading account? How is it prepared?
- 1K. Explain briefly the use of petty cash book.
- 1L. What is posting? Explain how a transaction is posted to ledger?

(2 marks × 10 = 20 marks)

✍ **Solve the following problems:**

2. From the following particulars prepare a B.R.S as on 31.03.2013
 - i) Bank balance as per pass book on 31.03.2013: ₹ 15,200
 - ii) Bank charges debited: ₹ 130
 - iii) Cheques issued but not presented to bank for payment: ₹ 2,000
 - iv) Cheques deposited to bank but not credited in the pass book: ₹ 7000
 - v) A cheque entered as deposit in the cash book instead of payment: ₹ 220
 - vi) ₹ 364 paid in to bank had been entered twice in the cash book.
 - vii) The receipt column of the cash book has been overcast ₹ 1,000.

3. Journalise the following transactions in the books of Mr. Kiran

2010	₹
Dec 1 Started business with cash	95,000
Dec 2 Paid in to bank	20,000
Dec 3 Purchased goods for cash	30,000
Dec 6 Purchased furniture and paid by cheque	10,000
Dec 7 Sold goods for cash	30,000
Dec 8 Sold goods to Rahul	20,000

Dec 9	Purchased goods from Anil	50,000
Dec 10	Cash withdrawn from Bank:	
	For private use	3,000
	For business use	2,000
Dec 13	Telephone rent Paid	200
Dec 15	Purchased goods from Ajay on credit	25,000

4. Record the following transactions in an Analytical Petty cash book and balance the same. On 01.04.2013 the petty cashier had the balance of ₹ 350
2013

April 1	Postage stamps purchased	₹ 15
April 3	Sweeper and Scavenger paid	₹ 25
April 5	Conveyance to manager	₹ 12
April 6	Telegram to Bombay	₹ 20
April 7	Stationery purchased	₹ 15
April 8	Lorry hire for goods sent	₹ 25
April 13	Cartage and coolie on goods bought	₹ 17
April 17	Salary to office boy	₹ 15
April 18	Servicing charges to typewriters	₹ 15
April 22	Ink and Gum purchased	₹ 20
April 24	Advertisement in 'The Hindu'	₹ 50
April 28	Tea to customers	₹ 15
April 30	Paid Raja on account	₹ 25

5. Enter the following transactions in two column cash book.

2010		₹
March 1	Opening balance of cash	3,000
March 2	Received from Nagendra and allowed him discount	1,500 50
March 4	Paid Upendra ₹ 500 in full settlement of his account	550
March 5	Sold goods for cash	2,000
March 8	Bought goods for cash	200
March 9	Paid Vijayendra	200
March 12	Bought office furniture for cash	225
March 15	Received commission from Raj	500
March 16	Received interest from Ram	300
March 19	Paid for advertising	150
March 22	Received from Gopal and allowed him discount	700 50
March 26	Withdraw cash for personal use	500
March 31	Paid office rent	700
March 31	Paid salaries	1,500

(15 marks × 4 = 60 marks)

