

MANIPAL UNIVERSITY

FOURTH SEMESTER B.Sc. H.I.A/SIXTH SEMESTER B.A.S.L.P. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: EPIDEMIOLOGY & BIostatISTICS (BHI 204)/ BASIC STATISTICS (B 6.3)

Thursday, December 15, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

☞ **Answer ALL the questions.**

1. Explain the steps in a research process. (5 marks)

2. Form a frequency table along with relative frequencies for the ages of 48 patients given below. (Class intervals: 0 – 15, 15 – 30, 30 – 45, so on)

30	39	53	47	64	31	10	36	29	40	22	40
76	33	46	17	38	50	30	34	25	36	39	36
15	65	39	43	62	30	07	47	32	36	42	42
47	27	32	39	24	57	37	43	43	54	40	39

(5 marks)

3. Compute the range, 85th percentile, first and third quartiles for the data on duration in days of chicken pox disease in 10 patients.

14 15 14 17 17 13 15 11 10 14

(10 marks)

4. The duration of time for the first exposure to HIV infection to AIDS diagnosis is called the incubation period. The incubation periods of a random sample of 10 HIV infected individuals is given below (in yrs):

7.5 11.0 10.5 10.0 6.5 13.5 12.0 7.5 11.5 10.0

4A. Calculate mean, median and standard deviation of incubation period.

4B. If the number 6.5 above were changed to 9.5, what would happen to the mean and median? State whether each would increase, decrease or remain the same.

(10 marks)

5. With the help of scatter diagram explain correlation.

(6 marks)

6. **Classify the following into different scales of measurement:**

a) Age b) Gender c) Temperature (°F) d) Marital status

(4 marks)

7. **Define the following:**

- 7A. Net reproduction rate
- 7B. Still birth rate
- 7C. Incidence rate

(2 marks × 3 = 6 marks)

8. Serum cholesterol is an important risk factor for coronary disease. Serum cholesterol is approximately normally distributed with mean 200 mg/dL and standard deviation 20 mg/dL.

8A. If the clinically desirable range for cholesterol is < 180 mg/dL, then what proportion of people has clinically desirable levels of cholesterol?

8B. Some investigators feel that only cholesterol levels over 240 mg/dL indicate a high – enough risk for heart disease to warrant treatment. What proportion of the population does this group represent?

(2 marks × 2 = 4 marks)

9. **Write short notes on:**

- 9A. Face validity and content validity
- 9B. Quantitative variables
- 9C. Simple random sampling
- 9D. Skewness and kurtosis
- 9E. Census
- 9F. Cross sectional studies

(5 marks × 6 = 30 marks)



Reg. No.

MANIPAL UNIVERSITY

FOURTH SEMESTER B.Sc. H.I.A. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: BHI 208 – FUNDAMENTALS OF MANAGEMENT
(CBS 2014 SCHEME)

Friday, December 16, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions:**

1. Distinguish between 'formal' and 'informal' communication. Describe its various functions. (10 marks)
2. Define motivation. Describe its characteristics. Discuss the 'deficit and progression' principle in the context of Maslow's need hierarchy theory. (2+3+5 = 10 marks)
3. Discuss the different types of counselling. What are the steps involved in it? (5+5 = 10 marks)
4. Who is referred to as the Father of Scientific Management? What are the principles propagated by him? What is the major difference between his principles and Administrative management principles? (1+4+5 = 10 marks)
5. What is the difference between wages and salary? What are the factors affecting wages? Discuss. (2+8 = 10 marks)
6. How are PERT and CPM networks developed? What is critical path? How is it determined? (4+3+3 = 10 marks)
7. **Write short notes on:**
 - 7A. Medium of communication
 - 7B. Importance of Organization
 - 7C. Requisites for effective Planning
 - 7D. Budget as a Control method(5 marks × 4 = 20 marks)

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MANIPAL UNIVERSITY

FOURTH SEMESTER B.Sc. H.I.A. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: MEDICAL LANGUAGE II (BHI 202)
(CBS-2014 SCHEME)

Saturday, December 17, 2016

Time: 10:00-13:00 Hrs

Max. Marks: 80

1. Explain the following medical terms:

- a) Spasm b) Lesion c) Convulsion d) Morbidity e) Petechia
f) Nausea g) Pallor h) Stranguary i) Incubation j) Uremia
(1 mark × 10 = 10 marks)

2. Expand the following abbreviations.

- a) VDRL b) TURP c) SDH d) CHD e) AOM
f) EST g) BBB h) PMS i) MHC j) RUQ
(1 mark × 10 = 10 marks)

3. Briefly describe the following conditions:

- a) Infectious Mononucleosis b) Autism c) Kwashiorkor
d) Mastioditis e) Meningitis f) Chancroid
g) Meconium Ileus h) Vulvovaginitis i) Atrial Fibrillation
j) Nystagmus
(2½ marks × 10 = 25 marks)

4. Give the correct medical term for the following:

- 4A. Distension of the abdomen caused by gas
4B. Inability to walk
4C. Distortion of sense of smell
4D. Exposing the internal organs of the body
4E. Lack of normal opening of body parts
(1 mark × 5 = 5 marks)

5. Answer the following questions:

- 5A. Explain any five of the hearing disorders.
5B. Give an account of malaria.
5C. Give a detailed account of anaemia.
5D. Give an account of musculoskeletal cancers.
5E. What are the vitamin deficiency disorders? Explain any three of them.
5F. Distinguish between multiple myeloma and multiple sclerosis.
(5 marks × 6 = 30 marks)

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FOURTH SEMESTER B.Sc. H.I.A. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: BASIC ACCOUNTANCY (BHI 206)
(CBS - 2014 SCHEME)

Monday, December 19, 2016

Time: 10:00-13:00 Hrs.

Max. Marks: 80

1. Answer any TEN of the following:

- 1A. What do you mean by "Errors of Omission"?
- 1B. What are final accounts?
- 1C. What do you mean by 'cash transaction'?
- 1D. Explain briefly: i) Purchase book and ii) Sales book
- 1E. What is a suspense account?
- 1F. What are the branches of accounting?
- 1G. What do you mean by single column cash book?
- 1H. Give the rule of real account.
- 1I. Differentiate between Gross profit and Net profit.
- 1J. Give the meaning of 'Journal' and 'Narration'.
- 1K. What is the object of preparing a profit and loss account?
- 1L. What is posting? Explain how a transaction is posted to the ledger?

(2 marks × 10 = 20 marks)

☞ Solve the following problems.

2. Journalise the following transactions in the books of Prabhu

2013	₹
May 1 Paid in to the bank	1,000
May 2 Bought goods for cash	1,000
May 4 Sold goods for cash	600
May 6 Sold goods to Murthy on credit	400
May 7 Bought goods from Rajan on credit	500
May 9 Paid rent to land lord	300
May 11 Paid salaries to manager	1,000
May 15 Received commission from Suresh	20
May 19 Withdrew cash from office for personal use	200
May 20 Paid for repairing machine	200

3. On 31.12.2011, Sharath's cash book showed a bank balance of ₹ 2,355. On verification of cash book with the pass book, he found that the following entries made in the cash book, but were not made in the pass book.

- a) A cheque for ₹ 350 paid in to the bank account for collection.
- b) A cheque for ₹ 250 issued to Rajan.
- c) Another cheque for ₹ 170 issued to Bharath on 28th Dec 2011 and entered in the cash book was returned by Bharath on 30th Dec and no entry was made for it in the cash

The following entries were made in the pass book for which there were no corresponding entries in the cash book.

- A sum of ₹ 35 credited in the cash book for interest collected.
- A debit of ₹ 5 in the pass book for bank charges.

Prepare a Bank reconciliation statement showing balance as per pass book.

4. **Enter the following transactions in proper subsidiary books.**

2010		₹
Jan 1	Bought goods from Ajay	6,500
Jan 3	Sold goods to Bimal	1,000
Jan 4	Allowance claimed from Ajay for shortage	50
Jan 5	Sold goods to Shyam	1,500
Jan 6	Sold goods to Chandan	2,000
Jan 9	Bought goods from Alvin	2,000
Jan 10	Allowance granted to Chandan for shortage	40
Jan 12	Sold goods to Ganesh	800
Jan 12	Allowance granted to Shyam for overcharge	20
Jan 13	Sold goods to Rahul	700
Jan 18	Sold goods to Hilary	600
Jan 20	Ganesh returned goods	50
Jan 22	Rahul returned goods	40
Jan 23	Returned goods to Alvin	100
Jan 24	Purchased goods from Dinesh	800
	Packing charges	50
Jan 25	Sold goods to Gurudas	500
Jan 26	Allowed Hilary for Damaged goods	100
Jan 27	Received goods returned by Gurudas	20
Jan 28	Bought goods from Arjun Less 5%	400
Jan 31	Sold goods to Manohar Less 8%	100
	Transport charges	20

5. **Enter the following transactions in a simple cash book.**

2001		₹
Dec 1	Received from Madhu	1,500
Dec 4	Paid Anish	200
Dec 8	Received from cash sales	1,600
Dec 9	Paid Shanker	200
Dec 12	Purchased office furniture	300
Dec 15	Paid for stationery	50
Dec 18	Received commission from Arun	100
Dec 20	Paid interest on loan	80
Dec 25	Received from Ravi	500
Dec 28	Withdrew for personal use	200
Dec 30	Paid office rent	300
Dec 30	Paid salaries	600

(15 marks × 4 = 60 marks)

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FOURTH SEMESTER B.Sc. H.I.A. DEGREE EXAMINATION – DECEMBER 2016

SUBJECT: BHI 212 – FUNDAMENTALS OF HEALTH INFORMATICS
(CBS - 2014 SCHEME)

Tuesday, December 20, 2016

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍ **Answer ALL questions.**

1. What is a technical standard? Briefly discuss the specific communication standards of health informatics.

(1+9 = 10 marks)

2. “Health Informatics Literacy assists the health information management professionals to design and develop better health informatics applications in healthcare”. Discuss the statement with suitable examples.

(10 marks)

3. What is the purpose of future study of health informatics? Briefly explains the approach of predicting the future of health informatics.

(2+8 = 10 marks)

4. **Write short notes on:**

4A. mHealth application

4B. Institution-wide system application

(5 marks × 2 = 10 marks)

