

MANIPAL UNIVERSITY

THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015SUBJECT: MPH – 621: PUBLIC HEALTH INTERVENTION, PROGRAMME MONITORING AND EVALUATION
(SPECIALIZATION: EPIDEMIOLOGY/EOH/MCH)

Monday, January 05, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

Long Essay:

1. What is health spiral? What are the components and explain in detail.
2. What is participatory monitoring? What are the different approaches used to conduct participatory monitoring?
3. What is project management? What are the key elements of in project management and explain in detail?
4. What is evaluation framework? Why is it important for a project? What are the steps involved in developing an evaluation framework?

(10 marks × 4 = 40 marks)

Write short notes on:

- 5A. What is SWOT analysis?
- 5B. What is strategic planning?
- 5C. What are the limitations using an indicator?
- 5D. Evidence based public health?
- 5E. What is community based monitoring?
- 5F. How to conduct polling booth surveys?

(5 marks × 6 = 30 marks)



MANIPAL UNIVERSITY**THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015****SUBJECT: MPH – 625: PUBLIC HEALTH SYSTEM AND NATIONAL HEALTH
POLICIES, SYSTEMS AND PROGRAMMES
(SPECIALIZATION: EPIDEMIOLOGY)**

Tuesday, January 06, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ Write long essays on:

1. Describe the health policy triangle framework with appropriate examples.
2. Discuss in detail the strategies for control of malaria under the national vector borne disease control programme.
3. What is the bacteriological basis of anti-tubercular treatment under Revised National Tuberculosis control programme? Describe the adult and pediatric treatment regimen given under Revised National Tuberculosis control programme.
4. What are the goals and objectives of National Iodine Deficiency Control Disorder programme. Discuss the functions of IDD cell at Director General Health Services office.

(10 marks × 4 = 40 marks)

5. Write short notes on:

- 5A. Summary measures of population health.
- 5B. Syndromic management of sexually transmitted disease.
- 5C. Acute flaccid paralysis surveillance.
- 5D. Activities for leprosy control under the national leprosy eradication programme.
- 5E. District blindness control society.
- 5F. Challenges facing the universal immunization programme in India.

(5 marks × 6 = 30 marks)



MANIPAL UNIVERSITY**THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015****SUBJECT: ENH – 623: ENVIRONMENTAL EXPOSURE ASSESSMENT AND CONTROL
(SPECIALIZATION: ENVIRONMENTAL AND OCCUPATIONAL HEALTH)**

Tuesday, January 06, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ Long Essays:

1. Write a note on elements of exposure assessment.
2. Explain the surrogate time-activity patterns followed in human time-use patterns and exposure assessment.
3. What are all the different levels of validation of biological markers and its advantages for exposure assessment?
4. Explain in details about the VOCs exposure and urinary metabolites.

(10 marks × 4 = 40 marks)

5. Short Notes:

- 5A. Differentiate passive and active sampling
- 5B. What is aerosols and semi volatile compounds?
- 5C. What is pharmacokinetic models?
- 5D. What are the factor influencing water quality?
- 5E. What is the importance of environmental monitoring?
- 5F. Define micro environmental parameter.

(5 marks × 6 = 30 marks)



MANIPAL UNIVERSITY**THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015****SUBJECT: MCH – 625: POLICIES AND LEGISLATIONS IN MATERNAL AND CHILD HEALTH
(SPECIALIZATION: MATERNAL AND CHILD HEALTH)**

Tuesday, January 06, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ Long Essay:

1. What are the characteristics of public health laws? Justify the same.
2. Why is registration of births and deaths needed in a nation?
3. What are the salient features of National Policy for children, 2012?
4. Health Goals by 2015.

(10 marks × 4 = 40 marks)

5. Short Notes:

- 5A. Millenium Development Goals
- 5B. Indian Child protection scheme
- 5C. National Plan of Action on Nutrition-1995
- 5D. Social and health issues related to abortions in India
- 5E. National Health Policy-1983
- 5F. Rights of consumers

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY
THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015

SUBJECT: MPH – 627: ADVANCED BIOSTATISTICS FOR PUBLIC HEALTH
(SPECIALIZATION: EPIDEMIOLOGY)

Wednesday, January 07, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

- Following is the survival time (years) of 15 subjects with acute myocardial infarction. Compute the survival estimates $S(t)$ at every time to death using Kaplan– Meier product limit estimator:
 9, 15, 4, 3+, 2, 12, 10+, 4, 6, 9+, 8, 15, 8, 7+, 5

(10 marks)
- A population based case-control study was carried out in United States to assess the relationship between breast cancer and exposure to of oral contraceptive (OC), for selected aspects of lifestyle factors. There were 425 incident cases of confirmed breast cancer women and 397 controls of similar age randomly selected from the general population. The risk of cervical cancer in relation to use of oral contraceptive (OC) was examined. Among the cases and control the total number of subject exposed to OC use are 108 and 59 respectively. Obtain the Odds ratio of OC use for the development of breast cancer in women with 95% confidence interval.

(7 marks)
- Describe an example for which repeated measures ANOVA is used. What are the uses of repeated measures ANOVA?

(6 marks)
- Write a short note on principal component analysis.

(6 marks)
- Carry out an age adjustment using the total of the two populations as the standard.

Age Group (yr)	Early Period			Later Period		
	Population	Number of Deaths	Death Rates per 100,000	Population	Number of Deaths	Death Rates per 100,000
30–49	5,00,000	60	12	3,00,000	30	10
50–69	3,00,000	396	132	4,00,000	400	100
70+	1,00,000	406	406	2,00,000	700	350

(7 marks)

6. Write the logistic regression model for prediction and find the probability of lung cancer given the subject is a male, smoker and alcoholic:

Where constant $\beta_0 = -0.246$

$\beta_1 = 0.410$ for gender

$\beta_2 = 0.934$ for obese status

$\beta_3 = 0.034$ for smoker status

Gender = 1 for male

= 0 for female

Smoking status = 1 for smoker

= 0 for non-smoker

Obese status = 1 for obese

= 0 for non obese

(10 marks)

7. Differentiate between MAR and MCAR.

(3+3 = 6 marks)

8. Under following headings explain the z test for testing interaction between two exposure variables in a cohort study:

8A. Null and alternative hypothesis

8B. Test statistic

8C. Inference

(2+2+2 = 6 marks)

9. Describe the use of Poisson regression in estimating adjusted relative risk for binary outcome from a prospective study.

(6 marks)

10. List the objectives of time series analysis. Briefly explain its components.

(6 marks)



MANIPAL UNIVERSITY

THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015SUBJECT: ENH – 625: OCCUPATIONAL AND ENVIRONMENTAL SAFETY
(SPECIALIZATION: ENVIRONMENTAL AND OCCUPATIONAL HEALTH)

Wednesday, January 07, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ Long Essays:

1. Discuss the types of silicosis. Describe the dust control measures to prevent silicosis.
2. Describe the physical health hazards in construction workers and preventive methods for them.
3. Discuss the health effects due to exposure to hot climate and the measures to prevent these.
4. What is stress and the Seyle's phases of stress. Describe the contributing factors for occupational stress.

(10 marks × 4 = 40 marks)

5. Write short notes on:

- 5A. Ptach Testing
- 5B. Immersion foot
- 5C. Asbestos substitutes
- 5D. Non auditory health effects of Noise
- 5E. Employers responsibility for occupational safety
- 5F. Karoshi

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY
THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015
SUBJECT: MCH – 627: MATERNAL AND CHILD HEALTH CARE – GLOBAL
CHALLENGES
(SPECIALIZATION: MATERNAL AND CHILD HEALTH)

Wednesday, January 07, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ **Long Essay:**

1. What are the programs for mother and child health in African nations?
2. Discuss the various challenges in adolescent nutrition.
3. What are the social, educational and health impacts on adolescent girls in the absence of menstrual hygiene?
4. What are the responsibilities of WHO towards International Health?

(10 marks × 4 = 40 marks)

Short Notes:

- 5A. Adolescent mental health problems
- 5B. Platforms chosen by RMNCH+A to deliver adolescent health services
- 5C. Life skills education
- 5D. E-Mamata scheme
- 5E. Role of UNICEF in Mother and child care
- 5F. Road to Health

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY
THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015

SUBJECT: MPH – 629: CHRONIC DISEASE EPIDEMIOLOGY
(SPECIALIZATION: EPIDEMIOLOGY)

Thursday, January 08, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

☞ **Long Essay:**

1. Describe the objectives, strategies, and implementation of National Cancer Control Program.
2. Enumerate the role of surveillance and integrated disease surveillance program in prevention and control of Non-Communicable Diseases.
3. What are risk factors for lung cancer? Suggest prevention measures.
4. Design a screening camp for prevention of Diabetes in the community.

(10 marks × 4 = 40 marks)

5. **Short Notes:**

- 5A. System mapping
- 5B. Prevention of Road traffic accidents
- 5C. Body mass Index and its applications
- 5D. Enumerate the strategies to prevent Obesity
- 5E. Natural history of a disease
- 5F. Life course approach

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY

THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE EXAMINATION – JANUARY 2015

SUBJECT: MCH – 629: RECENT ADVANCES IN MATERNAL AND CHILD HEALTH
(SPECIALIZATION: MATERNAL AND CHILD HEALTH)

Thursday, January 08, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ **Long Essay:**

1. Discuss the importance of First referral units during pregnancy.
2. What is genetic counseling? Discuss the advantages and disadvantages of genetic counselling.
3. Recent guidelines for management of Malaria in pregnancy.
4. Write a short essay on the priority areas for newborn health.

(10 marks × 4 = 40 marks)

5. **Write short notes on:**

- 5A. Causes of perinatal mortality
- 5B. Phenylketonuria
- 5C. Pentavalent vaccine
- 5D. BCG vaccine
- 5E. Sex Ratio
- 5F. Uses of school health care

(5 marks × 6 = 30 marks)



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MANIPAL UNIVERSITY

THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015

SUBJECT: ENH – 627: RISK ASSESSMENT IN ENVIRONMENT AND OCCUPATIONAL HEALTH
(SPECIALIZATION: ENVIRONMENTAL AND OCCUPATIONAL HEALTH)

Thursday, January 08, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

☞ Long Essays:

1. Describe the problems associated with risk communication.
2. Describe in detail the HAZOP model of hazard identification.
3. Describe the paradigm of health risk assessment.
4. What is uncertainty analysis and the problems related to it.

(10 marks × 4 = 40 marks)

5. Short notes:

- 5A. Reference dose
- 5B. IARC Classification of Carcinogens
- 5C. LD₅₀
- 5D. Approaches for exposure assessment
- 5E. ACGIH
- 5F. Process hazard identification techniques

(5 marks × 6 = 30 marks)



MANIPAL UNIVERSITY
THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015

SUBJECT: MPH – 623: PRINCIPLES OF COMMUNICATION
(SPECIALIZATION: EPIDEMIOLOGY/MCH)

Friday, January 09, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

☞ **Answer ALL the questions.**

1. A picture is more than 1000 words; is the visual culture undermining the strengths of oral and text culture?
(15 marks)
2. Comment on Neil Postman's statement "Culture always pays the price for technological change"
(15 marks)
3. Write a Radio script for the awareness of health effects of Endosulfan in the coastal region.
(15 marks)
4. Comment on the Anand Patwardhan's documentary film "War and Peace".
(10 marks)
5. The digital literacy rate of India is about 12%, in this context the social networking tools like twitter and Facebook, do they really form a democratic approach to the idea of communication?
(10 marks)
6. Comment on aesthetics of the following image:



(5 marks)



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MANIPAL UNIVERSITY
THIRD SEMESTER MASTER OF PUBLIC HEALTH DEGREE
EXAMINATION – JANUARY 2015

**SUBJECT: ENH – 629: RECENT ADVANCES IN ENVIRONMENTAL AND
OCCUPATIONAL HEALTH**
(SPECIALIZATION: ENVIRONMENTAL AND OCCUPATIONAL HEALTH)

Friday, January 09, 2015

Time: 10:00 – 13:00 Hrs.

Maximum Marks: 70

✍ **Long Essays:**

1. Discuss in details the Basic Occupational Health Services (BOHS) concept of WHO. Write your views on feasibility of BOHS in Indian context.
2. Write an essay on occupational health issues of call centre workers.
3. Describe the existing social security schemes for workers in India. Express your views on medical insurance of workforce.
4. Discuss the natural and man-made disasters. Express your view on recently occurred Jammu and Kashmir floods.

(10 marks × 4 = 40 marks)

5. **Write short notes on:**

- 5A. Child labour in Bt cotton
- 5B. Circadian rhythm
- 5C. Health hazards from genetically modified foods
- 5D. Sick building syndrome
- 5E. Health effects in Bhopal gas tragedy victims
- 5F. National Safety Council

(5 marks × 6 = 30 marks)

