



Umanand Prasad School of Medicine & Health Science

Department of Community Medicine

Semester 2 Year 2020

FINAL COURSE EXAMINATION PAPER

C Med 605: Community Health & Family Medicine.

Important Instructions to Students:

1. Read the questions, instructions carefully and answer the questions.
2. You are allowed an **extra 10 minutes reading time** (during this time, you are not allowed to write with pen) and **180 minutes (3 Hours) to complete this paper.**
3. Silent, non-programmable calculators are allowed, but not supplied.
4. Write all your answers in the answer booklet provided. If you need extra sheets, please ask from the supervisor. Write your name, course code and student identification number in the answer booklet and in the attendance sheet.
5. **This Final Course Examination Paper is worth 100 marks contributes 40% of the total course assessments.** Students must **at least score 50%** in this final exam to pass the course.
6. This paper contains three (3) sections A, B and C. All questions are compulsory to answer.
7. Write all your answers legibly. The marker has the right to award zero for answers that are not legible.
8. This is a **Closed Book Examination.** The University views plagiarism, cheating and dishonest practice as serious offences and if found, offenders are penalized.

Examination Paper Content (Format):

<u>Section</u>	<u>Question</u>	<u>Content</u>	<u>Marks</u>	<u>Suggested Time</u>
A	01- 30	Multiple Choice	40	80 Min
B	31 - 37	Short Answer Questions	75	1 Hr 10Min
C	38 – 40	Long Answers		1 Hr 10 Min
		TOTAL	100	180 Minutes



The University of Fiji

Umanand Prasad School of Medicine

CMED 605 – Examination

2020

Allowed time: 3 Hours.

Number of questions: 42

Total Marks: 200

Department of Community Medicine

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Please read each question carefully, it guides you to answer correctly.
Neatness and organization are important; they help to easily evaluate your answers.
Be clear and be brief.
Answer the question that is asked – you do not need to give reasons unless you are specifically asked.
Answer all the 42 questions (total __14__ pages).
Simple Calculator can be used for exam.
No Goggle internet.

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SECTION A – 30 MARKS.

1. The Health Services Delivery is reflected through the Health outcomes of a nation.
Which of the following is NOT an Objective of Health Services delivery?
 - A. Developing a Policy on visiting hours in ALL hospitals.
 - B. To improve health status of the population and their clinical outcomes (Chronic cases).
 - C. To improve social justice of Equity to Health Services Delivery.
 - D. To reduce the total health burden of health care.
 - E. To raise and pool the resources accessible to deliver health care services.

2. A well-functioning health system of a country will be reflected on the followings except:
- A. Well trained and motivated health workers
 - B. Well-maintained infrastructure with reliable supply of medicines and technologies
 - C. The non existence of a disease surveillance mechanism.
 - D. Adequate funding and strong health plans
 - E. Evidence-based policies – research/consultations
3. The followings define disease outbreak except:
- A. It is the occurrence of disease cases in excess of normal expectancy.
 - B. It is an unexpected increase in the number of cases of a disease in a specific population over a specific period of time.
 - C. **The continuing diagnosis of cases of a disease lesser then the previous period.**
 - D. The diagnosis of the first case of Covid 19 in Fiji.
 - E. An outbreak occurs within a geographical area.
4. Which of the following modifiable risk factors can significantly improve management and Prognosis of cardio vascular diseases?
- A. Tobacco use and physical inactivity,
 - B. Eating wholesome plant based nutrition and exercise.
 - C. Smoking and obesity.
 - D. Binge drinking and increase in fast food intake.
 - E. Alcohol, tobacco, oils, sugar and salt use.
5. Community and Family Profiling in a setting is the “Pillar” of Health Promoting Setting. Which of the following is a TRUE statement of profiling and healthy setting?
- A. Built “Responsibilities” and Partnership between the community and health care providers.
 - B. Shared Decision Making by setting Objectives on Action Plans on intended outcomes.
 - C. It empowers people community participation and health promotion.
 - D. Identify community resources and possible contribution.
 - E. All of the above.

6. Water is a basic necessity of life, a component of the Public Health Act and the Sustainable Development Goal. Which of the following is not a requirement of quality water supply?
 - A. It is fit for human consumption.
 - B. Water should not contain any entero-pathogen capable of causing water borne diseases.
 - C. Quality water should be colourless, odourless and not having pathogenic organism
 - D. It is mandatory to pay water bills for provision of water all over the nation.
 - E. Regular water sampling and testing system is important.

7. The followings are basic practical procedures for safe water supply except:
 - A. Building toilets on slopes 50 meters away from a water source.
 - B. Chlorination and fluoridation
 - C. Raising well to avoid surface run off.
 - D. Covering stored water supply.
 - E. The use of Puritabs for water source in villages and settlements after a natural disaster.

8. Which of the following is not a Primary Prevention activity for Communicable Disease?
 - A. Management of an Index case of TB.
 - B. Rodent and Mosquito control measures.
 - C. Public education (disease impact, transmission, prevention).
 - D. Immunization and de-worming program for children under 5years.
 - E. Monthly submission of Public Health Information System (PHIS) Report.

9. Non Communicable Diseases (NCD) is a concern for the Pacific Island States. Which of the following is NOT true for Non Communicable Diseases?
 - A. NCDS are both a Health Problem and a Challenge to National Development.
 - B. NCD affects Men and Women alike and are preventable through Risk Factor Interventions.
 - C. NCD is declared a crisis in the Pacific.
 - D. Intense Risk Factor intervention can contribute to reversal of NCD.
 - E. Tobacco or Cigarette smoking and obesity in children are non contributing factors.

- 10.** The Pacific Island States are rich in the accumulation of Public Health Data. The Environmental and Public Health professionals utilize these data for the following reasons except:
- A. Understand the relationship between health and the environment.
 - B. To make decisions about policies or regulations eg. Essential Public Health Functions.
 - C. To evaluate effectiveness of interventions or policies /to make decisions about budget.
 - D. It can be utilised to solve all problems.
 - E. Analysed data for Public Health intervention.
- 11.** It was after 4 days following a Heart Attack/Myocardial Infarction, patient X while in CCU complained of Chest pain which is worse on lying in supine but with some relief on sitting up. What is the likely complication?
- A. Aortic Dissection
 - B. Pericarditis
 - C. Pneumonia.
 - D. Pulmonary Embolus
 - E. Costochondritis.
- 12.** Globally and within the Pacific we are promoting Wellness with an in-tend to improve in-country Life Expectancy. The following statements describe Wellness across the Lifespan Except:
- A. It is a process of becoming aware of and making choices toward a more successful existence.
 - B. Wellness is multidimensional.
 - C. Having effective partners to propagate academic development.
 - D. It is a model that encompasses the social, Occupational, Spiritual, Physical, Intellectual and Emotion of an individual.
 - E. It is a state of health closely associated with your lifestyle.

- 13. Which of the followings are non negotiable developments stages for Wellness:**
- A. Baby and infant
 - B. Toddler and child
 - C. Teenager and adult
 - D. Senior citizen
 - E. All of the above.
- 14. An outbreak can be identified through the followings except:**
- A. Event based surveillance.
 - B. Hospital based mortality reports.
 - C. Media and rumour register.
 - D. Case base surveillance.
 - E. Review and analysis of routine data.
- 15. The confirmation of an outbreak of Leptospirosis in Kadavu after Cyclone Herald was based on the following except:**
- A. Number of cases
 - B. Severity of the Illness.
 - C. Confirmatory test by laboratory investigations.
 - D. Case detection through case definition.
 - E. Availability of effective treatment.
- 16. A case definition of a Disease outbreak is defined on the following criteria except:**
- A. Clinical presentation and information about case.
 - B. Characteristics about the population or people who are affected.
 - C. Information about the place or location
 - D. Specification about the time in which the disease occurred.
 - E. Laboratory and Patients general data.
- 17. Which of the following activities does not include Public Health Surveillance?**
- A. Data collection.
 - B. Data analysis.
 - C. Data interpretation.

- D. Data dissemination.
- E. Disease control.

18. Vital statistics are important sources of data on which of the following?

- A. Morbidity.
- B. Mortality.
- C. Health-related behaviors.
- D. Injury and disability.
- E. Outpatient health-care usage.

19. Which of the following can be a Key source of morbidity data?

- A. Environmental monitoring data.
- B. Hospital discharge data.
- C. Country Medical Returns.
- D. Birth notification.
- E. Vital records.

20. Which of the following is NOT a role of Health Indicators:

- A. It reflects the health status of a given population.
- B. It cannot predict future projection or trends of the health status of the population
- C. It is a reflection of the changes in the health profile of the same population over time.
- D. It provides international comparison of health status.
- E. It allows evaluation of health services and specific interventions or improvement.

21. One of the Sustainable Development Goals focuses on Infant Mortality Rate (IMR). IMR is defined as follows except:

- A. Deaths in the first year of life expressed as per 1000 of total live births.
- B. $IMR = \frac{\text{Deaths below 1 year of age in a given year and locality}}{\text{Total number of live births in the same year and locality}} \times 1000$
- C. It does not reflect the socioeconomic development and health services delivery.

- D. It includes still birth during Peri-natal period, early neonatal period and Post neonatal period.
- E. It reflects effective safe motherhood initiatives.
- 22.** The public health professionals use consolidated health data for the followings: (Select the right answer)
- A. To better understand the relationship between health and the environment.
- B. To make decisions about policies or regulations e.g. Essential Public Health Functions.
- C. To evaluate policies /to make decisions about budget.
- D. It can be utilised to review and evaluate Public Health Programs.
- E. All of the above.
- 23.** A 40 years old male, non smoker but a kava drinker presented at your clinic with a history of acute onset of chest pain and profuse sweating. Indicate the BEST appropriate Plan in managing this patient.
- A. Put an ECG and call the register.
- B. Have an IV line done and do a Chest X Ray
- C. Put the patient on Bed Rest with Oxygen therapy, take his vitals, create a IV access, do an ECG, consider pain relief and discuss with your registrar.
- D. Bed rest, put an IV line and pain relief.
- E. Discuss with registrar.
- 24.** Primary Prevention in Communicable Disease involves the followings practices except:
- A. Dietary modification.
- B. Rodent and Mosquito control measures.
- C. Public education (disease impact, transmission, prevention).
- D. Effective Immunization program.
- E. Referral of cases to sub divisional hospitals.
- 25.** Criteria for population screening involve the followings. (Select the right answer)
- A. It should be an important public health problem
- B. It is not component of community development.

- C. Facilities should be available for confirmation of diagnosis
 - D. Effective treatment should be available
 - E. There should be sufficiently long lead time available
26. The purpose of Community and Family Screening includes the following except:
- A. It is a process for prevention and treatment.
 - B. The early detection of Disease
 - C. For detection of Precursors or risk factors of Disease.
 - D. To screen susceptible and high risk individuals who do not show any signs of disease.
 - E. Provide costing for intervention.
27. The requirement of an effective Community or Family Screening is as follows:
- A. It is cost effective.
 - B. Valid and Reliable
 - C. It is reproducible
 - D. Easy to implement
 - E. All of the above
28. Which of the following is NOT a core purpose of Public Health?
- A. Health risk assessment and intervention.
 - B. Ensure Tertiary Management of diseases.
 - C. Prevent environmental hazards
 - D. Prevent injuries and Promote and encourage healthy behaviors
 - E. Respond to disasters and assist communities in recovery
29. The followings are Essential Public Health Services except:
- A. Monitor health status to identify and solve community health problems
 - B. Diagnose and investigate health problems and health hazards in the community
 - C. Enforcing penalties on non compliance of Policies.
 - D. Inform, educate, and empower people about health issues
 - E. Mobilize community partnerships to identify and solve health problems.

30. The followings is a Principle concept of Disaster management except:

- A. Minimize casualties.
- B. Prevent further casualties
- C. Rescue the victims and First Aid
- D. Rehabilitation
- E. Domiciliary follow up of NCD patients.

SECTION B: SHORT ANSWERS – 40 MARKS.

31. Article Abstract is as below:

Research title: Climate Change, Health and Mosquito-Borne Diseases: Trends and Implications to the Pacific Region

Climate change is known to affect Pacific Island nations in a variety of ways. One of them is by increasing the vulnerability of human health induced by various climate change impacts, which pose an additional burden to the already distressed health systems in the region. This paper explores the associations between climate change and human health on the one hand, and outlines some of the health care challenges posed by a changing climate on the other. In particular, it describes the links between climate variations and the emergence of climate-sensitive infectious diseases.

Use the statement above to answer the following questions.

- 31.1 List three vector borne diseases of interest in the Pacific which is related to the abstract above. **3 Marks**
- 31.2 Briefly elaborate on Climate Change and its relationship to disease causation. **6 Marks**
- 31.3 Briefly discuss on two vector borne disease control programs in your country. **6 Marks**
32. List three characteristics of an effective Health Services delivery. **3 Marks**
33. Elaborate on at three core roles of a functioning Ministry of health. **6 Marks**
34. List three achievements of Public Health within your countries: **3 Marks.**
35. Elaborate on how two of the items above were achieved. **3 Marks.**
36. List the five Fundamentals of Public Health: **5 Marks**
37. Discuss two of the above using Primary Health Care initiatives and implementation on a Healthy or Wellness Promoting Village Setting. **5 Marks.**

Section C: Answer ALL Question 38 to 40 [Total 30 Marks]

38. A 40 year old male Fijian of Indian-Descent presented to Punja Health Centre a day after hurricane Winston. The clinical history reveals the following information:

- a. Presenting complain, fever with chills and rigors for two days.
- b. Foul smelling septic wound on his left big toe.
- c. Unreported crush injury on the left big toe at the work site a week prior to consultation.
- d. Labourer in the Ministry of Agriculture
- e. Resides in Lovu Hart housing with all households under water due to heavy rain and flooding.
- f. No significant past medical history.

[15 Marks]

38.1 List two important clinical conditions that you need to consider to be ruled out as possible diagnosis.

2 Marks

38.2 List three diseases that he and the community are at risk of contracting during this time of disaster.

3 Marks

38.3 List three other potential problems with reasons that community may encounter during times of disaster.

3 Marks

38.4 List three public health measures/intervention to counter/mitigate disease outbreak during disaster time as this.

3 marks

38.5 Give reasons on what public health tool/tragedy is vital to detect disease outbreak during times of disaster?

2 Marks

38.6 List two other government department do you need to involve regarding this patient's overall health care and welfare?

2 Marks

39. A total of 500 cases of Covid 19 were confirmed through Laboratory Investigations in the Island of Pelau Island during the month of March. There were additional 200 confirmed cases in the May but no more cases reported thereafter. Pelau Island consists of 5 villages and with a population of 15,000 people.

[10 Marks]

39.1 Compute the Incidence Rate of Covid 19 for the country of Pelau?

2 Marks

39.2 There were a total of 50 deaths within the population.

What is the Crude Death Rate?

2 marks

39.3 A total of 100 recovered after a period of 24 days.

What is the total recovery rate?

2 Marks

39.4 Develop a **Containment Plan** for Covid 19 for the people of Pelau. 4 Marks

40. Geriatric Care is a branch of Medicine concerned with clinical, preventive, medical and social aspects of illness in the elderly or senior citizens. In the process of your family diagnosis, develop a Preventative Primary Health care on Geriatric care? [5 Marks]

THE END
&
ALL THE BEST