



UNIVERSITY OF JAFFNA, SRI LANKA
SECOND EXAMINATION FOR MEDICAL DEGREES PART (II) — January 2026
Academic Year 2020/2021

Community and Family Medicine – Paper II

Date: 06.01.2026

9 am to 12 noon. (3 hours)

Answer all six questions.

Answer each question in a separate answer book.

1. Mr. Perera, 55 years, presents to the family medicine clinic with poor control of diabetes mellitus for the past one year. Despite being prescribed medications, his blood sugar levels remain high. He admits that he forgets to take his medicines and does not follow dietary advice. He recently lost his job and is the sole breadwinner of his family. He appears worried and says, "Doctor, I don't think these medicines are helping me anymore." He also complains of poor sleep and feeling tired most of the time.

Based on the above clinical scenario:

- 1.1. List five (05) health problems identified in this patient. (20 marks)
 - 1.2. Describe the term 'patient-centered care' in family practice (30 marks)
 - 1.3. Based on the patient-centered approach, prepare a comprehensive management plan for this patient. (50 marks)
2. Family planning services have played a major role in both the overall improvements in Sri Lanka's socioeconomic status and the country's current impressive health indicators.
- 2.1. Name three (03) indicators used to assess maternal and child health. (15 marks)
 - 2.2. Mention the parameters needed to calculate each indicator mentioned in question 2.1 (15 marks)
 - 2.3. Describe the role of community empowerment in reducing unmet need of family planning. (30 marks)
 - 2.4. Discuss the multifaceted contribution of family planning services to the socioeconomic development of Sri Lanka. (40 marks)

3. In November 2025, Cyclone Ditywah caused landslides and floods that killed hundreds of people, and caused massive destruction to property and the environment.
 - 3.1. List the phases of disaster management. (10 marks)
 - 3.2. Provide one (01) example of an activity that could be carried out in each phase of the disaster management cycle with reference to cyclones. (20 marks)
 - 3.3. Describe the common acute health problems that affect children after floods. (30 marks)
 - 3.4. Discuss the role of Medical officer of Health in preventing and controlling one (01) of the acute health problems mentioned in 3.3. (40 marks)

4. A community survey was conducted among 120 adults to determine whether there is an association between smoking status and presence of chronic cough. The findings are summarized below.

Table 1: Relationship between smoking status and chronic cough among adults (n=120)

Smoking status	Chronic cough		Total
	Yes	No	
Smokers	30	20	50
Non-smokers	10	60	70
Total	40	80	120

Using an appropriate statistical test at 5% significance level, answer the following.

- 4.1. State the null hypothesis and alternative hypothesis for this study. (20 marks)
- 4.2. Name the statistical test that should be applied to determine whether smoking status and chronic cough are having significant association. (10 marks)
- 4.3. State the degrees of freedom for this test. (20 marks)
- 4.4. Briefly explain what it means if the null hypothesis is rejected in this context. (20 marks)
- 4.5. Discuss the practical implications of the study if the null hypothesis is rejected. (30 marks)

5. Studies have linked brain size in infants and toddlers to a number of future prognoses including autism. One study looked at the brain sizes of 30 boys diagnosed with autism and 12 boys without autism (controls) who all received an MRI scan as toddlers.

A summary of the results on whole-brain volumes in millilitres³ can be seen below.

Group	n	mean	standard deviation
Autistic	30	1297.6	88.4
Control	12	1179.3	70.7

- 5.1. Define the terms in bold letters? (20 marks)
- 5.2. Describe how the distribution of data can affect the mean? (10 marks)
- 5.3. Mention the study design used in this study (10 marks)
- 5.4. List two (02) advantages and disadvantages of the above study design. (20 marks)
- 5.5. Discuss the sociocultural issues faced by the families having an autistic child (40 marks)
6. Write short notes on the following.
- 6.1. Role of Public Health Inspector in communicable disease surveillance (25 marks)
- 6.2. Prevalence and incidence (25 marks)
- 6.3. Continuity of care (25 marks)
- 6.4. School canteen policy (25 marks)