

Time Allowed : 2½ hrs.

Roll No.: _____

Marks: 50

Instruction: Students are required to write Roll No. on every page of the question paper. Writing anything except the Roll No will be treated as **Unfair Means**. All other instructions on the reverse of Admit Card should be followed meticulously.

Sections	No. Of Questions to attempt	Marks	Total Marks
A	Minimum 3 question with internal choices and CILO (Course Intended Learning Outcome) covered	3*10	30
B	Compulsory Case Study with minimum of 2 questions	20	20
			50

Section-A

A1.a. The diabetes follow-up study at Gautam Budh Nagar started in 2016 included 318 diabetic women and 3,823 no diabetic women. By the end of the study in 2017, 82 of the diabetic women and 515 of the no diabetic women had died. The diabetic women were observed for a total of 1,800 person years; the no diabetic women were observed for a total of 38,753 person years.

Calculate the incidence rates of death for the diabetic and non-diabetic women. (10 marks)

(CILO 2 & 3).

Or

A1.b. In a survey of 2,150 women who gave birth in Noida in 2016, a total of 868 reported taking a multivitamin at least 4 times a week during the month before becoming pregnant.

Calculate the prevalence of frequent multivitamin use in this group (10 marks) (CILO 1&3).

A2.a. The payers and the providers have been fighting over the nature of payment to be made. The payer insists for procedure packaging whereas provider insists for payment based on treatment given. As a consultant, what pricing model would you suggest? Also elaborate why is there a need for forging relationships with providers. 10 marks CILO2&3

Or

A2.b. Diabetes mellitus is an important underwriting consideration. Specify how the diagnosis criterion impacts the underwriting process and also suggest how diabetes mellitus can be managed.

10 marks CILO2&3

Contd..2/---

A3.a. "In Managed Care, the care delivered is medically necessary and appropriate for the patient's condition. It has to be clinically appropriate and cost effective". As a consultant, would you advise Managed care as an intervention to improve healthcare delivery and experience in India?

(10 Marks) (CILO 2)

Or

A3.b. Insurers struggle all over the world to contain fraud and abuse in health claims. You have been appointed as a consultant to advise Reliance Insurance Ltd to devise a mechanism to minimise the effects of fraud and abuse. Prepare a comprehensive report with your insights. (10 marks) CILO3

Section-B

Case Study Compulsory:-

1. An Investigators enrolled 2,500 men in a study and followed them annually for four years to determine the incidence rate of pulmonary disease. After one year, none had a new diagnosis of heart disease, but 500 had been lost to follow-up. After two years, one had a new diagnosis of heart disease, and another 99 had been lost to follow-up. After three years, another seven had new diagnoses of heart disease, and 793 had been lost to follow-up. After four years, another 8 had new diagnoses with heart disease, and 392 more had been lost to follow-up.

The study results found out that there was no pulmonary disease was diagnosed at the first year. Pulmonary disease was diagnosed in one man at the end of second year, in seven men at the end of third year, and in eight men at the end of fourth year of follow-up. One hundred men were lost to follow-up by the first year, another 99 were lost to follow-up after two years, another 793 were lost to follow-up after three years, and another 392 men were lost to follow-up after 4 years, leaving 700 men who were followed for four years and remained disease free.

Calculate the

1. Incidence rate of pulmonary disease among this cohort. Assume that persons with new diagnoses of pulmonary disease and those lost to follow-up were disease-free for half the year, and thus contribute $\frac{1}{2}$ year to the denominator. CILO 1,2 & 3 (15 Marks)

2. Incidence proportion CILO -3 (5 Marks)