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Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Term End Examination 2025-2026
Programme – BBA(HM)-Hons-2023
Course Name – Epidemiology
Course Code - BHM50111
(Semester V)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Which of the following is defined as "a maladjustment of the human organism to the environment"?

a) Germ theory
b) Ecological definition of disease
c) Natural history
d) Iceberg phenomenon

(ii) Outline the term refers to a physical or mental problem that cannot be seen or measured but indicates illness.

a) Sign
b) Symptom
c) Syndrome
d) Carrier

(iii) Interpret the model that explains disease as an interaction between agent, host, and environment.

a) Web of Causation
b) Germ Theory
c) Epidemiological Triad
d) Natural History

(iv) Select the application of the pathogenesis phase using the flu as an example.

a) Avoiding contact with flu patients
b) Experiencing symptoms like cough and fever post infection
c) Using mosquito nets to prevent malaria
d) Getting vaccinated annually

(v) Choose the corrrect epidemiological triad to explain the causation of malaria.

a) Host: mosquito, Agent: human, Environment: water
b) Host: human, Agent: Plasmodium parasite, Environment: stagnant water
c) Host: water, Agent: virus, Environment: mosquito
d) Host: mosquito, Agent: parasite, Environment: polluted air

(vi) Name the type of epidemiological study that describes the distribution of diseases in terms of time, place, and person.

a) Analytical Epidemiology
b) Descriptive Epidemiology
c) Cohort Study
d) Experimental Epidemiology

(vii) In a case-control study, name from the following that is compared between cases and controls.

a) Treatment effectiveness
b) Exposure history
c) Vaccination coverage
d) Cost of treatment

(viii) Infer the role of randomization in an RCT.

a) To increase cost
b) To confuse participants
c) To reduce selection bias
d) To avoid monitoring participants

(ix) Show a cohort and a case-control study based on timing.

a) Both are retrospective
b) Cohort is retrospective, case-control is prospective
c) Cohort is prospective, case-control is retrospective
d) Both are prospective

(x) A health officer wants to choose a descriptive method to trial a high-risk group. Choose the data that should be prioritized.

a) Clinical test results
b) Geographic mapping of cases
c) Past medical history
d) Media coverage

(xi) Select the type of disease occurs constantly within a specific geographic area or population.

a) Pandemic
b) Epidemic
c) Endemic
d) Sporadic

(xii) Interpret the term"reservoir" in disease transmission.

a) A place where vaccines are stored
b) A person who has recovered from the disease
c) A habitat where an infectious agent lives and multiplies
d) A method of disease prevention

(xiii) Recall the primary mode of transmission of Influenza.

a) Contaminated water
b) Insect bite
c) Respiratory droplets
d) Skin contact

(xiv) Infer the differences between the symptoms of dengue and malaria.

a) Both have similar symptoms and are not distinguishable
b) Malaria has muscle pain while dengue does not
c) Dengue often causes rash, which is uncommon in malaria
d) Malaria is always fatal while dengue is not

(xv) Choose the symptoms to determine that patient should be evaluated for rheumatic heart disease.

a) Occasional cough
b) Irregular heartbeat and joint swelling
c) Weight gain and acne
d) Skin rash only

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Group-B

(Short Answer Type Questions) 3 x 5=15

2. Apply the measurement of incidence to identifyt the risk of a disease outbreak in a hospital. (3)
3. Classify the time, place, and person used in descriptive epidemiology. (3)
4. Define the term 'epidemic'. (3)
5. Explain the prevention strategies for Dengue. (3)
6. Evaluate the effectiveness of public screening programs in reducing cancer mortality. (3)

OR

Justify the importance of controlling diabetes at the population level. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Define disease and list down the key characteristics that separate it from health. (5)
8. Explain the differences between observational and experimental epidemiology. (5)

9. Define and differentiate between epidemic, endemic, pandemic, and sporadic diseases with examples. (5)
10. Evaluate the effectiveness of community-based interventions in controlling malaria. (5)
11. Evaluate government initiatives in India to combat Dengue and their outcomes. (5)
12. Evaluate the effectiveness of community-based interventions in reducing the prevalence of hypertension. (5)

OR

Evaluate the impact of blindness on an individual's quality of life and economic productivity. (5)

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