

25U117

(Pages: 2)

Name :

Reg. No :

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2025

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UPHY1FM105 - PHYSICS IN DAILY LIFE

(Physics - MDC)

(2024 Admission onwards)

Time: 1.5 Hours

Maximum : 50 Marks

Credit: 3

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. Discuss the working of ionisation detectors. [Level:1] [CO1]
2. Explain the reason for low-temperature breakage. [Level:2] [CO1]
3. Select the type of bowling you like to prefer more in cricket and substantiate your answer? [Level:4] [CO2]
4. Describe the differences between heartwood and sapwood regarding their appearance and density. [Level:2] [CO2]
5. Draw the ball's trajectory in spin bowling? Explain how pressure and velocity variations leads its trajectory? [Level:3] [CO2]
6. Explain how the power developed in a fast kick is calculated? [Level:2] [CO3]
7. Explain the mechanisms by which a football impact can lead to unconsciousness in a player? [Level:2] [CO3]
8. Discuss about the term Punch in football. [Level:2] [CO3]
9. Determine the role of viscosity in the airflow around a ball during its flight. [Level:3] [CO3]
10. Analyze why a pendulum works best when it swings with almost perfect freedom. [Level:2] [CO4]

(Ceiling: 16 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Execute the impact of dishwashers on kitchen hygiene. Consider how effective they are at sanitizing dishes compared to traditional washing methods. [Level:3] [CO1]

- | | |
|---|-----------------|
| 12. Analyse the differences between hard and soft pitches in cricket. Discuss how each type of pitch influences batting and bowling strategies, including specific challenges and advantages for players? | [Level:4] [CO2] |
| 13. Analyse the effect of pace bowling and spin bowling in cricket. | [Level:4] [CO2] |
| 14. Analyse how the Bernoulli effect creates pressure differences around a football while it is flying. | [Level:4] [CO3] |
| 15. Describe the principle of xerography, emphasizing the role of static electricity. How do the photoconductor, toner, and transfer mechanism work together to create a copy? | [Level:2] [CO4] |

(Ceiling: 24 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

- | | |
|--|-----------------|
| 16. Determine the advantages and disadvantages of using LPG versus electricity as energy sources for household applications, and evaluate their impact on the environment? | [Level:3] [CO1] |
| 17. Examine the impact of technology on the game of cricket?Analyze how these technologies enhance fairness,accuracy and viewer engagement in the sport? | [Level:4] [CO2] |

(1 × 10 = 10 Marks)
