



K. Sambath

Avinashilingam Institute for Home Science and Higher Education for Women
Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – April 2026

VI Semester

Class : III UG
Major : Physical Education

Time: 3 Hours
Max. Marks: 100

23BPEDE11 Sports Technology

Course Outcomes:

- CO1: The Course will train the students how to transfer knowledge into Practical situation.
CO2: Based on real life scenarios give them insight on the complexity of the development.
CO3: Utilize theoretical and practical knowledge of engineering education on issues in sports.
CO4: To link the knowledge from previous courses to new issues and application.
CO5: Using mathematical technique to communicate technology to people without technology education.

Part A

10 x 1 = 10

Choose the Correct Answer

1. Which of the following technologies is commonly used in modern football fields to monitor player movement? CO3 K2
 - a. GPS trackers
 - b. Virtual Reality headsets
 - c. Smart shoes
 - d. Drones
2. What is the primary purpose of wearable fitness bands in sports training? CO1 K2
 - a. Entertainment
 - b. Monitoring heart rate and activity levels
 - c. Broadcasting live matches
 - d. Enhancing stadium lighting
3. Smart shoes equipped with sensors can provide data about: CO3 K1
 - a. Player's speed and stride
 - b. Stadium seating capacity
 - c. Weather conditions
 - d. Ticket pricing
4. Which of the following is a benefit of using drones in sports training? CO1K3
 - a. Capturing aerial footage for tactical analysis
 - b. Replacing referees
 - c. Reducing ticket prices
 - d. Enhancing player nutrition
5. Which technology is primarily used in Tennis and Cricket to track the trajectory of the ball for officiating decisions? CO2 K1
 - a. VAR
 - b. Hawk-Eye
 - c. Catapult
 - d. TMO
6. Which wireless communication technology is most commonly used in stadiums to allow thousands of fans to connect to the internet simultaneously? CO1 K2
 - a. Bluetooth Low Energy
 - b. High-Density Wi-Fi (Wi-Fi 6)
 - c. NFC
 - d. RFID
7. What is the primary purpose of "Goal-Line Technology" in soccer? CO3 K2
 - a. To determine if a player is offside
 - b. To analyze the goalkeeper's heart rate
 - c. To determine if the whole ball has crossed the goal line
 - d. To measure the speed of the kick
8. Why were full-body polyurethane swimsuits (like the LZR Racer) banned by FINA in 2010? CO1 K3
 - a. They were too expensive for amateur swimmers
 - b. They provided unfair buoyancy and reduced drag significantly (Technological Doping)
 - c. They were prone to tearing easily
 - d. They restricted the swimmer's breathing
9. Virtual Reality (VR) is increasingly used in sports training for: CO2 K1
 - a. Building muscle mass
 - b. Cognitive training and match scenario simulation without physical impact
 - c. Replacing physical sleep
 - d. Hydration tracking

10. What technology is used in "smart mirrors" for home fitness to provide real-time form correction? CO3 K2
- a. Computer Vision and Artificial Intelligence b. Thermal Imaging
c. X-Ray technology d. Basic reflection optics

Part B

5 x 6 = 30

Answer ALL Questions

Each answer should not exceed 400 words or two pages

- 11.a. Write about the factors influencing Sports Technology. CO2 K2
(or)
- 11.b. Brief the technological impact on sports. CO3 K3
12. a. Mention any five new technology in Sports and Games. CO1 K3
(or)
12. b. Mention few technologies involved in Broadcasting of sports events. CO5 K4
13. a. Brief any two machines which facilitates the players performance. CO4 K3
(or)
- 13.b. Write your views on Placing and Positioning the camera for live sports events. CO3 K3
14. a. Describe the different types of materials in sports surfaces. CO2 K1
(or)
- 14.b. Write short notes on the modern technology involved in indoor playfields. CO3 K4
- 15 a. Write short notes on e sports. CO1 K2
(or)
- 15.b. Brief – Prediction Technology. CO2 K3

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

16. a. Explain the need and scope of Sports Technology. CO1 K3
(or)
16. b. Describe the advantages applications of Sports Technology. CO2 K3
17. a. Elaborate the impact of nano technology in sports goods and apparels. CO4 K4
(or)
17. b. List the technology involved in sports equipments. CO4 K3
- 18.a. Explain about the Technology involved in training gadgets. CO1 K4
(or)
18. b. Describe the modern surfaces in playfield. CO2 K3
19. a. Elaborate the modern technology involved in outdoor playfields. CO4 K4
(or)
- 19.b List down the wearable Technology and explain it. CO1 K2
- 20.a. Explain any two softwares which analyses the sports performances. CO3 K1
(or)
- 20.b. Present your views on Digital transformation of sports. CO2 K3
