

Question Paper

Exam Date & Time: 20-Apr-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. EXERCISE AND SPORTS SCIENCES DEGREE EXAMINATION - APRIL 2022
SUBJECT: ESS5104 - PHYSICAL ACTIVITY GUIDELINES IN HEALTH AND DISEASE
(2021 SCHEME)

Answer ALL questions.

Marks: 50

Duration: 120 mins.

- 1) List the ACSM guidelines for physical activity in children. Also explain how you will promote school based physical activity. (20)
- 2A) Explain in detail the physical activity effects on diabetes. (10)
- 2B) Write briefly on Transtheoretical model. (10)
- 3A) Brief physical activity benefits for peripheral arterial diseases at critical ischemic threshold. (5)
- 3B) Brief social ecological model. (5)

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Question Paper

Exam Date & Time: 21-Apr-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. EXERCISE AND SPORTS SCIENCES DEGREE EXAMINATION - APRIL 2022
SUBJECT: ESS5103 - FOUNDATIONS OF SPORTS AND EXERCISE PSYCHOLOGY
(2021 SCHEME)

Marks: 50

Duration: 120 mins.

1. Charlotte is a 45 year old Journalist. She has been recommended to exercise to avoid complicating her health. But she has been avoiding it stating her career is hectic and she cannot give time. Moreover, her sleep cycle isn't regular. Some days she just sleeps for an hour or so. Before her working life, she used to be an athlete in school and college. But today she is not at all motivated to go and even walk. She had started working out a few years ago but she gave up within a month. Her fitness trainer has sent her to a psychologist to develop better exercise behaviour.

Address this case giving the following points:

- 1A) Identify and explain the possible barriers to her exercise behaviour. What questions would you ask Charlotte in the first meet & why? (5)
- 1B) List and describe the influence and understanding of Theory of Planned behaviour in relation to Charlottes case. (6)
- 1C) Describe the Transtheoretical model. Which stage is Charlotte in and why? (5)
- 1D) What intervention plan would you develop for Charlotte using the trans theoretical model so that she reaches the maintenance stage. (4)
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- 2A) Define motivation in sport. Explain any 3 theories in Achievement Motivation. Explain the TARGET model in detail. (10)
(1+6+3 = 10 marks)
- 2B) What is sexual abuse in sport? Explain the risk factors that are involved in sexual abuse in sports. Describe in detail the physical and psychological consequences of sexual abuse. How can support staff and coaches help prevent sexual abuse in their workplace/academies? (10)
(1+3+3+3 = 10 marks)
- 3A) What is burnout? Explain the 4 models of burnout in detail. (5)
(1+4 = 5 marks)
- 3B) According to McCarthy et al (2021), what are the different psychological impacts caused by Covid19 to the athletes? Explain the 3 kinds of losses experienced by athletes in detail. (5)

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Question Paper

Exam Date & Time: 23-Apr-2022 (10:00 AM - 12:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER M.Sc. EXERCISE AND SPORTS SCIENCES DEGREE EXAMINATION - APRIL 2022
SUBJECT: ESS5101 - BIOMECHANICS IN SPORT
(2021 SCHEME)

Answer ALL questions.

Marks: 50

Duration: 120 mins.

- 1) Define Torque and Characteristics of Torque. Illustrate with a neatly drawn picture, how torque is generated during gravitational and ground reaction forces. (20)
(10+5+5 = 20 marks)
- 2A) Explain the kinematics and kinetics of gait in Sagittal Plane with suitable graphs. (10)
- 2B) Define projectile Motion. Explain with examples the factors affecting projectile motion. (10)
- 3A) Explain the internal and external moments of Flexed Knee Posture. (5)
- 3B) Explain Force Velocity relationship for concentric and eccentric muscle actions. (5)

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