Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Sports and Exercise Nutrition — **Semester:** VI
Program: B.Sc. – FN & D — **Time:** 03 hrs.
Course Code: HSND 3003 — **Max. Marks:** 100

Instructions: Read question carefully.

SECTION A

S. No.	MCQ's /Fill in the blanks/ T&F (1.5 marks each)	**30 Marks**	**CO**
1	Another name of Diaphragmatic breathing technique is _____	**1.5**	**CO1**
2	NEAT stands for: A) Non exercise activity timing B) No exercise activity thermogenesis C) Non exercise activity thermogenesis D) None of the above	**1.5**	**CO1**
3	At high altitude (2500-5300m) oxygen saturation falls below _____% and at this level attitude illness is more common and the bodily system needs to acclimatize.	**1.5**	**CO1**
4	The hormone which is directly responsible for stimulation of the spleen that in turn releases compounds that stimulate hemolysis, leading to red blood cell breakdown and sports is – A) Thyroxin B) Adrenaline C) GH D) Testosterone	**1.5**	**CO1**
5	Chemical substance that released from a motor end fiber and causes stimulation of the sarcolemma of the muscle fiber is known as _____	**1.5**	**CO1**
6	Excessive consumption of fats in high altitude worsen the symptoms known as _____	**1.5**	**CO1**
7	Troponin is a protein of actin filament? A) True B) False	**1.5**	**CO1**
8	The female athlete triad is defined as the combination of _____, amenorrhea and osteoporosis.	**1.5**	**CO1**

9	The sports drink that has similar concentration of fluid, sugars and salt to blood is known as _____	**1.5**	**CO1**
10	In female athletes, reproductive function and bone turnover impaired if they intake: A) Less than 40 kcal/kg B) Less than 30 Kcal/kg C) Less than 50 Kcal/kg D) None of the above	**1.5**	**CO3**
11	The vitamin deficiency that is responsible for side effects such as diarrhea, dementia, rashes, and liver damage – A) Thiamin B) Niacin C) Methylcobalamin D) Vitamin D	**1.5**	**CO3**
12	Hypoxia and anoxia are two similar phenomenon A) True B) False	**1.5**	**CO4**
13	_____is a gel-like substance found within all muscle fiber cells, which also stores things such as glycogen for energy	**1.5**	**CO1**
14	The vitamin that is linked to muscle fatigue is – A) Vitamin B1 B) Vitamin C C) Vitamin D D) None of the above	**1.5**	**CO4**
15	The micronutrient that plays most important role for adaptation while training at high altitude is – A) Zinc B) Vitamin E C) Iron D) Vitamin A	**1.5**	**CO3**

16	Substances and procedures believed to improve physical work capacity, physiological function, or athletic performance are known as _____	**1.5**	**CO1**
17	An athlete needs to replenish _____rapidly after a sports event	**1.5**	**CO2**
18	The fracture that occurs when muscles become fatigued and are unable to absorb added shock is known as _____ fracture.	**1.5**	**CO2**
19	Duration of fast muscle fiber twitch is: A) 100 milliseconds B) 7.5 milliseconds C) 10 milliseconds D) 5 milliseconds	**1.5**	**CO4**
20	In endurance activity (1-3 hours/day) the recommended carbs intake is – A) 3-5 g/kg/day B) 6-10 g/kg/day C) 5-7 g/kg/day D) 8-12 g/kg/day	**1.5**	**CO3**
	SECTION B (5 marks each question)		
Q	Short Answer Type Question (5 marks each) Scan and Upload 4 questions 5 marks. Word limit (100-120)	**20 Marks**	**CO**
1	Are women more susceptible to stress fracture than men? If yes, why?	**1+4**	**CO5**

2	Write the role of niacin, vitamin B6, and vitamin B12 in athletic performance. Mention their food sources	**2+2+1**	**CO2**
3	How alcohol consumption affects the skeletal muscle in athletes?	**5**	**CO2**
4	Write briefly about water intoxication in athletes.	**5**	**CO3**
SECTION C 30 marks			
Q	**Two case studies 15 marks each subsections**	**30 Marks**	**CO**
1	An athlete is suffering from lack of concentration and focus. A) How would you counsel him/her to use the power of yoga to deal with this? B) Will you recommend him/her the 4-7-8 breathing technique to relax? C) Which other breathing techniques will you recommend to the athlete if he/she doesn't want to follow the 4-7-8 technique?	**5+4+6**	**CO2**
2	You are preparing an athlete for a soccer game. He is healthy, not anemic, or with fractured bones. A) What would be your strategy to design the pre-game meal for him? Name 5 such pre-game meals B) What would you feed him 30 minutes prior to the game? C) What fluids would you recommend for him throughout the game?	**6+4+5**	**CO3**
SECTION D 20 marks			
Q	**Long Answer type Questions Scan and Upload (10 marks each) Word limit 200-250**	**20 Marks**	**CO**
1	Explain the role of vitamin C, vitamin E, glutathione, and selenium in managing oxidative stress in athletes.	**3+3+4**	**CO1**
2	A) Write effects of alcohol on sleep, injury, and hormone B) Describe how does physical activity effect sustainable weight loss	**5+5**	**CO2**