

2015

M.Sc.

2nd Semester Examination

HUMAN PHYSIOLOGY

PAPER—PHY-202

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

(Unit—15)

Answer all questions from the following :

1. What is firtlek training ? State physiological benefits of firtlek training. 2+3

Or

Why the energy cost of swimming is higher than running in a compairable event. State the effects of water temperature on the energy cost of swimming. 1+4

(Turn Over)

2. (a) "Is exercise responsible for spot reduction of body fat" ? — Justify.
- (b) Is there any gender difference in exercise for weight loss ? 3+2

Or

State the principle of determining exercise dose for elderly persons. What is the suitable frequency of exercise for elderly ? 4+1

3. What is coronary artery disease (CHD) ? State the importance of stress testing for evaluating CHD. 1+4

Or

What is COPD ? Describe the exercise prescription for the patients with pulmonary disease. 4+1

4. Describe the training procedure for the sports events holding at high altitude. Is O₂ supplementation beneficial for performance at high altitude ? 4+1

Or

State the effects of cold exposure on O₂ consumption. How is muscle strength affected due to cold exposure ?

3+2

(Unit—16)

Answer all questions from the following :

1. What are the goal of ergonomics ? Mention the limitation and capabilities of human in relation to ergonomics. What is system design approach ? 2+2+1

Or

What is cognitive system .of a human information processor ? State the factors affecting cognitive processor. 3+2

2. State the factors for standardizing the anthropometric measurement. Distinguish between static and dynamic anthropometry with examples. 3+2

Or

Discuss the bioelectric impedance method for determining body composition, mentioning its limitation. What is lean body mass ? 4+1

3. What are the common mechanical hazards faced by the workers in their workplace ? State the protective measures for reducing mechanical hazards. 2+3

Or

Describe briefly different types of chemical protective clothing used in industries. What is bioisolation of PPEs ?

4+1

4. Mention the causes of respiratory problems of agricultural workers. Mention some important interventions against respiratory problems of agricultural workers. 4+1

Or

What are signs of stress in workplace? What is general adaptation syndrome (GAS) in relation to stress?

1+4