

2017

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. (a) How do body balance and cardiovascular endurance are related to physical fitness ?
(b) What is reaction time ? How it can be measured ?

3+2

(Turn Over)

Or

- (a) What is principle of overload ?
- (b) How can anaerobic power be improved by physical training ? 2+3
2. (a) Discuss the possible mechanism of genetically influenced obesity.
- (b) Mention the guidelines of exercise method for weight control. 3+2

Or

- (a) How is intensity of exercise determined for elderly person ?
- (b) Mention the exercise induced musculo-skeletal injuries among elderly persons. 3+2
3. (a) What do you mean by restrictive lung disease ?
- (b) State the exercise prescription for emphysema and cystic fibrosis. 1+4

Or

- (a) State the principle of graded exercise stress test ?
- (b) Point out the importance of stren testing for evaluating coronary heart disease. 3+2

4. Mention the effects of *dehydration on physiological system* while performing exercise in hot climate.

(a) How is VO_2 max changed at high altitude ?

(b) Mention the importance of 'altitude training and sea level performance'. 3+2

(Unit—16)

Answer all questions from the following :

1. (a) What are the goals of ergonomics ?

(b) Explain human capabilities and limitations in relation to work. 2+3

Or

(a) What is the role of cognitive system in human information processing ?

(b) What do you understand by cognitive and motor processors ? 2+3

2. (a) What is Newtonian anthropometry ?

(b) Write important steps of anthropometric survey. 2+3

Or

- (a) What is lean body man? How it can be calculated?
- (b) Write the principle of bioelectric impedance method for determining body composition. 2+3
3. (a) What is meant by indirect cost of accidents?
- (b) State briefly some unsafe acts that are commonly seen in work place. 2+3

Or

- (a) Mention common mechanical injuries at work place.
- (b) Write characteristics of safeguards used against mechanical hazards. 2+3
4. (a) What are the pathological changes in lungs seen in Silicosis.
- (b) Write the preventive measures of Silicosis. 2+3

Or

- (a) Write brief notes on
- (i) Caspal funnel syndrome
- (ii) Farmer's lung. $2\frac{1}{2}+2\frac{1}{2}$