

**2021**

**PHYSIOLOGY— HONOURS**

**Paper : DSE-B-1**

**(Work, Exercise and Sports Physiology)**

**Full Marks : 50**

*The figures in the margin indicate full marks.*

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

**Group-A**

- 1.** Answer *any five* questions. 2×5
- (a) Give the concept of Physiological work.
  - (b) What is meant by lactate threshold?
  - (c) Give two examples of body composition analysis method.
  - (d) What is 'Second Wind'?
  - (e) Do the heart rate and pulse rate have the same meaning? Explain.
  - (f) How can you calculate work done of an individual in Bicycle ergometer?
  - (g) What do you understand by 'steady state' of exercise?
  - (h) What is mesomorphy?

**Group-B**

- 2.** Answer *any two* questions.
- (a) Write short note on Work load classification on the basis of heart rate, Oxygen consumption and energy output. 5
  - (b) What is warm up? What are the benefits of warm up? 2+3
  - (c) What do you mean by OBLA? What is lactate tolerance and describe its limitations? 2+3
  - (d) What do you mean by lean body mass? Mention the storage sites for essential fat and storage fat. 2+3

**Please Turn Over**

**Group-C**

3. Answer *any three* questions.

- (a) Describe a suitable indirect method for determination of Energy Cost of an individual doing sedentary work. 10
- (b) (i) State the modifications of the Original Harvard Step Test in Indian context.  
(ii) Describe the principle, method, calculation and interpretation of the Modified Harvard Step Test. 2+2+2+2+2
- (c) Describe the basic principles and different methods of Training. 5+5
- (d) (i) Describe the significance of Physical Growth status.  
(ii) Describe the method for measurement of percent body fat of an individual using skinfold caliper. 4+6
- (e) (i) Describe the physiological responses to static and dynamic muscular work.  
(ii) What is relative aerobic strain of a work?  
(iii) How is it involved in analysis of acceptable work load? 6+1+3
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