

**2022**

**SPORTS MEDICINE, PHYSIOTHERAPY AND  
REHABILITATION**

**Paper: EC-301**

**Full Marks: 70**

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in their own words  
as far as practicable.*

*Answer all questions*

1. What are the concept and scope of sports medicine? What are the important objectives of sports medicine? Discuss the development of sports medicine as discipline in India?

(3+3)+3+6

*Or,*

Mention five doping agents used in sports field. Write the full form of WADA and discuss its function.

10+5

2. What is the importance of physiotherapy in sports? What are the basic principles of physiotherapy? Explain the use of thermo-therapy in the treatment of sports injuries

3+4+8

*Or,*

What are the various types of therapeutic modalities? Discuss the guiding principles of therapeutic modalities. What is electrical stimulation and how is it used for sports injury treatment?

3+6+6

3. Classify sports injuries. What are the causes of sports injuries? Discuss five techniques used to avoid sports injuries?

5+5+5

*Or,*

Define massage. Write down the principles followed when applying massage. Describe the use of bandaging and orthotics as protective and supportive equipment.

3+6+6

4. Write short notes on the following (*any two*):

7½×2

- Mobility exercise
- Passive Movement
- Rehabilitation after sports injury
- Classification of therapeutic exercises.

**Please Turn Over**

(2)

5. Answer the following MCQs by choosing the correct option and writing it on your answer script (*any ten*):

1X10

- (a) Which of the following does not apply to effleurage?
- (i) Strokes should be slow
  - (ii) Strokes should be from distal to proximal
  - (iii) Strokes should use the whole hand
  - (iv) When applying it the muscle should be on stretch
- (b) Blood doping with erythropoietin improves an athlete's performance by what process?
- (i) Increasing the number of red blood cells in the body
  - (ii) Thinning the blood
  - (iii) Making the blood circulate much faster
  - (iv) Cooling the blood
- (c) What is the most-common testing method for detecting performance enhancing drugs?
- (i) Collecting and testing blood samples
  - (ii) Swab of cheek tissues
  - (iii) Collecting and testing saliva samples
  - (iv) Collecting and testing urine samples
- (d) What is the usual duration of acute pain?
- (i) Up to one day
  - (ii) Up to six months
  - (iii) Up to one hour
  - (iv) Up to one week
- (e) Reflex movements are –
- (i) Voluntary
  - (ii) Passive
  - (iii) Involuntary
  - (iv) None of the above
- (f) To prevent injury you should always-
- (i) Warm up properly
  - (ii) Have appropriate fitness levels before play
  - (iii) Wear the appropriate protective equipment
  - (iv) All of the above
- (g) Factors that must be considered in or to prevent foot injuries include-
- (a) Proper foot wear
  - (b) Adapting to training surfaces
  - (c) Correcting biomechanical deficiencies
  - (d) All of the above

Please Turn Over

(3)

**(h)** What is another name of flat feet?

- (i) Pes planus
- (ii) Pes cavus
- (iii) Pes equine
- (iv) Hallus rigidus

**(i)** When the elbow is dislocated, it is important to consider the possibility of what secondary injury?

- (i) fracture
- (ii) tearing / pinching of the nerves
- (iii) disruption of normal blood supply
- (iv) All the above

**(j)** A bicep curl using a dumbbell is an example of a/an

- (i) Isometric exercise
- (ii) PNF exercise
- (iii) Isokinetic exercise
- (iv) Isotonic exercise

**(k)** Which of the method(s) is applied to reduce inflammation of injury?

- (i) Contrast Bath
- (ii) Whirlpool Bath
- (iii) Sauna Bath
- (iv) All of these

**(l)** Which of the following modalities are used in Physiotherapy?

- (i) Exercise Therapy
  - (ii) Thermotherapy
  - (iii) Electrotherapy
  - (iv) All the above
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