

## FINAL ANSWER KEY

Question 129/2023/OL

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Question1:-The anatomical area that can be radiologically visualized by Zanca views is :

A:-1st carpometacarpal joint

B:-Acromioclavicular joint

C:-Distal radioulnar joint

D:-Scapulothoracic joint

Correct Answer:- Option-B

Question2:-Incidence of rotator cuff tear is highest in

A:-Type I acromion

B:-Type II acromion

C:-Type III acromion

D:-Type IV acromion

Correct Answer:- Option-C

Question3:-Primary scapular stabilizer muscles include all EXCEPT

A:-serratus anterior

B:-Trapezius

C:-Long head of biceps

D:-Pectoralis minor

Correct Answer:- Option-C

Question4:-All statements are true EXCEPT :

A:-Bankart lesion is an avulsion fracture of the glenoid rim with anteroinferior glenoid labrum and capsuloligamentous injury

B:-Hill Sach's lesion is posterosuperior osteochondral impaction fracture of humeral head

C:-Jerk test is used to assess posterior instability of shoulder

D:-Jobe's Relocation test is used to assess anterior instability

Correct Answer:- Option-C

Question5:-Bucket handle type lesion of superior labrum seen in

A:-Type I SLAP lesion

B:-Type II SLAP lesion

C:-Type III SLAP lesion

D:-Type IV SLAP lesion

Correct Answer:- Option-C

Question6:-Golfer's elbow is characterized by

A:-Tenderness over medial epicondyle

B:-Tenderness over lateral epicondyle

C:-Tendinitis of common extensor origin

D:-Tendinitis of common flexor origin

Correct Answer:- Option-A

Question7:-DeQuervain's disease classically affects the

A:-Flexor Pollicis Longus and Brevis

B:-Extensor carpi radialis and Extensor Pollicis Longus

C:-Abductor Pollicis Longus and Brevis

D:-Extensor Pollicis Brevis and Abductor Pollicis Longus

Correct Answer:- Option-D

Question8:-Which of the following statements are TRUE

(i) Watson test assess scapholunate stability

(ii) Finkelstein test detect tenosynovitis of Extensor carpi radialis and Extensor Pollicis Longus

(iii) Sulcus sign evaluate inferior glenohumeral joint instability

(iv) Neer-Walsh impingement test is for rotator cuff tendinitis

A:-(i), (ii), (iii) and (iv)

B:-(i), (iii) and (iv)

C:-(ii), (iii) and (iv)

D:-(i) and (ii)

Correct Answer:- Option-B

Question9:-Following statements are true about scapholunate instability EXCEPT :

A:-After ligament disruption, scaphoid moves into flexed position, lunate and triquetrum extends

B:-It is a rare type of wrist ligament injury

C:-Wrist arthroscopy is the gold standard for diagnosis

D:-Acute injury should be treated surgically

Correct Answer:- Option-B

Question10:-All are true EXCEPT :

A:-Triangular Fibrocartilage Complex is primary stabilizer of distal radioulnar joint

B:-Person with TFCC injury has tenderness to palpation in the hollow between

FCU and extensor carpi ulnaris tendon

C:-TFCC is composed of avascular central articular disc and vascular dorsal and palmar radioulnar ligament

D:-Ulnar-minus variant may be associated

Correct Answer:- Option-D

Question11:-Positive Thompson test indicates

A:-Intact Achilles tendon

B:-Ruptured Achilles tendon

C:-Flexibility of hip flexor muscles

D:-Contracture of hip flexor muscles

Correct Answer:- Option-B

Question12:-All statements about Legg-Calve Perthe's disease are true EXCEPT

A:-Idiopathic osteonecrosis of femoral head

B:-Most common age group is between 4 years to 8 years

C:-Girls are more frequently affected than boys

D:-Osteotomy is a treatment option

Correct Answer:- Option-C

Question13:-Which of the following statements are TRUE :

(i) Iliotibial Band insert distally into Gerdy's tubercle

(ii) Iliotibial band is controlled proximally by Gluteus Maximus and Tensor Fascia Lata

(iii) Lateral snapping hip syndrome is seen in Iliotibial band syndrome

(iv) Internal snapping hip is due to iliopsoas tendon rubbing over iliopectineal eminence

A:-(i), (ii), (iii) and (iv)

B:-(i), (iii) and (iv)

C:-(i) and (ii)

D:-(i), (ii) and (iii)

Correct Answer:- Option-A

Question14:-Avulsion fracture of lateral tibial plateau

A:-Segond fracture

B:-Steida fracture

C:-Jones fracture

D:-Gosselin fracture

Correct Answer:- Option-A

Question15:-Pain generators in athletic pubalgia

A:-Overload of lower abdominal muscles

B:-Strain of hip flexors and adductors

C:-Public symphysis

D:-All of the above

Correct Answer:- Option-D

Question16:-Following statements are true EXCEPT :

A:-Hamstring strains occur with forceful eccentric contraction

B:-Surgical management is the treatment of choice for ischial avulsion fracture

C:-Most common age group for ischial avulsion fracture is 15 to 25 years

D:-Proximal hamstring tendon avulsion is common in skeletally mature individuals

Correct Answer:- Option-B

Question17:-Which of the following statements are TRUE

(i) Medial collateral ligament courses from medial femoral condyle to the proximal medial tibia

(ii) Anterior cruciate ligament courses from medial wall of the lateral femoral condyle

anteromedially to the anterior spine of tibial plateau

(iii) Tears in the outer portion of the meniscus have better healing potential

(iv) Outer portion of the meniscus is avascular

A:-(i), (ii), (iii) and (iv)

B:-(i), (iii) and (iv)

C:-(i) and (ii)

D:-(i), (ii) and (iii)

Correct Answer:- Option-D

Question18:-All statements about osteochondritis dessicans are true EXCEPT:

A:-It is a lesion of subchondral bone with or without the involvement of overlying articular cartilage

B:-Most common site is inferior portion of lateral femoral condyle

C:-Advanced osteoarthritis is a contraindication for articular cartilage restoration procedure

D:-Complete avulsion of osteochondral fragment without dislocation is Grade 3 lesion

Correct Answer:- Option-B

Question19:-Abnormal mechanism resulting in improper tracking of patella

A:-Tight quadriceps muscles

B:-Tight iliotibial band

C:-Both (1) and (2)

D:-None of the above

Correct Answer:- Option-C

Question20:-Which is the TRUE statement:

A:-Jumper's knee is so named because it is most commonly seen in basketball and volleyball players

B:-Osgood-Schlatter occurs due to repetitive extension of knee causing inflammation and injury to the tibial tubercle

C:-Prepatellar bursitis is also known as housemaid's knee

D:-All of the above

Correct Answer:- Option-D

Question21:-Which of the following statement is/are correct about periodisation?

(i) A microcycle last for 1-2 weeks of continuous sessions without any breaks or recovery

(ii) A mesocycle lasts for 3-6 weeks

(iii) A mesocycle emphasizes on multiple aspects of training

(iv) Final phase of a macrocycle is the competition phase

A:-statement (ii) and (iii) are correct

B:-statement (i), (ii), (iii) and (iv) are correct

C:-statement (i) and (iii) are correct

D:-statement (ii) is correct

Correct Answer:- Option-D

Question22:-Which of the following statement regarding inadequate recovery, is wrong?

A:-A reduction of more than 30% in the ratio of free testosterone to cortisol suggest inadequate recovery

B:-A decrease in sex hormone binding globulin suggest inadequate recovery

C:-A glutamine to glutamate level more than 3.58 suggest inadequate recovery

D:-An increase of more than 10 beats per minute from baseline heart rate suggest inadequate recovery

Correct Answer:- Option-C

Question23:-Which among the following statement is true?

A:-In case of High Altitude Pulmonary Edema/Cerebral Edema, sudden descent is mandatory

B:-Training velocity, VO<sub>2</sub> max, heart rate and lactate are lower in high altitude

C:-Erythropoietin levels rise after 2 weeks of HAT reduce after 4 weeks of stopping high altitude training (HAT)

D:-All the above statements are true

Correct Answer:- Option-D

Question24:-Regarding the kinetic chain concept, which among the following is false?

A:-Running involves both open and closed type kinetic chain movement

B:-Movement techniques along with well developed basic physical attributes are key to kinetic chain performance

C:-Kinetic chain assessment is done through a three pronged approach which includes field based performance testing, movement analysis and musculoskeletal testing

D:-Training of various muscle groups than movement forms is more effective in developing the kinetic chain

Correct Answer:- Option-D

Question25:-About return to activity after ACL reconstruction for a national level professional football player, which of the following is true?

A:-Cycling can be started after 3 weeks

B:-He start running after a month

C:-He can make sharp turns and pivoting after 2 months

D:-He can participate competitively after 6 months

Correct Answer:- Option-A

Question26:-Which of the following is not true regarding swimmers shoulder?

A:-most common orthopaedic ailment in swimmers and occurs after 6-8 years of swimming

B:-young swimmers are susceptible for proximal humeral epiphysiolysis

C:-drag swimsuits and swim paddles help reduce the symptoms

D:-more common in fast swimmers training 20-30 hours a week

Correct Answer:- Option-C

Question27:-Regarding running, which of the following statement is wrong?

A:-70-80% running injuries occur from knee leg ankle and foot

B:-Important risk factors include previous injury, training miles per week, cavus foot and experience of the runner

C:-Contributing factors for runners knee are decreased q angle and ankle and foot valgus

D:-Illiotal band syndrome is the most common cause of lateral knee pain in runners

Correct Answer:- Option-C

Question28:-A professional fast bowler came to OPD with painful clicking and pain on bowling. Which among the following is not true regarding the condition

A:-It occurs due to repetitive contact between the undersurface of the greater turbercle and the posterosuperior glenoid

B:-External impingement is seen primarily in these patients

C:-Examination findings are positive clunk and O'briens test

D:-MRI shoulder is the investigation of choice to evaluate the condition

Correct Answer:- Option-B

Question29:-For Therapeutic use exemption to be granted, which of the below statements need to be followed

- (i) The athlete experience significant impairment in health, if the drug/method is being withheld
- (ii) The therapeutic use of drug/method would produce no additional enhancement of performance other than return to normal state of normal health
- (iii) There is no reasonable therapeutic alternative to the use of drug/method
- (iv) The necessity for the use of the otherwise prohibited substance or method cannot be a consequence of prior non therapeutic use of any of any substance from the prohibited list.

A:-(i), (ii), (iii) and (iv) need to be followed

B:-(i), (ii) and (iii) need to be followed

C:-(ii) and (iii) need to be followed

D:-(i) and (iii) need to be followed

Correct Answer:- Option-A

Question30:-Which of the following statements about Anabolic steroids are true?

- (i) Anabolic steroids are used in the treatment of refractory anemia, palliative therapy, osteoporosis and muscle wasting in Anti retroviral therapy patients
- (ii) Doses taken are 10-40 times the therapeutic dose
- (iii) Stacking is the use of combination of anabolic steroids
- (iv) Changes in libido, mood swings, aggression, addiction and suicidal attempts are the psychological effects of anabolic steroids.

A:-All the above statements are true

B:-All except (iv) are true

C:-All except (i) and (iv) are true

D:-All except (i),(ii) and (iv) are true

Correct Answer:- Option-A

Question31:-Which among the following statements are true?

- (i) Balneotherapy is an example of deep heat
- (ii) Ultrasonic therapy works on non thermal processes like cavitation, shock waves and streaming
- (iii) The target temperature reduction in cryotherapy is 10-15°C achieved by repeated application
- (iv) Short wave diathermy can increase the intramuscular temperatures to rise 15°C at a depth of 4-5 cm

A:-All 4 statements are true

B:-Statements (ii) and (iii) are true

C:-Statements (ii), (iii) and (iv) are true

D:-Statements (i) and (ii) are true

Correct Answer:- Option-B

Question32:-Which of the following statements are true?

A:-Synthetic erythropoietin effects lasts longer than continuous erythropoietin receptor activator (CERA)

B:-Autologous blood transfusions are easier to detect than the homologous blood transfusions

C:-Increased blood pressures and hyper viscosity can lead on to strokes and myocardial infarctions

D:-Recombinant EPOs and CERA can be easily detected in urine and blood

Correct Answer:- Option-C

Question33:-Which among the following statements are not true?

A:-Gene therapy in sports focusses on inhibition of myostatin gene which is a member of transforming growth factor Beta

B:-Myostatin gene regulates the number and growth of myocytes

C:-Most tested myostatin inhibitors are follistatin, follistatin related gene (FLRG) and growth differentiation factor associated protein (GASP)

D:-In animal studies, single injection increased muscle size and strength but effect only lasted for 6 months

Correct Answer:- Option-D

Question34:-Regarding the physeal fractures in children which among the following is true?

(i) Physis is the weakest structure of the bone hence the injury

(ii) Of the 6 types of physeal injury, type 1 is the one with best prognosis

(iii) Type 5 is found mostly retrospectively once the growth arrest or the angular deformity has occurred

(iv) Type II fractures growth arrest is rare

A:-All statements are true

B:-All statements except (iv) are true

C:-All statements except (i), (iii) and (iv) are true

D:-All statements except (iii) and (iv) are true

Correct Answer:- Option-B

Question35:-Which of the following statements are true?

(i) The three components of Female Athlete Triad (FAT) is low energy availability with or

without eating disorder, menstrual dysregulation and decreased bone mineral density

(ii) Indication for IP treatment of an athlete with FAT are <75% of expected body weight, rapid

> 15% weightloss, arrhythmia and suicidal ideations.

(iii) Athletes who begin intensive training before puberty develop primary



amenorrhoea

(iv) Normal breast and pubic development in the absence of menstrual periods suggest

gonadal abnormality

A:-All statements are true

B:-All statements except (iii) and (iv) are true

C:-All statements except (iii) are true

D:-All statements except (iv) are true

Correct Answer:- Option-A

Question36:-Which of the following statements are true?

A:-The relative risk for sudden cardiac death is more in general population than in athletes

B:-Exercise induced bronchospasm is more in sprinters and short distance runners

C:-Positive walker and Steinberg sign are seen in marfans syndrome

D:-Athletic heart syndrome changes in heart will not improve with 3 months of detraining

Correct Answer:- Option-C

Question37:-Which of the following statements about long QT syndrome is not true?

A:-Qtc more than 440 m sec in men and 46 m sec for women is abnormal

B:-Jervell syndrome is an autosomal dominant disorder causing Qtc prolongation

C:-If a sodium channel blocker is given to a patient with brugada syndrome, polymorphic VT is precipitated

D:-Adrenergic stimulation of a patient with long QT prolongation syndrome, Torsades de pointers is precipitated

Correct Answer:- Option-B

Question38:-Which of the following about concussions are false?

(i) Concussions are primarily caused by trauma where a functional disturbance in brain is not

associated with structural brain damage

(ii) Main treatment of concussion is physical and cognitive rest

(iii) Children and adolescents take extended resolution periods

(iv) Player should be assessed at sideline with sports concussion assessment tool if player has

potential features of concussion

A:-All the above statements are true

B:-All the statements except (iii) and (iv) are true

C:-All statements except (iii) are true

D:-All statements except (i) and (iii) are true

Correct Answer:- Option-A

Question39:-A wheelchair basketball player who also happens to be a tetraplegic person with no comorbidities complained of severe headache and nasal stuffiness since morning. He has distended bladder even after being on a catheter. His BP was found to be 140/90 mm of Hg. What will be the order of management for this patient

- (i) Recatheterise the patient
- (ii) Management of BP
- (iii) Loosening the clothing
- (iv) Evacuation of bowel
- (v) Sitting up the patient

A:-(ii), (i), (iii), (v), (iv)

B:-(i), (ii), (iii), (iv), (v)

C:-(v), (iii), (i), (ii), (iv)

D:-(iii), (v), (iv), (i), (ii)

Correct Answer:- Option-C

Question40:-Which of the following statements about rhabdomyolysis is wrong?

- (i) seen in persons involved in prolonged exertional activity
- (ii) Severity is based on the symptoms and biochemical values
- (iii) CPK values >5000 and urine myoglobin/Haemoglobin strongly positive need IV fluid therapy
- (iv) Recurrent bouts of rhabdomyolysis or severe episodes warrant the evaluation of underlying disease processes, myopathy or enzyme deficiencies

A:-All statements are true

B:-All statements except (iii) are true

C:-All statements except (ii) and (iii) are true

D:-All statements except (ii) (iii) and (iv) are true

Correct Answer:- Option-A

Question41:-Pain caused by a stimulus than does not normally provoke pain

A:-Allodynia

B:- Analgesia

C:-Hypoalgesia

D:-Hyperalgesia

Correct Answer:- Option-A

Question42:-Pain induced or caused by primary lesion or dysfunction in the central nervous system

A:-Parasthesia

B:-Central pain

C:-Neurogenic pain

D:-Neuropathic pain

Correct Answer:- Option-B

Question43:-Normal pain nociception is characterised primarily the process of all EXCEPT

A:-Transduction

B:-Transmission

C:-Convection

D:-Modulation

Correct Answer:- Option-C

Question44:-In transmission of pain the thin unmyelinated, slow conducting fibres are

A:- $A_\alpha$

B:- $A_\beta$

C:-C

D:- $A_\delta$

Correct Answer:- Option-C

Question45:-In the physiology of pain, the pain fibres that are myelinated and fast are

A:-Type  $I_a$ s

B:- $A_\beta$

C:-C

D:-Type  $I_b$

Correct Answer:- Option-B

Question46:-Person associated with gate control theory

A:-Melzack

B:-Manro

C:-Hoffman

D:-Murphy

Correct Answer:- Option-A

Question47:-Behavioural treatment approach to chronic pain includes

A:-Abnormal technique

B:-Operant behavioural technique

C:-Adherent technique

D:-Addiction

Correct Answer:- Option-B

Question48:-One of the primary Assumptions, that underlie a behavioural technique which states, Cognition interacts with emotional and physiologic reactions as well as behaviour is termed as

A:-Cognitive behavioural technique

B:-Obsessive behaviour

C:-Compulsive behaviour

D:-Depression behaviour

Correct Answer:- Option-A

Question49:-Opioid receptors are all EXCEPT

A:-C

B:- $\mu$

C:- $\delta$

D:-kappa

Correct Answer:- Option-A

Question50:-Opioid used in pain management through intrathecal route

A:-Diclofenac

B:-Carbamazepine

C:-Indomethacin

D:-Morphine

Correct Answer:- Option-D

Question51:-In therapeutic exercises, muscle fibres contain the following metabolic pathway EXCEPT

A:-creative phosphate system

B:-Rapid glycolysis (lactic acid system)

C:-Aerobic oxidation

D:-Calcium oxidation

Correct Answer:- Option-D

Question52:-A measure of cardiopulmonary fitness of muscle in therapeutic EX is \_\_\_\_\_ capacity, defined physiologically as the highest of oxygen transport that can be achieved at max physical exertion.

A:-Aerobic capacity with  $\dot{V}O_2$  max

B:-Total lung capacity

C:-cardiac systolic measurement

D:-Reserve lung capacity

Correct Answer:- Option-A

Question53:-Physiology of muscle contraction occurs by

A:-sliding filament mechanism

B:-single fibre measurement of muscle

C:-compound muscle measurement

D:-simple fibre measurement

Correct Answer:- Option-A

Question54:-Type of muscle fibre which are slow and oxidative

A:-Type 1 fibre

B:- $\mu$

C:- $\delta$

D:- $\kappa$

Correct Answer:- Option-A

Question55:-Type of muscle fibres which are fast twitch fibres

A:- $\mu$

B:-Type 2

C:- $\delta$

D:- $\kappa$

Correct Answer:- Option-B

Question56:-In therapeutic exercises the methods of stretching techniques are all EXCEPT

A:-Ballistic

B:-Passive

C:-Static

D:-Proprioception

Correct Answer:- Option-D

Question57:-A therapeutic Exercises of stretching which includes Hold-Relax, Contract-Relax technique is called

A:-Neuromuscular facilitation

B:-Slow twitch

C:-Fast twitch

D:-Plyometrics

Correct Answer:- Option-A

Question58:-The Therapeutic Exercise with brief explosive manocuvres that consist of an eccentric muscle contraction followed immediately by a concentric contraction is termed as

A:-slow stretch technique

B:-plyometrics

C:-fast stretch technique

D:-passive stretch

Correct Answer:- Option-B

Question59:-Neuro facilitation technique of therapeutic exercise used for central nervous system dysfunction includes the following EXCEPT

A:-Brunnstrom

B:-BOBATH

C:-Neuro Muscular Facilitation with Proprioception

D:-Plyometrics

Correct Answer:- Option-D

Question60:-In Aging muscle all are seen EXCEPT

A:-Loss of muscle mass

B:-Decrease in  $\dot{V}O_2$  max in muscles

C:-Sarcopenia

D:-Increase in  $\dot{V}O_2$  max in muscles

Correct Answer:- Option-D

Question61:-In the electrodiagnostic testing, the item measured in the nerve action potential from the time of stimulation to the onset or peak of response is termed as

A:-Amplitude

B:-Latency

C:-Stimulation

D:-Intensity

Correct Answer:- Option-B

Question62:-The late response involving the motor axons and axonal pool which is elicited by maximal stimulus in electrodiagnostic studies

A:-Alpha wave

B:-Beta wave

C:-Delta wave

D:-F wave

Correct Answer:- Option-D

Question63:-Electrophysiologically recorded achilles muscle/soleus muscle stretch reflex in electrodiagnostic study is

A:-Deep Tendon Reflex

B:-Superficial Tendon Reflex

C:-H Reflex

D:-Ciliospinal Reflex

Correct Answer:- Option-C

Question64:-In Ema, the spontaneous muscle fibre activity at rest after insertional activity has subsided is termed as

A:-Fibrillation potential

B:-H reflex

C:-F wave

D:-m wave

Correct Answer:- Option-A

Question65:-Disorders of Neuromuscular junction pre and post synaptic include all EXCEPT

A:-Lambert Eaton Myasthenic Syndrome

B:-Myasthenia Gravis

C:-Peripheral Neuropathy

D:-Botulism

Correct Answer:- Option-C

Question66:-In diagnostic ultrasound of the shoulder in a long axis scan, the beak shaped echogenic fibrillar structure extending under the Acromion between the Humeral head and the sub acromial/subdeltoid burse is \_\_\_\_ tendon

A:-Brachialis

B:-Brachioradialis

C:-Supraspinatus

D:-Triceps

Correct Answer:- Option-C

Question67:-In Diagnostic ultrasound of shoulder, the sonographic feature of a full thickness tendon is a

A:-Osteoporotic disorder

B:-Anechoic defect

C:-Osteopenic

D:-Osteomalacic

Correct Answer:- Option-B

Question68:-In Diagnostic ultrasound, with the arm kept in neutral position, the \_\_\_\_ tendon is visualised as, oval echogenic structure within the bicipital groove

A:-Rhomboids

B:-Triceps tendon

C:-Long head of biceps

D:-Lattissimus dorsi

Correct Answer:- Option-C

Question69:-Jumpers knee is

A:-Patellar tendinopathy

B:-Retrocalcaneal bursa

C:-Tendo Achilles bursitis

D:-Adductor tendinitis

Correct Answer:- Option-A

Question70:-The type of Nerve injury where there is reversible focal conduction block with local myelin injury with axonal continuity

A:-Neurotmesis

B:-Axonotmesis type 3

C:-Axonotmesis type 4

D:-Neuropraxia

Correct Answer:- Option-D

Question71:-Physiological blocking of A delta fibres is achieved at a minimal frequency of

A:->135 Hertz

B:->40 Hertz

C:->15 Hertz

D:->20 Hertz

Correct Answer:- Option-B

Question72:-The following are true about Electrical stimulation EXCEPT :

A:-Galvanic current stimulates the muscle directly rather than the motor point

B:-Stimulation of sensory nerve by Faradic current produces burning pain sensation

C:-Faradic stimulation is useful in assisting voluntary muscle contraction

D:-Galvanic current has more chances of producing chemical burns

Correct Answer:- Option-B

Question73:-Intense TENS is

A:-Conventional TENS

B:-Pulsed TENS

C:-High Frequency high intensity TENS

D:-Dual Channel TENS

Correct Answer:- Option-C

Question74:-The following is NOT true about cryotherapy :

A:-Cold decreases nerve conduction velocity of pain fibres

B:-Reduces afferent muscle fibre activity and reduces spasm

C:-Whole body cryotherapy is done in a cryogenic chamber

D:-Unlike heat, cold can be safely applied in areas of impaired circulation

Correct Answer:- Option-D

Question75:-The following are true about Paraffin wax bath except :

A:-Uses 1:7 mixture of mineral oil and paraffin

B:-Molten wax releases heat on solidification

C:-Wax has high thermal conductivity

D:-Mineral oil lowers melting point of wax



Correct Answer:- Option-C

Question76:-Shock waves used in medicine are

- A:-High intensity waves
- B:-High frequency waves
- C:-Low intensity waves
- D:-Slower than sound waves

Correct Answer:- Option-A

Question77:-Vapocoolant spray used in acute injury contains :

- A:-Flouroethane
- B:-Fluori methane
- C:-Methylchloride
- D:-None of the above

Correct Answer:- Option-B

Question78:-Frequency of therapeutic ultrasound is

- A:-1-3 MHz
- B:-5-20 MHz
- C:-0.5-1 MHz
- D:-10-15 MHz

Correct Answer:- Option-A

Question79:-Indications of or use of microcurrents include all EXCEPT

- A:-Post traumatic stress disorder
- B:-Fibromyalgia
- C:-Neuropathic pain
- D:-Incontinence

Correct Answer:- Option-D

Question80:-The metabolic rate of tissues decreases on cooling. This is as per

- A:-Vant Hoff's law
- B:-Joule's law
- C:-Eddy's law
- D:-None of the above

Correct Answer:- Option-A

Question81:-Which of the following is mostly used by athletes to increase muscle mass and enhance performance?

- A:-Creatine
- B:-Caffeine
- C:-Protein powder

D:-Alcohol

Correct Answer:- Option-A

Question82:-Which of the following is True

A:-ATP storage is sufficient for only 5-7 seconds of activity

B:-Triglyceride consists of 4 fatty acids chains and glycerol backbone

C:-Approximately 60-70% of total energy should come from proteins

D:-Pre exercise meals should consist of food with high glycemic index

Correct Answer:- Option-A

Question83:-Which of the following is a non essential amino acid

A:-Leucine

B:-Valine

C:-Phenyl Alanine

D:-Glycine

Correct Answer:- Option-D

Question84:-Which of the following is NOT recommended for weight loss objective

A:-Reduce or eliminate late night eating

B:-Do not deprive yourself of favourite foods

C:-Drastic reduction of fat intake

D:-Eat high carbohydrate food immediately after strenuous exercise

Correct Answer:- Option-C

Question85:-The recommended weight loss per week in an athlete is

A:-2-3 kg

B:-0.5-1 kg

C:-1-2 kg

D:-0.1-0.5 kg

Correct Answer:- Option-B

Question86:-Which of the following is NOT TRUE

A:-Primary goal of athletic training is to enhance performance and peak at right time

B:-Proper nutrition has a significant role in optimizing training process

C:-Recovery is one of the most important component of training process

D:-High carbohydrate intake can minimise metabolic overtraining

Correct Answer:- Option-D

Question87:-Which of the sporting activity has an energy expenditure between 4 and 10 METS

A:-Swimming

B:-Single's Tennis

C:-Golf

D:-Football

Correct Answer:- Option-C

Question88:-Following about Thiamine is NOT TRUE

A:-Cofactor form is required in Glycolysis

B:-Muscle tissue contains insignificant levels of Thiamine

C:-Is essential for RNA and DNA synthesis

D:-Erythrocyte Ketolase activity is a marker of Thiamine metabolism

Correct Answer:- Option-B

Question89:-Which one of the following reduces supply of iron to the body

A:-Eating more red meat

B:-Drinking orange juice with breakfast

C:-Cooking in cast iron cookware

D:-Consuming tea or coffee with meals

Correct Answer:- Option-D

Question90:-Following are true about bulking EXCEPT:

A:-It is a phase of body building

B:-It is muscle gaining phase

C:-Involved consumption of additional calories

D:-The average calorie consumption is 2800 for males and 1200 for females

Correct Answer:- Option-D

Question91:-In normal gait, following are true EXCEPT:

A:-The Ground Reaction Force (GRF) is located behind the ankle at initial contact

B:-Heel rocker occurs from initial contact until foot flat

C:-In the knee, GRF at initial contact is located anteriorly

D:-In midstance, GRF runs through knee joint

Correct Answer:- Option-C

Question92:-The most common diplegic gait pattern in children in

A:-Jump gait

B:-Crouch gait

C:-Scissoring gait

D:-Circumduction

Correct Answer:- Option-A

Question93:-Causes of knee recurvatum in gait are EXCEPT:

- A:-Gastrocnemius contracture
- B:-Ankle plantar flexor weakness
- C:-Ligamentous laxity
- D:-Quadriceps spasticity

Correct Answer:- Option-D

Question94:-The following is NOT true about isokinetic systems

- A:-Loads a dynamically contracting muscle to its maximum capability throughout the range
- B:-Resistance is equal to the force applied
- C:-High joint compressive forces are observed at higher speed
- D:-Minimal post exercise soreness is observed after concentric isokinetic contraction

Correct Answer:- Option-C

Question95:-Supination of foot involved

- A:-Calcaneal Anduction
- B:-Talar Adduction
- C:-Calcaneal Eversion
- D:-Calcaneal inversion

Correct Answer:- Option-D

Question96:-Positive Hubscher test indicates

- A:-Flexible flat foot
- B:-Ankle instability
- C:-Intact Achilles tendon
- D:-None of the above

Correct Answer:- Option-A

Question97:-The process of differentiation of adult somatic cells to produce pluripotent stem cell without embryo is

- A:-Nuclear transfer
- B:-Reprogramming
- C:-Cloning
- D:-Plasticity

Correct Answer:- Option-B

Question98:-Which of the following is NOT true?

- A:-Gene therapy is a tool in regenerative medicine kit
- B:-Tissue rejection is an important disadvantage of micro gene transfer
- C:-Autologous cell culture has high risk of malignant transformation
- D:-RNA viruses are typically used for integrative gene therapy

Correct Answer:- Option-C

Question99:-Platelet Rich Plasma

A:-Is prepared by differential centrifugation

B:-Is independent of hematocrit variables

C:-Depend on gender and age

D:-None of the above is true

Correct Answer:- Option-A

Question100:-Which of the following is true

A:-Gluteus medius gait is more evident in fast walking

B:-In closed chain kinetics, activation of hip abductors result is excessive limb movement

C:-Gluteus medius gait is characterised by excessive pelvic list

D:-Uncompensated gluteus medius gait has no effect on the foot clearance of contralateral side

Correct Answer:- Option-C