

Section 1 - MPT - Sports Physiotherapy

1) The process by which information is read from DNA, encoded and transported outside the nucleus is known as:

- A) transcription
 - B) catalysis
 - C) translation
 - D) encoding
-

2) Removal of the whole lung is called

- A) Thoarcotomy
 - B) Skeve Resection
 - C) Thoracoplasty
 - D) Pneumonectomy
-

3) About 90-95% persons with PID lists away from the painful side, while rest of 5-10% lists towards the same side indicating prolapse medial to the root, which is characterized by_____.

- A) all of the above
 - B) traction aggravates the symptoms
 - C) lateral PA pressure over sound side reproduces the symptoms
 - D) side flexion towards the sound side aggravates the symptoms
-

4) A female athlete who was diagnosed with Grade III medial meniscal injury informs the physician she cannot risk the delay of a possible unsuccessful period of observation. Surgery is indicated to the patient. If the athlete's meniscal tear involves greater than 50% of the meniscal thickness, which of the following procedures is the most appropriate for the patient?

- A) Partial meniscectomy
- B) Meniscus transplantation
- C) Meniscus repair
- D) Intra-articular reconstruction

5) When evaluating a case of bicipital tendonitis which clinical finding you would NOT expect to find _____

- A) tenderness over bicipital tendon
 - B) referred pain in C7, C8 dermatomes
 - C) painful arc with AROM
 - D) increase in pain on isometric resistance to biceps
-

6) Which of the following terms is NOT used to identify a region of the abdomen?

- A) epigastric
 - B) hypogastric
 - C) right sacral
 - D) left hypochondriac
-

7) _____nervous system is/are responsible for bladder evacuation

- A) Sympathetic
 - B) Somatic
 - C) Parasympathetic
 - D) Sympathetic and parasympathetic
-

8) Shear stress is more in

- A) Coxa vara
 - B) Coxa valga
 - C) Femoral anteversion
 - D) Femoral retroversion
-

9) Which hormones are produced by the adrenal medulla?

- A) glucocorticoids
- B) mineralocorticoids
- C) gonadocorticoids
- D) adrenalin and noradrenalin

10) A physical therapist uses a proprioceptive neuromuscular facilitation technique of repeated contraction. This specific technique uses two basic patterns for the shoulder and hip. For the shoulder motions, D1 is referred to as:

- A) Extension-abduction-internal rotation
 - B) Flexion-abduction-external rotation
 - C) Flexion-adduction-external rotation
 - D) Extension adduction-internal rotation
-

11) For most of our functional activities we use

- A) Plastic range
 - B) Elastic portion of collagen fibre
 - C) Toe region of collagen fibres
 - D) None of the above
-

12) When the knee is flexed the pelvis tilts anteriorly, lumbar extension increases at 80° of knee flexion and knee can be flexed up to 135°. But if the pelvis is stabilized the knee flexion stops at 90°. What may be the reason?

- A) Stiff but not short rectus femoris
 - B) Stiff and short rectus femoris
 - C) Short rectus femoris
 - D) Normal rectus femoris length
-

13) A 5-year-old girl swings each leg outward as she walks to take a step without striking the limb in contact with the ground with the moving limb. The child's knees touch but the ankles are apart when standing. Which of the following interventions is the most appropriate for the patient?

- A) Bracing
- B) Application of extraperiosteal 2-hole plate
- C) Shoe modifications
- D) No treatment is recommended

14) A patient who is diagnosed with lumbar disk herniation is referred to the clinic for a therapy program. Review of patient record reveals signs of lumbar radiculopathy. The physical therapist is correct to include which of the following activities to the program?

- A) Maintenance of neutral spine position.
 - B) Limit sport-specific plyometrics.
 - C) Encourage flexion bias.
 - D) Bed rest for the first 5 days.
-

15) The end feel of loose body inside the joint is _____.

- A) Hard
 - B) Elastic
 - C) Leathery
 - D) Springy rebound
-

16) In which condition muscle force production is more?

- A) More velocity middle range
 - B) Less velocity outer range
 - C) Less velocity middle range
 - D) More velocity inner range
-

17) The long term acid-base balance in the body is controlled by

- A) the phosphate and carbonic acid/bicarbonate buffers in the blood
 - B) the phosphate, carbonic acid/bicarbonate, and protein buffers in the blood and cells
 - C) the kidneys
 - D) the kidneys and the lungs
-

18) Which team won the English Premiere League Title for the year 2019-20?

- A) Manchester United FC
 - B) Manchester City FC
 - C) Chelsea FC
 - D) Liverpool FC
-

19) Patients with spinocerebellar tract lesion will lack

- A) Ipsilateral lower limb & trunk control
 - B) Contralateral upper limb and lower limb control
 - C) Ipsilateral upper limb control
 - D) Ipsilateral upper limb and trunk control
-

20) Drainage bottle must be placed

- A) Higher than the patient
 - B) None of the above
 - C) Lower than the patient
 - D) Same level
-

21) Medial heel wedge is recommended for the correction of ____.

- A) hind foot pronation
 - B) hind foot supination
 - C) CTEV
 - D) equinus foot
-

22) Thomas heel is given in case of ____.

- A) flat foot
 - B) cavus foot
 - C) CTEV
 - D) equines foot
-

23) Oppenheim's reflex is

- A) Extension of great toe with firm moving pressure on the skin over tibia
- B) None of the above
- C) Stroking on inner border elicits flexor response
- D) Stroking outer border of sole elicits ankle dorsi flexion

24) All the following statements are true for fat soluble vitamins. Except.

- A) They require bile salts for absorption.
 - B) Soluble in organic solvents.
 - C) Liver is their storage site.
 - D) They exist in provitamin form.
-

25) A 68-year-old man with prostate cancer and bone metastases presents with shaking chills and fever. The peripheral WBC count is 1,000/ μ L (normal = 4,000 to 11,000/ μ L). Which of the following terms best describes this hematologic finding?

- A) Leukocytosis
 - B) Leukopenia
 - C) Neutrophilia
 - D) Leukemoid reaction
-

26) Which of the following statement is correct regarding trace minerals

- A) They are required in less than 100 mg/day.
 - B) They are required in large amounts.
 - C) They account for 80% inorganic matter present in body.
 - D) They are required for nerve impulse transmission.
-

27) Cell death due to lack of oxygen is called as

- A) Necrosis
- B) Hypertrophy
- C) Apoptosis
- D) Atrophy

28) Which of the following statements regarding hypovolaemic shock are true?

- I. It is associated with high cardiac output.
- II. The vascular resistance is high.
- III. The venous pressure is low.
- IV. The mixed venous saturation is high

- A) I & II
 - B) I & IV
 - C) III & IV
 - D) II & III
-

29) Which is the first major sports competition to resume after COVID-19 lockdown?

- A) Champions league
 - B) Spain's La liga
 - C) English Premiere League
 - D) Germany's Bundesliga
-

30) Which of these structures has no cartilage in it?

- A) Bronchi
 - B) Trachea
 - C) Epiglottis
 - D) Alveoli
-

31) Dopamine is synthesized by_____.

- A) Substantia nigra
- B) Putamen
- C) Subthalmaic nucleus
- D) Globus pallidum

32) Ezra Cup is related to which of the following sports?

- A) Cricket
 - B) Polo
 - C) Tennis
 - D) Lawn Tennis
-

33) Pressure sores can occur over which of the following areas?

- A) Sacrum
 - B) All the above
 - C) Greater trochanter
 - D) Occiput
-

34) What hormone is produced by the parafollicular cells of the thyroid gland?

- A) Parathyroid hormone
 - B) Calcitonin
 - C) Thyroid hormone
 - D) Thyroxine
-

35) Central chemoreceptors are stimulated by

- A) Hypoxia
 - B) Decreased PaCO₂
 - C) SaO₂
 - D) Increased PaCO₂
-

36) Mitchell technique of relaxation is based on the principle of _____

- A) Released only
 - B) Autogenic inhibition
 - C) Cue controlled relaxation
 - D) Reciprocal innervations
-

37) Clutton's joints are ____

- A) Associated with trauma
 - B) Usually painful
 - C) End stage tuberculous joints
 - D) Syphilitic joints
-

38) Which state is going to host the Khelo India Games in 2021?

- A) Bihar
 - B) Punjab
 - C) Haryana
 - D) Uttar Pradesh
-

39) A physical therapist is reviewing the indications for hydrogel dressings. This type of dressing material is considered if the goal of wound care management includes the following except:

- A) Establish a moist wound environment
 - B) Wound debridement by autolysis
 - C) Rehydration of dry or necrotic tissue
 - D) Fill in a dry or moist cavity with an entry too narrow to pack
-

40) What does the process known as anabolism refer to?

- A) the use of energy for producing chemical substances.
 - B) the breaking down phase of metabolism.
 - C) all the chemical process that take place in the organelles of the cells.
 - D) the supply of nutrients to the body's cells.
-

41) Levers are acted upon by forces known as the effort, load/resistance and fulcrum. 'Third class' levers are characterised by having the:

- A) fulcrum located between the other forces
 - B) resistance located between the other forces
 - C) load located between the other forces
 - D) effort located between the other forces
-

42) Which of the following is NOT an example of a cell?

- A) chondroblasts
 - B) lysosomes
 - C) macrophages
 - D) plasmocytes
-

43) Electrolyte balance is achieved largely by:

- A) ensuring that daily water intake is the same as daily water output
 - B) the kidneys and aldosterone
 - C) drinking sufficient water
 - D) anti-diuretic hormone and isotonic fluids
-

44) A female patient with a bunion in the left foot complains of severe foot pain that limits her everyday activities, such as walking. Wearing of athletic shoes does not resolve difficulty of walking. Medications and rest do not relieve toe inflammation. Assessment findings include hallux valgus angle of 18- degrees and intermetatarsal angle of 10-degrees. Surgery is indicated. Which of the following is most likely considered for the patient?

- A) Resection arthroplasty
 - B) Distal soft-tissue reconstruction
 - C) First-metatarsal osteotomy
 - D) Arthrodesis
-

45) In which of the PRE the load remains constant during the training session_____.

- A) McQueen
- B) Zinovief
- C) Delorme
- D) Watkin

46) Who won the Australian Open Tennis Men's Singles Title in 2020?

- A) Novak Djokovic
 - B) Rafael Nadal
 - C) Dominic Thiem
 - D) Roger Federer
-

47) All of the factors below are true for the dysthetic pain which is a type of peripheral neuropathic pain except

- A) Burning type of pain
 - B) Paroxysmal shooting / stabbing present
 - C) Impulse arise from damaged or regenerating nociceptive afferent
 - D) Pain follow course of a nerve trunk
-

48) Which is not a complication of suction?

- A) Atelectasis
 - B) Vagal stimulation
 - C) Hypotension
 - D) Cough
-

49) Merkel's disk is for_____.

- A) Stereognosis
 - B) Touch temperature
 - C) Two-point discrimination
 - D) Touch – pressure
-

50) Clonus is a sign of _____

- A) Lower motor neuron lesion
 - B) Upper motor neuron lesion
 - C) Peripheral nerve injury
 - D) All of the above
-

51) Which one of the following is NOT produced by the kidneys?

- A) Erythropoietin
 - B) Aldosterone
 - C) Calcitriol
 - D) Renin
-

52) Clinically change in stiffness of ligaments is detectable when there is rupture of

- A) Vast majority of fibres
 - B) Minimum fibres
 - C) 10 % fibres
 - D) Half of fibres
-

53) Which of the following is the most likely pathologic finding in the affected heart muscle 4 weeks after myocardial infarction?

- A) Collagen-rich scar tissue
 - B) Capillary-rich granulation tissue
 - C) Neutrophils and necrotic debris
 - D) Granulomatous inflammation
-

54) Which is not a complication of hyper inflation?

- A) Decreased cardiac output
- B) Pneumothorax
- C) Increased cardiac output
- D) Bronchospasm

55) A male patient complains of pain in the inner aspect of the left knee. Assessment findings include swelling and knee instability when making a cut. An injury involving the medial collateral ligament is suspected. On valgus stress test, a laxity of 7 mm is noted. Which of the following interventions is least likely implemented to the patient?

- A) Initial non-weight bearing on the affected extremity.
 - B) Crutches for the first few days.
 - C) Closed-chain exercises.
 - D) Bracing with a short-hinged knee orthosis that blocks 20-degrees of terminal extension but allows full flexion.
-

56) Rate of tissue elongation is faster than relaxation because_____.

- A) rate of fluid release is faster than rate of fluid reabsorption
 - B) relaxation requires more energy than elongation
 - C) rate of fluid reabsorption is faster than rate of fluid release
 - D) elongation is an active process, whereas relaxation is passive
-

57) Which of the following is rich vit. E source

- A) Fruits.
 - B) Vegetables.
 - C) Vegetable oils.
 - D) Meat.
-

58) Choose the correct progression of ambulation by a pair of auxiliary crutches_____.

- A) 4 point, 3 point, 2 point
 - B) 2 point, 3 point, 4 point
 - C) 3 point, 4 point, 2 point
 - D) 2 point, 4 point, 3 point
-

59) In any exercise programme for 1 MET increase of exercise level systolic blood pressure rises by

- A) 5 – 7 mmHg
 - B) 10 – 12 mmHg
 - C) 12 – 15 mmHg
 - D) 7 – 10 mmHg
-

60) Which is not an anatomical pulley?

- A) Hamstring contraction
 - B) Quadriceps contraction
 - C) Peroneal contraction
 - D) FDP contraction
-

61) What function is served by the goblet/mucus cells of the bronchial 'tree'?

- A) they move mucus up the bronchial tree.
 - B) they increase the surface area available for gas exchange.
 - C) they trap small inhaled particles.
 - D) they secrete mucus onto the surface of the airways.
-

62) Catatonia, the result of lesion in basal pons

- A) None of the above
 - B) Patient is paralyzed so does not move
 - C) The patients lacks the impulse to move although not paralyzed
 - D) Patient is paralyzed but able to move to some extent
-

63) For which of the following games / sports the term Ring is not used for ground / space

- A) Baseball
 - B) Boxing
 - C) Ice Hockey
 - D) Gymnastics
-

64) Shifting of mediastinum to right may occur in

- A) None of the above
 - B) Left collapse
 - C) Right collapse
 - D) Right pleurisy
-

65) During pregnancy oestrogen level is increased 30 times, which _____.

- A) Vasodilatation
 - B) None of the above
 - C) Relaxes various pelvic ligaments to accommodate the gravid uterus
 - D) Affect metabolism
-

66) Still's disease is

- A) Rheumatoid arthritis in elderly
 - B) Rheumatoid arthritis in childhood
 - C) Spastic diplegia
 - D) Post traumatic bone formation in the lateral ligament of the knee
-

67) A physical therapist is treating a patient who has a granulating small wound with mild exudate in the left foot. The wound does not need frequent review. Which of the following dressings would be most appropriate for this wound?

- A) Adhesive tape
 - B) Polyurethane foam dressing
 - C) Polyester fabric with adhesive backing
 - D) Calcium alginate
-

68) Stony dullness of on percussion is found in

- A) Atelectasis
 - B) Bronchial asthma
 - C) Consolidation
 - D) Pleural effusion
-

69) Weber's syndrome is _____

- A) Occulomotor abducens and optic nerve palsy and contralateral hemiplegia.
- B) Occulomotor nerve palsy and contralateral hemiplegia.
- C) Facial nerve, trigeminal nerve palsy and contralateral hemiplegia.
- D) Facial nerve palsy and contralateral hemiplegia.

70) Which of the following spinal orthosis controls Lumbar Spine flexion-extension?

- A) Knight
 - B) Taylor
 - C) Taylor-Knight
 - D) Haris
-

71) Which of the following is the mascot of Tokyo Olympics?

- A) Miraitowa
 - B) Son Goku
 - C) Feifei
 - D) Naruto
-

72) Who is the first cricketer to violate the ICC Saliva ban rule?

- A) Jos Butler
 - B) James Anderson
 - C) Dom Sibley
 - D) Stuart Broad
-

73) Trendelenburg's sign is said to be positive, when_____.

- A) Sound side pelvis drop down, while standing on affected side
 - B) Sound side pelvis elevated, while standing on affected side
 - C) None of the above
 - D) Affected side pelvis drop down, while standing on sound side
-

74) The component motions of knee flexion are

- A) inferior gliding of patella, posterior glide of tibia and internal rotation
- B) inferior glide of patella, anterior glide of tibia and external rotation
- C) superior gliding of patella, anterior glide of tibia and internal rotation
- D) superior gliding of patella, posterior glide of tibia and external rotation

75) THE WORLD BENEATH HIS FEET is a Biography of

- A) Pullela Gopichand
 - B) Nawab Pataudi
 - C) Milka Singh
 - D) Sachin Tendulkar
-

76) A patient who is recently diagnosed with glenohumeral dislocation is referred to the clinic for physical therapy. Which of the following interventions is the most appropriate for the patient during the acute phase?

- A) Shoulder pendulum exercises
 - B) Elbow, wrist, and hand range of motion during immobilization
 - C) Rotator cuff strengthening exercises
 - D) Overhead pulley system for the shoulder
-

77) Jaipur prosthetic foot provides_____.

- A) can be used without foot wear and appropriate for rural amputees
 - B) all of the above
 - C) more freedom of motion
 - D) good cosmetic appearance
-

78) What is a function of carbohydrates in the body?

- A) to provide energy
 - B) to act as enzymes
 - C) function as local hormones
 - D) to provide the building blocks for proteins
-

79) Which of the following is correct regarding motor learning?

- A) Absolute errors are smaller for variable practice than constant practice
 - B) Performance is better in blocked practice during acquisition phase, whereas performance is better in random practice during transfer phase
 - C) All of the above
 - D) Distributed practice improves performance is better than massed practice
-

80) The value of resting metabolic rate (O₂ uptake) which is called 1 MET is

- A) 4.7 ml/kg/min
 - B) 4.5 ml/kg/min
 - C) 3.7 ml/kg/min
 - D) 3.5 ml/kg/min
-

81) In which part of a cell does the process of making ATP from oxygen and glucose take place?

- A) mitochondria
 - B) lysosomes
 - C) golgi apparatus
 - D) ribosomes
-

82) The tip of greater trochanter lies above the shenton's line in _____

- A) CDH
 - B) coxa valga
 - C) Anteversion
 - D) None of the above
-

83) Early fatigue during pregnancy is due to _____.

- A) All
 - B) Dilution anaemia
 - C) Decrease in metabolism
 - D) Increase in body weight
-

84) Tension sutures are used in

- A) Thoracotomy
 - B) Pneumonectomy
 - C) Hernia repair
 - D) Thoracoplasty
-

85) The rheobase is

- A) Unchanged in a denervated muscle
 - B) Decreases in a denervated muscle
 - C) First increase then decrease
 - D) Increases in a denervated muscle
-

86) Who among the following is first Indian to win an individual gold medal at any Olympic Games?

- A) Muhammad Aslam
 - B) Mohammed Shahid
 - C) Rajyavardhan Singh Rathore
 - D) Abhinav Bindra
-

87) The force frequency relationship between tonic muscles is

- A) Linear
 - B) None of the above
 - C) Curvilinear
 - D) Ramp and plateau
-

88) The EMG activity of denervation are the following except

- A) Positive sharp wave
 - B) Polyphasic action potential
 - C) Fibrillation potential
 - D) All of the above
-

89) Patients with subcortical lesion will have

- A) Loss of sensation of upper limb, lower limb, trunk and face
- B) Loss of sensation of upper limb contralateral
- C) Loss of sensation upper limb, lower limb and face contralateral
- D) Loss of sensation of upper limb and lower limb contralateral

90) One of the following is NOT a serous membrane. Which one?

- A) pleura
 - B) peritoneum
 - C) pericardium
 - D) mucosa
-

91) A 28-year-old woman is pinned by falling debris during a hurricane. An X-ray film of the leg reveals a compound fracture of the right tibia. The leg is immobilized in a cast for 6 weeks. When the cast is removed, the patient notices that her right leg is weak and visibly smaller in circumference than the left leg. Which of the following terms best describes this change in the patient's leg muscle?

- A) Ischemic necrosis
 - B) Metaplasia
 - C) Hyperplasia
 - D) Atrophy
-

92) McKenzie's dysfunction syndrome is characterized by _____

- A) Repeated movement in opposite direction of dysfunction aggravates the symptoms.
 - B) None of the above.
 - C) Pain at end range restricted range of motion due to stretching of tight structure.
 - D) Repeated movement in the direction of dysfunction relieves the symptoms.
-

93) For meniscus injury there should be

- A) Shear and torsion of knee
- B) Shear of compressed knee
- C) Torsion of extended knee
- D) Torsion of compressed knee

94) Which of the following treatment approaches mainly focuses on the execution of diagonal, spiralled patterned movements to improve muscle strength and enhance neuromuscular control?

- A) Proprioceptive neuromuscular facilitation
 - B) Muscle re-education approach
 - C) Neurodevelopmental treatment
 - D) Brunnstrom's movement
-

95) 5° of genu varum increases the compressive force on medial meniscus to

- A) 5%
 - B) 25%
 - C) 10%
 - D) 75%
-

96) Attention focusing is a mental interference technique for relaxation. It involves _____

- A) Concentrating attention upon a non painful characteristic of the event
 - B) None
 - C) An active intentional and purposeful mental activity which focuses on another process
 - D) A passive perceptual interference
-

97) Phosphofructokinase-1 is

- A) An allosteric enzyme of glycolysis
 - B) An enzyme of glycolysis
 - C) Inhibited by fructose-6-phosphate
 - D) Activated by ATP
-

98) Resting position for humeral radial joint is _____

- A) semiflexion & supination
- B) extension & pronation
- C) semiflexion & pronation
- D) extension & supination

99) Pulsus alternans with normal heart rate indicates_____.

- A) Cardiomyopathy
 - B) Preventricular contraction
 - C) Cardiogenic shock
 - D) Left ventricular failure
-

100) Most of our bones that articulate at freely movable joints can be described as third class levers. What does this mean?

- A) the muscle's tendon is inserted close to the joint
- B) they are 'efficient' levers
- C) the muscle's tendon is inserted between the load and the joint
- D) the 'effort arm' is longer than the 'load arm'

Answer Keys
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1	A	26	A	51	B	76	B
2	D	27	A	52	A	77	B
3	A	28	D	53	A	78	A
4	C	29	D	54	C	79	C
5	B	30	D	55	A	80	D
6	C	31	A	56	A	81	A
7	C	32	B	57	C	82	A
8	A	33	B	58	C	83	A
9	D	34	B	59	D	84	C
10	C	35	D	60	A	85	B
11	C	36	D	61	D	86	D
12	A	37	D	62	C	87	D
13	D	38	C	63	A	88	B
14	A	39	A	64	C	89	C
15	D	40	A	65	C	90	D
16	C	41	D	66	B	91	D
17	D	42	B	67	B	92	C
18	D	43	B	68	D	93	D
19	D	44	B	69	B	94	A
20	C	45	A	70	A	95	A
21	A	46	A	71	A	96	C
22	A	47	D	72	C	97	A
23	A	48	D	73	A	98	D
24	D	49	D	74	A	99	D
25	B	50	B	75	A	100	C