

# Sikkim Public Service Commission

Main Written Examination for the Post of Junior Physiotherapist under Sikkim  
State Subordinate Allied and Healthcare Service

PAPER -II

Time allowed: 3.00 Hrs

Maximum Marks: 100

## INSTRUCTIONS TO CANDIDATES

*Read the instructions carefully before answering the questions: -*

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Use only Black Ball Point Pen to fill the OMR Sheet.
3. Do not write anything else on the OMR Answer Sheet except the required information.
4. This Test Booklet contains 50 questions in MCQ Mode in Part I to be marked in OMR Sheet. Part II and Part III are Subjective Questions which have to be written on separate answer sheet provided to you.
5. After you have completed filling in all your responses on the Answer Sheet (OMR) and the examination has concluded, you should hand over the Answer Sheet (OMR) and separate answer sheet to the Invigilator only. You are permitted to take with you the Test Booklet.
6. **Marking Scheme**

**THERE WILL BE NEGATIVE MARKING FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS**

- i. There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, one-third of the marks assigned to the question will be deducted as penalty.
- ii. If a candidate gives more than one answer, it will be treated as a wrong answer even if one of the given answers happens to be correct and there will be same penalty as above to the question.
- iii. If a question is left blank. i.e., no answer is given by the candidate; there will be no penalty for that question.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

**PART -I**

Choose the correct answer for the following questions:

(1x50=50)

**1. Pulleys are used to**

- A. Make the work easy
- B. Alter the direction of motion
- C. Gain mechanical efficiency
- D. All the above

**2. Ankle plantarflexion/dorsiflexion takes place –**

- A. Sagittal plane and frontal axis
- B. Frontal plane and sagittal axis
- C. Transverse plane and vertical axis
- D. Coronal plane and Horizontal axis

**3. Forearm pronation ROM is limited due to –**

- A. Bony contact
- B. Soft tissue approximation
- C. Soft tissue tension
- D. Tension of ligaments

**4. Stretching is the –**

- A. Slow and sustained forced passive movement
- B. Sudden but controlled forced passive movement
- C. Relaxed passive movement
- D. Manipulation

**5. The dangers of hydrotherapy is –**

- A. Slippage and fall
- B. Drowning
- C. Infection
- D. All of the above

**6. DOMS can be prevented by –**

- A. Adding warm up and cool down period to the exercise protocol
- B. By a gradually progressive exercise programme
- C. Achieving stretchability in the exercising muscle prior to the exercise programme
- D. All of the above.

**7. The low frequency current is up to –**

- A. 1000 Hz
- B. 50 Hz
- C. 100 Hz
- D. None of the above

8. Which of the following is an absolute contraindication for electrical stimulation?
- A. Pace maker
  - B. Insensitive skin
  - C. Unconscious patient
  - D. IHD
9. SD Curve can –
- A. Distinguish between innervations and denervation
  - B. Distinguish between innervated and denervated but can not quantify the state of innervations
  - C. Distinguish between innervated and denervated and quantify the state of innervations
  - D. None
10. EMG reveals action potential of –
- A. Muscle
  - B. Motor unit
  - C. Nerve fiber
  - D. None of the above
11. Heat is regulated by –
- A. Shivering
  - B. Brown adipose tissues
  - C. Sweating
  - D. All of the above
12. Cavitation is –
- A. Thermal effects of US
  - B. Non-Thermal effects of US
  - C. All of the above
  - D. None of the above
13. Plaster of paris is –
- A. Hemihydrated calcium sulphate
  - B. Hemihydrated calcium carbonate
  - C. Hemihydrated calcium bicarbonate
  - D. None of the above
14. Fracture shaft of humerus is associated with
- A. Axillary nerve injury
  - B. Radial nerve injury
  - C. Brachial nerve injury
  - D. Median nerve injury

- 15. Mallet finger is due to –**
- A. Contracture of FDP
  - B. Rupture of collateral slip of extensor expansion
  - C. Rupture of central slip of extensor expansion
  - D. Rupture of the volar plate
- 16. House maid's knee refers to –**
- A. Infrapatellar bursitis
  - B. Prepatellar bursitis
  - C. Suprapatellar bursitis
  - D. Quadriceps tendonitis
- 17. Lumbar spine is not involved in –**
- A. AS
  - B. RA
  - C. OA
  - D. None of the above
- 18. Spondylosis is characterized by –**
- A. Hypermobility
  - B. Stiff spine
  - C. Spinal instability
  - D. Locking
- 19. Charcot joints are –**
- A. Painless arthritic joint disease
  - B. Degenerative joint disease
  - C. Infective joint disease
  - D. Ankylosed joints
- 20. Erb's palsy affects –**
- A. Lumbar plexus
  - B. Sacral plexus
  - C. Brachial plexus
  - D. Cranial plexus
- 21. Pain sensation is carried by –**
- A. Medial spinothalamic tract
  - B. Lateral spinothalamic tract
  - C. Posterior column
  - D. Anterior column
- 22. The spinal segment for ankle jerk is –**
- A. L5
  - B. L5 S1
  - C. S1 S2
  - D. S1

23. The number of spinal nerves that emerge from spinal cord is –
- A. 33 Pairs
  - B. 31 Pairs
  - C. 32 Pairs
  - D. None of the above
24. Glasgow coma scale has –
- A. 2 Subscales
  - B. 3 Subscales
  - C. 4 Subscales
  - D. 5 Subscales
25. At birth the shape of the chest is –
- A. Barrel like
  - B. Circular
  - C. Elliptical
  - D. Triangular
26. Pump handle movement is a feature of –
- A. Lower ribs
  - B. Upper ribs
  - C. Mid ribs
  - D. Diaphragm
27. The position of lung is up to –
- A. T8
  - B. T10
  - C. T12
  - D. T7
28. Which is the pacemaker of heart –
- A. SA Node
  - B. AV Node
  - C. AV Bundle
  - D. Purkinje Fibers
29. Centre of gravity of adult human in the anatomical position is slightly –
- A. Anterior to S1 vertebra
  - B. Posterior to S1 vertebra
  - C. Anterior to S2 vertebra
  - D. Posterior to S2 vertebra
30. Stance phase is –
- A. 40% of gait cycle
  - B. 50% of gait cycle
  - C. 60% of gait cycle
  - D. 70% of gait cycle

- 31. Disability reflects at the –**
- A. Organ level
  - B. Individual level
  - C. Society level
  - D. None of the above
- 32. \_\_\_\_\_ splint is prescribed for claw hand deformity.**
- A. Cock up
  - B. Knuckle bender
  - C. Pan cake
  - D. Short opponents
- 33. Physical therapist intervenes at the level of –**
- A. Impairment
  - B. Functional limitation
  - C. Disability
  - D. All of the above
- 34. During pregnancy body temperature –**
- A. Increases by 0.5% over normal Fahrenheit reading
  - B. Remains unchanged
  - C. Decreases by 0.5% over normal Fahrenheit reading
  - D. None
- 35. Pelvic inflammatory disease is the inflammation of –**
- A. Uterus
  - B. Cervix
  - C. Ovary
  - D. Fallopian tube
- 36. Human body is made up of \_\_\_\_\_ natural elements.**
- A. 3
  - B. 4
  - C. 5
  - D. 7
- 37. The life span of RBC is –**
- A. 12 weeks
  - B. 12 days
  - C. 60 days
  - D. 120 days
- 38. Drop arm test indicates –**
- A. Weakness of deltoid
  - B. Rupture of supraspinatus
  - C. Positive painful arc
  - D. None

**39. Physiotherapy modality suitable for PID is –**

- A. US
- B. SWD
- C. IFT
- D. LASER

**40. For patients with generalized weakness which test is useful –**

- A. Thyroid function
- B. Parathyroid function
- C. Serum cryoglobulin
- D. Serum complement levels

**41. Serum uric acid level is higher in –**

- A. SLE
- B. Stills disease
- C. Gout
- D. None of the above

**42. Kreb cycle takes place in –**

- A. Cytoplasm
- B. Mitochondria
- C. Outside the cell
- D. Ribosome

**43. Relaxed passive movement is useful for –**

- A. Muscle strengthening
- B. Improving joint ROM
- C. Remembrance of pattern of movement
- D. Improving coordination

**44. The name of coil used to produce faradic current in past was –**

- A. Choke coil
- B. Smart Bristow Faradic coil
- C. Induction coil
- D. None of the above

**45. Nodding movement of head is the example of \_\_\_\_\_ order lever.**

- A. 1<sup>st</sup> order lever
- B. 2<sup>nd</sup> order lever
- C. 3<sup>rd</sup> order lever
- D. 4<sup>th</sup> order lever

**46. Thoracic outlet syndrome in pregnancy is due to –**

- A. Rounded shoulders which reduces the valid size
- B. Fluid retention
- C. Elevation of first rib
- D. All of the above

**47. What should be the temperature of water in hydrotherapy unit –**

- A. 27 – 35 degree
- B. 22 –wing is important 42 degree
- C. 32 -35 degree
- D. None of the above

**48. Which of the following is important for medico legal point of view –**

- A. Documentation
- B. Written informed consent
- C. Realization of responsibility
- D. All of the above

**49. SCM tightness is characterized by –**

- A. Neck side flexion towards the affected side with rotation to the opposite
- B. Neck side flexion towards the sound side with rotation to the affected side
- C. Neck side flexion and rotation towards the affected side
- D. Neck side flexion and rotation to the sound side

**50. All of the following are correct about clavicle except –**

- A. Only long bone in body to ossify in membrane
- B. Only long bone in body which connects limb to axial skeleton
- C. Only long bone in body to ossify in intrauterine life
- D. Only long bone in body to ossify by endochondral ossification



**PART-II**

Write short notes on **ANY FOUR** of the following:

( 5X4=20)

1. Structure and functions of Lungs
2. Structure and functions of Heart
3. Nerve conduction studies
4. Rheumatoid arthritis
5. Developmental milestones
6. PCOD

**PART-III**

Attempt **ANY TWO** of the following:

(15X2=30)

1. Describe various Low Frequency electrotherapy modalities with their indications and contraindications.
  2. Describe various types of exercises used in rehabilitation with their indications and contraindications.
  3. Describe fracture neck of Femur with its classification and complications. Explain Rehabilitation protocol for the same.
  4. Explain detailed assessment of neurological conditions with emphasis on spasticity and muscle strength.
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