

Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: BPT
Subject Name: Biomechanics
Year Period: March, 2025 – December, 2025
Date: 03.12.2025
Examination Mode: Regular

Year: 2nd Year
Subject Code: BPT 0204T
Batch: December, 2023
Time: 09.45 am to 12.45 pm
Max. Marks: 100

General Instructions:

1. Read all the questions carefully and then start writing
2. Do not write anything on the question paper
3. Write your registration number on the rectangular space provided here

Reg No:

Long Essay: (Attempt any Two) – 10 Marks for each Question

02 * 10 = 20 Marks

1. Write in details about the function of hip complex.
2. Describe the scapulohumeral rhythm and its significance in maintaining efficient shoulder motion.
3. Describe in detail about mechanism of muscle contraction and explain the different Types of muscle contraction with example.

Short Essay (Attempt any Twelve) – 5 Marks for each Question

12 * 05 = 60 Marks

4. Write short notes on the structure and functions of the glenohumeral joint.
5. Mention the importance of SI joint. What are the ligaments present?
6. Describe the general structure and functions of the vertebral column.
7. Describe all the patellar motions.
8. Determinants of Gait
9. Kinematics of elbow joint.
10. What are the attachments sites of PCL. Describe its function in tibiomefomal joint biomechanics.
11. What is motor unit? Explain the types of muscle fibers.
12. Describe palmar arches.
13. Discuss the role of rectus femoris and TFL as hip flexors.
14. Explain the strategies controlling posture.
15. Explain in brief kinematics of wrist joint
16. Pump handle and bucket handle movements of ribs
17. Describe the structure and arthrokinematics of atlantoaxial joint

Short Notes (Attempt any Ten) – 2 Marks for each Question

10 *02 =20

18. Name the four joints that make up the shoulder complex.
19. Mention the major stabilizing ligaments of the acromioclavicular joint.
20. What are the translatory movements possible in SC and ST joints?
21. Name the main regions of the vertebral column.
22. Mention the spinal curves. Highlight their significance
23. What are the two primary functions of the vertebral column?
24. What is medial tibial femoral angle?
25. carpal tunnel syndrome
26. Pes planas and pes cavus
27. Brief about the arthrokinematics of sitting to standing.
28. Define COG and LOG
29. Extensor retinaculum of knee complex



Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: BPT

Subject Name: Electrotherapy

Year Period: March, 2025 – December, 2025

Date: 05.12.2025

Examination Mode: Regular

Year: 2nd Year

Subject Code: BPT 0206T

Batch: December, 2023

Time: 09.45 am to 12.45 pm

Max. Marks: 100

General Instructions:

1. Read all the questions carefully and then start writing
2. Do not write anything on the question paper
3. Write your registration number on the rectangular space provided here

Reg No:

Long Essay: (Attempt any Two) – 10 Marks for each Question

02* 10 =20 Marks

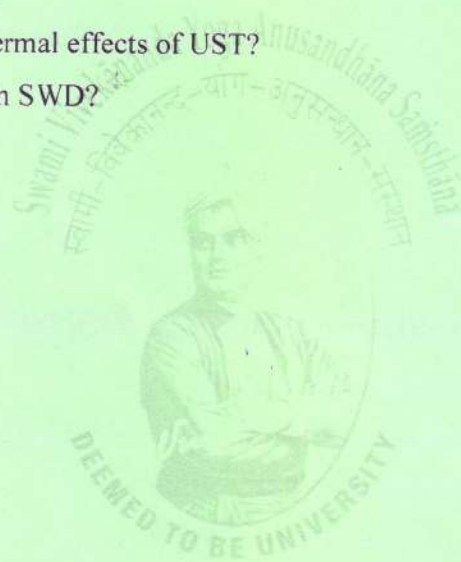
1. Explain the capacitor field method of production of SWD with a neat circuit diagram. Mention the therapeutic effects and uses of SWD.
2. Explain the capacitor field of production of SWD with a neat circuit diagram. Mention the therapeutic effects and uses of SWD.
3. Explain the production of ultrasound with a diagram. Add a note of near and far fields of UST.

Short Essay (Attempt any Twelve) – 5 Marks for each Question

12 *05 =60 Marks

4. Explain the method of application of SWD.
5. What is metastable state in LASER? Why is LASER called as Emitted Radiation?
6. Explain non thermal effects of UST.
7. Mention advantages and disadvantages of S- D curve.
8. Explain the mechanism of heat production in SWD.
9. Write briefly on superficial heating modalities.
10. Mention the physiological effects and uses of Paraffin wax bath. Add a note on its dangers.
11. Mention the procedure of application of Moist heat therapy.
12. How is pain relief brought about by TENS?
13. Explain the properties of electromagnetic radiations.
14. Mention the physiological effects and contra indications of Pulsed Electro Magnetic Radiations.
15. What is a transformer? Mention its uses in Physiotherapy.
16. Explain the effects and uses of UVR.
17. What are the advantages and disadvantages of Biofeedback?

18. What are the types of IRR?
19. Classify types of UVR.
20. Name the superficial heating modalities.
21. Define latent heat
22. Define Vant Hoff's law.
23. What are Rheobase and Chronaxie in S-D curve?
24. What are base and spectrum in IFT?
25. Name different types of electrodes in SWD.
26. Name the types of emitters in MWD.
27. Define attenuation in UST.
28. What are the benefits of thermal effects of UST?
29. What is electrode spacing in SWD?



Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: BPT
Subject Name: Exercise Therapy
Year Period: March, 2025 – December, 2025
Date: 24.11.2025
Examination Mode: Regular

Year: 2nd Year
Subject Code: BPT 0205T
Batch: December, 2023
Time: 09.45 am to 12.45 pm
Max. Marks: 100

General Instructions:

1. Read all the questions carefully and then start writing
2. Do not write anything on the question paper
3. Write your registration number on the rectangular space provided here

Reg No:

Long Essay: (Attempt any Two) – 10 Marks for each Question

02* 10 =20 Marks

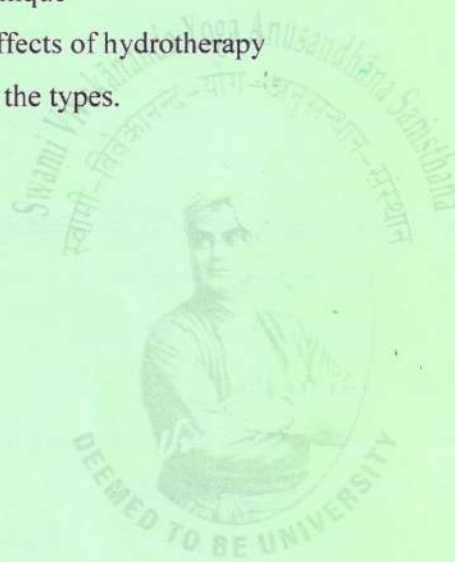
1. Discuss the different methods of relaxation.
2. Write in detail about posture.
3. Elaborate about the progressive activities that can be planned for training an individual to progress from parallel bar walking to outdoor mobility.

Short Essay (Attempt any Twelve) – 5 Marks for each Question

12 *05 =60 Marks

4. What precautions should be taken for a full body immersion technique?
5. What is functional re-education? What are its uses?
6. List the types and uses of walking aids
7. Give details on method of testing temperature and pain sensation
8. Define gait cycle. Explain determinants of gait.
9. Classify muscle fibers. Add a note on muscle fiber adaptation on endurance training
10. Which positions are best for evaluating the different movements of subtalar JROM, neck JROM and elbow JROM.
11. Explain the types of active movements
12. Describe the determinants of exercise program.
13. Define stretching. Mention types of stretching, indication and contraindication
14. Physiological effects of joint mobilization. Add a note on arthrokinematic movement.
15. Explain Frenkles's exercise.
16. Define the functional activity: Side lying to supine
17. Define PNF. Write a note on PNF pattern

18. What is postural tone?
19. Jacobson's relaxation technique.
20. What is closed chain exercise?
21. Define endurance.
22. Name two muscles which can be strengthened in side lying position.
23. Two test for in co-ordination
24. Autogenic relaxation technique.
25. What is lateral pelvic tilt?
26. Which is the most comfortable starting position? Justify.
27. Describe slow reversal technique
28. Mention any four clinical effects of hydrotherapy
29. What are reflexes. Mention the types.



Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: BPT

Subject Name: Microbiology

Year Period: March, 2025 – December, 2025

Date: 26.11.2025

Examination Mode: Regular

Year: 2nd Year

Subject Code: BPT 0202 T

Batch: December, 2023

Time: 09.45 am to 11.00 am (1Hr 15 Min)

Max. Marks: 40

General Instructions:

1. Read all the questions carefully and then start writing
2. Do not write anything on the question paper
3. Write your registration number on the rectangular space provided here

Reg No: _____

Long Essay: (Attempt any One) – 10 Marks for each Question

01*10 = 10 Marks

1. Describe the morphology and classification of bacteria with suitable examples.
2. Describe HIV stages, features and different opportunistic infections.

Short Essay (Attempt any Four) – 5 Marks for each Question

04 *05 =20 Marks

3. Explain the classification of fungi based on morphology and sexual spore formation.
4. Morphology, transmission, and laboratory diagnosis of *Streptococci*.
5. Name 5 serological diagnosis which is based on antigen–antibody interaction
6. Discuss the classification of viruses based on nucleic acid and structure.
7. Write a short note on tuberculosis which should include casual organism, mode of transmission and pathogenesis.
8. Explain the classification of fungi based on morphology.

Short Notes (Attempt any Five) – 2 Marks for each Question

05 *02 =10 Marks

9. What is Gram staining?
10. Mention the basic components of a virus.
11. What is a fomite? Give one example.
12. Define hypersensitivity.
13. Name two sexually transmitted diseases.
14. Define asepsis

Swami Vivekananda Yoga Anusandhana Samsthana (S-VYASA)
A Deemed to be University established under Section 3 of the UGC Act, 1956

Program: BPT

Subject Name: Pathology

Year Period: March, 2025 – December, 2025

Date: 28.11.2025

Examination Mode: Regular

Year: 2nd Year

Subject Code: BPT 0201 T

Batch: December, 2023

Time: 09.45 am to 11.00 am (1Hr 15 Min)

Max. Marks: 40

General Instructions:

1. Read all the questions carefully and then start writing
2. Do not write anything on the question paper
3. Write your registration number on the rectangular space provided here

Reg No:

Long Essay: (Attempt any One) – 10 Marks for each Question

01*10 = 10 Marks

1. Define Hashimoto's thyroiditis, explain the etiopathogenesis and clinical features of it.
2. Define Gangrene. Write its types. Explain Wet gangrene.

Short Essay (Attempt any Four) – 5 Marks for each Question

04 *05 =20 Marks

3. Define Diphtheria and its etiopathogenesis
4. Define Shock, Pathogenesis and its type.
5. Define Diabetes mellitus, types, pathogenies.
6. Phagocytosis
7. Define Amyloidosis and Enumerate classification and Explain its Pathogenesis
8. Leprosy-its classification and clinical manifestation?

Short Notes (Attempt any Five) – 2 Marks for each Question

05 *02 =10 Marks

9. What is gastritis?
10. What are pyogenic liver abscesses?
11. Mention two features of rheumatoid arthritis.
12. Tumours of Cortex and medulla
13. What is Paget's disease of bone? Mention its common sites.
14. Define pneumonia and mention a common cause.