

**Bachelor of Physiotherapy (BPT)**  
**Second Year Semester-III, January-2018 Examination**

Time: 2.30 Hrs.

**Paper-I**

[Max. Marks: 80]

**Microbiology and Pathology**

*Your answer should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

*(Use separate answer booklet for section A & B).*

**Section-A**

**Microbiology (40Marks)**

**Q.P Code : BPT-106A**

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Classify Mycobacteria. Describe the pathogenesis and lab diagnosis of pulmonary tuberculosis.

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Bacterial spore.
3. Pathogenesis and lab diagnosis of filariasis.
4. Hospital acquired infections.
5. Laboratory diagnosis and prophylaxis of rabies.

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. Mechanisms of autoimmunity.
7. Name the modes of transmission of HIV.
8. IgA antibody.
9. Louis Pasteur.
10. Six differences between prokaryotes and eukaryotes.
11. List the steps of Hand hygiene.

**Section – B**

**Pathology (40 Marks)**

**Q.P. Code : BPT-106B**

*(Use separate answer booklet for section B)*

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Define thrombosis. Discuss pathogenesis and fate of thrombus.

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Fracture healing.
3. Morphology of Basal cell carcinoma.
4. Complications of Diabetes Mellitus.
5. Aetiopathogenesis of alcoholic liver disease.

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. List differences between tuberculous and pyogenic meningitis.
7. Gumma.
8. Morphology of Reed Sternberg cell.
9. List four Autosomal Recessive disorders.
10. Clinical features of vitamin A deficiency.
11. Tuberculous lymphadenitis.

**Bachelor of Physiotherapy (BPT) (Semester-III)  
Second Year Semester-III, January-2018 Examination**

**Time: 3.00 Hrs.**

**Paper-II**

**[Max. Marks: 100]**

**EXERCISE THERAPY**

**Q.P Code: BPT-107**

*Your answers should be specific to the questions asked.*

*Draw neat labelled diagrams wherever necessary.*

**LONG ESSAY (Answer any Two)**

**2 X 10 = 20 Marks**

1. Define balance. Describe in detail the evaluation of impaired balance and balance re-training.
2. What are the principles and grades of mobilization? Explain the techniques of mobilization for glenohumeral joint.
3. What are the different types of crutches? Write in detail about various crutch gaits.

**SHORT ESSAY (Answer any Ten)**

**10 X 5 = 50 Marks**

4. Write a note on Mulligan technique of joint mobilization.
5. Explain the principle of giving passive movements.
6. Write a short note on determinants of aerobic exercise program.
7. Describe the reeducation of patient from lying to standing position?
8. Explain the principles of manual muscle testing.
9. Define massage and classify the techniques of massage. Write the physiological effects of efflurage.
10. Write a short note on Frenkel's exercise.
11. Define good posture. Explain the techniques of re-education for good posture.
12. Write in detail about advantages and disadvantages of group exercises.
13. Explain Jacobson's method of relaxation.
14. Neurophysiological principles of proprioceptive neuromuscular facilitation.
15. Explain the goniometric measurement for hip joint.

**SHORT ANSWER (Answer any Ten)**

**10 X 3 = 30 Marks**

16. Delorme's technique.
17. Benefits of suspension therapy.
18. Precautions and contraindications of stretching.
19. Explain Hold and relax technique for spasm in the right biceps muscle.
20. Equilibrium tests.
21. Give one merit one demerit of hydrotherapy.
22. Describe the technique to differentiate the tightness of gastrocnemius and soleus.
23. D2 PNF diagonal pattern of upper limb.
24. Tests for sensation.
25. Types of goniometers.
26. Causes of incoordination.
27. Explain rhythmic stabilization with an example.

**Bachelor of Physiotherapy (BPT)**

**Second Year Semester-III, January-2018 Examination**

**Time: 2.30 Hrs.**

**Paper-III**

**[Max. Marks: 80]**

**Research Methodology and Biostatistics**

*Your answer should be specific to the questions asked.*

*Draw neat labeled diagrams wherever necessary.*

*(Use separate answer booklet for section A & B).*

**Section – A**

**Research Methodology (40 Marks)**

**Q.P Code : BPT-108**

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. What is a research design? Discuss the basic principles of good research design.

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Describe quantitative and qualitative research?
3. How literature survey is important for scientific work?
4. Describe the importance of inclusion and exclusion criteria?
5. What are the sources of misconduct in research? Mention the methods to avoid them

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. Mention three random sampling methods.
7. What is ethics in research? What is it important.
8. Review of literature.
9. Sample size.
10. Random error.
11. Types of Questionnaire.

**Section – B**

**Biostatistics (40 Marks)**

*(Use separate answer booklet for section B)*

**LONG ESSAY**

**1X 10 = 10 Marks**

1. Describe the measure of variability. The blood volume in 10 normal persons and 8 persons involved in multiple fractures are given below.

Normal: 4000 3400 4200 4600 3500 2500 4300 3600 4700 5200

Multiple fracture: 2500 2800 3000 2600 3800 3200 2900 3200

Do you agree with the claim that the blood volume is more variable in the normal beings than in patients, on the basis of this data?

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Diagrammatic representation of data.
3. Normal curve.
4. Describe qualitative and quantitative data? Describe the difference between nominal and ordinal data with examples.
5. Define frequency distribution and sampling distribution. Give examples.

**SHORT ANSWER (Answer any Five)**

**5X 3 = 15 Marks**

6. Sector diagram.
7. Mention the laws of probability.
8. Statistical average.
9. Vital statistics and its uses.
10. Bar diagrams.
11. Medial statistics.