

**Bachelor of Physiotherapy (CBCS), First Year Semester-II**

**July / August – 2019 Examination.**

**Time: 3.00 Hrs.**

**[Max. Marks: 100]**

**BIOMECHANICS**

**Q.P Code: B2030**

*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. Describe the structure of cervical vertebra and explain its kinematics.
2. List the joints of rig cage and describe the mechanism of normal breathing.
3. Describe the articulations of knee joint. Explain the screw home phenomena.

**SHORT ESSAY (Answer any Ten)**

**10X 5 = 50 Marks**

4. Explain the structure of wrist joint and discuss sequence of events occurring during movements of wrist joint.
5. Mention the ligaments of vertebral column and explain their role in stability of it.
6. Discuss the static and dynamic stability of shoulder complex.
7. What is lever, give its types. Add a note on application of levers in physiotherapy.
8. Discuss in detail with examples of precision handling
9. Describe biomechanics of sub talar joint .
10. Explain the formation of plantar arches and add a note on their functions.
11. Define posture, explain the kinetics of posture.
12. Discuss movement analysis for lifting.
13. What is a gait cycle? Describe the energy expenditure during normal gait.
14. What is fundamental position of hand? Add a note on power grip.
15. Explain locking & unlocking mechanism of knee joint.

**SHORT ANSWER (Answer any Ten)**

**10 X 3 = 30 Marks**

16. Uses of meniscus in knee joint.
17. Define passive insufficiency.
18. Define carrying angle.
19. What are the features of ideal posture?
20. List the movements of sub talar joint.
21. Give 3 uses of palmar arches.
22. Write role of COG in human body.
23. What are the motions of upper limb and trunk during normal gait.
24. Write the functional significance of palmar arches.
25. Give few effects of immobilization on the muscle properties
26. What are the postural changes seen during pregnancy
27. Define pes cavus and pes planus.

**SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH**  
**(A DEEMED TO BE UNIVERSITY)**  
**Bachelor of Physiotherapy (CBCS), First Year Semester-II**  
**July/August-2019 Examination.**

TIME -2.30 HRS

MAX MARKS: 80

**BICHEMISTRY**

**Q.P. CODE: B2040**

*Your answers should be specific to questions asked.*

*Draw neat labelled diagrams wherever necessary*

**LONG ESSAY (Answer any two)**

**2x10=20 Marks**

1. Explain the various factors affecting enzyme activity with suitable Graphs.
2. Mention the dietary sources, Recommended Daily Allowance, biochemical functions and deficiency manifestations of pyridoxine.
3. Define Glycogenolysis. Describe the reactions of Glycogenolysis. Add a note on its regulation.

**SHORT ESSAY (Answer any six)**

**6x5=30 Marks**

4. Classify proteins based on their function with suitable examples.
5. Name the Bile salts. Explain their role in lipid digestion and adsorption.
6. What are Glycosaminoglycans? List any four Glycosaminoglycans with their biological significance.
7. Define BMR. Describe the factors affecting BMR.
8. What are Phospholipids? Classify them with suitable examples and enumerate the important functions of any two of them.
9. What is glutathione? Write the composition and write any 3 biological roles of Glutathione.
10. Compare and contrast DNA and RNA with reference to a. Composition and structure b. Location c. Function
11. Define Fatty Liver. Mention the causes of fatty liver. Add a note on lipotropic factors.

**SHORT ANSWER (Answer any Ten)**

**10 x 3 = 30 Marks**

12. Define Isoenzymes. Give any two examples.
13. List any 3 functions of Phosphorus.
14. List the Essential Fatty acids.
15. Write the Biological Reference range of serum levels of a) Sodium b) Potassium c) Calcium
16. Name the 3 biologically important compounds derived from Tyrosine.
17. Mention the types of RNA and write the functions.
18. Name the three ketone bodies.
19. What are Trans fatty acids? What is its significance?
20. What is the Normal Blood pH range? Mention the blood buffers that regulate the Blood pH
21. List any three Group II Hormones (hormones that act through cell surface receptors )
22. Name the 3 Biologically important compounds derived from Cholesterol.
23. Coenzyme forms of i. Thiamine ii. Riboflavin iii. Niacin

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**[Max. Marks: 80]**

**Psychology and Sociology**

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

*Draw neat labelled diagrams wherever necessary.*

**Section - A**

**Psychology ( 40 marks )**

**QP Code : B2055**

*(Use Separate answer booklet for Section A & B)*

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Write the stages of human development? Describe Childhood and adolescence ?

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Name the methods of Psychology ? Describe experimental methods?
3. Write the Psychological and Physiological changes of middle age?
4. Write the qualities of leadership?
5. Define learning. What are the types of learning.

**SHORT ANSWER (Answer any Five)**

**5 X 3 = 15 Marks**

6. What is leadership? Write 2 definitions?
7. Define personality . Name three personality tests.
8. Describe different methods of problem solving.
9. Explain approach – approach conflicts?
10. Draw the motivation cycle
11. Name stages of human development?

**Section – B**

**Sociology (40 Marks)**

**QP Code : B2056**

*(Use separate answer booklet for section B)*

**LONG ESSAY**

**1 X 10 = 10 Marks**

1. Explain the social problems define problems of working women's.

**SHORT ESSAY (Answer any Three)**

**3X 5 = 15 Marks**

2. Define family explain the functions of family
3. Define society and community
4. Explain the forms of marriage.
5. Explain the agencies of socialization.

**SHORT ANSWER (Answer any Five)**

**5 X 3 = 15 Marks**

6. Cultural factors influence on health and disease.
7. Functions of medico social worker.
8. Joint family.
9. Rural health problems.
10. list the health services in village community.
11. Social change and stress.

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