Bachelor of Physiotherapy (CBCS)
First Year Semester-II, September 2021 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 kinematics of shoulder complex.

2. describe the biomechanical properties of connective tissue

3. Explain the postural analysis in lateral view and anteroposterior view.

SHORT ESSAY (Answer any Ten)   10X 5 = 50 Marks

4. Describe the kinematics of wrist joint

5. Explain the force velocity relation of muscle

6. Discuss the types of pelvic motions and its importance.

7. Explain palmar arches- give its types and uses.

8. Explain the kinetics & kinematics of elbow joint

9. Explain any 5 gait variables

10. Explain classification of joints with examples.

11. Explain the types of muscle contraction with examples

12. Describe the kinematics of lumbar spine

13. Explain the joint articular surface, axis & kinematics of transverse tarsal joint

14. Explain the chest wall motions during breathing

15. Describe the phases of gait

SHORT ANSWER (Answer any Ten)   10 X 3 = 30 Marks

16. Defined open & closed pack joint position

17. What are the functions of arches of foot

18. Define ground reaction force

19. Define carrying angle & give its importance

20. Define scapula humeral rhythm

21. Define active & passive insufficiency

22. Define angle of pull of muscle

23. Define anatomical pulley with example

24. What are the functions of plantar arches

25. Define angle of femoral inclination

26. Define youngs modulus of elasticity

27. Give 3 principles of goniometry

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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. Describe the steps of TCA cycle. Add a note on its energetics.   8+2

2. Define Enzymes. Classify enzymes. Give one example for each class.   1+5+4

3. Write the dietary sources, Recommended Daily Allowance, biochemical functions and   1+1+5+3
    deficiency manifestations of Vitamin D.

Short Essay (Answer any six)   6x5=30 Marks

4. Compare and contrast DNA and RNA with reference to a) Composition and structure
    b) Location c) Function

5. What are Biologically Important Peptides? Give four examples and their biological   1+4
    roles.

6. What are dietary fibers? Give four examples and write the biological importance of dietary   1+1+3
    fibers.

7. Define lipoproteins. Classify lipoproteins with their functions.   1+4

8. What is the normal blood pH? Explain various blood buffers by which acid-base balance is   1+4
    regulated in the body

9. What are Disaccharides? Give two examples with composition, structure and biomedical   1+2+2
    importance.

10. Name Ketone bodies. Explain the synthesis & utilization of ketone bodies   1+3+1

11. Name anitoxidant vitamins. Describe the sources, biochemical functions and deficiency   1+1+2+1
    manifestations of any one of them.

Short Answer (Answer any Ten)   10x 3 = 30 Marks

12. Write the Biological reference interval of serum levels of a) Sodium b) Potassium c) Calcium

13. What is cAMP? Mention any 2 biological functions of cAMP.

14. What are Glycosaminoglycans? give 2 examples

15. Mention any three risk factors for atherosclerosis.

16. Define Balanced Diet.

17. List any 3 hormones involved in blood glucose regulation.

18. Name any three endopeptidases involved in protein digestion.

19. With a neat labeled diagram explain the Watson-Crick Model of DNA

20. What is respiratory acidosis? Name any 2 conditions which lead to respiratory acidosis.

21. Name 3 biologically important compounds derived from Tyrosine.

22. Name any 3 proteins involved in muscle contraction

23. List any 3 functions of Phosphorus.

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SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
Bachelor of Physiotherapy (CBCS)
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Time: 2.30 Hrs.   [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
1 1.Name stages of human development?

Section – B
Sociology (40 Marks)
QP Code : B2056
(Use separate answer booklet for section B)

Long Essay   (10x1=10)

1. Explain the factors affecting the growth of cities.

Short Essay (Answer any three)   (5X3=15)

2. What are the various employment opportunities provided by the government for the disabled?
3. Explain the problems commonly faced by women in India.
4. State the causes of migration from rural to urban.
5. Explain Anticipatory socialization

Short Answers (Answer any 5)   (3x5=15)

6. Define norms.
7.State the importance of sociology in daily life.
8.Define health and illness.
9.Differentiate voluntary and non-voluntary group.
10.Culture and personality
11.State the secondary functions of the family.

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