SC—132

(Pages : 4)

SC—1914

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

GENERAL PSYCHOLOGY AND SOCIOLOGY

(1996–97 and 1997–98 Batches)

Time : Three Hours

Maximum : 100 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.
Answer Sections A and B in **separate** *answer-books.*

× 2 = 20 ma

Section A (General Psychology)

(50 marks)

I. Long Essays : (Answer any *two*)

1 What are primary and secondary motives ?

2 What are the effective methods of learning ?

3 How do conflicts develop and what is the role of defense mechanisms ?

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *four*)

4 Importance of heredity and environment.

5 Development in adolescence.

6 Nervous system and emotions.

7 Personality development.

8 Attitude change.

(4 × 5 = 20 marks)

III. Short Answers :

9 Good leaders.

10 Creative thinking.

11 Attention.

12 Questionnaires.

13 Reinforcement.

(5 × 2 = 10 marks)

Section B (Sociology)

(50 marks)

I. Long Essays : (Answer any *two*)

1 Define Sociology and bring out the importance of its study in the field of health.

2 Examine the role of family in socialisation.

3 Explain the role and importance of a medical social worker.

(2 × 10 = 20 marks)

Turn over

II. Short Essays : (Answer any *four*)

4 Explain the health hazards of ruralities.

5 Explain the relationship between culture and health.

6 What do you mean by social security ?

7 "Alcohol is injurious to health"—Discuss.

8 Family and nutrition. Discuss.

(4 × 5 = 20 marks)

III. Short Answers :

9 Define Culture.

10 What is Social Legislation ?

11 Who is a medical social worker ?

12 Consequences of prostitution.

13 Write *three* problems of over-population.

(5 × 2 = 10 marks)

SC—19

SC—1914-A

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

GENERAL PSYCHOLOGY AND SOCIOLOGY

(1998–99 Batch)

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.
Answer Sections A and B in **separate** *answer-books.*

5 = 20 mark

Section A (General Psychology)

(40 marks)

I. Long Essays : (Answer any *one*)

1 Define Learning and indicate effective methods of learning.

2 What are the sources of conflicts and what is the nature of defense mechanisms ?

2 = 10 mark

(1 × 10 = 10 marks)

II. Short Essays : (Answer any *four*)

3 Attention and perception.

4 Leadership styles.

5 Personality development.

6 Physical changes in emotion.

7 Adolescent development.

(4 × 5 = 20 marks)

III. Short Answers :

8 Primary needs.

9 Schools of psychology.

10 Heredity and environment.

11 Psychotherapy.

12 Creativity.

(5 × 2 = 10 marks)

Section B (Sociology)

(40 marks)

I. Long Essays : (Answer any *one*)

1 Explain the "case study method" as a method of sociological investigation.

2 "Society as a web of social relationships"—Explain.

(1 × 10 = 10 marks)

II. Short Essays : (Answer any *four*)

3 Bring out the social role of customs.

4 Concept of culture in maintaining health—Explain.

5 The process of socialisation—Discuss.

6 What is population explosion ?

7 Features of rural community—Explain.

(4 × 5 = 20 marks)

Turn over

III. Short Answers :

8 Who is a beggar ?

9 Problems of women in employment.

10 Social security.

11 Mention the types of family.

12 Write *three* differences between Sociology and Anthropology.

(5 × 2 = 10 marks)

SC 1914

SC—1912

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

BIOMECHANICS

Time : Three Hours Maximum : 100 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

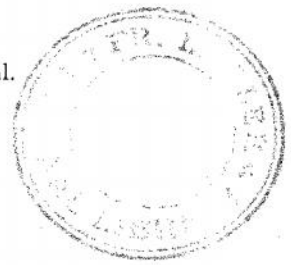
I. Long Essays : (Answer any *four*)

1 Arches of the hand.
2 Preventive ergonomic measures.
3 Describe biomechanical analysis of knee joint complex.
4 Normal posture and its deviations.
5 Discuss the various forces acting on the human body.

(4 × 10 = 40 marks)

II. Short Essays : (Answer any *eight*)

6 Soft tissues on sole of foot.
7 Lateral arch of the foot.
8 Role of abductors of the hip during locomotion.
9 Normal gait determinants which make human locomotion economical.
10 Stability factors at the ankle joint.
11 Angle of pull.
12 Cruciate ligaments of the knee joint.
13 Work position of a sedentary worker.
14 Uses of a bicycle ergometer and a treadmill.
15 Principles of orthotic prescription for lower limb.



(8 × 5 = 40 marks)

III. Short Answers :

16 What is the relation of the line of gravity to the joints of the lower limb ?
17 What are the movements of the superior radio-ulnar joint ?
18 Enumerate factors contributing to mobility of the shoulder joint.
19 What is the action of quadriceps while sitting and standing up from a chair ?
20 Enumerate *two* factors that can change mechanics of breathing.
21 Describe levers of the third order giving examples.
22 Define friction and its uses in physiotherapy.
23 What is Postural awareness ?
24 What is a torque ? Give an example.
25 What is the function of gastrocnemius soleus unit in late stance phase ?

(10 × 2 = 20 marks)

(18) 28

SC—1910

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

HUMAN ANATOMY

Time : Three Hours Maximum : 100 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *four)*

1 Describe the movements of the shoulder joint. Name the muscles that bring about the movements and add a note on its nerve supply.

2 Describe the longitudinal arches of the foot. Mention two deformities related to them.

3 Discuss the intercostal muscles in detail.

4 Write about the rectus abdominis muscle and describe the movements of the vertebral column.

5 Describe the extracranial course and distribution of the facial nerve (VII). Add a note on the muscles of facial expression.

(4 × 10 = 40 marks)

II. Short Essays : (Answer any *eight*)

6 Blood supply of long bones.

7 Nuclei of cerebellum.

8 Hyaline cartilage.

9 Blood supply of heart.

10 Inter vertebral disc.

11 Upper end of radius.

12 Iliofemoral ligament.

13 Sternocleidomastoid muscle.

14 Spermatic cord.

15 Name the saddle type joints—Describe any *one*.

(8 × 5 = 40 marks)

III. Short Answers :

16 Hilum of kidney.

17 Foot drop.

18 Coracoid process.

19 Cysterna chyle.

20 Recti muscles of the eye.

21 Femoral canal.

22 Hyoid bone.

23 Arachnoid granulations.

24 Flexor retinaculum.

25 Nerve supply of Larynx.

(10 × 2 = 20 marks)

(Pages : 2) SC—1911

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

PHYSIOLOGY, THERAPEUTIC PHYSIOLOGY AND BIOCHEMISTRY

(Common for 96–97, 97–98, 98–99)

Time : Three Hours Maximum : 100 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.
Answer Sections A and B in **separate** *answer-books.*



Section A (Physiology)

(50 marks)

I. Long Essays : (Answer any *two*)

1 Discuss cardio-respiratory changes during muscular exercise.

2 Describe the mechanism of blood coagulation.

3 Name the ascending tracts of spinal cord and describe the spinothalamic tract and its functions.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *four*)

4 Neuromuscular transmission.

5 Action of growth hormone.

6 Haemiplegia.

7 Pulmonary volumes and capacities.

8 Composition and function of gastric juice.

(4 × 5 = 20 marks)

III. Short Answers :

9 Functions of saliva.

10 Stroke volume.

11 P-R interval.

12 Salutatory conduction.

13 Reflex arc.

(5 × 2 = 10 marks)

Section B (Biochemistry)

(50 marks)

I. Long Essays : (Answer any *two*)

1 Describe the dietary sources, coenzyme forms, biochemical functions, deficiency manifestations, daily requirements of Riboflavin.

(2 + 1 + 5 + 1 + 1 = 10 marks)

2 How are lipids classified ? Give the composition, properties and functions of triglycerides, lecithins and cephalins.

(2 + 4 + 2 + 2 = 10 marks)

3 What is the pH of normal blood ? Name the buffers of blood. Explain acid-base balance.

(1 + 3 + 6 = 10 marks)

[2 × 10 = 20 marks]

Turn over

II. Short Essays :

4 Biochemical functions of Vitamin D.

5 Classification of amino acids with *two* examples.

6 Clinical/diagnostic importance of :

(a) Alkaline phosphatase.
(b) Creatine phosphokinase.
(c) Lactate dehydrogenase.
(d) Amylase.
(e) S.G.P.T.

7 Paper electrophoresis of serum proteins.

(4 × 5 = 20 marks)

III. Short Answers :

8 Detoxication by conjugation.

9 Scurvy.

10 Van Den Bergh reaction.

11 Flame photometry.

12 Creatinine clearance.

(5 × 2 = 10 marks)

SC—19

SC—1913

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

MEDICAL ELECTRONICS INCLUDING COMPUTER APPLICATIONS

(1996–97 and 1997–98 Batches)

Time : Three Hours Maximum : 100 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *four*)

1 Write a note on :

(a) Switches.

(b) Types of plug.

(c) Sinusoidal waveform.

2 Explain the principle of operation of short wave diathermy with neat diagram.

3 Explain the application of computer in medical field.

4 Write a brief notes on classification of computer.

5 Draw the block diagram of C.P.U. and explain.

(4 × 10 = 40 marks)

II. Short Essays : (Answer any *eight*)

6 Explain any *one* secondary storage devices with a neat diagram.

7 Write a note on virus.

8 Write a short note on networking concept of P.C.

9 What are the principles of programming ?

10 Define the term "Data". What do you mean by Data Processing ?

11 What are the uses of lasers in physiotherapy ?

12 Write a short note on precaution against earth shock.

13 Explain the working principle of transformer.

14 Explain the phenomena thermionic emission.

15 List the uses of infrared and ultra violet therapy in physiotherapy.

(8 × 5 = 40 marks)

III. Short Answers :

16 State Ohm's law.

17 Mention different types of plugs and switches.

18 Define the term electromagnetic radiation.

19 Write a note on faradic current.

20 Define Latent heat.

Turn over

21 Distinguish between Information from Data.

22 List out the various modes of Data Processing.

23 Write a note on software.

24 Write a note on RAM.

25 What are the advantages of a Computerised Railway Ticket Reservation System ?

(10 × 2 = 20 ma

Time : Th

I. I

II.

III.

SC—1

(93)

SC—1913-A

FIRST YEAR B.Sc. (PHYSIOTHERAPY) DEGREE EXAMINATION, 2002

MEDICAL ELECTRONICS INCLUDING COMPUTER APPLICATIONS

(1998–1999 Batch)

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Explain briefly the low frequency currents and medium frequency currents.

2 Explain the principle of operation of microwave diathermy with necessary diagram.

3 Draw the architecture of a CPU and explain.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Write a note on integrated circuits.

5 Write a note on ultrasonics.

6 Write a note on transformer.

7 Write a note on Nebuliser.

8 Write a note on shortwave diathermy.

9 Write a note on software.

10 Write a note on Data Processing.

11 Differentiate between RAM and ROM and give their applications.

12 Write a note on memory.

13 Write a note on Computer Network.

(8 × 5 = 40 marks)

III. Short Answers : (Answer any *ten*)

14 State Ohm's law.

15 Explain the term voltage.

16 Write a note on short circuit.

17 Explain the term conductors.

18 State Lenz's law.

19 Explain the term inductor.

20 What is Software ?

21 What is compiler ?

22 What is Data Processing ?

23 Explain the term operating system.

24 Define the term information.

25 Write *two* output devices.

(10 × 2 = 20 marks)