Q-2 Essay type Question: - (ANY ONE) (1x10=10)

a) Describe the physiology of respiration. Add notes on gaseous exchange and transport of oxygen and carbon dioxide

(OR)

b) Explain the physiology of digestion in the gastrointestinal tract. Mention the role of digestive enzymes.

Q-3 Short type Question: - (ANY 3) (3x5=15)

a) Explain the stages of blood coagulation.
b) Write a short note on cardiac cycle.
c) Describe the functions of kidney in maintenance of homeostasis. (Counter current multiplication & Balance)
d) Explain the mechanism of transmission of nerve impulse.

Q -4 Very Short type Question: - (ANY 3) (3x2=6)

a) Define homeostasis.
b) Mention the functions of platelets.
c) Define vital capacity.
d) Name the hormones secreted by anterior pituitary gland.

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ARKA JAIN University
Jharkhand

NAAC GRADE A
ACCREDITED UNIVERSITY

End Semester University Examination - May - 2026

Subject: Applied Anatomy and Applied Physiology

Program: B. Sc. Nursing **Semester: I**

Full Marks: 75 **Time: 3 Hours**

Instructions to the Candidates:

- Read the question paper very carefully.
- Start writing from 2nd page onwards; don't write on the 1st Page Backside.
- Do not write anything except your Roll No. on the question paper.
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or Discussing with Co-Student will come under Unfair Means and will Result in the Cancellation of the Paper.

SECTION – A (APPLIED ANATOMY) (37-MARKS)

Q-1. Multiple Choice Question: - (6x1=6)

i. The epiphyseal plate is responsible for:
a) Bone destruction b) Increase in length of long bones
c) Formation of synovial fluid d) Repair of cartilage

ii. Which cranial nerve is concerned with vision?
a) Olfactory nerve b) Trigeminal nerve
c) Optic nerve d) Facial nerve

iii. The structural unit of compact bone is:
a) Sarcomere b) Neuron
c) Osteon d) Alveolus

iv. The valve present between left atrium and left ventricle is:

a) Tricuspid valve b) Pulmonary valve
c) Mitral valve d) Aortic valve

v. Which part of the brain regulates body temperature?

a) Cerebellum b) Medulla oblongata
c) Hypothalamus d) Thalamus

vi. The functional unit of skeletal muscle is:

a) Neuron b) Sarcomere
c) Nephron d) Osteocyte

Q-2 Essay type Question: - (ANY ONE) (1x10=10)

a) Describe the anatomy of the human heart with neat labelled diagram. Explain the course of blood circulation through the chambers of the heart.

(OR)

b) Explain the structure of the central nervous system. Explain the cerebrospinal fluid and its functions.

Q.3) Write short notes on: - (ANY 3) (3x5=15)

a) Describe the structure and functions of epithelial tissue.
b) Write a short note on the structure of nephron with proper labelled diagram. Describe CNS, PNS and ANS of nervous system.
c) Discuss the anatomy of the respiratory tract and respiratory muscle.
d) Explain the Endocrine and Exocrine. Describe the anatomy of the thyroid gland.

Q.4) Write very short notes on: - (ANY 3) (3x2=6)

a) Define anatomical position and mention its importance.
b) Enumerate the types of Bone and cartilage with examples.
c) Name the coverings of the brain and spinal cord.
d) Mention the functions of lymphatic system.

SECTION – B (APPLIED PHYSIOLOGY) (38-MARKS)

Q-1. Multiple Choice Question: - (7x1=7)

i. The pacemaker of the heart is:

a) AV node b) Bundle of His
c) Purkinje Fibers d) SA node

ii. The normal pH of blood is:

a) 6.8 – 7.0 b) 7.35 – 7.45
c) 7.8 – 8.0 d) 6.5 – 6.9

iii. Which hormone increases blood glucose level?

a) Insulin b) Glucagon
c) Thyroxine d) Calcitonin

iv. Oxygen is mainly transported in blood by:

a) Plasma proteins b) Leukocytes
c) Haemoglobin d) Platelets

v. The primary respiratory centre is located in the:

a) Cerebrum b) Cerebellum
c) Medulla oblongata d) Hypothalamus

vi. Glomerular filtration occurs in the:

a) Loop of Henle b) Distal convoluted tubule
c) Bowman's capsule d) Collecting duct

vii. Which electrolyte is mainly responsible for depolarization of nerve and muscle cells?

a) Calcium b) Sodium
c) Chloride d) Magnesium

Q-2 Essay type Question: - (ANY ONE) **(1x10=10)**

a) Write the definition of Motivation. Explain the concept and types of Motivation.

(OR)

b) Explain Defence Mechanism in detail with implications or examples.

Q-3 Short type Question: - (ANY 3) **(3x5=15)**

a) Explain body-mind relationship.
b) Relevance of Psychology in Nursing.
c) Explain the types of Conflicts.
d) Characteristics of Mentally Healthy person.

Q -4 Very Short type Question: - (ANY 3) **(3x2=6)**

a) Define Attitude.
b) Types of Memory.
c) Formula for calculating IQ.
d) Laws of Learning.

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ARKA JAIN University
Jharkhand

NAAC GRADE A
ACCREDITED UNIVERSITY

End Semester University Examination - May - 2026

Subject: Applied Sociology & Applied Psychology

Program : B. Sc. Nursing **Semester : I**

Full Marks : 75 **Time : 3 Hours**

Instructions to the Candidates:

- Read the question paper very carefully.
- Start writing from 2nd page onwards; **don't write on the 1st Page Backside**.
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SECTION – A (Applied Sociology) (37-MARKS)

Q-1. Multiple Choice Question: - (6x1=6)

i. Sociology is the study

a) Human body
b) Society and social behaviour
c) Medicines
d) Economy

ii. Marriage between one man and one woman is called:

a) Polygamy
b) Monogamy
c) Polyandry
d) Endogamy

iii. Which of the following is an example of social institution?

a) Family
b) Climate
c) Forest
d) River

iv. The process by which an individual learns social behaviour is know as:
a) Urbanization c) Socialization
b) Industrialization d) Migration

v. Which of the following is a social problem?
a) Education c) Culture
b) Poverty d) Cooperation

vi. The smallest unit of society is:
a) Community c) Family
b) State d) Organization

Q-2 Essay type Question: - (ANY ONE) (1x10=10)

a) Define Sociology. Explain the scope and importance of Sociology in Nursing.

(OR)

b) Define Family. Explain the types and functions of family.

Q.3) Write short notes on :- (ANY 3) (3x5=15)

a) Define culture and mention its characteristics.
b) Social problems.
c) Marriage.
d) Socialization and its types.

Q.4) Write very short notes on: - (ANY 3) (3x2=6)

a) Define Caste System.
b) What is Urbanization?
c) Define social group.
d) Define Unemployment.

SECTION – B (Applied Psychology) (38-MARKS)

Q-1. Multiple Choice Question: - (7x1=7)

i. Who is the first person to measure human behaviour accurately and he is also known as the "Father of Psychology"?
a) Wilhelm Wundt c) William
b) Titchener d) Sigmund Freud

ii. Mental health is a state of development of one's:
a) Personality c) Both a and b
b) Emotional attitude d) Intellectual

iii. The __ complex is to girls as the __ complex is to boys.
a) Electra, Oedipus c) Oral, Phallic
b) Oedipus, Electra d) Phallic, Oral

iv. The process of attention is __.
a) Selection c) a and b
b) Elimination d) None of these

v. Frustration is a __ experience.
a) Universal c) Societal
b) Individual d) None of the above

vi. A process of in-depth investigation of a single person, group, event or community.
a) Case study c) History
b) Case-profile d) Biography

vii. The first intelligence test was developed by:
a) Binet and Simon b) Spearman
c) Stanford and Binet d) Terman and Wechsler