

MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012

SUBJECT: BSN 105 - PSYCHOLOGY

Wednesday, September 12, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

✍ Answer all questions.

✍ Choose the single best answer:

- 1A. Variables are controlled in the method of
a) Introspection b) Experimental c) Observation d) Survey
- 1B. Method of minimal changes is also called
a) Method of limits b) Clinical method
c) Psycho-physical method d) Method of constant stimuli
- 1C. Electrical messages from one part of the body to another part is carried out by
a) Dendrites b) Axon c) Neuron d) Myelin sheath
- 1D. Thalamus is part of
a) Fore brain b) Hind brain c) Mid brain d) Cortex
- 1E. The system that tends to be active when we are calm is
a) Sympathetic NS b) Para-sympathetic NS
c) CNS d) Limbic system
- 1F. In the situation of fear and anger which gland gets stimulated
a) Pituitary gland b) Thyroid gland
c) Adrenal gland d) Pancreas gland
- 1G. _____ tries to coordinate the activities of the internal organs associated with emotions
a) Thalamus b) Hypo thalamus
c) Amygdala d) Cingulate gyrus
- 1H. The theoretical proposition that emotions spring from physiological reactions is proposed by
a) James- Lange b) Cannon-Bard c) Schachter-Singer d) Maslow
- 1I. The minimum intensity of physical energy of a stimulus that may produce any sensation is called
a) High threshold b) Limited threshold
c) Absolute threshold d) Low threshold
- 1J. When out of two equal lines one line is perceived as longer because of its angles in end called
a) Illusion of curvature b) Illusion of perspective
c) Muller-Lyer illusion d) Illusion of size

- 2A. Although lines are straight and parallel yet they appear to be bowed
 a) Illusion of curvature b) Illusion of perspective
 c) Muller-Lyer illusion d) Illusion of size
- 2B. When we look at an object, the image created in both eyes are not identical. This phenomenon is called
 a) Convergence b) Illusion c) Illusion of size d) Retinal disparity
- 2C. Tachistoscope is an instrument to measure
 a) Memory b) Learning c) Attention d) Intelligence
- 2D. Life instinct and death instinct were given by
 a) Maslow b) Freud c) Adler d) Jung
- 2E. The concept of Self-actualization belongs to the theory of
 a) Freud b) Maslow c) Adler d) Rogers
- 2F. Dollard & Miller developed a _____ theory of personality
 a) Cognitive b) Behavioral c) Social learning d) Psychoanalytic
- 2G. In Pavlov's classical conditioning experiment, CS stands for
 a) Food b) Bell c) Saliva d) Dog
- 2H. Insightful learning was developed by
 a) Skinner b) Kohler c) Watson d) Bandura
- 2I. The famous experiment of trial and error learning was conducted on
 a) Dog b) Cat c) Rat d) Pigeon
- 2J. According to Ebbinghaus's "curve of forgetting", forgetting depends on
 a) Method of learning b) Nature of material
 c) Time lapsed after learning d) Motivation of the subject
- 3A. Engrams in memory process represent
 a) Poor memory b) Speed of learning
 c) Traces of memory d) Sensory memory
- 3B. Immediate memory is similar to
 a) Short term memory b) Recent memory
 c) Sensory memory d) Remote memory
- 3C. Two factor theory of intelligence is developed by
 a) Spearman b) Thorndike c) Cattell d) Guilford
- 3D. Koh's Block design test is a
 a) Verbal test b) Performance test
 c) Verbal and performance both d) Paper-pencil test
- 3E. An IQ of 88 is considered as
 a) Mild Mental Retardation b) Borderline intelligence
 c) Dull Normal intelligence d) Average intelligence

- 3F. _____ divided human beings basically into two distinct types: introvert and extrovert
 a) Jung b) Freud c) Cattell d) Adler
- 3G. ID is governed by
 a) Pleasure principle b) Moral principle
 c) Reality principle d) Both pleasure and reality principle
- 3H. _____ classified personality types on the basis of physical structure
 a) Allport b) Eysenck c) Kretschmer d) Freud
- 3I. G.B. Allport belongs to
 a) Psychoanalytic approach b) Humanistic approach
 c) Trait approach d) Existential Approach
- 3J. Individual approach to personality was given by
 a) Roger b) Adler c) Sheldon d) Jung

(1×30 = 30 marks)

4. Write very short notes on:

- 4A. Define Psychology
 4B. The role of environment in personality development.
 4C. What is visual adaptation?
 4D. Explain the principle of figure-ground perception.
 4E. Discuss external factors influencing attention.
 4F. Problem solving.
 4G. Socio-psychological needs.
 4H. Paired-association learning.
 4I. Types of memory.
 4J. Social learning theory.
 4K. Nature of aptitude.
 4L. Attitude.
 4M. Characteristics of a good test.
 4N. What is defense mechanism?
 4O. Psychological aspects of nursing.

(2×15 = 30 marks)

5. Write short notes on:

- 5A. Explain the method of observation.
 5B. Explain Schachter-Singer's theory of emotions.
 5C. Implications of Classical Conditioning.
 5D. Any two theories of forgetting
 5E. Effect of heredity and environment on intelligence.

(3×5 = 15 marks)



MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012

SUBJECT: BSN 107 – ENGLISH

Thursday, September 13, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

1. Correct the error in the following sentences:

- i) He did not go for Mercedes Benz though he could afford.
- ii) You dare not to disobey your lecturers, lest you should be punished.
- iii) I will rather fail than resort to unfair means to pass the exam.
- iv) In the present period of recession, one cannot afford spending one's savings on luxuries.
- v). One must be sympathetic towards the needy.

(5 marks)

2. Choose the correct form of verb from the brackets:

- i) The bell _____ (rang/rung/had rung) 5 minutes before I reached.
- ii) Either the cat or the dogs _____ (have/has) eaten the food.
- iii) He _____ (is/was/has been) attending music classes since 2009.
- iv) She _____ (speaks/speak) to children in a very gentle manner.
- v) We _____ (have/are having) guests for dinner

(5 marks)

3A. Choose the right synonym for the following words:

- i) **Accolade**
 - a) Desire
 - b) Laurels
 - c) Criticism
 - d) Anger
- ii) **Accomplice**
 - a) Friend
 - b) Enemy
 - c) Guide
 - d) Companion
- iii) **Chore**
 - a) Job
 - b) Tide
 - c) Wind
 - d) Rest

3B. Choose the right antonym for the following words:

- i) **Solder**
 - a) Merge
 - b) Separate
 - c) Discard
 - d) Ignore

- ii) **Current**
- a) Mobile
 - b) In vogue
 - c) Obsolete
 - d) New

(5 marks)

4A. Fill in the blank appropriately from the brackets:

- i) All of the furniture _____ (look/looks) good.
- ii) Some parents _____ (is/are) strict.
- iii) No children _____ (dislike/dislikes) ice cream.
- iv) Neither he nor I _____ (am/is) interested in music
- v) The _____ are on the table (spectacle/spectacles)

(5 marks)

4B. Mark the accent on the words:

- i) Technician
- ii) Information
- iii) Application
- iv) Education
- v) Production

(5 marks)

5. Choose the correct phrasal words from the bracket:

- i) She was standing _____ the mirror (in front of/in place of)
- ii) I went to Delhi _____ attend a conference.(in spite of/in order to)
- iii) A mother will undergo any difficulty _____ her child.(on behalf of/for the sake of)
- iv) _____ complaining to the Government let us try to help ourselves.(Instead of/ In spite of)
- v) _____ my best efforts, I could not win the election.(In the course of/In spite of)

(5 marks)

6. Transcribe the following words phonemically:

- i) able
- ii) take
- iii) camp
- iv) dance
- v) class

(5 marks)

7. Read the following passage and answer the questions that follow:

Mount Vesuvius, a volcano located between the ancient Italian cities of Pompeii and Herculaneum, has received much attention because of its frequent and destructive eruptions. The most famous of these eruptions occurred in A. D. 79.

The volcano had been inactive for centuries. There was little warning of the coming eruption, although one account unearthed by archaeologists says that a hard rain and a strong wind had disturbed the celestial calm during the preceding night. Early the next morning, the volcano

poured a huge river of molten rock down upon Herculaneum, completely burying the city and filling in the harbor with coagulated lava.

Meanwhile, on the other side of the mountain, cinders, stone and ash rained down on Pompeii. Sparks from the burning ash ignited the combustible rooftops quickly. Large portions of the city were destroyed in the conflagration. Fire, however, was not the only cause of destruction. Poisonous sulphuric gases saturated the air. These heavy gases were not buoyant in the atmosphere and therefore sank toward the earth and suffocated people.

Over the years, excavations of Pompeii and Herculaneum have revealed a great deal about the behavior of the volcano. By analyzing data, much as a zoologist dissects a specimen animal, scientist have concluded that the eruption changed large portions of the area's geography. For instance, it turned the Sarno River from its course and raised the level of the beach along the Bay of Naples. Meteorologists studying these events have also concluded that Vesuvius caused a huge tidal wave that affected the world's climate.

In addition to making these investigations, archaeologists have been able to study the skeletons of victims by using distilled water to wash away the volcanic ash. By strengthening the brittle bones with acrylic paint, scientists have been able to examine the skeletons and draw conclusions about the diet and habits of the residents. Finally, the excavations at both Pompeii and Herculaneum have yielded many examples of classical art, such as jewellery made of bronze, which is an alloy of copper and tin.

The eruption of Mount Vesuvius and its tragic consequences have provided us with a wealth of data about the effects that volcanoes can have on the surrounding area. Today volcanologists can locate and predict eruptions, saving lives and preventing the destruction of cities and cultures.

- 7A. Herculaneum and its harbour were buried under _____ lava.
a) liquid b) solid c) flowing
d) gas e) answer not available
- 7B. The poisonous gases were not _____ in the air.
a) able to float b) visible c) able to evaporate
d) invisible e) able to condense
- 7C. Scientists analyzed data about Vesuvius in the same way that a zoologist _____ a specimen.
a) describes in detail b) studies by cutting apart c) photographs
d) chart e) answer not available
- 7D. _____ have concluded that the volcanic eruption caused a tidal wave.
a) Scientist who study oceans b) Scientist who study atmospheric conditions
c) Scientist who study ash d) Scientist who study animal behaviour
e) Answer not available in article
- 7E. Scientist have used _____ water to wash away volcanic ash from the skeletons of victims.
a) bottled b) volcanic c) purified d) sea e) fountain
- 7F. What do archaeologists' analyse about Mt. Vesuvius?

((1×5)+5 = 10 marks)

8. Write a précis (summary) of the following passage and suggest a suitable title to it:

The Clean Air Act of 1970, amended in 1977 and 1981, is one of the basic laws under which EPA operates. Its purpose is “to protect and enhance the quality of the nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.”

In order to do that, Congress authorized a national research and development program to prevent and control air pollution. The act also provided for EPA to assist state and local governments in the development and execution of their air quality programs.

The Clear Air Act required EPA to set national primary and secondary ambient air quality standards for certain air pollutants. The law also required emission standards for mobile sources of air pollution (vehicles), and for new stationary sources such as smokestacks. In addition, the act called for regulation of hazardous air pollutants for which no ambient air quality standard is applicable.

Another section of the law was designed to protect air quality in national parks, wilderness areas, monuments, seashores, and other areas of special national or regional natural, recreational, scenic, or historic value, and to prevent significant deterioration of air quality in those areas.

(10 marks)

9A. Write an essay on any one of the following in about 250-300 words:

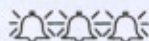
- i) Mercy killing is merciless killing.
- ii) Why population should be controlled?

(10 marks)

9B. Write an application for the post of Staff Nurse with or without experience for a newly opened hospital at Mangalore.

Apply with complete resume to The Secretary, Life Line hospital, Mangalore-2.

(6+4 = 10 marks)



MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012

SUBJECT: BSN 106 – MICROBIOLOGY

Friday, September 14, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

- ✍ **Answer all questions. Write answers that are clear, relevant and legible.**
- ✍ **Illustrate your answers with neatly drawn and correctly labeled diagram wherever appropriate.**

✍ **Choose the single best answer for the following:**

- 1A. Father of antiseptic surgery is:
 a) Robert Koch b) Joseph Lister c) Good Pasture d) Louis Pasteur
- 1B. Name the disc diffusion method for antibiotic sensitivity testing:
 a) Kirby Bauer's method b) Agar Dilution method
 c) Broth Dilution method d) CAMP Test
- 1C. Gram staining is an example for:
 a) Simple staining b) Special staining
 c) Differential staining d) Negative staining
- 1D. Give an example for Enriched media:
 a) Blood Agar b) Alkaline peptone water
 c) Peptone water d) Mac Conkey's Agar
- 1E. Which of these infections is transmitted through contaminated water:
 a) Tetanus b) Histoplasmosis c) Rabies d) Cholera
- 1F. Which of these Biomedical wastes are segregated into Red colored containers:
 a) Non-infectious waste b) Infectious substance
 c) Used sharps d) All of the above
- 1G. Which of these antibiotics act on bacterial cell wall:
 a) Penicillins b) Quinolones c) Tetracyclines d) Aminoglycosides
- 1H. Organism commonly associated with Gas Gangrene:
 a) *Clostridium perfringens* b) *Clostridium difficile*
 c) *Clostridium tetani* d) *Clostridium botulinum*
- 1I. VDRL test is performed for the diagnosis of:
 a) Enteric fever b) Brucellosis c) Gonorrhoea d) Syphilis
- 1J. Toxic shock syndrome is caused by:
 a) *Salmonella typhi* b) *Shigella flexneri*
 c) *Mycobacterium tuberculosis* d) *Staphylococcus aureus*
- 2A. Quellung test is used for the identification of:
 a) *Streptococcus mutans* b) *Streptococcus milleri*
 c) *Streptococcus pneumoniae* d) *Enterococcus faecalis*

- 2B. Which of the following staining method will help in presumptive diagnosis of Diphtheria:
- Gram's Stain
 - Albert's stain
 - Auromine O stain
 - Gabbet's stain
- 2C. Aflatoxin is produced by:
- Aspergillus flavus*
 - Pencillium marneffeii*
 - Cryptococcus neoformans*
 - Candida albicans*
- 2D. Which of these fungi infect hair and nail?
- Dermatophytes
 - Actinomycetes
 - Zygomycetes
 - Ascomycetes
- 2E. Name the dimorphic fungi:
- Trichosporon Spp.
 - Mucor Spp.
 - Cryptococcus Spp.
 - Histoplasma Spp.
- 2F. Serological test used for diagnosis of Enteric fever is:
- TPHA
 - Paul Bunnell
 - Weil-Felix
 - Widal
- 2G. Name the toxin responsible for the clinical symptoms of tetanus disease:
- Tetanolysin
 - Tetanospasmin
 - Alpha toxin
 - Beta toxin
- 2H. The largest intestinal Nematode seen in man is:
- Ascaris lumbricoides*
 - Ancylostoma duodenale*
 - Trichuris Trichuria*
 - Trichinella spiralis*
- 2I. NIH swab is used to collect and demonstrate the eggs of:
- Enterobius vermicularis*
 - Echinococcus granulosus*
 - Hymenolepsis nana*
 - Schistosoma haematobium*
- 2J. The infective stage in the life cycle of *Entamoeba histolytica* is:
- Binucleate cyst
 - Precyst
 - Uninucleate cyst
 - Quadrinucleate cyst
- 3A. Complications of Malaria is commonly caused by:
- Plasmodium vivax*
 - Plasmodium ovale*
 - Plasmodium falciparum*
 - Plasmodium malariae*
- 3B. Cysticercous cellulosa is the larval form of:
- Fasciolopsis buski*
 - Taenia solium*
 - Ascaris lumbricoides*
 - Taenia saginata*
- 3C. Give an example for Live attenuated Vaccine:
- BCG
 - Salk vaccine
 - DPT
 - TAB
- 3D. Tuberculin test is an indicator of:
- Delayed hypersensitivity
 - Cutaneous Anaphylaxis
 - Passive Cutaneous Anaphylaxis
 - Schultz Dale phenomenon
- 3E. VDRL test is an example for:
- Slide flocculation test
 - Agglutination test
 - Neutralization test
 - Immunofluorescence test

- 3F. BCG Vaccine is usually administered at:
- | | |
|------------------------|---------------------------|
| a) Time of birth | b) After 1 year of birth |
| c) After 3 years birth | d) After 2 years of birth |
- 3G. Which of these is a RNA Virus?
- | | |
|-------------------------|----------------------|
| a) Herpes Simplex Virus | b) Hepatitis B Virus |
| c) Epstein Barr virus | d) Rabies virus |
- 3H. Tzank smear is used for the presumptive diagnosis of _____ infection?
- | | |
|---------------------------|-----------------------|
| a) Herpes simplex virus 1 | b) Epstein Barr Virus |
| c) Rabies | d) Cytomegalovirus |
- 3I. Hepatocellular carcinoma is caused by:
- | | |
|---------------------------------|----------------------|
| a) Human Immunodeficiency virus | b) Rhinovirus |
| c) Hepatitis E virus | d) Hepatitis B virus |
- 3J. Dengue virus is transmitted to man by:
- | | |
|-----------------------|-------------------|
| a) Anopheles mosquito | b) Aedes mosquito |
| c) Culex mosquito | d) Ixodid tick |

(1×30 = 30 marks)

4. Write short answers on:

- 4A. Name two culture media.
- 4B. Demonstration and function of Bacterial Capsule.
- 4C. Two uses of Autoclave.
- 4D. Nagler's reaction.
- 4E. Name the Non suppurative complications of *Streptococcus pyogenes* infection.
- 4F. Name two infections caused by *Candidia* spp.
- 4G. List two species of *Mycobacteria*.
- 4H. Two methods of diagnosing *Cryptococcus neoformans* infection.
- 4I. Morphology of HIV.
- 4J. Give two examples of Arbo viruses.
- 4K. List two differences between Round worm and Hook worm.
- 4L. List two diagnostic tests for filariasis.
- 4M. Epstein Barr virus – enumerate two infections.
- 4N. Name two types of Agglutination reactions.
- 4O. Immunization schedule.

(2×15 = 30 marks)

5. Write Short answers on:

- 5A. Bacterial Aerobic and Anaerobic culture methods.
- 5B. Differences between exotoxins and endotoxins.
- 5C. Laboratory diagnosis of Typhoid.
- 5D. Prophylaxis of Rabies viral infection.
- 5E. Innate Immunity.

(3×5 = 15 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012****SUBJECT: BSN 103 – NURSING FOUNDATIONS**

Saturday, September 15, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

✍ **Answer all questions.****1. Choose the SINGLE BEST answer to each of the following questions.**1A. Following are the concepts of nursing **EXCEPT**

- a) Health b) Nursing c) Person d) Theory

1B. Health promotion activities include

- a) Exercise and good nutrition b) Exposure to air pollutants
c) Poor hygienic condition d) Smoking and drinking

1C. During an interaction with a critically ill patients family, the nurse uses the communication technique of silence. This technique assists the family to

- a) Interact with the patient b) Decrease anxiety
c) Organize the thoughts d) Plan for discharge

1D. Increased rate of respiration is called

- a) Tachypnea b) Hyperventilation c) Bradypnea d) Apnea

1E. The colour of the normal tympanic membrane is

- a) Deep red b) Pearly gray c) Yellow amber d) White

1F. Inflammation of the tongue is known as

- a) Gingivitis b) Glossitis c) Parotitis d) Stomatitis

1G. The concentration of Lysol used to disinfect rubber mackintosh is

- a) 1:20 b) 1:30 c) 1:40 d) 1:50

1H. One pint is equal to

- a) 100ml b) 250ml c) 1000ml d) 500ml

1I. If 1000ml of ringer lactate is to be administered in eight hours, how many drops per minute it would be (drop factor = 20 drops/ml)

- a) 20 b) 41 c) 35 d) 60

- 1J. The exchange of gases in and out of the lungs is known as
 a) Ventilation b) Diffusion c) Conduction d) Perfusion
- 1K. A semisolid preparation of one or more drug is called as
 a) Ointment b) Paste c) Tincture d) Powder
- 1L. The entry and development of disease producing agent in human body is
 a) Immunity b) infection c) reaction d) resistance
- 1M. The method of destruction of all microorganisms both vegetative and spores is by
 a) Boiling b) Cleaning c) Disinfection d) Sterilization
- 1N. A wound which is caused with a sharp knife or scalpel is known as
 a) Abrasion b) Incision c) Laceration d) Puncture
- 1O. Temperature above 105° F is known as
 a) Low pyrexia b) Moderate pyrexia c) Hyper pyrexia d) High pyrexia
 (1×15 = 15 marks)

2A. Explain the types of enema.

2B. Explain the nurse's responsibility in the administration of enema.

(4+ 9 = 13 marks)

3A. Discuss the nurses responsibility in storage of medications

3B. Explain the nurses role in prevention of medication error.

(6+6 = 12 marks)

4. Write short notes on the following:

4A. Qualities of a nurse.

4B. Role of nurse during the admission process.

4C. Guidelines for writing expected outcomes in a nursing care plan.

4D. Alterations in normal urinary elimination.

4E. Effects of medication.

4F. Causes of pressure sores.

4G. Procedure of sitz bath.

(5×7 = 35 marks)



MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012

SUBJECT: BSN 102 – NUTRITION AND BIOCHEMISTRY

Monday, September 17, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

✍ Answer Section – ‘A’ and Section – ‘B’ in two separate answer books.

SECTION – A : NUTRITION : 45 MARKS

✍ Choose the single best response for the following.

- 1A. The unit of energy is
a) Calorie b) Gram c) Meter d) Litre
- 1B. Vitamin A is essential for which of the following function?
a) Bone mineralization b) Bile synthesis c) Vision d) Wound healing
- 1C. ‘Scurvy’ occurs due the deficiency of the following Vitamin
a) A b) C c) D d) K
- 1D. The following is an example for micro element
a) Chloride b) Iron c) Potassium d) Sulphur
- 1E. A major cation present in the plasma is
a) Chloride b) Potassium c) Bicarbonate d) Sulfate
- 1F. The accumulation of nitrogenous waste in the blood is a condition known as
a) Azotemia b) Acetonuria c) Ketonuria d) Proteinuria
- 1G. Prolonged use of body fats for energy leads to
a) Ketosis b) Obesity c) Lipolysis d) Lipogenesis
- 1H. Glycine belongs to the following amino acid group
a) Essential b) Non-essential c) Semi-essential d) Unessential
- 1I. An example for a polysaccharide is:
a) Fructose b) Lactose c) Ribulose d) Starch
- 1J. The type of carbohydrate made up of two molecules of glucose is:
a) Ketose b) Lactose c) Maltose d) Sucrose
- 2A. Fatty acid present in vinegar is
a) Acetic acid b) Butyric acid c) Caproic acid d) Oleic acid
- 2B. The protein responsible for muscle contraction is
a) Albumin b) Insulin c) Myosin d) Transferrin

- 2C. The process of removing water from food for the purpose of preservation is known as
 a) Canning b) Drying c) Heating d) Fortification
- 2D. One molecule of glucose and one molecule of galactose forms
 a) Fructose b) Lactose c) Maltose d) Sucrose
- 2E. Aminoacids are the building blocks of
 a) Carbohydrates b) Lipids c) Minerals d) Proteins
- 2F. Which of the following food does not have lipids?
 a) Cereals b) Milk c) Pulses d) Sugar
- 2G. Salt iodization is most successful for prophylaxis of
 a) Anemia b) Goitre c) Night blindness d) Scurvey
- 2H. Bow legs, Knock knees and pigeion chest occurs due to deficiency of
 a) Iron b) Pyridoxine c) Vitamin C d) Vitamin D
- 2I. The iron requirement per day for an adolescent girl between 13-15yrs is
 a) 20mg b) 25mg c) 35mg d) 40mg
- 2J. Low sodium, low fat, low calorie diet is recommended for the following disease condition
 a) Cirrhosis of liver b) Peptic ulcer c) Hypertension d) Obesity
 (1×20 = 20 marks)

3. Write short notes on the following:

- 3A. Elements of nutrition.
 3B. Functions of vitamin B₁(Thiamine).
 3C. Any three methods of food preservation.
 3D. Factors affecting Iron absorption.
 3E. Budgeting of food.

(3×5 = 15 marks)

4. Write short notes on the following:

- 4A. Functions of CARE(Co-operative for Assistance and Relief Everywhere)
 4B. Aims of nutritional education.
 4C. Two examples for food fortification.
 4D. Respiratory Quotient.
 4E. Any two advantages of breast feeding.

(2×5 = 10 marks)

SECTION – B : BIOCHEMISTRY : 30 MARKS

5. Choose the single best response for the following:

- 5A. Ketoacidosis is commonly observed in
 a) Diabetes mellitus b) Rickets c) Atherosclerolosis d) Fatty liver

- 5B. Liver can not utilize ketone bodies due to the lack of the enzyme
 a) Thiolase b) HMG CoA lyse
 c) Thiophorase d) Beta hydroxy butyrate dehydrogenase
- 5C. The synthesis of ketone bodies occurs in
 a) Muscle b) Liver c) Kidney d) Brain
- 5D. The rate limiting enzyme in cholesterol biosynthesis is
 a) HMG CoA reductase b) HMG CoA synthase
 c) Thiolase d) Citrate synthase
- 5E. Glycogen phosphorylase acts on glycogen to produce
 a) Glucose 6 phosphate b) Glucose 1 phosphate
 c) Free glucose d) Fructose 1 phosphate
- 5F. All of the following amino acids are glucogenic except
 a) Alanine b) Leucine c) Glutamate d) Aspartate
- 5G. The enzyme glyceraldehyde 3 phosphate dehydrogenase is inhibited by
 a) Arsenite b) Arsenate c) Fluoride d) Oxalate
- 5H. The enzymes of glycolysis are located in
 a) Mitochondria b) Cytosol c) Nucleus d) Golgi apparatus
- 5I. Blood urea estimation is widely used as a screening test for the evaluation of the function of
 a) Liver b) Heart c) Kidney d) Skeletal muscle
- 5J. The metabolic disorder albinism is characterized by the following except
 a) Lack of melanin synthesis b) Intolerance to heat
 c) Increased susceptibility to skin cancer d) Defect in enzyme tyrosine hydroxylase
 (1×10 =10 marks)

6. Answer the following questions:

- 6A. Write short note on denaturation.
 6B. Write short note on beri beri.
 6C. Name any two renal function tests.
 6D. Short note on phenylketonuria.

(2×4 = 8 marks)

7. Answer the following:

- 7A. Write short note on serum calcium homeostasis.
 7B. Digestion of lipids.
 7C. Short note on fatty liver.
 7D. Name any three hetero polysaccharides along with composition.

(3×4 = 12 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2012****SUBJECT: BSN 101 – ANATOMY AND PHYSIOLOGY**

Tuesday, September 18, 2012

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

Answer Section 'A' and Section 'B' In Two Separate Answer Books.**SECTION "A": ANATOMY: 37 MARKS****1. Write briefly on:**

- 1A. Name the parts of the digestive system. Describe the vermiform appendix.
- 1B. Describe the pancreas.
- 1C. Describe the external features of uterus. Add a note on its microscopic structure.
- 1D. Enumerate the parts of the urinary system. Explain the urinary bladder in detail.

(3×4 = 12 marks)

2. Short notes:

- 2A. Epidermis of skin.
- 2B. Nasal septum.
- 2C. Posterior relations of kidney.
- 2D. Blood supply of thyroid gland.
- 2E. Structure of lymph node.

(2×5 = 10 marks)

3. Multiple choice questions:

- 3A. Which of the following structures is not present at the hilum of kidney?
a) Renal artery b) Renal pelvis c) Renal vein d) Gonadal vein
- 3B. The apex of the heart is formed by
a) Right atrium b) Left atrium c) Right ventricle d) Left ventricle
- 3C. Which of the following nerves supplies the muscles of the larynx?
a) Internal laryngeal b) Recurrent laryngeal
c) Hypoglossal d) Spinal accessory
- 3D. Which of the following is the power house of the cell?
a) Golgi complex b) Lysosomes c) Mitochondria d) Centrioles

- 3E. The following is an example of secondary cartilaginous joints, except?
- Pubic symphysis
 - Shoulder joint
 - Manubriosternal joint
 - Intervertebral joint
- 3F. Occipital lobe of cerebrum is supplied by which artery?
- Posterior cerebral
 - Anterior choroidal
 - Anterior cerebral
 - Middle meningeal
- 3G. Pyramid is present in
- Midbrain
 - Pons
 - Medulla oblongata
 - Spinal cord
- 3H. Which of the following is not a content of the middle ear cavity?
- Ear ossicles
 - Stepedius
 - Tensor tympani muscle
 - Bony cochlea
- 3I. What structure lies in the porta-hepatis of liver?
- Hepatic vein
 - Hepatic artery
 - Ligamentum-venosum
 - Ligamentum-teres
- 3J. Parotid gland is an example for?
- Serous salivary
 - Mucous salivary
 - Mixed salivary
 - Endocrine
- 3K. Pituitary gland is located in the body of the following bone?
- Frontal
 - Sphenoid
 - Occipital
 - Parietal
- 3L. Suprarenal medulla secretes
- Aldosterone
 - Cortisol
 - Oestrogen
 - Noradrenaline and Adrenaline
- 3M. Which is the normal site of implantation?
- Ampulla of uterine tube
 - Posterior wall of the body of uterus
 - Cervix of the uterus
 - Vagina
- 3N. Which of the following cells lies outside the seminiferous tubules of testes?
- Spermatogonia
 - Primary spermatocytes
 - Interstitial
 - Sertoli
- 3O. Which of the following is false about the cardiac muscle?
- It is involuntary
 - It branches and anastomoses
 - Single muscle fibre is multinucleated
 - It shows striations

(1×15 = 15 marks)

SECTION "B": PHYSIOLOGY: 38 MARKS

4. Choose the single best answer for each of the following and write your answer in the book.
- 4A. What happens when a cell is exposed to a hypertonic medium?
a) Exosmosis b) Endosmosis c) Pinocytosis d) Phagocytosis
- 4B. Which among the following plasma proteins is NOT synthesized by the liver?
a) α globulin b) β globulin c) Albumin d) Immunoglobulin
- 4C. Conduction of impulses in nerve fibers is increased by
a) Decreased temperature b) Myelination
c) Increased plasma calcium d) Facilitated diffusion
- 4D. Which of the following is a correct formula for the mean arterial blood pressure (MAP)?
a) $MAP = CO \times SV$ b) $MAP = CO \times HR$
c) $MAP = CO \times PR$ d) $MAP = HR \times PR$
- 4E. Which event does the T- wave of an electrocardiogram represent?
a) Ventricular depolarization b) Atrial repolarization
c) Ventricular repolarization d) Atrial depolarization
- 4F. The volume of air that remains in the lungs even after forceful expiration is called
a) Expiratory Reserve volume b) Residual volume
c) Tidal Volume d) Inspiratory Reserve Volume
- 4G. Which among the following is an inspiratory muscle?
a) Internal intercostal b) Stapedius
c) Rectus abdominus d) Diaphragm
- 4H. Bile is required for the digestion and absorption of
a) Carbohydrates b) Fats c) Proteins d) Minerals
- 4I. Intrinsic factor produced by the parietal cell of the gastric land is required for the absorption of
a) Vitamin B₁₂ b) Vitamin K c) Iron d) Calcium
- 4J. Normally the ultrafiltrate in the Bowman's capsule is devoid of
a) Glucose b) Water c) Sodium d) Proteins
- 4K. Which part of the nephron does aldosterone act to cause reabsorption of sodium ions?
a) Distal convoluted tubule b) Loop of Henle
c) Bowman's capsule d) Proximal convoluted tubule

- 4L. Which among the following is an hypocalcemic hormone?
a) Parathormone b) Insulin c) Calcitonin d) Thyroxine
- 4M. Which among the following is the primary gonad of the female?
a) Ovary b) Uterus c) Fallopian tubes d) Cervix
- 4N. Which among the following is a motor tract?
a) Posterior column pathway b) Spinocerebellar tract
c) Lateral spinothalamic tract d) Pyramidal tract
- 4O. Which among the following is a chemical sense?
a) Vision b) Olfaction c) Audition d) Proprioception
(1×15 = 15 marks)

5. Write briefly on:

- 5A. Conduction system of the heart.
5B. Cretinism.
5C. Synaptic transmission.

(3×3 = 9 marks)

6. Answer the following in short:

- 6A. Discuss on ABO blood group system.
6B. Give TWO causes for muscle fatigue.
6C. Define: i) Hypoxia ii) Dead space volume
6D. Enumerate any TWO functions of gastrin.
6E. Draw a neat labeled diagram of the nephron.
6F. Explain any TWO temporary contraceptive measures.
6G. With a neat labeled diagram explain 'myopia'.

(2×7 = 14 marks)

