

MANIPAL UNIVERSITY**FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2011****SUBJECT: ANATOMY AND PHYSIOLOGY (BSN 101)**

Thursday, September 15, 2011

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. Describe the thyroid gland.
- 1B. Describe the right atrium.
- 1C. Describe the urinary bladder.

(5×3 = 15 marks)

2. Write short notes on each of the following:

- 2A. Arch of aorta.
- 2B. Hyaline cartilage.
- 2C. Cerebrospinal fluid.
- 2D. Testis.
- 2E. Microscopic structure of the spleen.
- 2F. Tongue.
- 2G. Mitochondria.

(2×7 = 14 marks)

3. Choose the single best response for the following:

- 3A. Shoulder joint is which variety of synovial joint?
a) Ball and socket type b) Pivot type c) Hinge type d) Saddle type
- 3B. Epiglottis is an example for which of the following?
a) Hyaline cartilage b) Elastic cartilage
c) Fibrous cartilage d) Dense connective tissue
- 3C. All are the parts of fallopian tube, except:
a) Isthmus b) Ampulla c) Fimbria d) Cervix
- 3D. Lymphoid follicle of a lymph node contains predominantly which of the following cells?
a) Monocytes b) RBC's c) Lymphocytes d) Chondrocytes
- 3E. Urinary bladder is lined by which of the following epithelia?
a) Columnar b) Cuboidal c) Squamous d) Transitional
- 3F. Taeniae coli are present in which of the following?
a) Transverse colon b) Jejunum c) Duodenum d) Ileum

- 3G. Which of the following nerves is present in the lower limb?
 a) Sciatic b) Radial c) Ulnar d) Median
- 3H. Area number 17 belongs to which of the following?
 a) Visual b) Sensory c) Hearing d) Taste
- 3I. Following are ear ossicles, except
 a) Malleus b) Incus c) Stapes d) Patella
- 3J. Cardiac muscle fibre has all of the following except
 a) Striations b) Intercalated disc
 c) Branching d) Multiple peripheral nuclei
- 3K. Axillary artery is the continuation of which of the following arteries?
 a) Brachial b) Subclavian c) Radial d) Ulnar
- 3L. In adults spinal cord ends at what vertebral level
 a) Lower border of L1 b) Lower border of T12
 c) Upper border of L4 d) Upper border of L1
- 3M. Nissl granules are present in which of the following cells?
 a) Muscle b) Cartilage c) Nerve d) Osteocytes
- 3N. Which of the following nerves supply the deltoid muscle?
 a) Ulnar b) Axillary c) Median d) Musculo cutaneous
- 3O. Which of the following is not a part of large intestine?
 a) Rectum b) Duodenum c) Sigmoid colon d) Caecum
- 3P. Which of the following cells are involved in synthesis of collagen fiber?
 a) Fibroblast b) Lymphocytes c) Plasma cell d) Macrophages
 ($\frac{1}{2} \times 16 = 8$ 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. Which among the following cells is called the 'power house' of the cell?
 a) Mitochondrion b) Nucleolus
 c) Nucleus d) Golgi apparatus
- 4B. Which among the following cells is a phagocyte?
 a) Plasma cell b) T-lymphocyte c) B-lymphocyte d) Neutrophil
- 4C. Which among the following muscles is responsible for inspiration during quiet breathing?
 a) Diaphragm b) Internal intercostals
 c) Sternocleidomastoid d) Scalene

MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2011

SUBJECT: MICROBIOLOGY (BSN 106)

Monday, September 19, 2011

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.**

1. Answer the following essay questions:

- 1A. Define the terms Sterilization and Disinfection. Classify the methods of Sterilization. Discuss Dry heat sterilization.
(1+1+3+5 = 10 marks)
- 1B. Classify *Streptococci*. Describe the pathogenesis and laboratory diagnosis of *Streptococcus pyogenes* infection.
(3+3+4 = 10 marks)
- 1C. Define and classify immunity. Enumerate the differences between active and passive immunity. Add a note on immunization schedule.
(1+1+4+4 = 10 marks)

2. Write Short Notes on:

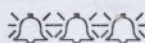
- 2A. Epstein Barr virus
2B. Candidiasis
2C. Life cycle of *Enterobius vermicularis*
2D. Bacterial flagella
2E. List the different types of culture media with examples
2F. Measles
(5×6 = 30 marks)

3. Choose the single best answer for the following:

- 3A. Which of the following is **NOT** true?
a) Viruses contain DNA or RNA
b) The nucleic acid of a virus is surrounded by a protein coat
c) Viruses multiply inside living cells
d) All viruses are enveloped
- 3B. Encapsulated bacterium are virulent because the capsule:
a) Act as endotoxin
b) Resists phagocytosis
c) Destroys host tissues
d) Act as exotoxin
- 3C. First scientist known to observe microorganisms under microscope is:
a) Van Leeuwenhoek
b) Louis Pasteur
c) Robert Koch
d) Edward Jenner

- 3D. The most important step in preventing hospital acquired infection is:
- Hand washing
 - Broad spectrum antibiotic prophylaxis
 - Using disposable instruments
 - Avoiding invasive procedures
- 3E. Negri bodies can be demonstrated in infection with:
- Rabies virus
 - Hepatitis B virus
 - Pox virus
 - Influenza virus
- 3F. Maintaining asepsis refers to:
- Using unsterile instruments
 - Not following universal safety precautions
 - Creating a sterile environment before any procedure
 - Providing Tetanus toxoid immunization
- 3G. Koplik spots are characteristic of which of the following infections?
- Mumps
 - Measles
 - Herpes
 - Rubella
- 3H. Route of transmission of Hepatitis A virus
- Perinatal transmission
 - Parenteral transmission
 - Feco-oral transmission
 - None of the above
- 3I. Which of the following is a dimorphic fungus?
- Histoplasma capsulatum*
 - Aspergillus flavus*
 - Cryptococcus neoformans*
 - Trichophyton rubrum*
- 3J. Fungus ball is associated with:
- Candida
 - Mucor
 - Aspergillus
 - Histoplasma
- 3K. One of the following bacteria is uncultivable in artificial culture media:
- Corynebacterium diphtheriae*
 - Mycobacterium leprae*
 - Streptococcus pneumoniae*
 - Clostridium tetani*
- 3L. The causative agent of syphilis is:
- Neisseria gonorrhoeae*
 - Herpes simplex*
 - Treponema pallidum*
 - Epstein Barr virus*
- 3M. Larval forms of *Taenia solium* are called as:
- Cysticercus cellulosae*
 - Cysticercus bovis*
 - Cysticercoid
 - None of the above
- 3N. Oral polio vaccines are stored at:
- Room temperature
 - At 37°C.
 - At 2-8°C
 - 10-15°C
- 3O. Vaccination is a type of:
- Natural Active immunity
 - Natural Passive immunity
 - Artificial Active immunity
 - Artificial Passive immunity

(1×15 = 15 marks)



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MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2011

SUBJECT: PSYCHOLOGY (BSN 105)

Wednesday, September 21, 2011

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

1. Write essay on any FIVE of the following.

- 1A. Psychoanalytic theory.
- 1B. Define intelligence and write briefly about assessment of intelligence.
- 1C. Discuss any TWO theories of motivation.
- 1D. Define memory and elaborate on types of memory.
- 1E. Elaborate on principles of perceptual organization.
- 1F. Discuss the Trait approach to personality.
- 1G. Define mental health and discuss the characteristics of a mentally healthy individual.

(8×5 = 40 marks)

2. Write short notes on any SEVEN of the following.

- 2A. Affiliation motive.
- 2B. Laws of learning.
- 2C. Types of conflicts.
- 2D. Attitude.
- 2E. Group factor theory of intelligence.
- 2F. Natural-observation method.
- 2G. James-Lange theory of emotion.
- 2H. Difference between operant and classical conditioning.
- 2I. Theories of forgetting.
- 2J. Mechanical aptitude test.

(5×7 = 35 marks)



MANIPAL UNIVERSITY**FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2011****SUBJECT: NUTRITION AND BIOCHEMISTRY (BSN 102)**

Friday, September 23, 2011

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****1. Choose the single best response for the following.**

- 1A. Recommended calorie allowances for an infant between 0-6 months of age is:
a) 100/kg b) 120/kg c) 140/kg d) 160/kg
- 1B. The vitamin required for blood coagulation is:
a) A b) B c) C d) K
- 1C. Hypervitaminosis of vitamin A results in:
a) Hepatolenticular degeneration b) Metastatic calcification
c) Night blindness d) Skin disorders
- 1D. Pernicious anemia results due to the deficiency of following mineral:
a) Cobalt b) Fluoride c) Magnesium d) Sodium
- 1E. Water toxicity is caused by:
a) Abnormal increase in urine excretion b) Retention of water
c) Excessive loss of water d) None of the above
- 1F. A condition where the plasma calcium level is below 9mg/dl is known as:
a) Hypercalcemia b) Hypocalcemia
c) Hyperparathyroidism d) None of the above
- 1G. Marasmus results due to the deficiency of:
a) Energy b) Protein c) Vitamin A d) Riboflavin
- 1H. The building block of all simple and compound lipids are:
a) Fats b) Fatty acids c) Oils d) Phospholipids
- 1I. A good source of Galactose is:
a) Apple b) Beetroot c) Milk d) Sugarcane
- 1J. The process in which excess glucose is converted to fats is known as
a) Glycogenolysis b) Glycolysis
c) Gluconeogenesis d) Lipogenesis

(1×10 = 10 marks)

2A. Define menu planning.

2B. Explain the factors to be considered in planning a menu.

(1+6 = 7 marks)

3. Explain the moist heat methods of cooking.

(8 marks)

4. Write short notes for the following:

- 4A. Recommended calorie allowances for Indians based on ICMR.
- 4B. Functions and Deficiency disorders of Vitamin D.
- 4C. Functions of food.
- 4D. Food and agriculture organization (FAO).
- 4E. Regulation of plasma calcium level.

(4×5 = 20 marks)

SECTION – B : BIOCHEMISTRY : 30 MARKS

5. Choose the single best response for the following.

5A. Calcium ions are required for the following EXCEPT

- a) Coagulation
- b) In maintaining colloidal osmotic pressure
- c) Neuromuscular transmission
- d) Serves as intracellular messenger

5B. The following lipoprotein transports cholesterol from extra hepatic tissue to the liver

- a) LDL
- b) Chylomicrons
- c) VLDL
- d) HDL

5C. Fluoride inhibits glycolysis by inhibiting

- a) Aldolase
- b) Enolase
- c) Hexokinase
- d) Pyruvate kinase

5D. Glycosuria is a common feature of

- a) Diabetes insipidus
- b) Jaundice
- c) Diabetes mellitus
- d) None of the above

5E. In the body glycine is used for synthesis of all the following substances EXCEPT

- a) Heme
- b) Glutathione
- c) Glutamine
- d) Creatine

5F. The most important essential fatty acid in the diet is

- a) Oleic acid
- b) Arachidonic acid
- c) Linoleic acid
- d) Palmitoleic acid

(1×6 = 6 marks)

6. Answer the following questions.

- 6A. Outline the steps of rhodopsin cycle. What is its importance?
- 6B. Write short note on t-RNA.
- 6C. Write short note on hormonal regulation of blood glucose.
- 6D. Write short note on fatty liver.

(3×4 = 12 marks)

7. Answer the following.

- 7A. Explain the electron transport chain. Indicate the ATP synthesizing sites.
- 7B. Write the reactions urea cycle. What is its significance?

((4+2)+(5+1) = 12 marks)



MANIPAL UNIVERSITY

FIRST YEAR B.Sc. NURSING DEGREE EXAMINATION – SEPTEMBER 2011

SUBJECT: NURSING FOUNDATIONS (BSN 103)

Monday, September 26, 2011

Time: 10:00 – 13:00 Hrs.

Max. Marks: 75

✍ Answer all questions.

1. Choose the SINGLE BEST answer for each of the following questions.

1A. The systems model theory is proposed by

- a) Hildegard E. Peplau b) Virginia Henderson
c) Carl Rogers d) Betty Neuman

1B. The year in which INC act was passed

- a) 1947 b) 1957 c) 1977 d) 1967

1C. The ability to be self directed and independent in accomplishing goals is known as

- a) Autonomy b) Assertiveness
c) Confidentiality d) Courtesy

1D. Distant vision is assessed using

- a) Confrontation test b) Hirschbergs test
c) Jaeger card d) Snellen chart

1E. A deformity of the chest with ratio of the anterioposterior to transverse diameter as 1:1 is

- a) Asymmetric chest b) Barrel chest
c) Pigeon chest d) Funnel chest

1F. The position to assess Jugular venous pressure is

- a) left Lateral b) Right lateral c) Supine d) Semi fowlers

1G. Blowing or swishing sound due to restricted blood flow through narrowed blood vessel is known as

- a) Thrill b) Bruit c) Friction rub d) Murmur

1H. The measurement system of size and make up of the body is

- a) Anthropometry b) BMI
c) Body weight d) Quitlets index

1I. Normal PH of Urine ranges between

- a) 3-4 b) 4.5 to 8 c) 1-3 d) D. 8.5 to 12

- 1J. The category of drugs which stimulates defecation is
a) Cathartics b) Emetics c) Laxatives d) D. Purgatives
- 1K. An alcoholic or hydroalcoholic solution prepared from drugs of herbal origin is
a) Lotion b) Ointment c) Tincture d) D. Liniment
- 1L. A prescription shows injection Deriphyllin 1 amp S O S. Here S O S indicates
a) At bedtime b) Immediately
c) Once a day d) When required
- 1M. An immunologic reaction to a drug to which a person has already been sensitized is
a) Drug allergy b) Drug reaction
c) Drug tolerance d) Drug toxicity
- 1N. Type of bandage preferred over the ankle joint is
a) Figure of eight b) Recurrent
c) Reverse spiral d) Spiral
- 1O. Normal range of specific gravity of urine is
a) 1.010 to 1.025 b) 1.010 to 1.045
c) 2.010 to 2.025 d) 3.010 to 3.025

(1×15 = 15 marks)

- 2A. List the purposes of urinary catheterization.
2B. Explain the nurses responsibility in catheter care.

(4+9 = 13 marks)

- 3A. List the various sites for the administration of IM injection.
3B. Explain the responsibility of a nurse in giving IM injection.

(2+10 = 12 marks)

4. Write short notes on the following.

- 4A. Health belief model.
4B. Communication process.
4C. Purposes of records.
4D. Nursing care of unconscious patients.
4E. Assessment of nutritional needs.
4F. Barrier nursing techniques to be followed in hospital setting.
4G. Factors affecting wound healing.

(5×7 = 35 marks)

