MANIPAL UNIVERSITY

SECOND YEAR B.P.T./B.O.T./B.Sc. R.T./ B.Sc. C.V.T./ B.Sc. R.R.T. & D.T
DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: PATHOLOGY
(2010 SCHEME/2011 BATCH/2010 SCHEME/2011 SCHEME)

Tuesday, December 15, 2015

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Answer ALL questions.**

✍ **Illustrate your answers with diagrams wherever necessary.**

1. Discuss the etiology of Iron deficiency anemia. Describe the peripheral smear, bone marrow findings and relevant clinical investigations in a case of iron deficiency anemia.

(2+2+2+2 = 8 marks)

2. Describe the etiopathogenesis and fate of thrombus formation.

(3+4 = 7 marks)

3. **Write short notes on:**

3A. Differences between caseous necrosis and coagulative necrosis

3B. Complications of cutaneous wound healing

3C. Morphology of Primary pulmonary Tuberculosis

3D. Rheumatoid arthritis

3E. Morphology of Ischemic heart disease

(5 marks × 5 = 25 marks)

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SECOND YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/B.Sc. RRT & DT
DEGREE EXAMINATION – DECEMBER 2015
SUBJECT: MICROBIOLOGY
(COMMON FOR 2010 SCHEME/2011 BATCH/2010 SCHEME/2011 SCHEME)

Wednesday, December 16, 2015

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Draw diagrams wherever appropriate.**

1. Describe the causes, sources and routes of spread and prevention of hospital acquired infections.

                                                              (2+3+3 = 8 marks)

2. Discuss the pathogenesis and laboratory diagnosis of pulmonary tuberculosis.

                                                              (3+4 = 7 marks)

3. **Write short notes on:**

3A. Working principle and uses of autoclave
3B. Mechanism and examples of delayed type hypersensitivity
3C. Pathogenesis and prevention of tetanus
3D. Laboratory diagnosis of Hepatitis B infection
3E. Pathogenesis of HIV infection

                                                              (5 marks × 5 = 25 marks)

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SECOND YEAR B.P.T./B.O.T./B.Sc. M.I.T./B.Sc. C.V.T./B.Sc. R.R.T. & D.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: PHARMACOLOGY
(COMMON FOR 2010 REGULATION/2011 BATCH/2012 SCHEME/2011 SCHEME)

Thursday, December 17, 2015

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Answer the following questions:**

1. **Describe the following terms with an example:**
1A. Synergism
1B. Teratogenicity
1C. Chemoprophylaxis

(2 marks × 3 = 6 marks)

2. **List two examples and two therapeutic uses of the following classes of drugs:**
2A. Alpha blockers
2B. Diuretics
2C. Non-steroidal anti-inflammatory drugs
2D. Anticoagulants

(2 marks × 4 = 8 marks)

3. **Describe the mechanism of action of the following drugs and list their two therapeutic uses:**
3A. Cotrimoxazole
3B. Omeprazole
3C. Lignocaine
3D. Nifedipine

(3 marks × 4 = 12 marks)

4A. List four drugs belonging to different classes used in bronchial asthma.
4B. List two skeletal muscle relaxants and mention two therapeutic uses of any one of them.
4C. Describe the pharmacological action of adrenaline on the heart.

(2+2+2 = 6 marks)

5. **List two drugs used for the following conditions:**
5A. Angina
5B. HIV infection
5C. Vomiting
5D. Epilepsy
5E. Diabetes mellitus

(1 mark × 5 = 5 marks)

6. **Mention one example and one adverse effect of the following classes of drugs:**
6A. Aminoglycosides
6B. Anticancer drugs
6C. Corticosteroids

(1 mark × 3 = 3 marks)

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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: BIOMECHANICS AND KINESIOLOGY
(2011 BATCH)

Friday, December 18, 2015

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Draw diagram wherever necessary.**

✍ **Long questions:**

1. Define gait and describe various events during normal gait cycle.

(20 marks)

2. Define torque and method of estimating torque. Explain the relationship between the lever and moment arm with an example from the body.

(5+5+10 = 20 marks)

3. **Write short notes on:**

3A. Calculate the force produce in Quadriceps muscle when a person stands from an erect sitting posture and forward leaning sitting posture as knee flexed to 90 degrees, COG fall 33cm and 22cm from the axis of motion at knee respectively COG and quadriceps moment arm operate at a 5 cm from the joint axis of knee.

(10 marks)

3B. Describe the ligament and muscle supporting foot arches.

(10 marks)

3C. Describe active and passive muscle tension.

(5+5 = 10 marks)

3D. Describe basic structures of movement in the cervical region.

(10 marks)

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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: THERAPEUTIC ACTIVITIES AND EXERCISES
(2011 BATCH)

Saturday, December 19, 2015

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long questions:**

1. Describe in detail any five assumptions that form the theoretical base of Reilly`s occupational behavior model.

(20 marks)

2. Define therapeutic exercise. Explain the purposes, indications and contraindications of therapeutic exercise.

(3+7+5+5 = 20 marks)

3. **Short notes:**

3A. Methods of activity gradation

3B. Habituation subsystem

3C. Explain any two indicators of 'Activities health'

3D. Treatment modalities used in occupational therapy

(10 marks × 4 = 40 marks)

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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: OCCUPATIONAL PERFORMANCE: PERSONAL AND CONTEXTUAL FACTORS
(2011 BATCH)

Monday, December 21, 2015

Time: 10:00-13:00 Hrs.

Max. Marks: 80

✍ **Answer ALL the questions.**

✍ **Long answer questions:**

1. Describe components of hand function. Explain the purpose and describe the components, method of administration and scoring of Jebson hand function test.

(7+2+3+5+3 = 20 marks)

2. Define and classify apraxia. Describe the procedure for the assessment of limb apraxia.

(2+6+12 = 20 marks)

3. **Short notes:**

3A. Define rigidity and explain different types of rigidity.

3B. Explain various compensatory techniques used for impaired protective sensation.

3C. Explain any five safety precautions related to passive muscle stretching.

3D. Explain primary cognitive capacities.

(10 marks × 4 = 40 marks)

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SECOND YEAR B.O.T. DEGREE EXAMINATION – DECEMBER 2015

SUBJECT: DEVELOPMENT ACROSS THE LIFE SPAN
(2011 BATCH)

Tuesday, December 22, 2015

Time: 10:00-11:30 Hrs.

Max. Marks: 40

✍   **Answer ALL the questions.**

✍   **Long questions:**

1A.   Describe any five major social issues in middle adulthood.

1B.   Explain Erikson stages of play with suitable example.

(10+10 = 20 marks)

2.   **Short notes:**

2A.   Influence of primary attachments of mother and child on child development

2B.   Age related changes in the sensory system of older adults

2C.   Peter Laslett's stages of life

2D.   Biological and environmental factors of growth and development

(5 marks × 4 = 20 marks)

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