

RUHS

First Year MBBS Examination

I MBBS PHYSIOLOGY PAPER II

Date: 04-07-2021

Time: 3 hours

Max Marks: 100

Instructions: INSTRUCTIONS: Attempt all questions in both sections: (Use separate answer book for each section)

Section 1

1. Fill in the blanks: (6)

- a. _____ is developed in condition of hypothyroidism.
 - b. Abnormal planter reflex is called _____
 - c. ADH cause Reabsorption of water from _____
 - d. Corpus luteum secretes _____
 - e. Broca's aphasia also called _____
 - f. In Parkinson's disease degeneration of _____ neurons occurs.
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2. Choose the correct option in the following multiple choice questions: (4)

- a. Resting membrane potential is mainly due to:
a) Na^+ , b) K^+ c) Cl^- d) Mg^+
- b. Which of the following triggers muscle contraction? a) Ca binding Tropomyosin b) Ca binding Troponin C c) IP_3 pathway d) Ca uptake in SERCA
- c. Fine touch and position sense is carried by: a) Lateral spinothalamic tract b) Anterior spinothalamic tract c) Spinocerebellar tract d) Dorsal column
- d. Blood tissue barrier in testis is formed by: a) Basal lamina and interstitial cells b) Adjacent Sertoli cell with basal lamina c) Basal lamina and spermatogonia d) Basal lamina and Leydig cells

3. A 43 year old male patient reported to hospital with characteristic features of centripetal distribution of body fat, buffalo humps, moon like facies, muscular atrophy (15) and thinning of skin and subcutaneous tissue. Based on the above case scenario, answer the following questions:

- a. What is the most likely diagnosis for this condition?
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- b. Name the probable gland involved with its pathophysiology.
- c. What are the other characteristic of the disease diagnosed?

4. Write short notes on (Any five): (10)

- a. Neurotransmitters
- b. Placental hormones
- c. Functions of thalamus
- d. Grave's disease
- e. Fever
- f. Sleep

5. Explain briefly (15)

- a. Mechanism of actions of insulin (C-754)
- b. Synaptic plasticity
- c. Lower and upper motor neuron
- d. Benefits of exercise

Section 2

6. Describe spermatogenesis. Give the role of FSH, LH, testosterone and inhibin B in the male reproductive system. Add note on Cryptorchidism. (20)

7. Explain why: (10)

- a. Diabetic patient fail to gain weight inspite of polyphagia.
- b. Touching of injured are a relieves pain.
- c. REM sleep is also called Paradoxical sleep. (C2-989)
- d. Hypothalamic lesion affects on feeding
- e. Effect of bilateral removal hippocampus in inability to learn.
- f. Internal capsule lesion produce contra lateral spastic paraplegia

8. Explain briefly: (20)

- a. Organ of Corti (A.1047,1048) (8.927) (C2-1071)
- b. Physiotherapy of smell
- c. Alzheimer's disease (C2-1043)
- d. Functions of cerebellum (A.870+872+874) (C2-972)
- e. Lactation
- f. Nervous regulation of respiration.
