

GUJARAT TECHNOLOGICAL UNIVERSITY**B. Pharm. – SEMESTER– II • EXAMINATION – SUMMER-2016****Subject Code: 220004****Date: 10/06/2016****Subject Name: Anatomy Physiology and Health Education - II****Time: 10:30 AM to 1:30 PM****Total Marks: 80****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

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| Q.1 | (a) Discuss process of nerve action potential generation. Explain ‘Gating Mechanism’ of sodium channels. | 06 |
| | (b) Write composition, circulation and functions of cerebrospinal fluid (CSF). | 05 |
| | (c) Explain following terms; (i) Meningitis, (ii) Myocardial infarction, (iii) Myxoedema, (iv) Asthma, (v) Cataract | 05 |
| Q.2 | (a) Draw a labeled diagram of Human Brain. Give functions of Cerebellum. | 06 |
| | (b) Explain briefly: (i) Ovary (ii) Testis | 05 |
| | (c) Write a note on distribution and functions of Cranial nerves. | 05 |
| Q.3 | (a) Enumerate endocrine hormones. Describe physiological effects of hormones from islets of Langerhans. | 06 |
| | (b) Discuss physiology of Nephron with labeled diagram. | 05 |
| | (c) Explain spermatogenesis with reference to the role of FSH, LH and testosterone. | 05 |
| Q.4 | (a) Draw a labeled diagram of ear. Explain the physiology of Hearing. | 06 |
| | (b) Discuss the concept of Reflex arch with suitable diagram. | 05 |
| | (c) Explain following terms: (i) Olfactory, (ii) Cardiac Output, (iii) Vital Capacity, (iv) Resuscitation, (v) Oogenesis | 05 |
| Q.5 | (a) Describe formation, storage and release of thyroid hormones. | 06 |
| | (b) Write a note on Menstrual Cycle. | 05 |
| | (c) Differentiate Followings: (Any two) | 05 |
| | (i) Internal and External Respiration, | |
| | (ii) Systemic and pulmonary circulation | |
| | (iii) Hypothyroidism and Hyperthyroidism | |
| Q. 6 | (a) Describe in detail cardiac cycle with labeled diagram. | 06 |
| | (b) Write the principles of first aid. Discuss first aid steps for Burns. | 05 |
| | (c) Explain Briefly: (i) ECG (ii) Retina | 05 |
| Q.7 | (a) Draw a labeled diagram of respiratory system. Describe Chloride shift. | 06 |
| | (b) Enumerate properties of cardiac muscles. Write a note on impulse conduction in heart. | 05 |
| | (c) Explain: (i) Hypermetropia (ii) Astigmatism | 05 |
