

PARUL UNIVERSITY
FACULTY OF ARTS
M.A. Summer 2018 – 19 Examination

Semester: 4
Subject Code: 15203252
Subject Name: Physiological Psychology II

Date: 12/04/2019
Time: 10.30am to 01.00pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as directed.**(08)****A. Multiple choice type questions. (Each of 0.5 mark)**

1. After several days of REM sleep deprivation, people show rebound phenomenon, which is...

- | | |
|---------------------------------|---------------------------|
| (a) increase in slow wave sleep | (b) increase in REM sleep |
| (c) decrease in slow wave sleep | (d) decrease in REM sleep |

2. Which of the following is not involved in the neural control of arousal?

- | | |
|---------------|-------------------|
| (a) histamine | (b) serotonin |
| (c) dopamine | (d) acetylcholine |

3. Lesions in the suprachiasmatic nucleus disrupt _____.

- | | |
|----------------------|-----------------------|
| (a) REM sleep | (b) slow wave sleep |
| (c) seasonal rhythms | (d) circadian rhythms |

4. _____ consists of medium frequency waves of 8-12 Hz.

- | | |
|--------------------|--------------------|
| (a) alpha activity | (b) beta activity |
| (c) theta activity | (d) delta activity |

5. Motor learning is a component of stimulus-response learning. True or false?

- | | |
|----------|-----------|
| (a) True | (b) False |
|----------|-----------|

6. Magnesium ions enter the cell through channels controlled by NMDA receptors only when there is glutamate present and the cell membrane is depolarized. True or false?

- | | |
|----------|-----------|
| (a) True | (b) False |
|----------|-----------|

7. If left hemisphere is malformed or damaged early in life, speech functions are highly likely to pass to the right hemisphere. True or false?

- | | |
|----------|-----------|
| (a) True | (b) False |
|----------|-----------|

8. Agrammatism is a characteristic symptom of _____.

- | | |
|-----------------------------------|------------------------|
| (a) Broca's aphasia | (b) Anomic aphasia |
| (c) Transcortical sensory aphasia | (d) Wernicke's aphasia |

9. Androgens amplify effects of estradiol on women's sexual interest. True or false?

- | | |
|----------|-----------|
| (a) True | (b) False |
|----------|-----------|

10. When groups of female rats are housed together, their estrous cycles slow down and eventually stop. This is called _____ effect.

- | | |
|-------------|----------------|
| (a) Bruce | (b) Vandenberg |
| (c) Whitten | (d) Lee-Boot |

11. (i) Satiety signals from adipose tissues are short-term.

(ii) signals from adipose tissue may suppress hunger signals. True or false?

- | | |
|-----------------|------------------|
| (a) True; True | (b) True; False |
| (c) False; True | (d) False; False |

12. (i) Liver contains detectors for lipoprivic and glucoprivic hunger.

(ii) Brain contains detectors for only glucoprivic hunger. True or false?

- | | |
|-----------------|------------------|
| (a) True; True | (b) True; False |
| (c) False; True | (d) False; False |

13. Which of the following cannot be used as treatment for unipolar depression?

- | | |
|---|----------------------------------|
| (a) electro convulsive therapy | (b) monoamine oxidase inhibitors |
| (c) selective serotonin reuptake inhibitors | (d) lithium |

14. Total sleep deprivation takes several weeks to affect unipolar depression. True or false?

- | | |
|----------|-----------|
| (a) True | (b) False |
|----------|-----------|

15. Seasonal affective disorder differs from major depressive disorder in that it includes a craving for carbohydrates and accompanying weight gain. True or false?

(a) True

(b) False

16. Amygdala may play a role in the development of depression because of its importance in the expression of positive emotion. True or false?

(a) True

(b) False

B. Terms (Each of 01 mark)

(07)

1. What is fatal familial insomnia?
2. What is the Hebb rule?
3. What is anomia?
4. Which are the two categories of pheromones?
5. Name any two of the four major fluid compartments in the body.
6. What is the monoamine hypothesis?
7. What is phototherapy used for?

Q.2 Answer the following.

A. Briefly explain the neural control of slow wave sleep.

(04)

B. What are the essential features of physiological regulatory mechanisms?

(04)

C. Write a note on long-term depression in neural activity.

(04)

OR

C. Discuss psychological and physiological dependence.

(04)

Q.3 Answer the following.

A. Give a physiological description of sleep.

(05)

B. What were the findings regarding memory from the study of patients with anterograde amnesia?

(05)

C. Discuss the role of insulin in satiety of hunger.

(05)

OR

C. Write a note on abnormalities in dopamine transmission in the brains of schizophrenic patients.

(05)

Q.4

A. Describe the process of reading.

(06)

B. Discuss the evidence for differential prenatal exposure of androgens causing homosexuality.

(06)

C. Describe disorders of sleep.

(06)

OR

C. What are the possible causes of Obsessive Compulsive Disorder?

(06)