

KATHMANDU UNIVERSITY
End Semester Examination [C]
June/July 2024

Marks Scored:

Level : B.Pharm.
Year : II

Course : PHAR 218
Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date

01 JUL 2024

SECTION "A"

[20Q. × 1 = 20 marks]

Choose and encircle the most appropriate option from each set of choices.

1. Followings are the functions of hairs on the surface of the body EXCEPT
a. Sebum production
b. Thermoregulation
c. Sensation
d. Filtration of inhaled air
2. Parasympathetic division of Glossopharyngeal nerve innervate through the following ganglia
a. Pterigopalatine
b. Submandibular
c. Otic
d. Ciliary
3. Sympathetic stimulation results in all of the following conditions EXCEPT
a. Relaxation of intestine
b. Lipolysis
c. Dilation of iris
d. Constriction of bronchi
4. Signaling done by oxytocin is of _____ type
a. Endocrine
b. Neurocrine
c. Paracrine
d. Autocrine
5. It is the characteristics of hypothyroidism
a. Decreased thermogenesis
b. Exophthalmos
c. Nervousness
d. Hypophagia
6. 25-hydroxycholecalciferol is converted to inactive metabolite by the following enzyme
a. 25 hydroxylase
b. 24 hydroxylase
c. 7 hydroxylase
d. 1α hydroxylase
7. The influx of glucose into β -cell occurs through
a. GLUT1 transporter
b. GLUT2 transporter
c. GLUT3 transporter
d. GLUT4 transporter
8. The diameter of $A\delta$ nerve fiber ranges from
a. $< 3 \mu\text{m}$
b. $2-5 \mu\text{m}$
c. $3-6 \mu\text{m}$
d. $5-12 \mu\text{m}$
9. The motor supply to the muscle spindle is done through
a. $A\alpha$
b. $A\beta$
c. $A\gamma$
d. $A\delta$

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0 7 JUL 2024

SECTION "B"

[5 Q. × 3 = 15 marks]

Attempt *ANY FIVE* questions. Explain with graphs, flowcharts and figures where ever required

1. Explain how the body temperature is regulated?
2. Write notes on diabetes mellitus.
3. Explain about monosynaptic reflex.
4. Write about motion sickness and athetosis.
5. Differentiate between explicit and implicit memory.
6. Elaborate on neospinothalamic pathway
7. Describe the various parts of kidney.

SECTION "B"

[5 Q. × 5 = 25 marks]

Attempt *ANY FIVE* questions.

8. Give an account on sympathetic nervous system.
9. Explain in detail about counter current exchange and multiplier.
10. What are the different functions of thyroid hormones and explain the process of regulation of its synthesis.
11. Write notes on motor cortex of brain. Elaborate corticospinal pathway.
12. Write in detail on cerebral association areas.
13. Elaborate on different types of sleep.
14. Write in detail about ovarian cycle. What are the functions of estrogen and progesterone?

SECTION "D"
[2Q. × 7.5 = 15 marks]

Attempt *ANY TWO* questions.

15. Write down the process of biosynthesis, mechanism of action and functions of cortisol.
16. Draw a well labelled diagram of a human eye. Explain the photochemistry and neural pathway of human eye.
17. Elaborate in detail about structure and functions of basal ganglia.