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2B2M21430 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, March/April 2021

BPS2B01 – Basic Themes in Psychology – II

(2020 Admission onwards)

Time: 2 hours Max. Marks : 60

SECTION -A

Answer *ALL* Questions. Answer in Two or three sentences. Each carries 2 marks. There shall be ceiling of 20 marks in this section

1. Confabulation
2. Mental set
3. The Whorfian hypothesis
4. Flashbulb memory
5. Artificial intelligence
6. Hull's drive theory
7. Repression
8. Brain structures associated with emotions
9. Illusion of outgroup homogeneity
10. Ventromedial hypothalamus
11. Affiliation motive
12. Representativeness heuristics

(Ceiling 20 marks)

SECTION -B

Answer *all* questions. Answer in a paragraph of about half a page to one page .Each question carries 5 marks. There shall be ceiling of 30 marks in this section

13. Characteristics of people with high achievement motivation
14. Cognitive styles and problem solving
15. Assessment of emotions
16. Sexual orientations
17. Biological factors in regulation of hunger
18. The opponent process theory of emotion
19. Stages of creative thought process

(Ceiling 30 Marks)

SECTION –D

Essay Type Questions

Answer *Any one* of the following .Each Carries 10 Marks.

20. Describe various cognitive theories of motivation

21. Write a note on theories of forgetting

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40

2B2M21431 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, March/April 2021

BZL2C03 –Human Physiology - II

(2020 Admission onwards)

Time: 2 hours Max. Marks : 60

SECTION A

Each question carries 2 marks. Answer in 2 or 3 sentences.
There shall be a ceiling of 20 marks in this section

1. Present the classification of human nervous system in a flow chart.
2. What are brain waves?
3. What are glial cells? Name the different types of glial cells.
4. What are the two major aspects of motor control carried out by the lateral zones of the cerebellar hemispheres?
5. What is electrical stimulation of brain and what is its purpose?
6. Explain the role of caudate nucleus in the cognitive control of motor activity.
7. Write a note on dyslexia.
8. Name the more important neurotransmitters that are known to function within the basal ganglia.
9. Explain the phenomenon of spatial summation that can occur at synapses during impulse transmission.
10. In the context of nerve impulse generation and conduction explain "All or none" law.
11. Write a note on meninges.
12. What is meant by resting membrane potential?

(Ceiling 20 marks)

SECTION B

Answer any six questions. Each question carries 5 marks.
Answer in a paragraph or about half page.
There shall be a ceiling of 30 marks in this section.

13. Illustrate the more important characteristics of REM sleep.

14. Explain the role of spinocerebellum in coordinating the movements of the distal li

15. With the help of a diagram showing the posterioinferior view explain the anatomi areas of the cerebellum.

16. What is blood-CSF and blood-brain barriers and what are the functions of these?

17. Elucidate the principle, procedure and limitations of PET scan as a diagnostic tool

18. What is mass reflex? What causes it and are its main effects?

19. How is the second messenger system involved in the transmission of a nerve impu

(Cei

SECTION C

Answer any one question. Each question carries 10 marks.
Essay type question.

20. Explain the division of cerebral cortex into association areas and highlight their fu specializations.

21. With the aid of a neat, labeled diagram of the transverse section, describe the orga spinal cord.

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2B2N21432 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Degree Examination, March/April 2021

BST2C06 –Regression Analysis & Probability Theory

(2020 Admission onwards)

Time: 2 hours Max. Marks : 60

SECTION-A

Each question carries 2 Marks.

Maximum Marks that can be scored in this section is 20.

1. Define Spearman Rank correlation coefficient
2. Define Distribution Function of a Random Variable. State its properties.
3. What is meant by positive correlation? Is the correlation between age and height of primary school students is positive?
4. State and prove addition theorem for two events
5. Define sample space. Give the sample space for the experiment of tossing 3 coins.
6. Define (i) Mutually Exhaustive Events (ii) Independent Events
7. Define Partial Correlation.
8. Define Distribution Function F(x) of a random variable.
9. $P(A) = 0.7, P(B) = 0.2.$ *find* $P(A \cup B)$ *if A and B are independent*
10. For the pdf $f(x)$, *find the value of k and hence find* $P(x \geq 0.5)$

x	-1	0	1	2
$f(x)$	$2k$	k	$5k$	$2k$

11. The equation of two regression lines obtained in a correlation analysis are y=32-x and x=13-0.25y. Obtain mean of x and mean of y.
12. Two unbiased dice are thrown. What is the probability of getting 'sum is more than 5'?

SECTION-B

Each question carries 5 Marks.

Maximum Marks that can be scored in this section is 30.

13. Explain different approaches to the theory of probability.
14. Distinguish between Correlation and regression.

15. A problem in mathematics is given to three students A, B and C whose chances of solving it are $\frac{1}{3}, \frac{1}{4}$ and $\frac{1}{5}$ respectively. What is the probability that the problem will be solved?

16. Define multiple correlation. If $r_{12} = 0.8, r_{13} = 0.7, r_{23} = 0.5, calculate\ R_{1.23}$

17. Find the p.d.f. f(x), for the Distribution Function F(x) given below

$$F(x) = \begin{cases} 0, & when\ x < 0 \\ \frac{1}{5}, & when\ 0 \le x < 1 \\ \frac{3}{5}, & when\ 1 \le x < 4 \\ 1, & when\ x \ge 4 \end{cases}$$

18. Three dies are tossed simultaneously. What is the probability of getting atleast one 5?

19. Explain regression equations? How can we identify the regression equations?

SECTION-C

(Answer *any one* Question and carries 10 marks)

20. A random variable X has the following probability function

x	-1	0	2
$f(x)$	k	$2k$	$3k$

i. Determine the value of k

ii. Fin $P(x \le 2)$ and $P(x < 2)$

iii. Write down the distribution function of X

21. (i)State the properties of Regression coefficient

(ii)A study is conducted involving 10 students to investigate the association betwee statistics and science tests. Estimate the marks secured by a student in statistic who secured 30 marks in Science.

Students	1	2	3	4	5	6	7	8	9	10
Marks in Statistics	20	23	8	29	14	12	11	20	17	18
Marks in Science	20	25	11	24	23	16	12	21	22	26