1B2A24103 (Pages : 1) Reg. No:.....

49 Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Psychology Degree Examination, April 2024

BPS2B02 - Basic Themes in Psychology - II

(2022 Admission onwards)

Time: 2 hours Max. Marks : 60

SECTION -A

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

1. What is a polygraph test?
2. List down any four physiological responses during flight or fight experience.
3. What is Yerkes-Dodson's Law?
4. What is '*Valance*' in the context of motivation theories?
5. How recall is different from recognition?
6. What is the tip-of-the-tongue phenomenon?
7. What is the phonological loop?
8. What is maintenance rehearsal?
9. Explain the Whorfian hypothesis.
10. Write an example for representative heuristics.
11. What is deductive reasoning?
12. What is the '*method of analogy*' in the context of problem-solving?

(Maximum 20 marks)

SECTION -B

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

13. Write a note on components of emotions.
14. Describe variations in sexual orientations.
15. What are the characteristics of an individual with a high need for achievement motivation?
16. Compare the Atkinson-Shiffrin Model with the Craik and Lockhart model of memory.
17. Describe the types of declarative memory with suitable examples.
18. What are the various types of concepts?
19. How language and thought are related?

SECTION –C

Essay Type Questions

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

20. Explain scientific strategies to enhance the remembering process.
21. Briefly explain various theories of emotion.

(1 x 10= 10 marks)

1B2A24105 (Pages : 2) Reg. No:.....

Name: .....

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Psychology Degree Examination, April 2024

BST2C06 - Regression Analysis & Probability Theory

(2022 Admission onwards)

Time: 2 hours Max. Marks : 60

(Use of scientific calculator is permitted)

SECTION-A (Short Answer Type Questions)
Each question carries 2 Marks.
Maximum Marks that can be scored in this section is 20.

1. Define simple correlation and multiple correlations?
2. What are the three features that define a correlation coefficient?
3. What are the properties of regression coefficients?
4. What is linear regression?
5. What is the difference between permutation and combination?
6. Define mutually exclusive and equally likely events?
7. Define dependent event and independent event?
8. What are the properties of p.m.f of discrete random variable?
9. What is the axiomatic and frequency approach to probability?
10. Give addition theorem and multiplication theorem of probability for two events.
11. Define discrete random variable and continuous random variable?
12. Write the significance of r = +1,-1 and 0?

SECTION-B (Short Essay/Paragraph Type Questions)
Each question carries 5 Marks.
Maximum Marks that can be scored in this section is 30.

13. Define correlation and discuss the methods used to study it?
14. Distinguish between Karl Pearson's and spearman's rank correlation Co-efficient.
15. A box contain 8 red, 3 white and 9 blue balls, if 3 balls are random, determine the probability that
    a) All there are blue
    b) 2 are red and 1 is white
    c) At least one is white
    d) One of each color is drawn.

16. The marks obtained by 10 students in Botany and Zoology are given below. Find the coefficient of correlation between the two subjects.

Marks in Botany	75	30	60	80	53	35	15	40	38	48
Marks in Zoology	85	45	54	91	58	63	35	43	45	44

17. State the classical definition of probability, what are the limitations?

18. Given $r_{12}=0.60$, $r_{13}=0.51$ and r 23=0.40, find $r_{23\,1}$?

19. How will you use scatter diagram to interpret correlation and regression.

SECTION-C (Essay Type Questions)

Answer any one Question and carries 10 marks

20. The length and weight of a sample of 6 articles manufactured by factory are given below.

Length (x)	2	5	6	7	10	11
Weight (y)	8	12	11	14	16	17

Find the two regression equation and hence find correlation coefficient. Comment on the result of correlation coefficient. Find the value of length when weight is 25.

21. The probability mass function of a random variable X is given as follows.

x	0	1	2	3	4	5
p(x)	k^2	$\frac{k}{4}$	$\frac{5k}{2}$	$\frac{k}{4}$	$2k^2$	k^2

a) Find k?

b) Write down distribution function of X.

c) Find $P(x \geq 4), P(x < 4), P(0 \leq x \leq 4)$

(1 x 10 = 10 Marks)

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Psychology Degree Examination, April 2024

BZL2C03 - Human Physiology - II

(2022 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. Define autonomic nervous system.
2. What are the different components of the CNS.
3. Compare grey and white matter.
4. What is blood brain barrier.
5. Define reflex action.
6. Enlist any two motor functions of the cerebellum.
7. What is the effect of injury or damage to cerebellum (any two effects)
8. Where is the flocculo-nodular lobe situated?
9. Explain the function of Wernicke's area.
10. Which area helps in recognition of faces.
11. Define slow wave sleep.
12. How does PET help in brain disease /damage diagnoses?

(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. Explain nerve impulse propagation.
14. Discuss the pros and cons of ESB.
15. Explain the role of basal ganglia for cognitive control.
16. Explain the process of facial recognition in humans.
17. Enumerate the role of the cerebral cortex in behaviour regulation.
18. Compare and contrast the clinical applications of MRI and PET scan in the diagnosis of brain damage.
19. Describe the role of REM sleep in sleep health.

(Ceiling 30 Marks)

SECTION –C

Essay Type Questions

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

20. What are the functions of the different types of non-nervous tissues associated with the nervous system.
21. Write an essay on the structure and organization of the spinal cord.

(1 x 10 = 10 marks)