Psychology 3A00142 - F.Y.B.A. (Sem-II) (Choice Base) 96054 - Psychology Paper I - 8.5.19 **Q.P. Code: 12060**

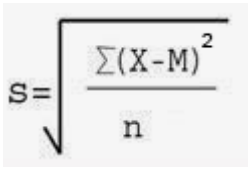
Q. No.	Description	Marks
1a	**'Concepts speed and guide our thinking, but they don't always make us wise' explain, with reference to relevant examples and research.**	
	Definition of Cognition	01
	Definition and examples of Concepts	02
	Functions of Concepts: simplify thinking, give much information with little cognitive effort	02
	Prototypes and concepts: effect of resemblance to prototype on speed of conceptualization; effect of placing an item in a category – shift to category prototype: relevant research	03
	Effect of failure of instance to fit prototype on conceptualization and its function: relevant examples	02
	Total	**10**
1b	**Discuss how we acquire language with reference to statistical learning and critical periods**	
	(i) Chomsky: universal grammar: biology and experience (ii) Statistical learning: adults vs. infants: relevant research -listening to an unfamiliar language, recognition of syllables indicated by attention, detection of difference between two patterns indicative of built in readiness to learn grammatical rules (iii) Critical periods: language learning window - relevant research on learning a second language, loss of ability to master any language by age 7 (iv) prelingually deaf children born to hearing-nonsigning parents - relevant issues: problems with learning sign language - linguistic stunting if isolated from language during critical period, cochlear implants deafness – not a disability but vision enhancement	02 03 02 03
	Total	**10**
1c	**What are the obstacles that hinder problem solving?**	
	Confirmation bias: explanation of the term, Wason's research, examples	04
	Fixation, explanation of the term, examples	03
	Mental set, explanation of the term, examples	03
	Total	**10**
2a	**How do psychologists define motivation? Briefly describe the perspectives through which they view motivated behaviour.**	
	(i) Definition of motivation: a need or desire that energizes and directs behaviour explained with reference to the differential focus of the different perspectives (ii) Instincts and Evolutionary Psychology (genetically predisposed behaviours), Drives and Incentives (interaction of inner pushes and external pulls), Optimal Arousal (finding the right level of stimulation) and Hierarchy of Motives (some needs taking priority over others (02 marks each: 02 marks x 4 = 08)	02 08
	Total	**10**
2b	**With reference to research, discuss the facial feedback effect and behavioural feedback phenomenon.**	
	Definition of the term 'facial feedback effect' (reference to James and Darwin)	1.5
	Relevant research on facial muscles states and feelings, Botox injections	05
	Description of the behaviour feedback phenomenon with examples and research related to movements and gestures	2.5
	Mimicking others expressions and empathy	01
	Total	**10**
2c	**Explain the term 'emotion' and explain the Schachter and Singer's theory of emotion.**	
	(i) Explanation of the term emotion: bodily arousal, expressive behaviours, conscious experience, feelings	03

	(ii) Schachter and Singer - two-factor theory: physical arousal and cognitive appraisal: emotional experience requires a conscious interpretation of arousal, the spillover effect (iii) Schachter and Singer experiment illustrating how the emotion experienced is dependent on interpretation and labeling	04 03
	Total	**10**
3a	**Define personality. Describe the link between biology and personality**	
	Definition of personality	01
	Research on brain-activity scans of extroverts (frontal lobe, dopamine related neural activity)	2.5
	Genes, temperament and behavioural style – autonomic nervous system reactivity	2.5
	Stable personality differences reported in animals and birds	04
	Total	**10**
3b	**Which of the Freud's ideas did his followers accept or reject? How did the Neo-Freudians differ from Freud?**	
	(i) Neo – Freudians (explanation of term); in general, ideas accepted by neo – Freudians: (i) personality structure: id, ego, superego, (ii) importance of the unconscious, (iii) the shaping of personality in childhood, and (iv) the dynamics of anxiety and the defense mechanism. The ideas not accepted were (i) the major role of unconscious: they emphasized the conscious mind's role in interpreting experience and in coping with the environment, (ii) the importance given to sex and aggression: they doubted that they these were all-consuming motivations, they emphasized loftier motivations and social interactions. (ii) Karen Horney's and Adler's agreement on the importance of childhood but emphasis on social and not sexual tensions for personality formation. Elaboration on specifics of Adler and Horney (iii) Carl Jung – importance of collective unconscious and universal dispositions (iv) Perspectives in psychodynamic theory: non acceptance of sex as the basis of personality, non classification of patients as oral, anal or phallic, current acceptance of unconscious mental life, inner struggle with conflicts among wishes, fears, values, importance of childhood in shaping personality and attachments to others.	03 04 02 01
	Total	**10**
3c	**What are personality inventories? Elaborate on the MMPI**	
	Personality inventories: explanation of the term, assessment techniques in trait theory	02
	MMPI –> Minnesota Multiphasic Personality Inventory	01
	Brief description of the test, explanation of empirically derived test, MMPI-$_2$	04
	Evaluation of personality inventories: objectivity - implications, validity, social desirability and the lie scale	03
	Total	**10**
4a	**i) Calculate the mean, median and mode of the following set of scores (7 Marks)** **35,37,40,41,35,39,42,36,43,35,38,44** **ii) Are the mode and median accurate representations of central tendency? Explain why or why not (3 Marks)**	
i	**Scores** **Scores ordered** 35 44 37 43 40 42 41 41 35 40 39 39 42 38 36 37 43 36	07

	35 35 38 35 44 35 **Mean** 38.75 Marks 03 **Median** 38.5 03 **Mode** 35 01 Sum 465 Count 12	
	Mean [3 marks]: formula: (1 mark) ΣX (1 mark), ΣX/N (1 mark)]	
	Median [3 marks]: ordering of scores: 1 mark, determination of the midpoint: (2 marks)	
	Mode [1 mark]	
ii	(i) A measure of central tendency is a single number that presents some information about the "centre" of a frequency distribution. The mode is the score that occurs most frequently in a set of scores; it is a single score, the most frequent one, hence it may not be an accurate representation of the central tendency, particularly if the most frequently occurring scores are low scores or high scores. (ii) The median (when scores are arranged in order from lowest to highest or vice versa) is the midpoint, the 50th percentile, the point that divides the distribution in half i.e., half the scores fall above the median and half fall below it. It does not take all the scores into consideration; it merely reflects the midpoint of the set of scores. Hence it is not an accurate representation although it may be a more suitable measure of central tendency when there are extreme scores. (iii) The mean is the most representative measure of central tendency as it reflects all scores (unlike mode and median, reflecting only one score).	01 01 01
	Total	**10**
4b	**i) Prepare a frequency distribution table from the following set of scores (6 marks)** **20, 23, 24, 21, 22, 20, 21, 22, 23, 23,** **24, 21, 22, 23, 24, 22, 23, 24, 23, 21,** **22, 23, 24, 23, 24, 24, 23, 23, 24, 20.** **ii) With the help of diagram explain skewed distributions (4 Marks)**	
i	Scores arranged in order and tabulation columns correct (score *x* and *f* frequency = 2 marks; accuracy in frequencies = 4 marks	
	Frequency Distribution **x** — **Frequency (*f*)** 20 — 3 21 — 4 22 — 5 23 — 10 24 — 8 **Total** — **30**	06
ii	What are skewed distributions? (01)	04
	Graphical representations and examples of positively and negatively skewed distributions (03)	
	Total	**10**
4c	**Explain the importance of inferential statistics in psychological research.**	

	Definition and need for inferential statistics	02
	Examples of the use of different inferential statistics	04
	Comparison with appropriate distribution to determine likelihood of obtaining results, if chance alone operated; dealing with probabilities; Type I and Type II Error	04
	Total	**10**
5a	**Why is it so difficult to learn a new language in adulthood?**	
	How we acquire language – universal grammar (Chomsky)	03
	Research on statistical learning: adult –infant differences – built-in readiness to learn grammatical rules	04
	Research with immigrants on critical period for language- age of moving to new country and ease of learning	03
	Total	**10**
5b	**What are the social effects of obesity?**	
	What is obesity? Social effects: effect of obesity on self and treatment from others: relevant examples and research; obesity and stereotypes, earnings, weight discrimination in employment, gender bias	06
	Obesity, depression and well being	02
	Social effects of obesity: experience of obese children, obese parents	02
	Total	**10**
5c	**Describe the 'Big Five' personality factors. How stable are these traits?**	
	(i) Naming and Description of each of the Big Five factors *Note: Mere naming of the Big Five factors with no further description or elaboration (02 marks)*	05
	(ii) Research on the stability and heritability of the factors (1mark +1mark)	02
	(iii) Research on the Big Five predictability of other behavioural attributes	03
	Total	**10**
5d	**Calculate the standard deviation and range of the following set of scores and the z score of 52** **54, 57, 58, 59, 52, 53, 56, 57**	
	Marks for steps in calculation, full marks if calculation is accurate (see values below): 07 x (X-M) (2 marks), x^2 (2 marks), Σx^2 (1 mark), $\Sigma x^2/N$ (1 mark), √ (1 mark) OR Marks for steps in calculation, full marks if calculation is accurate (see values below): 07 ΣX (1 mark), $(\Sigma X)^2$ (1 mark), X2 (1 mark), ΣX^2 (1 mark), $(\Sigma X)^2/N$ (1 mark), $\Sigma X-(\Sigma X)^2/N$ /N (1 mark), √ (1 mark)	07
	X X-M x^2 54 -1.75 3.0625 57 1.25 1.5625 58 2.25 5.0625 59 3.25 10.5625 52 -3.75 14.0625 53 -2.75 7.5625	

	56	0.25	0.0625		
	57	1.25	1.5625		
	Mean = 55.75	0	43.5	**Σx^2**	
			5.4375	**var**	
			2.3318	**sd**	



	Computational Formula $SD = \sqrt{\frac{\Sigma X^2 - (\Sigma X)^2 / N}{N}}$	

	X	X^2
	54	2916
	57	3249
	58	3364
	59	3481
	52	2704
	53	2809
	56	3136
	57	3249
	$\Sigma X = 446$	$\Sigma X^2 = 24908$
	$(\Sigma X)^2$	$= 198916$
	$(\Sigma X)^2/N$	$= 24864.5$
	$\Sigma X^2 - (\Sigma X)^2 / N$	$24908 - 24864.5 = 43.5$
	$/N$	5.4375
	$\sqrt{}$	2.3318

	Range: 59-52 = 7	01
	Z score of 52 $Z = X - M / SD$ $Z = (52 - 55.75) / 2.3318$ $Z = -1.6082$	02
	Total	**10**