

## GATE 2022 General Aptitude (GA)

**Q.1 – Q.5 Carry ONE mark each.**

Q.1	Inhaling the smoke from a burning _____ could _____ you quickly.
(A)	tire / tier
(B)	tire / tyre
(C)	tyre / tire
(D)	tyre / tier

Q.2	<p>A sphere of radius <math>r</math> cm is packed in a box of cubical shape.</p> <p>What should be the minimum volume (in <math>\text{cm}^3</math>) of the box that can enclose the sphere?</p>
(A)	$\frac{r^3}{8}$
(B)	$r^3$
(C)	$2r^3$
(D)	$8r^3$



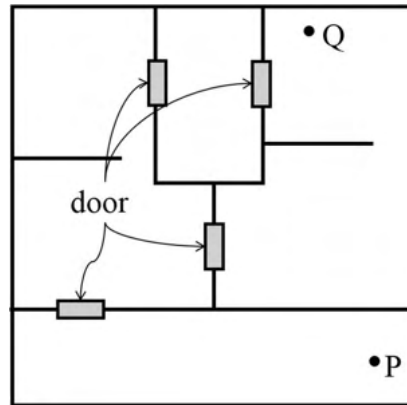
Q.3	<p>Pipes P and Q can fill a storage tank in full with water in 10 and 6 minutes, respectively. Pipe R draws the water out from the storage tank at a rate of 34 litres per minute. P, Q and R operate at a constant rate.</p> <p>If it takes one hour to completely empty a full storage tank with all the pipes operating simultaneously, what is the capacity of the storage tank (in litres)?</p>
(A)	26.8
(B)	60.0
(C)	120.0
(D)	127.5

Q.4	<p>Six persons P, Q, R, S, T and U are sitting around a circular table facing the center not necessarily in the same order. Consider the following statements:</p> <ul style="list-style-type: none"><li>• P sits next to S and T.</li><li>• Q sits diametrically opposite to P.</li><li>• The shortest distance between S and R is equal to the shortest distance between T and U.</li></ul> <p>Based on the above statements, Q is a neighbor of</p>
(A)	U and S
(B)	R and T
(C)	R and U
(D)	P and S

Q.5

A building has several rooms and doors as shown in the top view of the building given below. The doors are closed initially.

What is the minimum number of doors that need to be opened in order to go from the point P to the point Q?



(A) 4

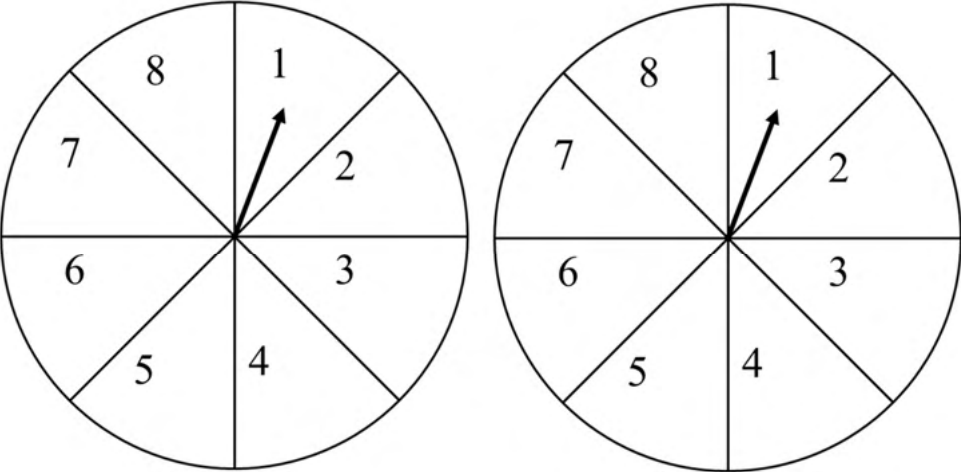
(B) 3

(C) 2

(D) 1

**Q. 6 – Q. 10 Carry TWO marks each.**

Q.6	<p>Rice, a versatile and inexpensive source of carbohydrate, is a critical component of diet worldwide. Climate change, causing extreme weather, poses a threat to sustained availability of rice. Scientists are working on developing Green Super Rice (GSR), which is resilient under extreme weather conditions yet gives higher yields sustainably.</p> <p>Which one of the following is the CORRECT logical inference based on the information given in the above passage?</p>
(A)	GSR is an alternative to regular rice, but it grows only in an extreme weather
(B)	GSR may be used in future in response to adverse effects of climate change
(C)	GSR grows in an extreme weather, but the quantity of produce is lesser than regular rice
(D)	Regular rice will continue to provide good yields even in extreme weather

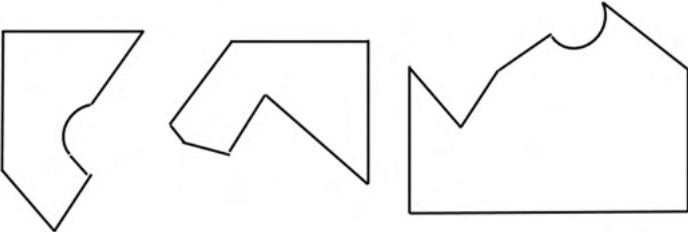
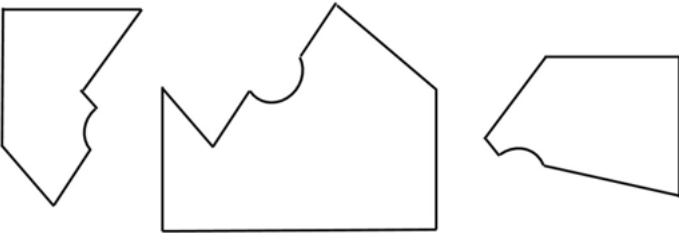
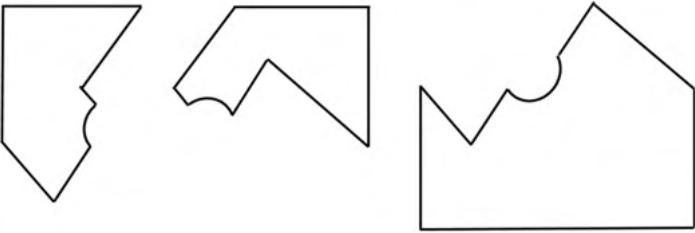
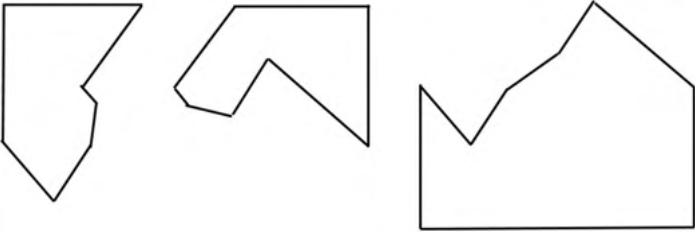
<p>Q.7</p>	<p>A game consists of spinning an arrow around a stationary disk as shown below. When the arrow comes to rest, there are eight equally likely outcomes. It could come to rest in any one of the sectors numbered 1, 2, 3, 4, 5, 6, 7 or 8 as shown.</p> <p>Two such disks are used in a game where their arrows are independently spun.</p> <p>What is the probability that the sum of the numbers on the resulting sectors upon spinning the two disks is equal to 8 after the arrows come to rest?</p> <div style="text-align: center;">  </div>
<p>(A)</p>	<p><math>\frac{1}{16}</math></p>
<p>(B)</p>	<p><math>\frac{5}{64}</math></p>
<p>(C)</p>	<p><math>\frac{3}{32}</math></p>
<p>(D)</p>	<p><math>\frac{7}{64}</math></p>



Q.8	<p>Consider the following inequalities.</p> <p>(i) <math>3p - q &lt; 4</math></p> <p>(ii) <math>3q - p &lt; 12</math></p> <p>Which one of the following expressions below satisfies the above two inequalities?</p>
(A)	$p + q < 8$
(B)	$p + q = 8$
(C)	$8 \leq p + q < 16$
(D)	$p + q \geq 16$

Q.9	<p>Given below are three statements and four conclusions drawn based on the statements.</p> <p>Statement 1: Some engineers are writers.</p> <p>Statement 2: No writer is an actor.</p> <p>Statement 3: All actors are engineers.</p> <p>Conclusion I: Some writers are engineers.</p> <p>Conclusion II: All engineers are actors.</p> <p>Conclusion III: No actor is a writer.</p> <p>Conclusion IV: Some actors are writers.</p> <p>Which one of the following options can be logically inferred?</p>
(A)	Only conclusion I is correct
(B)	Only conclusion II and conclusion III are correct
(C)	Only conclusion I and conclusion III are correct
(D)	Either conclusion III or conclusion IV is correct



Q.10	Which one of the following sets of pieces can be assembled to form a square with a single round hole near the center? Pieces cannot overlap.
(A)	
(B)	
(C)	
(D)	

**GATE 2022 Psychology (XH-C5)**

**XH-B1: Q.11 – Q.27 Carry ONE mark Each**

Q.11	A relationship is expressed as <b>Iodine : Goitre</b> .  The pair(s) of words showing <b>SIMILAR relationship</b> is/are
	Space for Figure/Equation, if any:
(A)	Mango : Anaemia
(B)	Insulin : Diabetes
(C)	Fat : Obesity
(D)	Hormones : Heredity
Q.12	Three individuals are named P, Q, and R. Together they have a total of fifteen children of which nine are boys. P has three girls and Q has same number of boys. Q has one more child than P, who has four children. R has four more boys than the number of girls. The number of girls of R is equal to the number of boys of P. How many boys do R and P have?
	Space for Figure/Equation, if any:
(A)	$R = 3, P = 3$
(B)	$R = 4, P = 2$
(C)	$R = 5, P = 1$
(D)	$R = 2, P = 4$

**GATE 2022 Psychology (XH-C5)**

Q.13	<p>A sentence has been given below.</p> <p><i>The train will leave at 8:30 PM, we <b>have been</b> ready by 7:30 PM, so that we can reach the station on time.</i></p> <p>To make the above sentence grammatically correct, the phrase marked in <b>bold</b> is to be replaced by</p>
	Space for Figure/Equation, if any:
(A)	were
(B)	are
(C)	must be
(D)	should have
Q.14	<p>Complete the sentence correctly using the options given below.</p> <p>Hastings ____ (p) ____ developed as a holiday resort after ____ (q) ____ .</p>
	Space for Figure/Equation, if any:
(A)	(p) = a seaside town, (q) = the first world war
(B)	(p) = , a seaside town, (q) = the First World War
(C)	(p) = , a Seaside Town, (q) = World War I
(D)	(p) = A seaside town (q) = World War I

## **GATE 2022 Psychology (XH-C5)**

[illegible]

**GATE 2022 Psychology (XH-C5)**

Q.16	<p>Tailgating another vehicle is unsafe and illegal. Many rear-end collisions are caused by drivers following too close to the vehicle in front of them. The rules state that a driver must keep significant distance from the vehicle in front in order to stop safely and avoid a collision. Drivers should allow a minimum two seconds gap between their vehicle and the one ahead. At 60 km per hour, this equates to a gap of 33 meters; at 100 km per hour, it equates to a gap of 55 meters. More distance is needed to safely stop in rain or poor visibility, as during rain slippery roads reduce the effectiveness of braking.</p> <p>Which of the following statement(s) <b>can be inferred</b> from the above passage?</p>
	Space for Figure/Equation, if any:
(A)	People drive faster in rain and under poor visibility.
(B)	Braking may not be as effective during rain as in the dry conditions.
(C)	Tailgating is against the road rules.
(D)	Collision has no relationship with tailgating.
Q.17	<p>There are three separate, but equal-sized boxes. Inside each box, there are two separate small boxes. Inside each of the small boxes, there are four even smaller boxes. The total number of boxes will be _____ .</p>
	Space for Figure/Equation, if any:

**GATE 2022 Psychology (XH-C5)**

**Q.18 – Q.26 Carry TWO marks Each**

Q.18	<p>In a specific language, <i>xer dan</i> means “big horse”, <i>liro cas</i> means “red tomato” and <i>dum cas dan</i> means “big red barn”.</p> <p>The equivalent word for <b>barn</b> in this language is</p>
	Space for Figure/Equation, if any:
(A)	<i>dum</i>
(B)	<i>liro</i>
(C)	<i>dan</i>
(D)	<i>cas</i>
Q.19	<p>Park street is parallel to Rock street. Garden street is perpendicular (90°) to Lake street. Lake street is parallel to Rock street.</p> <p>For the situation described above, the <b>TRUE statement</b> is</p>
	Space for Figure/Equation, if any:
(A)	Park street is perpendicular to Lake street
(B)	Rock street is parallel to Garden street
(C)	Park street is parallel to Garden street
(D)	Garden street is perpendicular to Park street

## **GATE 2022 Psychology (XH-C5)**

[illegible]

**GATE 2022 Psychology (XH-C5)**

Q.21	<p>A passage consists of 6 sentences. The first and sixth sentences of the passage are at their correct positions, while the middle four sentences (represented by P, Q, R, and S) are jumbled up.</p> <p><i>First sentence:</i> Smoke oozed up between the planks.</p> <p><b>P:</b> Passengers were told to be ready to quit the ship.</p> <p><b>Q:</b> The rising gale fanned the smouldering fire.</p> <p><b>R:</b> Everyone now knew there was fire onboard.</p> <p><b>S:</b> Flames broke out here and there.</p> <p><i>Sixth sentence:</i> Most people bore the shock bravely.</p> <p>The <b>most logically CORRECT order</b> for the given jumbled up sentences is</p>
	Space for Figure/Equation, if any:
(A)	<b>QSRP</b>
(B)	<b>QPSR</b>
(C)	<b>RSPQ</b>
(D)	<b>PQRS</b>



**GATE 2022 Psychology (XH-C5)**

Q.22	<p>For a painting to succeed, it is essential that the painter and his public agree about what is significant. The subject of the painting may have a personal meaning for the painter or a common person; but there can also be the possibility of their agreement on its general meaning. It is at this point that the culture of the society and the period in question precedes the artists and her/his art. Renaissance art would have meant nothing to the Aztecs, and vice versa. If, to some extent, a few intellectuals can appreciate them both today, it is because their culture is a historical one. Its inspiration is history and all known developments to date.</p> <p>According to the passage, which of the following is/are <b>NOT necessarily</b> among the attributes needed for a painter to succeed?</p>
	Space for Figure/Equation, if any:
(A)	The subject must have a personal meaning for the painter.
(B)	The painter is able to communicate and justify the significance of its subject selection.
(C)	The painter and the public agree on what is significant.
(D)	The painting of the subjects is driven by public demand.

## GATE 2022 Psychology (XH-C5)

[illegible]

**GATE 2022 Psychology (XH-C5)**

Q.24	<p>Cholera, typhoid, diphtheria and tuberculosis cause huge number of deaths. Poor quality drinking water has always been the world's greatest single carrier of sickness. Disease is transmitted when sewage and drinking water come into contact. Children are particularly vulnerable. In some of the poorest countries the infant mortality rate is high. The separation of sewage and the supply of clean drinking water are the domain of civil engineers, and their work makes a significant contribution to public health. That contribution was recognized when public sanitation was voted the greatest medical breakthrough, beating the discoveries including antibiotics and vaccines in a poll organized by the British Medical Journal.</p> <p>Identify the statement(s), which is/are <b>NOT TRUE</b> according to the passage.</p>
	Space for Figure/Equation, if any:
(A)	Children are less prone to water borne diseases.
(B)	The infant mortality rate was high in economically weaker countries.
(C)	The provision of sewage and drinking water should be adequately separated from each other.
(D)	The literature states that the public health and sanitation was never given its due importance.

**GATE 2022 Psychology (XH-C5)**

Q.25	<p>Shark's teeth have evolved to correspond to the diet of each particular species of shark. Consequently, the teeth of the great white shark bear little resemblance to those of the bull shark or nurse shark. There were essentially four different shark diets and thus four varieties of shark teeth. Sharks that feed on fish have needle like teeth, perfect for spearing and ripping. Sharks that eat mammals such as seals and sea lions have heavy, serrated teeth, typically triangular on the upper jaw and pointed on the lower jaw. Shark that feed in the benthic zone of the ocean have flattened teeth for crushing the shell of the creatures they find scuttling in the sand or clinging to rocks. Sharks that bask have teeth that are largely non-functional; these sharks filter food from the water by passing it through their gills.</p> <p>Which of the following is/are the <b>CORRECT inference(s)</b> as per the passage?</p>
	Space for Figure/Equation, if any:
(A)	Shark's teeth are not specially designed for slaughter.
(B)	The shape of the shark's teeth relates to its prey.
(C)	Some species of sharks filter food through their gills.
(D)	Shark's teeth relate to its diet.

**GATE 2022 Psychology (XH-C5)**

Q.26	<p>A particular school management wants to contact all parents, all businessmen and all engineers. The following statistics are available with the school.</p> <p>Businessmen = 50</p> <p>Engineers = 25</p> <p>Parents = 2500</p> <p>Businessmen who are engineers = 0</p> <p>Businessmen who are parents = 25</p> <p>Engineers who are parents = 15</p> <p>The number of people needs to be contacted are _____ .</p>
	Space for Figure/Equation, if any:

**GATE 2022 Psychology (XH-C5)**

**XH -C5 (Q.27 – Q.44 Carry ONE mark Each)**

Q.27	The construct validity of a test is assessed through _____.
(A)	Convergent and Discriminant validity
(B)	Concurrent and Predictive validity
(C)	Convergent and Predictive validity
(D)	Discriminant and Predictive validity
Q.28	Memory involves three stages. Find out the correct sequence from the following:
(A)	Storage, Encoding, Retrieval
(B)	Retrieval, Encoding, Storage
(C)	Encoding, Storage, Retrieval
(D)	Decoding, Encoding, Storage

**GATE 2022 Psychology (XH-C5)**

Q.29	Erickson's fifth stage of psychosocial development is
(A)	Identity vs role confusion
(B)	Intimacy vs isolation
(C)	Generative vs stagnation
(D)	Integrity vs despair
Q.30	Test developers use reverse coding of certain items in a scale to offset the effects of _____.
(A)	Social desirability
(B)	Acquiescence
(C)	Faking
(D)	Random responding

**GATE 2022 Psychology (XH-C5)**

Q.31	According to Kohlberg's theory of Moral development, at which level individuals judge morality in terms of abstract principles?
(A)	Pre-conventional
(B)	Post-conventional
(C)	Conventional
(D)	Transcendental
Q.32	You had been driving a car with manual-gear for 5 years. Recently, you started driving a new car with an auto- gear. If you are having any trouble, it is most likely due to _____.
(A)	Proactive interference
(B)	Retroactive interference
(C)	Anterograde interference
(D)	Learning Difficulties
Q.33	Which of the following is <b>not</b> a behaviour therapy technique?
(A)	Flooding
(B)	Countertransference
(C)	Counterconditioning
(D)	Systematic desensitization



**GATE 2022 Psychology (XH-C5)**

Q.34	According to Robert Sternberg, “Street Smarts” refers to –
(A)	Analytical intelligence
(B)	Creative intelligence
(C)	Emotional intelligence
(D)	Practical intelligence
Q.35	Research design in which several age groups of participants are studied at one particular point of time is called:
(A)	Cross-sequential design
(B)	Functional design
(C)	Cross-sectional design
(D)	Longitudinal design

**GATE 2022 Psychology (XH-C5)**

Q.36	Proximo-distal direction of development explains the nature of the development from _____.
(A)	Top to bottom
(B)	Internal organs to external organs
(C)	Centre to periphery
(D)	Sensory organ to motor organs
Q.37	A cricket player who could not play an easy ball and gets out without scoring any run and blames the pitch, is an expression of _____.
(A)	Sublimation
(B)	Regression
(C)	Projection
(D)	Rationalization

Q.38	The process through which we seek to identify the causes of other's behaviour and gain knowledge of their stable traits and dispositions is known as _____.
(A)	Distribution
(B)	Dissemination
(C)	Retribution
(D)	Attribution

**GATE 2022 Psychology (XH-C5)**

Q.39	Which of the following techniques is used to measure the variations in the activity of Ascending Reticular Activating System (ARAS)?
(A)	ECG
(B)	PET
(C)	fMRI
(D)	EEG

Q.40	The statement “I can do no wrong, but, you can do no right”, refers to _____.
(A)	The self-serving bias
(B)	The self-other bias
(C)	The other-self bias
(D)	The other- serving bias

Q.41	Which of the following is a qualitative research design where learned experiences of individuals are examined in their life world?
(A)	Phenomenology
(B)	Ethnography
(C)	Focused-group discussion
(D)	Grounded-theory

**GATE 2022 Psychology (XH-C5)**

Q.42	Which part of the brain is responsible for transferring information from STM to LTM?
(A)	Amygdala
(B)	Hypothalamus
(C)	Hippocampus
(D)	Cerebellum
Q.43	The mean of a distribution is 14 and standard deviation is 5. What would be the value of coefficient of variation? ( <i>round off to two decimal places</i> )
Q.44	Swami gets a test score of 190, the mean is 150 and SD is 25. Assuming normal distribution, the Z score would be _____. ( <i>round off to one decimal place</i> )

**GATE 2022 Psychology (XH-C5)**

**Q.45 – Q.65 Carry TWO marks Each**

Q.45	Which of the following statement(s) is/are correct regarding Multiple Analysis of Variance (MANOVA)?
(A)	Tests the mean difference of more than two groups on one dependent variable.
(B)	Tests the mean difference of more than two groups across several dependent variables.
(C)	The independent variable is measured on a nominal scale and dependent variable on an interval or ratio scale.
(D)	The dependent variable is measured on nominal scale and independent variable on an interval or ratio scale.
Q.46	Which of the following statements is/are related to observational learning?
(A)	Remembering the steps to perform a task
(B)	A person in a dinner wants to know how to use the utensils by watching others
(C)	A person uses chocolate to motivate his son to perform the task
(D)	A person is capable of reproducing the action after viewing it

**GATE 2022 Psychology (XH-C5)**

Q.47	Find out the statements which are related to different types of reliability?
(A)	The same test is administered to the same people at two points in time
(B)	Give the test once and have it scored by two scorers or by two methods
(C)	Give the test in one administration and then split the test into two halves for scoring
(D)	The extent to which people score on a measure are correlated with other variables
Q.48	Which of the following statement(s) regarding test scores and their interpretations is/are correct?
(A)	Frequency distribution are graphs to help us understand the distribution of test scores
(B)	Normal probability distribution is a theoretical distribution to help us understand the distribution of test scores
(C)	Central tendency measures are numerical tools to help us locate the middle of a distribution of a test score
(D)	Measurement of variability are numerical tools to help us understand the spread of a distribution of a test score
Q.49	Which of the following statement(s) is/are correct regarding the negative symptoms of schizophrenia?
(A)	Auditory hallucination, persecution, and disorganized thinking
(B)	Lack of effect in situation, poor motivation, and social withdrawal
(C)	Loss of interest in day-to-day activities, lack of will, and difficulty in expressing emotions
(D)	Visual hallucination, delusions of grandeur, and delusion of control

**GATE 2022 Psychology (XH-C5)**

Q.50	Which of the following statement(s) is/are correct about children with ADHD (Attention Deficit Hyperactivity Disorder)?
(A)	They have deficit in brain related executive function
(B)	They have difficulty to control voluntary movements, verbal expression and problem solving due to frontal lobes
(C)	Cerebellum (an area of the brain) does not work properly, which coordinates muscular activity
(D)	It is also known as hypokinetic disorder
Q.51	Which of the following assumptions are correct about equity theory?
(A)	Focusses on procedural justice
(B)	Motivation is influenced by relative and absolute rewards
(C)	Referent is the other-inside
(D)	Achieving balance between input-output
Q.52	Which of the following statement(s) are related to Bem's theory of self-perception?
(A)	It starts with development of one's basic self-concept
(B)	Behaviour is a source of knowledge
(C)	It is related to attitude formation
(D)	It suggests that people change their attitude because of their behaviour

**GATE 2022 Psychology (XH-C5)**

Q.53	Which of the following statements are related to social cognition?
(A)	How individuals interpret, analyze, remember and use information about the social world
(B)	How people create mental structure to organise knowledge about the social world
(C)	How people think about themselves and the social world
(D)	It does not allow interaction between people and the environment
Q.54	Which of the following theory(ies) is/are related to work motivation?
(A)	Motivation-Hygiene Theory
(B)	Expectancy Theory
(C)	Trait Theory
(D)	ERG Theory
Q.55	Which of the following are <b>not</b> part of Thurstone's theory of primary mental abilities?
(A)	Numerical Ability
(B)	Word Fluency
(C)	Analytical Ability
(D)	Short-Term Memory



**GATE 2022 Psychology (XH-C5)**

Q.56	Which of the following are the competencies of a Bystander?
(A)	Deciding how to help a person in need
(B)	Deciding how to avoid a person at the time of his/her distress
(C)	Deciding to standby with a person at the time of his/her emergency
(D)	Too busy to help
Q.57	Which of the following functions are related to pancreas?
(A)	Release of hormones
(B)	Converts food we eat into fuel for the body cells
(C)	It regulates the level of glucose in the blood
(D)	It damages digestive system
Q.58	Which of the following psychologists do <b>not</b> belong to behaviourism?
(A)	Sigmund Freud
(B)	B. F. Skinner
(C)	William James
(D)	J. B. Watson

**GATE 2022 Psychology (XH-C5)**

Q.59	Which of the following theories of emotion explains that arousal must occur before experience of emotion?
(A)	Schachter & Singer's Theory
(B)	Hertzberg's Theory
(C)	Cannon-Bard's Theory
(D)	Maslow's Theory
Q.60	Who among the following psychologists do <b>not</b> belong to the domain of emotional intelligence?
(A)	David Mayer
(B)	Sigmund Freud
(C)	William James
(D)	Robert R. Baron
Q.61	Which of the followings are the projective tests of personality?
(A)	Rorschach Inkblot Test
(B)	16 PF
(C)	TAT
(D)	WAT

**GATE 2022 Psychology (XH-C5)**

Q.62	Which of the followings are <b>not</b> learning disorders?
(A)	Dyslexia
(B)	Dystopia
(C)	Dysgraphia
(D)	Dystonia
Q.63	Which of the following concepts are <b>not</b> related to Piaget's theory of cognitive development?
(A)	Imprinting
(B)	Attachment
(C)	Schemas
(D)	Zone of Proximal Development
Q.64	Which of the following statement(s) is/are correct regarding exploratory factor analysis (EFA) technique?
(A)	It helps to reduce large number of variables into few numbers of factors.
(B)	It helps researchers to investigate concepts that cannot easily be measured directly.
(C)	It extracts maximum common variance from all variables and put them into a common score.
(D)	A technique used to verify the factor structure of a set of observed variables.

**GATE 2022 Psychology (XH-C5)**

Q.65	If you want to examine the difference between the work values of employees in public and private sector and the relationship of work values with employee engagement, what would be the appropriate statistics to test the hypotheses?
(A)	F-test
(B)	t-test
(C)	Pearson Product moment correlation
(D)	Chi-square