

Short Answer Questions – I

Q. 1. Describe the development of values.

Ans. Values refer to beliefs, an individual's preferences, aspirations and standards about what is desirable or undesirable by an individual or a community. You show respect towards parents and elders, help the needy, believe that behaving in certain ways is right, and behaving in certain other ways is incorrect. A child learns these values through the process of conditioning, socialization in the family, peer groups and with other significant members of society. Mass media such as television and internet contribute to the development of values

Q. 2. Describe the theory of Primary Mental Abilities.

Ans. Louis Thurstone developed the theory of Primary Mental Abilities which states that there are seven Primary Mental Abilities each of which is relatively independent of others. They are:

- i. **Verbal Comprehension:** To grasp words, concepts and ideas quickly.
- ii. **Numerical Ability:** Speed and accuracy in numerical computations.
- iii. **Spatial Relations:** Speed in procuring details.
- iv. **Perceptual Speed:** Visualizing patterns and forms.
- v. **Word Fluency:** Using words fluently and accurately.
- vi. **Memory:** Accuracy in recalling information.
- vii. **Inductive Reasoning:** Deriving rules from facts.

Q. 3. Describe the hierarchical model of intelligence.

Ans. Describe the hierarchical model of intelligence.

Level I: This level is associative learning in which output is more or less similar to the input as in rote learning.

Level II: This is cognitive competence (sensitivity to contact, understanding discrimination, problem solving and effective communication). It involves higher order skills as they transform the input to produce an effective output.

Q. 4. Intelligence is the interplay of nature and nurture'. Comment.

OR

Discuss how interplay of nature and nurture influences intelligence.

[CBSE Delhi 2014]

Ans. Effects of heredity: Studies of adopted children show that children's intelligence is more similar to their biological rather than adoptive parents.

Effects of environment: Evidence shows that environmental deprivation lowers intelligence while rich nutrition, good family background and quality schooling increase intelligence.

Studies show intelligence of identical twins reared together correlate 0.90. Intelligence of identical twins reared in different environments correlate 0.72. Intelligence of fraternal twins reared together correlate 0.60. Intelligence of brothers and sisters reared together correlate 0.50. Intelligence of siblings reared apart correlate 0.25.

Q. 5. Explain componential intelligence with examples.

[CBSE (AI) 2013]

Ans. Componential Intelligence: Componential or analytical intelligence by Robert Sternberg is the analysis of information to solve problems. It has 3 components:

- i. **Knowledge Acquisition Component:** This is responsible for learning and acquisition of the ways of doing things.
- ii. **Meta Component:** This involves planning what to do and how to do.
- iii. **Performance Component:** This involves actually doing things.

For example, while studying mathematics, we gather information about the formula to solve the problem, plan out the steps and then actually solve the sum.

Q. 6. Explain Triarchic Theory of Intelligence.

[CBSE (AI) 2016]

Ans. Sternberg views intelligence as the ability to adapt, to shape and select environment to accomplish one's goals and those of one's society and culture. Sternberg proposed the following three types of intelligence:

- I. Componential or Analytical Intelligence:** Componential or analytical intelligence is the analysis of information to solve problems. It has three components:
 - a) **Knowledge acquisition component** which is responsible for learning and acquisition of the ways of doing things.
 - b) **Meta component** which involves planning what to do and how to do.
 - c) **Performance component** which involves actually doing things. For example, while studying mathematics we gather information about the formula to solve the problem, plan out the steps to solve the problem and then actually solve the sum.
- II. Experiential or Creative Intelligence:** This specifies how experiences affect intelligence and how intelligence affects a person's experiences.
- III. Contextual or Practical Intelligence:** This involves adapting to the present environment or selecting a more favourable environment than the existing one or modifying the environment to fit one's needs.

Q. 7. Explain how the PASS model helps us to understand intelligence.

[CBSE Delhi 2015, 2016; (AI) 2014]

Ans. According to the model developed by **J.P. Das, Jack Naglieri and Kirby** (1994), intellectual activity involves three functional units of brain, namely A-Arousal/Attention, S-Simultaneous processing, S-Successive processing and P-Planning respectively:

- I. Arousal/Attention:** An optimal level of arousal focuses our attention to the relevant aspects of a problem. Too much or too little arousal would interfere with attention.
- II. Simultaneous and Successive Processing:** Information is integrated into our knowledge system simultaneously or successively. In simultaneous processing, relations among various concepts are integrated into a meaningful pattern for comprehension. For example, grasping the meaning and relationship between abstract figures in Raven's Progressive Matrices. Successive processing takes place when you remember all the information serially so that recall of one leads to the recall of another. Learning of digits, alphabets, multiplication tables are examples of successive processing.
- III. Planning:** After the information is attended to and processed, planning is activated. For example, planning a time schedule of study by giving more time or studying with a friend.

Q. 8. Mention any six indicators of giftedness.

Ans. Gifted children show

- I.** Advanced logical thinking, questioning and problem solving behaviour.
- II.** High speed in processing information.
- III.** Superior generalisation and discrimination ability.
- IV.** Advanced level of original and creative thinking.
- V.** High level of intrinsic motivation and self-esteem.
- VI.** Independent and non-conformist thinking.
- VII.** Preference for solitary academic activities for long periods.

Q. 9. Differentiate between individual and group tests.

Ans. Based on their administration procedure they can be categorized as individual and group tests:

- I.** Individual tests are administered to one person at a time while group tests are administered to several persons.
- II.** In individual tests the test administrator establishes a rapport with the subject and is sensitive to his/her feelings, moods and expressions during the testing session while in group tests the tester is not familiar with the subjects' feelings.
- III.** In individual tests people answer in oral or written form while in group tests they answer in multiple-choice format.
- IV.** Example of Individual test: Draw a Man Test by Pramila Pathak, WAIS, WISSC, Alexander Pass along. Example of Group test: Group test of Intelligence by S. Jalota.

Q. 10. Differentiate between verbal, non-verbal and performance tests.

Ans. On the basis of the nature of items used IQ tests are classified into Verbal, Non-verbal or Performance tests – Verbal tests require subjects to give verbal responses either orally or in a written form they can be administered only to literate people. E.g. Binet-Simon IQ test. In Non-verbal tests the subject has to complete a pattern in some picture or illustration. These reduce cultural biases. E.g. Standard Raven's Progressive Matrices (RPM). Performance tests require subjects to manipulate objects such as wooden blocks to perform a task. Written language is not required for answering the items as well as can be administered to persons from different cultures. E.g. Koh's Block design.

Q. 11. Differentiate between Culture-fair and Culture-biased tests.

[CBSE Delhi 2014]

Ans. Depending upon the extent to which an intelligence test favours one culture over another, intelligence tests are classified as Culture-Fair or Culture-Biased tests. Culturefair tests are fair to a particular culture such as Non-verbal or Performance tests while culture-biased tests show a bias to the culture in which they are developed. For example, tests based on norms of urban society are culture-fair for urban society while culturebiased for rural society.

Q. 12. What are the misuses of intelligence tests?

Ans. Ill-effects of intelligence tests are:

- I.** Poor performance in a test may attach a stigma to children, thereby adversely affecting their performance and self-respect.
- II.** Parents, teachers and elders may discriminate the children.
- III.** Culture-biased IQ tests in favour of middle class and higher class population may underestimate the IQ of children coming from disadvantaged sections of the society.
- IV.** IQ tests do not capture creative potentialities and practical side of intelligence.

Q. 13. State the differences between Intelligence, Aptitude and Achievement.

Ans. Aptitude refers to the potential ability of a person to perform a particular task which consists of a combination of abilities.

Achievement involves performance at any given point of time to which the individual is familiar.

Intelligence refers to the ability of a person to do at any given point of time.

Q. 14. State the characteristics of emotionally intelligent people.

Ans. Emotionally intelligent persons have the following characteristics.

- I.** They are sensitive to their feelings and emotions.
- II.** They are sensitive to various types of emotions in others by noting their body language, voice and tone and facial expressions.
- III.** They relate their emotions to their thoughts which play an important role while solving problems and taking decisions.
- IV.** They understand the powerful influence of the nature and intensity of their emotions.

- V. They control and regulate their emotions and their expressions while dealing with self and others to achieve harmony and peace.

Q. 15. What are the strategies for creative thinking?

Ans. The following are the strategies for creative thinking:

- I. Never accept the first idea or solution or reject an idea considering it as the silly idea. We should generate a number of possible ideas or solutions and select the best from them.
- II. Get a feedback on the solutions from others who are less personally involved in the task.
- III. Try to think of what solutions someone else may offer for your problems.
- IV. Give your ideas the chance to incubate. Allowing time for incubation between production of ideas and the stage of evaluation of ideas, may bring in the 'Aha' experience.
- V. Resist the temptation for immediate reward and success and cope with the frustration and failure. Encourage self-evaluation.
- VI. Be aware of your defenses concerning the problem. When we feel threatened by a problem, we are less likely to think of creative ideas.

Q. 16. Describe the development of values.

Ans. Values refer to beliefs, an individual's preferences, aspirations and standards about what is desirable or undesirable by an individual or a community. You show respect towards parents and elders, help the needy, believe that behaving in certain ways is right, and behaving in certain other ways is incorrect. A child learns these values through the process of conditioning, socialization in the family, peer groups and with other significant members of society. Mass media such as television and internet contribute to the development of values.