



5. Any intellectual activity involves the independent functioning of three 'neurological systems'. Explain with reference to PASS model.

Ans: According to PASS model, theory based on information processing approach, intellectual activity involves the interdependent functioning of the three neurological systems called the functional units of the brain.

These units are responsible for:

- the arousal and attention.
- the simultaneous and successive processing.
- the planning.

Arousal and Attention

(i) State of arousal helps in attending to the stimuli.

(ii) Arousal and attention enable a person to process information.

(iii) Optimal level of arousal focuses our attention on relevant aspects of a problem.

(iv) Too much or too little arousal interferes with attention and performance.

Example: Arousal helps the individual to focus ones attention on reading, learning and revising the contents of the material to be learnt.

Simultaneous and Successive Processing:

Simultaneous Processing refers to perceiving relations amongst various concepts and integrate them into meaningful patterns for comprehension!

For e.g., in Raven's standard progressive matrices (RSPM Test) choosing appropriate pattern by comprehending relationship.

Successive Processing refers to recalling information serially so that one recall leads to another recall. For example, learning of digits and letters and multiplication tables.

Planning:

1. After the information is attended to and processed, planning is activated.

2. Planning involves reaching to the target and evaluating their effectiveness. Planning allows us to think of possible courses of action and implementing them.

3. If a plan does not work, it is modified to suit the requirements of the task or the situation.

4. For example, to take a test scheduled by your teacher, you'd have to set goals, plan a time schedule of studies, get clarifications in case of problems or think of other ways to meet your goals.

6. Are there cultural differences in the conceptualisation of intelligence?

Ans: Yes, culture, which is a set of beliefs, customs, attitudes and achievements in art of literature, affects the process of intellectual development.

- According to Sternberg, intelligence is a product of culture.
- Vyotsky believes that while elementary mental operations are common, higher mental activities like problem-solving and thinking are culturally produced.

Technological Intelligence

(i) Promotes an individualistic pattern of action.

(ii) Individuals in technologically educated western societies possess this kind of intelligence.

(iii) They are well versed in skills of attention, observation, analysis, speed, moves abstraction, generalisation, creativity, Minimum moves etc.

Integral Intelligence

(i) Intelligence in the Indian tradition is integral intelligence.

(ii) It views intelligence from a holistic perspective.

(iii) It gives equal attention to cognitive and non-cognitive processes, as well as their integration.

(iv) 'Buddhi' is the knowledge of one's own self based on conscience, will and desire.

(v) It has effective, motivational as well as cognitive components.

It includes:

(i) Cognitive competence (discrimination, problem-solving).

(ii) Social competence (respect for elders, concern for others, respecting opinions of others).

(iii) Emotional competence (self regulation, self monitoring). '

(iv) Entrepreneurial competence commitment, persistence, patience).

7. What is IQ? How do psychologists classify people on the bases of their IQ scores?

Ans:

(i) IQ is an index of brightness.

(ii) It is the ratio of mental age to chronological age.

(iii) The concept of IQ was given by William. Stern who gave the formula to calculate IQ i.e.,

$MA/CA \times 100$

If $MA > CA$ Above Average

$MA < CA$ Below Average

$MA = CA$ Average

- IQ is relatively stable.
- It is a good predictor of potential.
- IQ scores are distributed in a population in such a way that most people tend to fall in the middle range of the distribution.

This can be shown in the form of following table.

Classification of People on basis of IQ

IQ Range	Descriptive Label	Percent in Population
Above 130	Very Superiour	2.2
120 - 130	Superiour	6.7
110 - 119	High Average	16.1
90 -119	Average	50.0
80 - 89	Low Average	16.1
70 - 79	Borderline	6.7

Below 70	Mentally challenged/retarded	2.2
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8. Discuss various types of intelligence tests.

Or

How can you differentiate between verbal and performance tests of intelligence? (CBSE 2008, 2014)

Ans:

Types of Intelligence Tests:

Individual or group tests based on contact:

Individual Test:

- (i) Administered to one individual at a time.
- (ii) Requires the administrator to establish a rapport with the subject and be sensitive to his/her feelings, mood and expressions during the testing sessions which provides understanding of other aspects of subjects personality.
- (iii) Allows people to answer orally or in written form or manipulate the objects as per the tester's instructions.

Example: Stanford Binet intelligence scale, WAIS, WISSC, Alexander Pass along test.

Group Test:

- (i) Administered to several individuals at a time simultaneously.
- (ii) Do not allow an opportunity to be familiar with the subjects' feelings.
- (iii) Seek answers in a Multiple-choice format.
- (iv) It is relatively economical and less time consuming.
- (v) Example: Group Test of Intelligence by Prayag Mehta, Group Test on Intelligence by S. Jalota.

Verbal, Non-verbal and Performance Tests based on Mode of Administration: Verbal Tests:

- (i) Requires subject to give verbal responses either orally or in written form.
- (ii) Can be administered to literates only.
- (iii) Example: CIE, Verbal Group Test, Stanford Binet Intelligence Scale.

Non-verbal Test:

- Has pictures or illustrations as test items.
- Example: Ravens progressive matrices. In this test the subject examines an incomplete pattern and chooses a figure from the alternatives that will complete the pattern.
- Reduces culture biases.
- Example: SRPM, CIE Non-verbal group test of Intelligence.

Performance Test:

- Requires the subject to manipulate objects to perform the test.
- Written language is not necessary for answering the items.
- Example: Kohs's Block designs test. Here the subject is asked to arrange the blocks in a specified period to produce a given design, Bhatia's Battery performance test.
- Can be administered to persons from different cultures and reduce culture biases.
- Example: Draw a Man Test by Pramila Pathak, Kohs Block designs test.

Culture Biased or Culture Fair Tests based on Nature of Items used:

Psychological tests that show a bias toward the culture in which they are developed are Culture Biased Tests.

- Tests developed-in-America and Europe represent an urban and middle class cultural ethos. (Middle class white subjects perform well on these tests). The items do not consider favourably to Asians and Africans.

- Culture Fair Tests: One does not discriminate against as individuals belong to different cultures.
- Non-verbal and Performance Tests reduce cultural influences.

To overcome the limitation of Culture biased tests, Culture fair tests were developed, e.g. non-verbal and performance tests are called so because people of any culture could take them. For e.g. Standard progressive Matrices and Bhatia's Battery Performance Test.

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