

Intelligence

I Fill in the blanks:-

- 1) Average IQ is 100.
- 2) People having IQ of 130 & above are called man of genius or mentally gifted.
- 3) The Army Alfa test is Verbal group test of intelligence.
- 4) The Army Beta test is Group & Performance test of intelligence.
- 5) D.A.T is an Aptitude test.

II Match the following:-

- 1) Binet - Intelligence Test.
- 2) D.A.T - Aptitude Test
- 3) Stern - Concept of I.Q.
- 4) Mayo and Solovey - Concept of E.Q.
- 5) Aptitude - Ability to benefit from training.

III Answer in one sentence:-

1) Who is the father of intelligence test?
Ans Alfred Binet is the father of intelligence test.

2) Which test are used to measure intelligence of illiterate people?
Ans Non-Verbal test are used to measure intelligence of illiterate people.

3) Which type of intelligence tests require knowledge of language?
Ans Verbal test of intelligence test requires knowledge of language.

4) Which intelligence tests facilitate mass testing?
Ans Group Test facilitates mass testing.

IV True or False:-

1) D.A.T is an interest test.
Ans False.

2) Verbal tests of intelligence can be used on infants, illiterate persons.
Ans False.

3) Group tests are economical.
Ans True.

4) Non-verbal tests are free of oral or written language.

Ans True.

5) A person with I.Q. 75 is said to be average.

Ans False.

V Give reasons:-

1) Verbal tests of intelligence cannot be given to illiterate person.

Ans (i) Verbal test of intelligence is one that makes use of regional language.

(ii) In such a test, the instructions are given in word form by the examiner.

(iii) These tests require subjects to give verbal responses.

(iv) Therefore, verbal tests cannot be given to foreigners, illiterate persons and to small children.

2) Performance tests are more useful to measure the intelligence of infants and mentally retarded children.

Ans (i) A non-verbal test is also known as a performance test which does not make use of language.

(ii) The instructions in these tests are given by demonstrations and through gestures without the use of oral or written language.

(iii) Performance tests are used on infants,

mentally retarded persons and those who do not understand the language in which the test is conducted.

3) Aptitude tests are employed in career guidance and vocational guidance.

Ans (i) Aptitude refers to specific skills or abilities which can be enhanced with suitable training. Aptitude in an area increases the scope for its mastery.

(ii) Aptitude test are used in ~~career~~ career and vocational guidance to systematically help individuals to identify their potential and the career related to their potential and train adequately for it.

4) Now-a-days programmes are arranged to improve students emotional intelligence.

Ans (i) Emotional intelligence refers to the ability to process emotional information accurately i.e. perceive and manage feelings of self and others so as to have effective interpersonal relations.

(ii) Programmes to improve emotional intelligence aim to help the students in extra phasing successful social interaction, developing skills cope with environmental demand and to prepare them for academic life as well as life outside the classroom.

5) Individual test of intelligence requires to send and skillfull examiner.

Ans (i) Individual test involves testing of one examining at a time and the examiner records the responses. Such test are capable of measuring productive thinking and provide information beyond nearly available the test score.

(ii) It requires a skilled examiner to administer and score the test, interpret the results, establish the rapport with the subject and observe his/her behaviour in standardised sitting.

VI] Write short notes:-

1) Mental age -

Concept of mental age was first introduced by Alfred Binet. Mental age can be defined a measure of mental development as determined by intelligence test, generally restricted to children and person with intellectual impairment and expressed as the age at which that level of development is typically attained, eg. if a 5 year old boy does as well on intelligence test as the average child of 7, his mental age is 7.

2) Intelligence quotient -

The concept of I.Q was for the first time introduced by German psychologist William Stern in 1912 and employed in 1916. Stern computed I.Q by the formula.

$$I.Q = \frac{\text{Mental Age}}{\text{Chronological Age}} \times 100$$

I.Q. is a ratio of mental age to chronological age.

where, M.A - Mental Age
(i.e level of intelligence actual performance)
C.A - Chronological Age (i.e biological age from birth)

If the M.A equals the C.A., I.Q have a value of 100. If MA is less than C.A, resulting I.Q will be less than 100 and if the M.A is more than C.A, I.Q is more than 100. An I.Q range of 90 to 100 is considered average. An average person's I.Q is 100.

3) Emotional Intelligence -

Emotional Intelligence is a set of skills that underlie accurate appraisal, expression and regulation of emotions. It is the feeling side of intelligence. This concept was first introduced by Salovey and Mayer who considered emotional Intelligence as "The ability to monitor one's own and others emotions, to discriminate among them, and to use the information to guide one's thinking and actions."

4) History of intelligence testing -

Sir Francis Galton developed test designed to measure intelligence. However, his test did not prove very useful. The French Psychologist ~~Al~~ Alfred Binet developed the first stage of intelligence in 1905. So he is considered to be the father of intelligence test.

This test was revised in the year 1908 and again was revised in the year 1916. Lewis Terman of Stanford University revised the Binet test in 1916. He adapted some times added new items, established new age norms and extended the upper age limit for superior adult. These test were popularly known as Stanford Binet test. They were again revised in 1937, 1960, 1972 and 1986.

David Wechsler

developed series of scales to measure both verbal and non-verbal abilities for use with children and adults i.e. WAIS (Weschler's Adult Intelligence Scale), WISC (Weschler's Intelligence Scale for children).

VII Extra's :-

1) Definition of Intelligence.

Ans Intelligence refers to an individual's capacity to acquire and apply knowledge to new situation.

① William Stern -

Stern explained intelligence as a general capacity of an individual consciously to adjust his thinking to new requirements. It is general mental adaptability to new problems and conditions of life.

② David Weschsler -

David defines intelligence as the aggregate or global capacity of an individual to act purposefully, to think rationally and to deal effectively with the environment.

It is now understood that intelligence is not a single ability but there are many intelligence which people display in daily life.

③ Howard Earl Gardner -

Howard explains eight

distinct type of intelligence each independent of other. These include linguistic, logical, mathematical, special ~~ability~~ artistic, musical, kinesitic, interpersonal (Self adjustment), interpersonal (social) and existential.

④ Robert Sternberg -

Robert defines intelligence as comprising of mental ability necessary for adaption to as well as shaping and selection of any environmental contacts.

2) Distribution of intelligence quotient.

Ans

I. Q	Verbal Description	% of adults
Above 130	Very Superior	2.2
120 - 129	Superior	6.7
110 - 119	Bright normal	16.1
90 - 109	Average	50.0
80 - 89	Dull normal	16.1
70 - 79	Borderline	6.7
Below 70	Mentally retarded	2.2

3) Group Test.

Ans Group Test of intelligence are those test of intelligence, which are designed to determine intelligence level of more than one person at a time. Group test are designed mainly as means of mass testing. Characteristics -

① Group test are used for testing individuals more than one person at a time.

② They are less time consuming and economical.

③ In administering group test the role of examiner is minimal. So he need not go through any specialized training.

④ In group tests, test administrator has much less opportunity to establish rapport, obtain co-operation and maintain interest of the sub.

⑤ Compared to individual tests, group tests are less capable of measuring creative aspects of intelligence.

⑥ Group test ~~can~~ was devised to recruit large number of soldiers in army during the first world war. eg. Army Alpha (Verbal) and Army Beta (Perform), OTIS Self Administering test of mental ability, ~~scholastic~~ Scholastic Aptitude Test.

4) Aptitude.

Ans Aptitude is an inborn capacity. It refers to special abilities in a particular field. Aptitude is a combination of characteristics that indicates an individual's capacity to acquire some specific knowledge or skills after training. Aptitude may be physical or mental. We assess aptitude with the help of selected test. The knowledge of aptitude can help us to predict an individual's future performance.

Examples -

- ① Multiple Aptitude Test
- ② Depressionnal Aptitude Test (DAT)
- ③ The general Aptitude Test (GAT)

DAT is most commonly used in educational setting.

5) Intelligence test are very useful.

Ans Intelligence test are used in the following areas:-

① In education-

Intelligence test are used for grouping students according to intellectual potential for selecting students for various courses, programmes, scholarships and for predicting educational success.

② For diagnostic purpose-

They help to identify children with intellectual deficit, slow learners, those with emotional problems or learning disabilities

and provide remedial help.

③ For vocational guidance-

Every career requires minimum level of intelligence otherwise, success in it is difficult. Intelligence test helps to identify which vocation the person is best suited for.

- (T-A.T) (1) Multiple Aptitude Test
- (T-A.T) (2) Occupational Aptitude Test
- (T-A.T) (3) The general Aptitude Test

(4) Intelligence test are used in the following manner-

- (1) In education-
- (2) Intelligence test are used for grouping students according to intellectual potential for selecting students for various courses, programmes, scholarships and for predicting educational success.
- (3) For diagnostic purposes-

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