Prepare Diagnostic test in Algebra, Arithmetic and Geometry from VIII to X class mathematic Syllabus.

Diagnostic Test :   Part-A

The diagnostic Test is the test which is constructed in order to find out the causes of failure of a student in learning a particular part of subject matter taught to them and with the help of which finding remedial suggestions are given.

A diagonstic test is a test designed to locate specific learning deficiencies in case of specific individuals at a specific stage of learning so that specific efforts could be made to overcome those deficiencies.

Characteristics of Diagnostic Test :

* These tests are standardized, but some specialists opinion that diagnostic tests should not be standarized.

* Time limit for these tests is not specified.

* These tests form an essential part of the curriculum.

* These tests reveal the form of mental process of learner.

Uses of Diagnostic Test :-

* It indicates Student's prior Knowledge.

* Assess the learning that has occurred during a teaching / learning session.

* Can help the students understand the value of lesson, model (or) Entire course.

* Demonstrate the students that their instructors care about them as people and about their success as learners.

Construction of diagnostic Test :

* Identification of the problem Areas.

* Detailed Content Analysis.

* Listing all the learning points.

* Arranging the learning points in the logical sequence.

* Writing Test item for Each learning point.

* provide clear Instructions.

* preparing a scoring key & Marking key.

* Providing the Time limit as required by individual students

* Administration of the Test.

Steps involved in Construction of a diagnostic Test:

There are Seven steps that are usually followed in the development and construction of a diagnostic test. They are:

Step-1: Identifying Learning deficiencies.

Step-2: Analyzing Errors.

Step-3: Analyzing content.

Step-4: Identifying Learning points to be covered.

Step-5: Selection of format and developing Test items.

Step-6: Assembling the Test.

Step-7: Administering the Test.

Part-B

Preparation of Diagnostic Test in Algebra for 10th class :-

My name is P. Sravani. I am studying B.Ed 2nd year in R.V.R.R college of Education in the academic year 2020-2021 with the Roll number M-02. As a part of this course. I am studying pedagogy of Mathematics as course x. Here, I am Explaining about Diagnostic Test in this activity.

As a part of this activity, I had prepared a diagnostic Test for the topic 'Algebra to the 10th class' given below.

Sample Diagnostic Test in Algebra :

class : X   Max Marks : 20

1. An Expression with only one term is called _____

2. If $m=3$, the value of $5m+7$ is _____

3. In the term $11xy^2$, Coefficient of x is _____

4. The value of _____ is not fixed.

5. what is the value of x is $x+50 = 90$ _____

6. what is the value of $9m = 45$ _____

7. The value of the variable in an equation which satisfies the Equation is called _____ to the Equation.

8. An expression with one (or) more terms is called _____.

9. The degree of a non-zero constant polynomial is _____.

10. The degree of zero polynomial is _____.

11. Expressions are formed from _____ and _____.

12. According to Remainder Theorem, Dividend = _____.

13. The length of a rectangle is: 15m and breadth of a rectangle is 3n then what is the area of a rectangle _____.

14. The value of $(x+y)^3 =$

15. The value of a and b in $2a-3b=7$ _____

16. $13x, 11y$ are _____ terms.

17. By adding $5m(3-m)$ and $6m^2-13m$ we get _____.

18. The degree of non-zero constant polynomial is _____.

19. The value of $(a+b)^2 =$ _____.

20. The value of $\left(\frac{5}{2}m + \frac{3}{2}n\right)\left(\frac{5}{2}m - \frac{3}{2}n\right) =$ _____.

Conclusion :-

By doing this activity, I understood how to prepare diagnostic Test to the students for a particular Topic in Mathematics.

In my views, By conducting the diagnostic Test to the students, a teacher can identify the strength and deficiencies of students in that particular topic so that the teacher can analyze those mistakes and can provide remedial measures to rectify the identified learning difficulties of students.

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