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D.El.Ed. Examination
JUNE, 2018

First Year (2016 Revised Syllabus)

MATHEMATICS PEDAGOGY

(English Medium)

Time : 11.00 to 1.00 Hrs.

Date : 8/6/2018

(3 Pages)

Max. Marks : 40

1. (a) Fill in the blanks with suitable word and rewrite the sentence : 4

(1) Jean Piaget has put forth four stages of cognitive development of children. 1

(2) Specific sequence or pattern of numbers means series of number. 1

(3) The pioneer of self-search method is Heuristic. 1

(4) The three-dimensional pattern which is based on objectives, units and type of questions is called as blue print. 1

(b) Match the following : 4

'A' Column

'B' Column

(1) Aspects of Mathematical Knowledge (a) 3 Finding the weak points 1

(2) Generalisation Process (b) Fixation of student (place) rank ~~4~~ 1

(3) Diagnostic test (c) Conceptual and procedural knowledge 1

(4) Use of standard reference test (d) Measurement of learning outcomes on large scale 1

(e) Inductive reasoning 2

Answer the following questions in 60 to 80 words each : 8

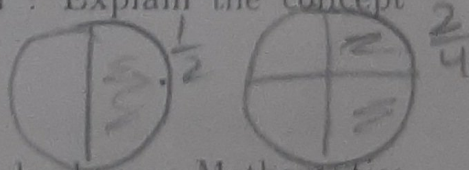
- (1) State any four characteristics of Mathematics subject.
 1) Logical sequence
 2) Structure
 3) Abstractness
 4) Mathematical
- (2) Write any four levels of geometrical thinking of Van Hiele.
 1) Visualization
 2) Analysis
 3) Abstraction
 4) Deduction
 5) Rigor
- (3) Write four names of tools in Mathematics laboratory and state its uses.
 1) Diff types of pies & charts
 2) Models
 3) Measuring equipment
 4) Drawing instruments
 5) Blackboard
- (4) Prepare objectivewise chart to show distribution of marks in a 25 marks test. 2

Answer the following questions in 120 to 160 words each : 12

- (1) "Mathematics helps in progress of nation." Explain the above statement with three examples. P 91-110
 1) Science & Tech
 2) Economic balance
 3) Rate of Population
 Or
 4) Distribution of currency in the bank
- Explain how will you use Mathematics subject in agriculture, sports and daily life giving one example of each. P 91-110
- (2) Explain the application of Jean Piaget's theory of cognitive development in Mathematics teaching-learning process with three examples. P 91-39
 1) Formal operational stage 11-16 yrs
 2) Sensory Motor stage 0-2 yrs
 3) Pre-operational stage 2-7 yrs
 4) Concrete Operational stage 7-11 yrs
- (3) Write three points of differentiation between Area and Perimeter. 3

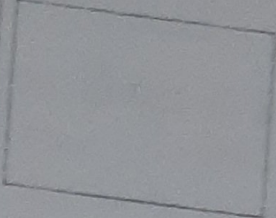


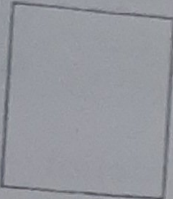
Or

What is meant by equivalent fraction ? Explain the concept with two diagrams.
 If are the



- (3) How did you use the Mathematics text-book as a Mathematics teacher ? Explain. 3

...ing questions in 200 to 250 words each
(1) Complete the following chart of information about geometrical figures :

Figure	Name of Figure	No. of Sides	No. of Corners
(I) 	Rec	4	4
(II) 	Tri	3	3
(III) 	Circle	0	0
(IV) 	Square	4	4

(2) Suggest a project and explain its implementation according to the steps of project.

4

Or

Explain with examples how you will teach the concept of "ones" and "tens" with the help of experimental method.

(3) Prepare two Mathematical puzzles on various Mathematical operations and write its logical answers.