



Reg. No. : .....

Name : .....

**First Semester B.Ed. Degree Examination, December 2016**  
**EDU 05.8 : PEDAGOGIC CONTENT KNOWLEDGE ANALYSIS-**  
**PHYSICAL SCIENCE**  
**(2015 Admn. Onwards)**

Time : 2 Hours

Max. Marks : 50

**PART – A**

I. Select the most appropriate option from those given in the brackets.

- 1) Who among the following is the teacher with the best pedagogic content knowledge ?
  - A) A teacher who is updated and is actively involved in research
  - B) A teacher who administers lot of exams in the class and makes best results
  - C) A teacher who analyze and present subject matter systematically
  - D) A teacher who always provides a democratic environment in the class
- 2) Which of the following will give you an exhaustive set of learning experiences including additional activities, information and evaluation items regarding a given topic ?
  - A) Resource Unit
  - B) Lesson Plan
  - C) Unit Plan
  - D) Year Plan
- 3) Body language and gestures are important in teaching. Which teaching skill deals with these most effectively ?
  - A) Set Induction
  - B) Reinforcement
  - C) Stimulus variation
  - D) Classroom management
- 4) Vogel's criteria is used as a quality index for
  - A) Handbook
  - B) Supplementary Reading Material
  - C) Workbook
  - D) None of the above





- 5) Which is the best method to teach “image formation by a lens” ?
- A) Experiment in small groups      B) Lecture method  
C) Power point presentation      D) Video clip

(1×5=5 Marks)

PART – B

II. Answer **all** the questions in **one** word or **one** phrase.

- 6) Give any one peculiarity of constructivist format of lesson planning.
- 7) Which is the teaching skill required to elaborate upon an experimental procedure before actually doing it ?
- 8) Give an example of a community resource.
- 9) Give any one disadvantage of lesson planning.
- 10) Kipp’s apparatus is used for making Hydrogen sulphide gas in a laboratory. Give any one advantage of Kipp’s apparatus. (1×5=5 Marks)

PART – C

III. Answer **all** the questions in **not** exceeding **one** paragraph.

- 11) Describe the scope of pedagogic content knowledge in daily lesson planning.
- 12) Draw the format of a year plan.
- 13) List any four technological competencies required by a science teacher.
- 14) List four advantages of a handbook.
- 15) List any four learning aids that may help while teaching the topic – ‘Sound’. (5×2=10 Marks)

PART – D

IV. Answer **any 4** questions in **not** exceeding **one** and a **half** pages.

- 16) List any 5 enrichment activities for teaching the topic ‘Acids and Bases’ in Standard VIII. Give justification in each of the case as to why you consider it as an enrichment activity.





- 17) Explain a Resource Unit. Illustrate in detail the format of a resource unit.
  - 18) Write a micro lesson plan for the skill of 'Illustrating with examples'.
  - 19) List any 10 (ten) probing questions that you may ask while teaching refraction. Give justification in each of the case as to why you consider it as a probing question.
  - 20) Describe Fog Index. (i) What is its use ? (ii) Give the steps to calculate it. (iii) Give its formula. (iv) List any three advantages and two limitations.
  - 21) How are environmental inputs incorporated in the teaching-learning process ?
    - i) Illustrate with two examples
    - ii) How do you think that these inputs in your examples will effect student learning ?
- (4×5=20 Marks)**

PART – E

V. Answer **any one** question in **not** exceeding **3** pages.

- 22) Prepare a lesson plan for a period of 45 minutes for any topic in physics or chemistry at secondary school level in the behaviourist format.
  - 23) Write an exhaustive blackboard summary for any topic of secondary school science. Also give 15 (fifteen) guidelines regarding proper use of a chalk board.
- (1×10=10 Marks)**
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