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SEAT No. _____

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Sardar Patel University, Vallabh Vidyanagar

Academic Year 2017-18

F.Y. B.Ed. (Advanced) Semester- I

External Examination (NC)

UE01EB2A13 - Understanding Science

Date: 02/04/18

Marks: 70

Day: Monday

Timing: 2:00 to 5:00 pm

Instructions:

- All the six questions are compulsory.
- The figure in the brackets to the extreme right indicates marks.

Q.1 Answer the following questions in brief. (Any Five) (15)

1. What precautions one should take while demonstrating an experiment?
2. Select a topic and prepare activity stage of SSTP.
3. Discuss Observation technique.
4. How should be the demonstration language in the classroom?
5. Frame three General and Specific objectives showing varied level of Bloom's Taxonomy.
6. Explain the difference between Inductive and Deductive Method with suitable example.

Q.2 Participatory learning aims to break the silence of the poor and disadvantaged sections. Explain the statement in relation to Principles of Participatory Approach and advantages of it. (10)

OR

Q.2 Write short notes on the following topics.

1. Lecture cum Discussion Method
2. Inductive Approach

Q.3 Answer Any Two out of three in approximately 160 words each. (10)

1. 'Questioning technique is the core of Science Teaching'. Give comments.
2. State one problem and explain it with the steps of problem solving method.
3. Describe classroom situations viewing various interaction patterns.

Q.4 Answer the following questions in brief. (Any Five) (15)

1. Elaborate on 'Usefulness of Microorganisms'.
2. Explain the Rutherford's alpha scattering experiment.
3. What is the difference between Atomic Number and Mass number of an element? Give one example.
4. How refraction and Reflection differs? Explain with diagram.
5. Explain the term Amplitude and Frequency in propagation of sound.
6. Discuss the role of Mitochondria and ribosome in cell.

Q. 5 Answer the Following Questions in Brief. (10)

1. What is Reduction?
2. Define force.
3. Name two substance showing conversion of solid to liquid state.
4. On rubbing an inflated balloon with a piece of synthetic cloth, it was found that balloon sticks to the wall. Name the force responsible for the attraction between balloon and wall.
5. How many Periods and groups are there in periodic table?
6. Give the name of elements. 1. Al 2. Cl
7. Give the major difference between plant cell and animal cell.
8. Define the term Motion.
9. What is Magnetism?
10. What are the charge of Neutron and Electron?

Q. 6 Answer Any Two out of three in approximately 160 words each. (10)

1. What are Chemical Reactions? Explain with appropriate examples.
2. Draft a speech on Futuristic effects of Biotechnology on environment.
3. Describe the working of an Electric Bell.