QUESTION BANK SCIENCE METHOD

Unit 1

Essay Questions (10 marks)

1. Explain meaning of academic disciplines and add a note on relationship between academic discipline and mathematics.
2. Discuss in detail classification of Becher – Biglan typology.
3. Elucidate place of Science in present school curriculum

Unit 2

Essay Questions (10 marks)

1. Elucidate the meaning and nature of science.
2. Explain the aims and objectives of teaching Science at Secondary Levels (NCF 2009)
3. Explain the aims and objectives of teaching Science at Higher Secondary Levels (NCF 2009)
4. Explain values of teaching Science in detail.
5. Elaborate the values of teaching science in the curriculum

Short note (5 marks)

1. Nature of science.
2. Objectives of teaching Science at Secondary Levels (NCF 2009)
3. Objectives of teaching Science at Higher Secondary Levels (NCF 2009)
4. Values of teaching science

Unit 3

Essay Questions (10 marks)

1. Explain the internal correlation of science with suitable examples
2. Explain the concentric approach to curriculum.
3. Elucidate the correlation of science with any three school subjects. Illustrate the intra-correlation of science in the curriculum.

Short note (5 marks)

1. Use of Maxim From Unknown to known in science
2. Use of Maxim to Proceed from Simple to Complex in science.
3. Use of Maxim From Particular to General in science
4. Use of Maxim From Whole to Part in science
5. Use of Maxim From Concrete to Abstract in science
6. Advantage/ limitations of Concentric approach to curriculum construction in science
7. Limitations of Concentric approach to curriculum construction in science
8. Advantages of Topical approach to curriculum construction in science
9. Limitations of Topical approach to curriculum construction in science
10. Need/importance of infusing global perspective in science curriculum.

Unit 4

Essay Questions (10 marks)

1. "Lecture cum demonstration method is an important method of teaching science in the Indian context". Justify with reference to the procedure and advantages of the method.
2. "Lecture cum demonstration is the most suitable method for learning in the Indian

context. Discuss.

3. "Project method of teaching science promotes independent learning among students". Explain with reference to procedure and advantages of the method.
4. "Problem based learning helps in developing critical thinking among students".
5. Justify with suitable example.
6. Explain inducto-deductive approach for teaching science and also add a note on its merits.
7. "Inducto-deductive learning helps in better retention". Justify with suitable examples.
8. Discuss meaning, steps and importance of concept mapping.

Short note (5 marks)

1. Merits/Demerits of Inductive deductive Method
2. Merits/Demerits of Lecture-cum-Demonstration Method
3. Merits/Demerits of Problem solving
4. Merits/Demerits of project method
5. Steps of concept mapping.
6. Significance of concept mapping..

Unit 5

Essay Questions (10 marks)

1. Explain good characteristics of science text book in detail.
2. How will you organize science club/ field visit. Write a note on significance of it for students.
3. "Virtual laboratory provides enriching learning experiences to students". Justify

Short note (5 marks)

1. Characteristics of science text book
2. Organization/significance of science club
3. Organization/significance of science field

Unit 6

Essay Questions (10 marks)

1. Explain need and avenues of continuous professional development of mathematics teacher.
2. Explain in detail planning and maintenance of science laboratory.
3. Discuss in detail diagnostic testing and remedial teaching in science.

Short note (5 marks)

1. Need for continuous professional development of mathematics teacher.
2. Planning of science laboratory
3. Maintenance of science laboratory
4. Remedial teaching in science
5. Diagnostic testing in science