



# Karanjia Auto College, Karanjia, Mayurbhanj

## Department of philosophy Paper-C.

### C-II

### Logic & Scientific Method

### Question Bank

#### Unit-1

#### Q. 1. Fill up the blanks

1. The term 'Logic's is derived from the Greek word \_\_\_\_\_.
2. \_\_\_\_\_ has defined Logic as the science of laws of thought.
3. \_\_\_\_\_ has defined Logic as the science of argumentation.
4. \_\_\_\_\_ has defined Logic as an art of reasoning.
5. \_\_\_\_\_ has defined Logic as a science and also an art.
6. Inference is a \_\_\_\_\_ phenomena
7. An inference expressed in language is called as \_\_\_\_\_.
8. Logic is directly concerned with \_\_\_\_\_ and indirectly with \_\_\_\_\_.
9. An argument is \_\_\_\_\_ if the conclusion logically follows from the premises.
10. An argument is \_\_\_\_\_ if the conclusion does not logically follow from the premises.
11. An argument consists of \_\_\_\_\_-.
12. A proposition is either \_\_\_\_\_ or \_\_\_\_\_ while an argument is either \_\_\_\_\_ or \_\_\_\_\_.
13. If an argument is valid and both the premises are true then the conclusion is \_\_\_\_\_.
14. Logic deals with \_\_\_\_\_.
15. \_\_\_\_\_ is a conclusion indicator.
16. \_\_\_\_\_ is a premise indicator.
17. \_\_\_\_\_ argument is a descending process.
18. \_\_\_\_\_ argument is a ascending process.
19. All the premises of a sound argument are \_\_\_\_\_.
20. The conclusion of deduction is \_\_\_\_\_
21. The conclusion of induction is \_\_\_\_\_.
22. Aristotle formulated \_\_\_\_\_ laws of thought.
23. Hamilton names law of contradicton as \_\_\_\_\_.
24. The Law of identity expressed by the formula \_\_\_\_\_
25. The law of contradiction expressed by the formula \_\_\_\_\_.

26. The law of excluded middle expressed by the formula \_\_\_\_\_.
27. Formal logic also called as \_\_\_\_\_ Logic.
28. Material logic is also called as \_\_\_\_\_ Logic.
29. Logic aims at the establishment of both \_\_\_\_\_ and \_\_\_\_\_ truth.
30. Logic is a \_\_\_\_\_ science.
31. \_\_\_\_\_ states that A is A.
32. \_\_\_\_\_ law states that A cannot be both B and not-B at the same time.
33. \_\_\_\_\_ law states that A is either B or not -B.
34. \_\_\_\_\_ has formulated the three fundamental laws of thought.
35. Tree is Tree is an example of \_\_\_\_\_.
36. The propositions which imply the conclusion are called as \_\_\_\_\_.
37. The proposition which implied by the premises are called as \_\_\_\_\_.
38. Deductive logic establishes the \_\_\_\_\_ truth.
39. Inductive logic establishes the \_\_\_\_\_ truth.
40. Logic is least concerned with the \_\_\_\_\_ of reasoning. Q. 2. Short type of questions (one or two sentences only)

- a) What is inference?
- b) What is called Logic?
- c) What is called Argument?
- d) What is proposition?
- e) What is premise?
- f) What is conclusion?
- g) What is valid argument?
- h) What is invalid argument?
- i) Give one example of invalid argument
- j) Give one example of valid argument .
- k) What is deductive argument?
- l) What is inductive argument?

**Q. 3. Short type questions (75 words)**

- a) Distinguish between inference and argument
- b) Distinguish between sound and unsound argument
- c) What is valid argument? Give an example
- d) What is the law of Identity?
- e) What is the law of excluded middle?
- f) What is the law of contradiction?
- g) What is formal truth?
- h) What is material truth?
- i) Distinguish between truth and validity

**Q. 4. Long type questions (300 words)**

- a) Is logic a science or an art? Discuss.

- b) Distinguish between truth and validity. Is logically concerned with truth or validity?
- c) Explain the nature of sound and unsound arguments with examples
- d) Explain nature and scope of logic.
- e) What is an argument? Point out the distinction between deductive and inductive arguments.
- f) State and explain the fundamental principles of logic

## Unit-2

Q,.1 fill up the blanks.

1. Proposition is an expression of \_\_\_\_\_
2. A proposition is a \_\_\_\_\_ unit
3. A proposition may either be \_\_\_\_\_ or \_\_\_\_\_
4. All propositions are \_\_\_\_\_
5. Only \_\_\_\_\_ sentences are propositions
6. The connecting link between the subject and predicate of a proposition is called as \_\_\_\_\_
7. The copula should always be in the \_\_\_\_\_ tense.
8. The negative element in a proposition should belong to the \_\_\_\_\_
9. The sign of modality in a proposition must belong to the \_\_\_\_\_
10. According to quality, the propositions are classified into \_\_\_\_\_ and \_\_\_\_\_.
11. According to quantity, propositions are classified into \_\_\_\_\_ and \_\_\_\_\_.
12. A term which is stated in its entire denotation is said to be \_\_\_\_\_.
13. Only the \_\_\_\_\_ propositions distribute their subject terms.
14. The \_\_\_\_\_ propositions always distribute their predicate term.
15. Both the subject and the predicate terms are distributed in \_\_\_\_\_ type of propositions
16. In \_\_\_\_\_ type of proposition, neither the subject nor the predicate is distributed
17. If the truth or the falsity of one proposition does not imply the truth or the falsity of another proposition then such proposition are said to be \_\_\_\_\_
18. The two propositions which are both true or both false are \_\_\_\_\_ propositions
19. \_\_\_\_\_ type of proposition is a superaltern of I-type of proposition.
20. The two propositions are said to be \_\_\_\_\_ to one another if the truth of one implies the falsity of other and not conversely.
21. A and O type of propositions are \_\_\_\_\_ to each other.
22. From the standpoint of both quality and quantity, there are \_\_\_\_\_ types of propositions
23. The relation between E and A propositions is \_\_\_\_\_
24. The relation between E and I proposition is \_\_\_\_\_.

Q. 2 Short type of questions (one or word sentences)

1. What is called proposition?
2. What is copula?

3. What is term?
4. What is universal proposition?
5. Give an example of particular proposition
6. Give an example of universal proposition
7. What is singular proposition?
8. Give an example of affirmative proposition
9. What is universal Negative proposition?

**Q.3. Short type questions (75 words)**

- a) What is universal affirmative proposition?
- b) What is universal negative proposition?
- c) What is particular affirmative proposition?
- d) What is the structure of proposition?
- e) What is particular negative proposition?
- f) What do you mean by distribution of terms?
- g) What is the relation of sub-alternation? Give an example.
- h) What is square of opposition?
- i) Why should copulation always be in the form of the verb "to be"?
- j) What is contrary opposition?
- k) What is contradictory opposition?
- l) What is sub-altern opposition?
- m) What is the relation of super-alternation ?
- n) What is contradictory relation of proposition?

**Q. 4. Long type questions (300 words)**

1. What is a proposition? How does it differ from a sentence?
2. What is copula? Discuss in detail its nature.
3. Discuss the classification of proposition according to quality and quantity?
4. Illustrate the square of opposition.

**Unit-3**

**Q. 1 fill up the blanks.**

1. An inference in which the conclusion is derived from a single proposition taken as the premises is called as \_\_\_\_\_
2. Conversion, obversion, contraposition, etc. are forms of \_\_\_\_\_ inference.
3. In \_\_\_\_\_ there is a legitimate transposition of the subject and the predicate of a proposition.
4. There is no change in \_\_\_\_\_ in conversion.
5. The proposition which undergoes conversion is called as \_\_\_\_\_ and the conclusion of conversion is called as \_\_\_\_\_.
6. The converse of an E-proposition is \_\_\_\_\_.
7. The converse of an I-proposition is \_\_\_\_\_ proposition.
8. The conversion of an A type of proposition to an I type of proposition is called as \_\_\_\_\_
9. \_\_\_\_\_ type of proposition cannot be converted.

10. Simple conversion is possible in \_\_\_\_\_ and \_\_\_\_\_ propositions
11. In obversion, the predicate of the conclusion is \_\_\_\_\_ to the predicate of the premise.
12. The premise of obversion is called as \_\_\_\_\_ and its conclusion is called as \_\_\_\_\_. 13.  
The subject of the obverse is \_\_\_\_\_ as the subject of the obvertend
14. There is a change in \_\_\_\_\_ in obversion.
15. There is no change in \_\_\_\_\_ in obversion.
16. The obverse of an A type of proposition is \_\_\_\_\_ type of proposition.
17. The obverse of an E-type of proposition is \_\_\_\_\_ type of proposition.
18. The obverse of an I-type of proposition is \_\_\_\_\_ type of proposition.
19. The obverse of an O- type of proposition is \_\_\_\_\_ type of proposition.
20. A term which is not distributed in the premise \_\_\_\_\_ in the conclusion.
21. The kind of obversion based on the fact of experience is called as \_\_\_\_\_.
22. In \_\_\_\_\_ the quality and quantity remain unchanged.
23. A mediate inference involving two premises and a conclusion is called as a \_\_\_\_\_.
24. A syllogism consists of \_\_\_\_\_ propositions involving \_\_\_\_\_ terms.
25. The conclusion of a syllogism cannot be more \_\_\_\_\_ than the premises.
26. The three terms in a syllogism occur \_\_\_\_\_ each in it.
27. The term which occur twice in the premises is called as the \_\_\_\_\_ terms
28. The predicate of the conclusion is \_\_\_\_\_ terms
29. The premise in which the major term occurs is the \_\_\_\_\_ premise
30. The premise in which the minor term occurs is the \_\_\_\_\_ premise.
31. The denotation of the major term is \_\_\_\_\_ than the denotation of the minor term.
32. The denotation of the middle term is \_\_\_\_\_ to the denotation of minor and major terms.
33. Syllogism are of two kinds namely \_\_\_\_\_ and \_\_\_\_\_.
34. There are \_\_\_\_\_ numbers of figures.
35. Figure is determined by the position of the \_\_\_\_\_ term in the premises.
36. The middle term takes the position of the subject in the major premise and predicate in the minor premise in the \_\_\_\_\_ figure.
37. The middle term takes the position of the predicate in both the premises in the \_\_\_\_\_ figure.
38. The middle term takes the position of the subject in both the premises in the \_\_\_\_\_ figure.
39. The middle term takes the position of the predicate in major premise and the position of the subject in the minor premise in the \_\_\_\_\_ premise.
40. Mood is a form of syllogism as determined by the \_\_\_\_\_ and \_\_\_\_\_ of the premises or both the premises and the conclusion.
41. The middle term must be distributed atleast \_\_\_\_\_ in the premises.
42. From two negative premises \_\_\_\_\_ conclusion can be drawn.
43. If one of the premises in a syllogism is negative then the conclusion must be \_\_\_\_\_.
44. If both the premises in a syllogism are particular then \_\_\_\_\_ conclusion can be drawn.
45. If one of the premises is particular then the conclusion must be \_\_\_\_\_.

46. If both the premises in a syllogism are affirmative then the conclusion must be \_\_\_\_\_.
47. If the Major premise is particular and the minor premise is negative then \_\_\_\_\_ conclusion can be drawn.
48. If one premise in a syllogism is particular and the other is negative then the conclusion must be a \_\_\_\_\_ proposition.
49. The weakened or the sub-altern moods in Figure -1 are \_\_\_\_\_ and \_\_\_\_\_.
50. The sub-altern mood in Figure-2 are \_\_\_\_\_ and \_\_\_\_\_.
51. There is no sub-altern mood in \_\_\_\_\_ figure.
52. Darapti is a valid mood in the \_\_\_\_\_ figure.
53. Bramantip is a valid mood in the \_\_\_\_\_ figure.
54. In all the four figures, there are \_\_\_\_\_ number of weakened moods in total.
55. In all the four figures, there are \_\_\_\_\_ number of valid moods in total.
56. Baroco is renamed as \_\_\_\_\_
57. Bocardo is renamed as \_\_\_\_\_
58. Baroco is directly reduced to \_\_\_\_\_
59. Bocardo is directly reduced to \_\_\_\_\_
60. In the first figure, the major premise must be \_\_\_\_\_ and the minor premise must be \_\_\_\_\_
61. In the second figure, the major premise must be \_\_\_\_\_ and one of the two premises must be \_\_\_\_\_
62. In the third figure, the minor premise must be \_\_\_\_\_ and the conclusion must be \_\_\_\_\_
63. For Aristotle \_\_\_\_\_ figure is the perfect figure.

**Q. 2. Short type of questions (one or two sentences only)**

- a) What is mediate inference?
- b) What is syllogism?
- c) What is figure?
- d) What is mood?
- e) What is the third general syllogistic rule?
- f) Name the fifth general syllogistic rule
- g) Name the second general syllogistic rule.
- h) What do you mean by term?
- i) What is major premise?
- j) What is minor premise?

**Q. 3. Short type questions (75 words)**

- a) What do you mean by syllogism
- b) Give an example of valid syllogistic argument
- c) Name the 19 valid moods of syllogism
- d) What is figure?
- e) What do you mean by mood?
- f) Give three characteristics of syllogism
- g) What is fallacy?

- h) What is the fallacy of undistributed middle?
- i) What is the fallacy of four terms?
- j) What is the fallacy of illicit major?
- k) What is the fallacy of illicit minor?
- l) Give an example of the fallacy of Ambiguous middle
- m) What is the fallacy of ambiguous major?
- n) What is the fallacy of ambiguous minor?
- o) What is called Aristotle Dictum?
- p) What do you mean by Dictum de omni et nullo

**Q,.4. Long type questions (300 words)**

1. Discuss the characteristics and structure of syllogism.
2. Explain briefly the third and fifth general syllogistic rules.
3. State and prove the special syllogistic rules of Figure-II
4. State and prove the special syllogistic rules of figure-4
5. State and explain Aristotle's Dictum
6. What is a mood? Determine the valid moods in Figure-1/ Figure-2/ Figure-3 and Figure-4.
7. State the General syllogistic Rules and prove any two of these rules.

**Unit-4**

**Q. 1. Fill up the Blanks**

1. The common sense view of causation is also called as \_\_\_\_\_ view of causation
2. Scientifically, cause is an invariable, unconditional and \_\_\_\_\_ of the effect.
3. Quantitatively cause is \_\_\_\_\_ to the effect.
4. According to the law of \_\_\_\_\_ the total amount of matter in the universe remains constant.
5. For Aristotle, there are \_\_\_\_\_ number of causes.
6. The form or the shape that a thing takes on being produced is called as the \_\_\_\_\_ cause.
7. The purpose for which the effect is produced is called as the \_\_\_\_\_ cause.
8. According to the plurality of causes,, the effect is produced by \_\_\_\_\_ causes under different times and circumstances
9. In conjunction of causes, an effect is produce by \_\_\_\_\_
10. Cause and effect are \_\_\_\_\_ terms
11. Cause is the sum total of \_\_\_\_\_ and \_\_\_\_\_ conditions
12. Scientifically, cause is the necessary and \_\_\_\_\_ condition of the effect.
13. The nearby cause of an effect is called as \_\_\_\_\_ cause.
14. The distant cause of an effect is called as \_\_\_\_\_ cause.
15. Mill's experimental methods help us to ascertain the \_\_\_\_\_ connection between two events.
16. The principles of \_\_\_\_\_ help us to eliminate the irrelevant circumstances.
17. There are \_\_\_\_\_ number of experimental methods.
18. The method of agreement is also called as the method of \_\_\_\_\_ agreement.

19. The method of agreement is a method of \_\_\_\_\_
20. The method of agreement is a method of \_\_\_\_\_ rather than proof.
21. The method of difference is also called as the method of \_\_\_\_\_
22. The method of difference is a method of \_\_\_\_\_
23. The method of difference requires only \_\_\_\_\_ number of instances.
24. The joint method of agreement and difference requires \_\_\_\_\_ and \_\_\_\_\_ set of instances.
25. The joint method of agreement and difference is a method of \_\_\_\_\_ agreement.
26. The method of \_\_\_\_\_ is based on the quantitative aspect of causation.
27. The method of \_\_\_\_\_ is either the modification of the method of agreement or the method of difference.
28. The method of \_\_\_\_\_ is applicable only when we have some prior knowledge of the Causes.
29. The method of \_\_\_\_\_ is liable to commit the fallacy of non-observation .
30. The method of \_\_\_\_\_ is liable to commit the fallacy of post hoc ergo propter hoc.
31. The method of concomitant variation is not applicable in the case of \_\_\_\_\_ changes.
32. The method of residues fails if the complex effect is \_\_\_\_\_.
33. The method of \_\_\_\_\_ is said to be a method of deduction.

**Q. 2. Short type questions (one or two sentences only)**

- a) What is material cause?
- b) What is efficient cause?
- c) What is formal cause?
- d) What is final cause?
- e) What is common sense view of causation?
- f) What is scientific view of causation?
- g) What is qualitative view of causation?
- h) What is quantitative view of causation?
- i) What is popular view of causation?
- j) What do you mean by plurality of causes?
- k) What do you mean by the conjunction of cause ?
- l) What is plurality of condition?
- m) Why is the method of agreement I called as the method of single agreement ?
- n) What is the first principle of elimination?
- o) What is the second principle of elimination?
- p) What is the third principle of elimination?
- q) Write two merits of method of residues

**Q. 3.Short type questions (75words)**

1. What is final cause?
2. What is common sense view of causation?
3. What is scientific view of causation?
4. What is qualitative view of causation?
5. What is quantitative view of causation?



6. What is popular view of causation?
7. What do you mean by plurality of causes?
8. What do you mean by the conjunction of cause ?
9. What is plurality of condition?
10. Why is the method of agreement I called as the method of single agreement ?
11. State any three demerits of the method of concomitant variation 12. State any three demerits of the method of difference
13. What is principles of elimination?

**Q. 4. Long type questions (300 words)**

1. State and explain the method of agreement
2. What are the characteristics of method of agreement? State it's advantages and disadvantages
3. State and explain the method of difference
4. State and explain the joint method of agreement and difference
5. State and explain the method of concomitant variation
6. State and explain the method of residues
7. Cause is an immediate unconditional invariable antecedent of the effect. Discuss.
8. Discuss Aristotle's view of causation. Give examples
9. State and explain the doctrine of plurality of causes
10. What is conjunction of causes? Give an example. How does it differ from plurality of causes?