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GRADE 13

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**f;jk jdr mÍCIKh - 2020**

**Third Term Examination - 2020**

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**LOGIC AND SCIENCE METHOD – I**

09

 **Answer all the questions.**

01. Choose the correct statement from the following.

i. An Analyhc proposition should be true.

ii. P is either true or false. This is a morphdogical truth.

iii. The predicate states to same idea expressed by the subject in different words in an

analytic proposition.

iv. Are you married? Is a descriphve statement.

v. A synthesis false statement is coherent

02. Who axaled traditional logic about caleganon.

i. Aristotle ii. John Venn iii. Euler

iv. John Bock v. Margan

03. X is bigger than y, y is bigger than z, Here whats the connechan between x and z.

i. Symmentical transihan ii. Asymmemral transihan

iii. Symmemcal intansihan iv. A symmemcal intansihan

v. Not a transihan

04. The charactenshc which does not belong to deductre system is,

i. Primitive words ii. Axioms iii. Incidential fact

iv. Inferential nules v. Dehnitias.

05. Whats the incorrect statement about poppers methodology?

i. Its easy to falsify a hypothesis with move contents.

ii. Hypothesis with a higher probability.

iii. Hypothesis with a lawer probability of acceptance.

iv. Falsittiable hypothesis are saentific.

v. Cancequents with a higer no of cantradictory observational incident are high.

06. What is the treory of popper which is not scientific according to meaning?

i. Theory of money quantity ii. Phlogistion theory.

iii. Lamahian theory iv. Hedonist.

v. Davinian theory

07. Fram the following sciencist who is cansidered to be a natural scientist?

i. Curt Levin ii. Max Plank iii. Emil Durkaim

iv. August Comte v. Thoas Hobbs.

08. When A proposition is fales the truth value of subaltern, cantrary, contracting will be,

i. False, False, True. ii. False, True, True.

iii. Indeterminable, False, True. iv. False, Indeterminable, True.

v. Indeterminable, Indeterminable, True.

09. In a valid catagorical syilogism, If one proposition is a special, Then it is A,

i. 2nd figure ii. 3rd figure iii. 4th figure

iv. 2nd or 3rd figure v. 3rd or 4th figure

10. In the gravitational theory, what the incident which cannot be Explained?

i. The mactian of planet ii. Mactian in vaccum

iii. Tide S in the ocean iv. Generatan of life

v. The path of proximity.

11. The rotation of electrons in an Atom is similar to the way that planet evolve around the sun

who fund this?

i. Weiner Huisan Berg ii. Neils Bohr

iii. J. J. Thompson iv. Ernest Ruthafrd

v. John Daltan

12. From the following structures of calegonicul syllogisms.

(a). M P (A) (b). M P (I) (c). M P (A)

M S (O) M S (A) M S (A)

S P (O) S P (I) S P (O)

(d). P M (E) (e). M P (E)

S M (A) M S (A)

S P (A) S P (O)

i. a and b ii. b and c iii. b and d

iv. b and e v. d and e

13. Tradition of acadamics was successfully remixed to tradition of artist by,

i. Galileo Gallili ii. Reinee Decart iii. Francis Bacan

iv. David Hussum v. Lei Beinz

14. Characteristict of scientific knowledge,

i. Being empirical ii.

iii. Being Dogmatc iv. Not being skephical

v. Based an non vedic

15. Which of the following is not an applied science,

i. Engineering ii. Mechanical Science iii. Architecture

iv. Nano technology v. Zoology

16. From the following statements what the correct statement relating to derivation,

i. In a line with a closed derivation a repetition can be done.

ii. Main derivation can be closed only after closing subderivation.

iii. Until the auxillary derivation is closed we cannot being andvor derivation.

iv. When there is a proverbal phrase we cannot use indirect derivation.

v. Direct derivation method can be used only when the conclusion is not included in the

premises.

17. In the deductive method the meaning of prediction is,

i. H is a matter of empathy.

ii. A statement started at present about the future.

iii. A fact which is true when the hypothesis is true.

iv. Probable statement.

v. Can be true for sure.

18. In the scientific method whose the methodologist who build a Anarchy,

i. Morris R Kohen ii. Ernest Negal iii. Thavas Khun

iv. Rusell Hurben v. Paul Fegarabend

19. What is the correct statement about scientific hypothesis?

i. An emperical fact ii. Simplisity

iii. Cannot be falsiable iv. Can be proven true

v. Relation to carses

20. (P Q), fram the following what is the cantrachtion to the above formular,

i. (P Q) (P Q) ii. (P Q) (P Q)

iii. (P Q) (P Q) iv. (P Q) (Q P)

v. (P Q) (Q P)

21. Which school of psychology build an micrding to the laboratory test?

i. Struchiralism Schould of psychdogy ii. Behaviaralism

iii. Functionalism iv. Gestalt

v. Psycoanalysy

22. Who found the DNA double helix structure?

i. Bale and Charles ii. Darwin and Walles

iii. Jary Watsan and Francis Kricn iv. Stanley Kohen and Herbert Brawn

v. Mendel and Dwensh

23. According to Huissan Burg’s indeterminable pnnaple during which characteristic would

electrons be not observable

i. Location and momentum ii. Velocity and shrngth

iii. Location and shrngth iv. Location and onentation

v. Charge density and probability

24. Within the following formulars fourformulaes are logically equivalent. What is the formulaes

which is different?

i. x (Fx Gx) ii. u (Fx Gx) iii. (Fx Gx)

iv. (Fx Gx) v. (Fx Gx)

25. Which of the following in predicate calculas use derivation method.

i. ii.

iii. iv.

v.

26. What is the most suitable explanation about social sciences?

i. A branch of physical world.

ii. A branch of Natural science concerned with the description.

iii. Something that based on experiment or observation.

iv. The study about human and society.

v. Studies based on natural observation.

27. An instrument which helps in analytical work which dosen’t use instrument,

i. Pressure cocker ii. Prisma iii. Microscope

iv. Thermometer v. The Geiger canter

28. When two cubical aice are trown up in a random experiment. The probability of the total

number facing upwards being 7 is,

i. 1 / 9 ii. 5 / 36 iii. 1 / 6

iv. 7 / 36 v. 1 /3

29. What is “Forea” according to Newton’s first low of motion?

i. Force as an applied entity

ii. The change in state of an object

iii. The low of inertia

iv. The forces of nature

v. The tendency of the objects.

30. When acusiclening two punishment that should be given talahning to the crine. Which of the

following dosen’t relate to human.

i. Conseqientialism ii. Management Preventian iii. Refermatian

iv. Naturalism v. Ctility

31. A social science which become matre matical,

i. Marxism ii. The economic iii. Keynesiar theory iv. Stimulus response theory v. Gestalt theory

32. If A, B, C are 3 classes. If AB = , C and *x* A. Then what is the venn diagram which

nopveseuts.

*x*

*x*

ABC

**×**

*x*

*x*

ABC

**×**

*x*

*x*

ABC

i. ii. iii.

*x*

ABC

**×**

*x*

ABC

iv. v.

33. A civil case must be filed,

i. Magistrates court ii. At the high court

iii. At the district court iv. At magistrates court and district court

v. At the mediatan court

34. In astronomy will’s which genre helped to discover Nepture,

i. Participatory observation rule ii. Management Residual rule

iii. Direct observation iv. Exception rule

v. Jant rule

35. All mammals are wised

Same birds are wised

Therefor birds are mammals

i. Undistributed middle term and Fallacy of illicit minor term

ii. Valid

iii. Fallacy of illicit major term and Fallay of illicit minor term

iv. Undistributed middle term and Fallay of illicit minor term

v. Undistributed middle term

36. Given that an O proposition is true, the truth values of A, E, I propositions respectively are,

i. False, indeterminate, true ii. True, true, indeterminate

iii. False, indeterminate, false iv. False, false, true

v. False, indeterminate, indeterminate

37. In a valid syllogistic argument “at least one premise must be affairmative means;”

i. Both premise must be affairmative. ii. Both premise must be negative.

iii. Both premise must not be affairmative. iv. Both premise must not be negative.

v. At least one premise must be negative.

38. Which of the following is most appropriate to indicate the meaning of simplicity of a scientific

hypothesis?

i. The hypothesis is expressed in simple terms.

ii. The hypothesis is expressed in familiar or common sense terms.

iii. The hypothesis could be tested easily.

iv. The hypothesis is expressed in-terms of a few concepts or variables which could be

applicable to a wide field.

v. The hypothesis is expressed mathematically.

39. What is the correct truth tree from the below symbolizations.

i. (P Q) ii. (P Q) iii. (P Q)

P Q

P

Q

Q P

iv. (P Q) v. (P Q)

P Q

Q P

40. The subject which is not relevant to the Bio Science is,

i. Botanical Science ii. Zoology iii. Genetics

iv. Ecology v. Microbiology

41. Which of the following sequence give the correct order to letters a, b, c, d, e in B corresponding

to the statement in A?

**A B**

1. Deductive argument a. Social science

2. Aesthetic b. Physics

3. Chemistry c. Value science

4. Physiology d. Formal science

5. Archaelogy e. Applied science

i. (cbdea) ii. (cdeba) iii. (dceba)

iv. (dcbea) v. (decba)

42. Two sentences are contradictory if they are,

i. Not both true ii. Not both false

iii. Not both true and not both false iv. No equivalent

v. If and only if not independent.

43. The term ‘ancestor’ gives a/an

i. Symmetrical transitive relation. ii. Asymmetrical non-transitive relation.

iii. Asymmetrical transitive relation. iv. Symmetrical non-transitive relation.

v. One-one relation.

44. When the celcius thermometer shows a temperature of 100oC, Fahrenheit thermometer

indicates it by Fahrenheit degrees.

i. 98.4 ii. 100 iii. 180

iv. 212 v. 32

45. In inductirist methodology the scientific obtains a generalization,

i. As a logical consequence from the observation.

ii. By means than observation and experiment.

iii. As a hypothesis with which the observational and experimental data tallies.

iv. By rejecting the theoretical terms.

v. By testing all the phenomena relevant to the generalization.

46. Induction by simple enumeration,

i. Cannot lead to a conclusion which is certain.

ii. Begins with observation.

iii. Ends with observation.

iv. Is the only method of induction.

v. Could lead to the discobery of theories like gravitation.

47. Jean Piaget is,

i. An abnormal psychologist ii. A behaviourist psychologist

iii. A structural psychologist iv. A developmental psychologist

v. A social psychologist

48. A theorem means,

i. A valid argument

ii. An invalid argument

iii. Conclusion of a valid argument with empty premises.

iv. Invalid argument with empty premises.

v. An argument that could be proved only by the direct derivation method.

49. DNA,

i. is a microbe ii. is an energy

iii. is an acid iv. is an alkali

v. was first identified in 1953

50. Sir Ronald Rose discovered the,

i. Dengue mosquito ii. Malaria mosquito

iii. Smallpox vaccine iv. Cause of diphtheria

v. Cause of anthrax