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M.S(c) Semester-III (Biotechnology) (Old Course)

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Principal paper BT302 Research Methodology and animal biotechnology

કુલ સમય : ૬૦ મીનીટ **કુલ પ્રશ્નો : ૫૦** **વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫**

નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.

1. Which of the following is not an essential element of report writing?
   (a) Research Methodology (b) Reference (c) Conclusion (d) None of these
2. What is the purpose of doing research?
   (a) To identify problem (b) To find the solution (c) Both a and b (d) None of these
3. In group interview their are _____
   (a) One interviewer and one interviewee (b) More than one interviewer and one interviewee
   (c) One interviewer and more than one interviewee (d) More than One interviewer and more than one interviewee
4. Uniting various qualitative methods with quantitative methods can be called as……..
   (a) Coalesce (b) Triangulation (c) Bipartite (d) Impassive
5. A research paper is a brief report of research work based on
   (a) Primary Data only (b) Secondary Data only (c) Both Primary and Secondary Data (d) None of the above
6. he designed experiments are the part of _____ step of DMAIC process.
   (a) Define (b) Measure (c) Analyze (d) Control
7. Which of these can be used to develop a new process?
   (a) Design of experiments (b)Acceptance sampling (c) Control charts (d) Histogram
8. Which of the following is not one of the six major methods of data collection that are used by educational researchers?
   (a) Observation (b) Interviews (c) Questionnaires (d) Checklists
9. Qualitative observation is usually done for exploratory purposes; it is also called _____ observation.
   (a) Structured (b) Naturalistic (c) Complete (d) Probed
10. Open-ended questions provide primarily _____ dat(a)
    (a) Confirmatory data (b) Qualitative data (c) Predictive data (d) None of the above
11. Which of these is not a formal report?
    (a) Informational (b) Informal (c) Interpretative (d) Routine
12. Into which of these types are formal reports not classified?
    (a) Informational (b) Interpretative (c) Oral (d) Routine
13. Which of these reports are written for recording information?
    (a) Informational (b) Interpretative (c) Routine (d) Recommendation
14. A comprehensive full Report of the research process is called
    (a) Thesis Summary Report Abstract Article
15. Which of the following is not a quantitative approach to research?
    (a) Statistics (b) Quasi-experiment (c) Survey (d) Randomised Control Trial
16. Rejection of the null hypothesis is a conclusive proof that the alternative hypothesis is
    (a) True (b) False (c) Neither
17. By taking a level of significance of 5% it is the same as saying
    (a) We are 5% confident the results have not occurred by chance
    (b) We are 95% confident that the results have not occurred by chance
    (c) We are 95% confident that the results have occurred by chance
18. Any measure indicating the centre of a set of data, arranged in an increasing or decreasing order ofmagnitude, is called a measure of:
    (a) Skewness (b) Symmetry (c) Central tendency (d) Dispersion
19. The first step in calculating the median of a discrete variable is to determine the:
    (a) Cumulative frequencies (b) Relative weights (c) Relative frequencies d Array
20. What is the median of the sample 5, 5, 11, 9, 8, 5, 8 ?
    (a) 5 (b) 6 (c) 8 (d) 9
21. What does the assumption of independence mean?
    (a) This assumption means that none of your independent variables are correlate(d)
    (b) This assumption means that the errors in your model are not related to each other.
    (c) This assumption means that you must use an independent design rather than a repeated-measures design.
    (d) This assumption means that the residuals in your model are not independent.
22. Which of the following mentioned standard Probability density functions is applicable to discrete Random Variables?
    (a) Gaussian Distribution (b) Poisson Distribution (c) Rayleigh Distribution (d) Exponential Distribution
23. Mutually Exclusive events _____
    (a) Contain all sample points (b) Contain all common sample points
    (c) Does not contain any sample point (d) Does not contain any common sample point

24. A variable that can assume any value between two given points is called _____
(a) Continuous random variable (b) Discrete random variable
(c) Irregular random variable (d) Uncertain random variable
25. If the assumed hypothesis is tested for rejection considering it to be true is called?
(a) Null Hypothesis (b) Statistical Hypothesis (c) Simple Hypothesis (d) Composite Hypothesis
26. If the null hypothesis is false then which of the following is accepted?
(a) Null Hypothesis (b) Positive Hypothesis (c) Negative Hypothesis (d) Alternative Hypothesis.
27. The point where the Null Hypothesis gets rejected is called as?
(a) Significant Value (b) Rejection Value (c) Acceptance Value (d) Critical Value
28. If the Critical region is evenly distributed then the test is referred as?
(a) Two tailed (b) One tailed (c) Three tailed (d) Zero tailed
29. The growth of animal cells in vitro in a suitable culture medium is called_____
(a) Gene expression (b) Transgenesis (c) Plant tissue culture (d) Animal cell culture
30. Name the type of culture which is prepared by inoculating directly from the tissue of an organism to culture media?
(a) Primary cell culture (b) Secondary cell culture (c) Cell lines (d) Transformed cell culture
31. What is a cell line?
(a) Multilayer culture (b) Transformed cells (c) Multiple growth of cells (d) Sub culturing of primary culture
32. Which of the following is NOT the part of growth medium for animal culture?
(a) Starch (b) Serum (c) Carbon source (d) Inorganic salts
33. Which of the following is NOT the major function of the serum?
(a) Promotion of tuber and bulb formation (b) Stimulate cell growth
(c) Enhance cell attachment (d) Provide transport proteins
34. Which of the following is not a source of energy in active muscle cells?
(a) Creatine phosphate (b) ATP (c) Lactic acid (d) Glucose
35. pH of culture medium is initially controlled by
(a) presence of CO_2 presence of bicarbonate buffer (c) addition of bases (d) none of these
36. Transgenic technology is particularly advanced in _____
(a) Plants (b) Animals (c) Mice (d) Bacteria
37. What is used to restrict transgene expression?
(a) Promoter (b) Inducer (c) Silencer (d) Reporter
38. DNA is micro infected into the fertilized egg
(a) after the fusion of male and female nuclei (b) before the fusion of male and female nuclei
(c) at the time of fusion of male and female nuclei (d) any time, it can be infected
39. In which year, Dolly the first mammalian clone was born?
(a) 1995 (b) 1997 (c) 1996 (d) 1998
40. DNA microinjection into the egg has been used to produce which of the following transgenic animals?
(a) Mice (b) Chicken (c) Pigs (d) All of these
41. The appropriate pH required to maintain the cell line is _____.
(a) 7.0 - 7.5. (b) 7.5 - 7.7. (c) 7.0 - 8.0. (d) 7.2 - 7.5
42. Embryonic stem cells are derived from the _____ cell masses of normal blastocysts.
(a) inner. (b)outer. (c) peripheral. (d) anterior
43. The oncomouse is also known as _____mouse .
(a) Pheladelphi(a) (b) Ohio. (c) Smart. (d) Harvar(d)
44. Gene targeting in mouse embryonic stem cells has become the gold standard for determinination of gene _____ in mammals.
(a) function. (b) structure (c) analysis (d) group
45. In gene therapy, the abnormal gene could be repaired through selective _____, that returns the gene to its normal function.
(a) alteration (b) reverse mutation. (c) removal. (d) retrival
46. Mesenchymal stem cells are also refered as
(a) Main stream stem cells (b) Marrow stromal stem cell (c) Muscule stromal stem cell (d) Machanical steam stem cells
47. Gene knock-out means _____ of specific gene.
(a) inactivating. (b) removal. (c) purification. (d) all the above
48. Which of the following is true regarding animal cell culture technique
(a) Lactic acid is source of carbon (b) Cells have high requirement of L-glutamine
(c) Cholin is necessary for cell adhesion and cytoskeleton (d) All of the following
49. Name the cell line of the human embryonic lung?
(a) HeLa (b) WISH (c) L (d) MRC-5
50. The process whereby cells or tissue are frozen is called…
(a) Cryopreservation (b) Proliferation (c) Differentiation