Date: 29.06.2017   **Time: 120 Minutes**

Name: _____   **Candidate Id:** _____

Discipline: Computer Application & IT

GLS Research and Aptitude Test (GReAT)

Some points to note:

- This test is of 120 minutes duration, contains 100 questions and is meant to be taken at one sitting without any breaks.

- Each question has four options. Shade the appropriate box (option) in the answer sheet for each question. Shade the box completely and do not shade more than one box, as they will be treated invalid.

- Use pencils for shading the box.

- Do your scratch work on the space available in the test book itself. DO NOT use any additional paper for rough work. You are not allowed to use any calculating device or scale.

- There is no negative marking. Hence try to attempt the maximum number of questions.

- Both question paper and answer sheet are supposed to be returned at the end of the test.

All the best…………………

GLS Research and Aptitude Test (GReAT) - Answer sheet

Name: _____   Candidate Id:_____

Please shade the appropriate option with pencil

Section 1

Question No.	Options				Question No.	Options			
1	a	b	c	d	26	a	b	c	d
2	a	b	c	d	27	a	b	c	d
3	a	b	c	d	28	a	b	c	d
4	a	b	c	d	29	a	b	c	d
5	a	b	c	d	30	a	b	c	d
6	a	b	c	d	31	a	b	c	d
7	a	b	c	d	32	a	b	c	d
8	a	b	c	d	33	a	b	c	d
9	a	b	c	d	34	a	b	c	d
10	a	b	c	d	35	a	b	c	d
11	a	b	c	d	36	a	b	c	d
12	a	b	c	d	37	a	b	c	d
13	a	b	c	d	38	a	b	c	d
14	a	b	c	d	39	a	b	c	d
15	a	b	c	d	40	a	b	c	d
16	a	b	c	d	41	a	b	c	d
17	a	b	c	d	42	a	b	c	d
18	a	b	c	d	43	a	b	c	d
19	a	b	c	d	44	a	b	c	d
20	a	b	c	d	45	a	b	c	d
21	a	b	c	d	46	a	b	c	d
22	a	b	c	d	47	a	b	c	d
23	a	b	c	d	48	a	b	c	d
24	a	b	c	d	49	a	b	c	d
25	a	b	c	d	50	a	b	c	d

Name: _____   Candidate Id: _____

Please shade the appropriate option with pencil

Section 2

Question No.	Options					Question No.	Options			
1	a	b	c	d		26	a	b	c	d
2	a	b	c	d		27	a	b	c	d
3	a	b	c	d		28	a	b	c	d
4	a	b	c	d		29	a	b	c	d
5	a	b	c	d		30	a	b	c	d
6	a	b	c	d		31	a	b	c	d
7	a	b	c	d		32	a	b	c	d
8	a	b	c	d		33	a	b	c	d
9	a	b	c	d		34	a	b	c	d
10	a	b	c	d		35	a	b	c	d
11	a	b	c	d		36	a	b	c	d
12	a	b	c	d		37	a	b	c	d
13	a	b	c	d		38	a	b	c	d
14	a	b	c	d		39	a	b	c	d
15	a	b	c	d		40	a	b	c	d
16	a	b	c	d		41	a	b	c	d
17	a	b	c	d		42	a	b	c	d
18	a	b	c	d		43	a	b	c	d
19	a	b	c	d		44	a	b	c	d
20	a	b	c	d		45	a	b	c	d
21	a	b	c	d		46	a	b	c	d
22	a	b	c	d		47	a	b	c	d
23	a	b	c	d		48	a	b	c	d
24	a	b	c	d		49	a	b	c	d
25	a	b	c	d		50	a	b	c	d

Section: 1 – Research Methodology

1. Non-probability sampling includes
   a. Quota Sampling
   b. Convenience Sampling
   c. Judgment Sampling
   d. All of the Above

2. The process of assigning numerals to objects according to some rules is termed as
   a. Observation
   b. Measurement
   c. Analysis
   d. Statistics

3. 'Internal criticism' is a required step in
   a. Experimental Research
   b. Descriptive Research
   c. Philosophical Research
   d. Historical Research

4. The research that aims at immediate application is
   a. Action Research
   b. Empirical Research
   c. Conceptual Research
   d. Fundamental Research

5. Which method focuses on generating new hypothesis?
   a. Pattern
   b. Deductive
   c. Inductive
   d. None is correct

6. Which of the following is not an approach of analysis of qualitative data?
   a. Logical Analysis
   b. Criterion Analysis
   c. Content Analysis
   d. Inductive Analysis

7. The Government of India conducts Census after every 10 years. The method of research used in this process is
   a. Case Study
   b. Developmental
   c. Survey
   d. Experimental

8. A researcher is generally expected to
    a. Study the existing literature in a field
    b. Synthesize the ideas given by others
    c. Evaluate the findings of a study
    d. Generate new principles and theories

9. A mediator variable is:
    a. responsible for the relationship between two other variables
    b. another name for the independent variable
    c. another name for the dependent variable
    d. all of the above

10. A researcher divides his population into certain groups and fixes the size of the sample from each group. It is called
    a. Stratified sample
    b. Quota sample
    c. Cluster sample
    d. All of the above

11. Which section of a journal article is provided in most online electronic databases?
    a. Conclusion
    b. Abstract
    c. Results
    d. Introduction

12. What is deemed a good measure of the quality of a journal?
    a. The intake factor
    b. The impact factor
    c. The OPAC factor
    d. The influence factor

13. Which of the following show the proportion of variance shared between two variables?
    a. Correlation
    b. Standard error
    c. Attenuation
    d. Co-efficient of determination

14. The appropriate analytical technique is determined by
    a. The research design
    b. Nature of the data collected
    c. Nature of the hypothesis
    d. Both A & B

15. To obtain the freest opinion of the respondent, when we ask general question before a specific question then this procedure is called as the:
    a. Research technique
    b. Qualitative technique
    c. Funnel technique
    d. Quantitative technique

16. Randomization of test units is a part of ………
    a. Pretest
    b. Posttest
    c. Matching
    d. Experiment

17. All of the following are true statements about action research, EXCEPT
    a. Data are systematically analyzed
    b. Data are collected systematically
    c. Results are generalizable
    d. Results are used to improve practice

18. "Income distribution of employees" in a specific organization is an example of which of following type of variable?
    a. Discontinuous variable
    b. Continuous variable
    c. Dependent variable
    d. Independent variable

19. How many times the students appear in the research class is the example of _____.
    a. Intensity
    b. Space
    c. Frequency
    d. Direction

20. Experimental design is the only appropriate design where_____ relationship can be established.
    a. Strong
    b. Linear
    c. Weak
    d. Cause and Effect

21. _____ is the evidence that the instrument, techniques, or process used to measure concept does indeed measure the intended concepts.
    a. Reliability
    b. Replicability
    c. Scaling
    d. Validity

22. Which of the following is not the source for getting information for exploratory research?
    a. Content analysis
    b. Survey
    c. Case study
    d. Pilot study

23. Which of the following sampling technique is used for Employee Turnover and Job Openings survey?
    a. Simple random sampling
    b. Cluster sampling
    c. Stratified sampling
    d. Convenience sampling

24. Which one of the following can be more helpful than others in order to determine the exact source of measurement errors in establishment survey?
    a. Focus group
    b. Operation test
    c. Response analysis survey
    d. Document design analysis

25. The difference between a convenience sample and a representative sample is:
    a. Convenience sample limits the participants to the population of interest
    b. The availability - a convenience sample is easier for the researcher to approach
    c. The convenience sampling selects participants randomly and a representative sample does not
    d. The size - a representative sample is bigger

26. Which of the following statements is true of the relationship between sample sizes and effect sizes?
    a. The bigger the effect, the bigger the sample size
    b. The bigger the difference, the bigger the sample size
    c. Smaller effect sizes are more likely to be significant with smaller sample sizes
    d. The effect size and sample size have no relationship

27. What sort of research is coding appropriate for?
   a. Quantitative and qualitative
   b. Quantitative
   c. Qualitative
   d. None of these

28. The primary aim of _____ is to give structure to data in the form of categories which can then be analysed.
   a. Statistics analysis
   b. Pilot studies.
   c. Self-completion questionnaires
   d. Coding

29. Quasi-experimental research is used because:
   a. Random selection is not possible
   b. Neither random selection nor random assignment is possible
   c. Random assignment is not possible
   d. There are no comparison groups available

30. The extent to which a test provides scores that are meaningful, appropriate or useful is referred to as;
   a. Reliability
   b. Accuracy
   c. Internal validity
   d. Validity

31. What is the first step in the research process?
   a. Problem definition
   b. Define broad problem area
   c. Theoretical framework
   d. Preliminary data collection

32. Which of the following is a discrete variable?
   a. Age
   b. Nationality
   c. Test score
   d. Income

33. In which way does a ratio scale measurement differ from an interval measurement?
   a. It measures larger or smaller scores on some underlying dimension
   b. It implies the existence of an absolute zero value
   c. It requires the mutual exclusivity of all cases
   d. It requires that exhaustiveness is applied to all observations

34. Question that consists of two or more questions joined together is called a:
    a. Double barreled question
    b. General question
    c. Accurate question
    d. Confusing question

35. Statistics is used by researchers to
    a. Analyze the empirical data collected in a study
    b. Make their findings sound better
    c. Operationally define their variables
    d. Ensure the study comes out the way it was intended

36. The theoretical framework discusses the interrelationships among the……….
    a. Variables
    b. Hypothesis
    c. Concept
    d. Theory

37. You can collect qualitative data, such as from interviews, but then analyse this data quantitatively.
    a. True
    b. False

38. Quartile Coefficient of skewness lies between
    a. 0 and 1
    b. -1 and 0
    c. None of these
    d. -1 and +1

39. _____ is the most widely used measure of dispersion
    a. Median
    b. Variance
    c. Harmonic Mean
    d. None of the above

40. A bar chart or graph showing the frequency of occurrence of each value of the variable being analysed is called
    a. Bar Chart
    b. Histogram
    c. Candle stick
    d. None of these

41. The assumption of normal distribution for the variable under consideration or some assumption for a parametric test is not valid or is doubtful then we use
    a. Parametric Test
    b. Non-Parametric Test
    c. Both Parametric Test and Non-Parametric Test
    d. All of the above

42. A group of observations is the quotient obtained by dividing the sum of all the observations by their number, is called
    a. Mean
    b. Median
    c. Mode
    d. None of these

43. What is data collection?
    a. Collecting the research question and objectives together
    b. Gathering the information (data) which will help you address your research question
    c. Reviewing the literature review
    d. Outlining how you will gather the information for your research question

44. An understanding of business research methods is important because:
    a. Business research is laden with terminology and jargon specific language
    b. Business research draws on complex research designs
    c. It is imperative to understandning frontline staff needs
    d. It helps you to avoid the common pitfalls of research methods, it helps you to critically read others' research, and it helps you to better understand your own topics of interest

45. In descriptive statistics, we study
    a. The description of decision making process
    b. The method for organizing, displaying and describing data
    c. How to describe the probability distribution
    d. None of above

46. What type of data do you need for a chi-square test?
    a. Categorical
    b. Ordinal
    c. Scales
    d. Parametric

47. What shape is a normal distribution?
    a. Flat
    b. Bell shaped
    c. Descending line
    d. Inverted (U)

48. What is a cross-sectional design?
    a. A study of one particular section of society, e.g. the middle classes
    b. One that is devised when the researcher is in a bad mood
    c. The collection of data from more than one case at one moment in time
    d. A comparison of two or more variables over a long period of time

49. Researcher intends to ascertain the attitude of adolescents towards modernization, which one of the following tools is an appropriate one?
    a. Likert Scale
    b. Projective Technique
    c. Interview
    d. Sociometry

50. Which of these sections should come first in an APA report?
    a. Conclusions
    b. Methodology
    c. Abstract
    d. Introduction

Section: 2 – Computer Application & IT Discipline

1. The word plaf in package name javax.swing.plaf stands for which of the following?
    a. Pluggable like and feel
    b. Pluggable look and feel
    c. Portable look and feel
    d. Portable like and feel

2. Which of the following interface provides support for both input as well as output parameters?
    a. Prepared Statement
    b. Statement
    c. Callable Statement
    d. None of these

3. When several components are to be put in a group, we attach them to which of the following panes?
    a. Glass pane
    b. Root pane
    c. Layered pane
    d. Content pane

4. Which of the following method can be used to set shortcut key for particular component?
    a. setToolTipText()
    b. setMnemonic()
    c. setShortCut()
    d. setText()

5. Which of the following displays periodic snapshots of performance viewed against an organization's strategic objectives and targets?
    a. Scorecards
    b. Score sheets
    c. Dashboards
    d. Query Tools

6. Which of the following are advanced visualization techniques?
    a. Chart Manipulation
    b. Drill Down
    c. Advanced Interaction
    d. All of these

7. Which of the following refers to BLOB?
    a. Binary Long Objects
    b. Binary Large Objects
    c. Binary Live Objects
    d. Binary List Objects

8. Which of the following refers to the ability of a system to continue functioning in the event of partial failure of system?
    a. Fault Avoidance
    b. Fault Recovery
    c. Fault Detection
    d. Fault Tolerance

9. If a process is executing a system call but is sleeping at _____ priority, it can be immediately blocked.
    a. Interruptible
    b. Non interruptible
    c. Highest
    d. Lowest

10. Which of following refers to Fast Ethernet?
    a. 10Base2
    b. 100BaseFX
    c. 1000Base-T
    d. 10GBase-T

11. In which of the following operating system the users view the distributed computing system as a collection of distinct machines connected by a communication subsystems?
    a. Distributed
    b. Tightly coupled
    c. Network
    d. Uniprocessor

12. ICMP refers to which of the following?
    a. Error Correction
    b. Error Detection
    c. Error Reporting
    d. Error Detection and Reporting

13. The situation when in a linked list START is equal to NULL is known as _____.
    a. Underflow
    b. Overflow
    c. Houseful
    d. Saturated

14. Each data item in a record may be a group item composed of sub-items; those items which are indecomposable are called?
    a. Elementary items
    b. Atoms
    c. Scalars
    d. All of these

15. Any node in the path from the root to the node is called _____.
    a. Successor node
    b. Ancestor node
    c. Internal node
    d. None of these

16. When inorder traversing a tree resulted E A C K F H D B G the preorder traversal would return
    a. FAEKCDBHG
    b. FAEKCDHGB
    c. EAFKHDCBG
    d. FEAKDCHBG

17. An acyclic digraph which has only one node with indegree 0 and other nodes have in degree 1
    a. Directed tree
    b. Undirected tree
    c. Disjoint tree
    d. Direction oriented tree

18. What is Cloud Foundry?
    a. Factory that produces cloud components
    b. VMware-led open source PaaS
    c. An industry wide PaaS initiative
    d. VMware-led closed source PaaS

19. Which of the following feature does not belong to private cloud?
    a. Metered billing
    b. Self-service portal
    c. Dial-home support
    d. Rapid elasticity

20. If a node having two children is deleted from a binary tree it is replaced by its _____.
    a. Inorder predecessor
    b. Inorder successor
    c. Preorder predecessor
    d. None of these

21. Which of the following is not developed with C++?
    a. ActiveX Control
    b. Applet
    c. Dynamic Link Library
    d. Executable File

22. Which of the following data structures are indexed structures?
    a. Linear Arrays
    b. Linked Lists
    c. Both A and B
    d. None of these

23. A data structure where elements can be added or removed at either end but not in the middle
    a. Linked lists
    b. Stacks
    c. Queues
    d. Deque

24. The minimum number of messages generated in a single key press representing a printable character is ____.
    a. 3
    b. 1
    c. 5
    d. 0

25. Normally _____ key is associated with system keyboard messages?
    a. Ctrl
    b. Alt
    c. Shift
    d. Tab

26. A "full color" video display resolution has ___ bits per pixel.
    a. 1
    b. 16
    c. 24
    d. 32

27. Which of the following keywords contains a pointer which points to the object that called a class's member function?
    a. case
    b. this
    c. default
    d. throw

28. Basis path testing falls under which of the following categories?
    a. Unit Testing
    b. White box testing
    c. Black box testing
    d. Integration testing

29. Which of the following is technical factor of maintenance cost?
    a. Program age
    b. Programming Language
    c. Program validation
    d. Line of Code

30. A black-box testing method that divides the testing in proportions is called?
    a. Equi-partitioning
    b. Equal partitioning
    c. Equivalence partitioning
    d. None of the above

31. The communication problem involves the following
    a. Analyst and Programmer
    b. The programmer and the computer
    c. The manager and analyst
    d. The operator and computer

32. An actor in the Usecase can be _____.
    a. Real world entity
    b. An abstract entity
    c. Both of the above
    d. None of the above

33. Which is not a structuring activity part of a requirement analysis process?
    a. Partitioning
    b. Abstraction
    c. Projection
    d. Requirement Definition

34. Which of the following is correct sequence of system testing?
    a. Unit Testing, Validation Testing, System Testing, Integration Testing
    b. Unit Testing, Integration Testing, Validation Testing, System Testing
    c. System Testing, Unit Testing, Validation Testing, Integration Testing
    d. System Testing, Integration Testing, Unit Testing, Validation Testing

35. Relationship between program and software
    a. Program is superset of software
    b. Program is subset of software
    c. Software is combination of many programs
    d. No relationship

36. Device files in UNIX are
    a. Device drivers
    b. Special files
    c. Pipes
    d. Unstructured files

37. The purpose of virtual memory system is to
    a. Allow multiprocessing
    b. Allow multiprogramming
    c. Allow batch processing
    d. Allow execution of a program that requires larger memory than the size of the physical main memory

38. The << >> symbols are used to show _____ in Usecase
    a. Stereotypes
    b. Actor
    c. Scenario
    d. None of the above

39. The Black Box concept is based on assumptions that
    a. The relationship between the inputs and outputs is stable
    b. Black boxes are dependent on environments
    c. The Supra system is stable
    d. All of the above

40. Which of the following is true for OLTP?
    a. Transaction Processing System
    b. Implemented through SQL
    c. Only A
    d. Both A and B

41. Which of the following is the type of threat on the security of a computer system or network?
    A. Interruption
    B. Creation
    C. Deletion
    D. Interception

    a. A and B
    b. C and D
    c. A and D
    d. B and C

42. An attempt to make a computer resource unusable due to legitimate or illegitimate activity
    results in which of the following attacks?
    a. Virus attack
    b. Worms attack
    c. Denial-of-service attack
    d. Botnet process

43. Which of the following CPU scheduling algorithms will prevent starvation problem?
    a. Shortest-job-first
    b. Priority-scheduling
    c. Priority-scheduling with aging mechanism
    d. None of the above

44. In a multi-tier ERP architecture, which of the following defines the role of application server?
    a. Database Management
    b. Stores Application Logic
    c. User Interface Management
    d. Hosts Website

45. In computer security, which of the following means that data generated on computer system at the senders side is similar to the data received by the receiver.
    a. Confidentiality
    b. Integrity
    c. Availability
    d. Authenticity

46. Coding phase begins immediately after
    a. Requirements analysis
    b. Software design phase
    c. Project planning phase
    d. Prototyping process

47. Which of the following header file is part of windows.h header file?
    a. STDIO.H
    b. CONIO.H
    c. WINPROG.H
    d. WINUSER.H

48. A variable P is called pointer if
    a. P contains the address of an element in DATA
    b. P points to the address of first element in DATA
    c. P can store only memory addresses
    d. P contain the DATA and the address of DATA

49. Which of the following refers to a communication mode when an access point works as an arbitrator?
    a. Infrastructure Mode
    b. PCF Mode
    c. Infrastructure or PCF Mode
    d. DCF Mode

50. A heterogeneous distributed system consist of interconnected sets of which of the following?
    a. Dissimilar hardware only
    b. Dissimilar software only
    c. Dissimilar hardware or Software
    d. Similar hardware only