

Seat No.

Total No. of Pages : 11

Ph.D. Entrance Examination 2025**GEOLOGY****Subject Code: 58804**

Day and Date : Tuesday, 09/09/2025**Total Marks : 100****Time : 01.00 pm to 03.00 pm**

Instructions:

- 1) All questions are compulsory.
 - 2) Each question carries 2 mark.
 - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
 - 4) Follow the instructions given on OMR sheet.
 - 5) Rough work shall be done on the sheet provided at the end of question paper.
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1. An essential Criterion of Scientific study is
 - a. Belief
 - b. Value
 - c. Objectivity
 - d. Subjectivity
2. "A systematic step-by-step Procedure following logical process of reasoning" called.....
 - a. Experiment
 - b. Observation
 - c. Deduction
 - d. Scientific method
3. "A system of systematically interrelated concepts definitions and propositions that are advanced to explain and predict phenomena" is
 - a. Facts
 - b. Values
 - c. Theory
 - d. Generalization

4. "Empirically verifiable observation" is
 - a. Theory
 - b. Value
 - c. Fact
 - d. Statement
5. Science is broadly divided into
 - a. Natural and Social
 - b. Natural and Physical
 - c. Physical and Mental
 - d. Social and Physical
6. Research is classified on the basis of and methods.
 - a. Purpose
 - b. Intent
 - c. Methodology
 - d. Techniques
7. Research undertaken for knowledge sake is
 - a. Pure Research
 - b. Action Research
 - c. Pilot study
 - d. Survey
8. Example for fact finding study is
 - a. Pure Research
 - b. Survey
 - c. Action Research
 - d. Long term Research
9. Facts or information's are analyzed and critical evaluation is made in.....
 - a. Survey
 - b. Action research
 - c. Analytical research
 - d. Pilot study

10. A research which follows case study method is called
- a. Clinical or diagnostic
 - b. Causal
 - c. Analytical
 - d. Qualitative
11. Research conducted in class room atmosphere is called
- a. Field study
 - b. Survey
 - c. Laboratory Research
 - d. Empirical Research
12. UGC Stands for
- a. University Grants Commission
 - c. University Governance Council
 - b. Union Government Commission
 - d. Union government Council
13. is the first step of Research process.
- a. Formulation of a problem
 - b. Collection of Data
 - c. Editing and Coding
 - d. Selection of a problem
14. Concepts areof Research.
- a. Guide
 - b. Tools
 - c. Methods
 - d. Variables
15. Why do you need to review the existing literature?
- a. To make sure you have a long list of references
 - b. Because without it, you could never reach the required word-count
 - c. To find out what is already known about your area of interest
 - d. To help in your general studying

16. A formal document that presents the research objectives, design of achieving these objectives, and the expected outcomes/deliverables of the study is called
- a. Research design
 - b. Research proposal
 - c. Research hypothesis
 - d. Research report
17. The first purpose of a survey is to
- a. Description
 - b. Evaluation
 - c. Pration
 - d. Provide Information
18. What are the core elements of a Research Process?
- a. Introduction; Data Collection; Data Analysis; Conclusions and Recommendations
 - b. Executive Summary; Literature Review; Data Gathered; Conclusions; Bibliography
 - c. Research Plan; Research Data; Analysis; References
 - d. Introduction; Literature Review; Research Methodology; Results; Discussions and Conclusions
19. Which of the following is true regarding research objectives?
- a. Research objectives, when achieved, will provide sufficient earnings to obtain areas on able return on investment.
 - b. Research objectives, when obtained, will ensure the viability of the marketing research department.
 - c. Research objectives, when achieved, provide the information necessary to solve the problem.
 - d. Research objectives are seldom achieved but should be stated as goals to be sought.

20. Final stage in the Research Process is
- a. Problem formulation
 - b. Data collection
 - c. Data Analysis
 - d. Report Writing
21. A comprehensive full Report of the research process is called
- a. Thesis
 - b. Summary Report
 - c. Abstract
 - d. Article
22. Which of the following is not one of the seven major parts to the research report?
- a. Results
 - b. Abstract
 - c. Method
 - d. Footnotes
23. How many sheets are there, by default, when we create a new Excel file?
- a. 1
 - b. 3
 - c. 5
 - d. 10
24. The internationally accepted scheme of igneous rock classification (IUGS) was proposed by
- a. Clark
 - b. Washington
 - c. Streekeisen
 - d. non of the above
25. The most abundant substance that escapes when the magma crystallizes is
- a. CO_2
 - b. water vapour
 - c. H_2S
 - d. $\text{O}_2 + \text{N}_2$

26. A consolidated igneous rock containing occasional phenocrysts is
- a. vitrophyre
 - b. obsidian
 - c. scoria
 - d. pumice
27. is the most important feature for the analysis of sedimentary environment.
- a. Primary structures
 - b. sedimentary structures
 - c. bioturbated structures
 - d. colour of the sediments
28. Variation of paleocurrent direction is minimum in the deposits formed by
- a. glacial processes,
 - b. fluvial processes,
 - c. aeolian processes
 - d. beach processes.
29. Limestones were deposited mainly in the form of micrites during
- a. Precambrian
 - b. Cambrian
 - c. Ordovician
 - d. Tertiary
30. The larger the scale of cross beds indicates
- a. the higher the velocity of the current,
 - b. the lower the velocity of the current,
 - c. the distance of the source rock,
 - d. none of these.

31. There are axes of symmetry in the Normal class of Isometric system.
- a. Nine
 - b. Five
 - c. Seven
 - d. Thirteen
32. The total number of Space lattices is.....
- a. Thirteen
 - b. Fourteen
 - c. Twelve
 - d. Thirty two
33. The Miller's Indices of clinopinacoid in Normal class of Monoclinic system is
- a. (010)
 - b. (100)
 - c. (001)
 - d. (101)
34. Baveno Twins are found insystem.
- a. Monoclinic
 - b. Triclinic
 - c. Hexagonal
 - d. Orthorhombic
35. A typical bauxite deposit has
- a. a laterite capping and lithomarge base,
 - b. a lithomarge capping and laterite base,
 - c. a limonite capping and laterite base.
 - d. none of these
36. In the Karst regions bauxite deposits occur as deposits.
- a. blanket,
 - b. interstratified,
 - c. pocket
 - d. hydrothermal

37. If the colour of the gossan is black, it indicates the presence of
- a. iron
 - b. manganese
 - c. copper
 - d. gold
38. The best example of magmatic segregated ores is.....deposits.
- a. bauxite
 - b. iron,
 - c. chromium
 - d. Gold.
39. What physical parameter of the earth is measured in the Seismic refraction techniques?
- a. Gravity
 - b. Density
 - c. Permeability
 - d. Porosity
40. In the Wenner's configuration, all the potential electrodes are separated from the current electrodes by a distance of
- a, one half
 - b. one third
 - c. one fourth
 - d. two third
41. The term 'Telluric value' is related to method of prospecting.
- a. Seismic
 - b. Magnetic
 - c. Electrical
 - d. Gravity
42. The Schlumberger Configuration is used in method
- a. Gravity
 - b. Electrical
 - c. Seismic
 - d. Magnetic

43. The photographs which we take with our daily use normal camera, represent
- a. true colors
 - b. false colors,
 - c. negative colors
 - d. None of these
44. Parallax on a aerial photograph can be obtained by means of a
- a. Substance bar
 - b. Stereo-bar
 - c. Parallax-bar
 - d. None of these
45. Visible portion of the electromagnetic spectrum lies between..... micrometer wavelengths.
- a. 0.1 to 0.4
 - b. 0.4 to 0.7,
 - c. 0.7 to 1.0
 - d. 0.2 to 0.5
46. grid system is adopted for India.
- a. Universal Transverse Mercator (UTM) Grid,
 - b. Lambert Grid,
 - c. Both options are correct,
 - d. None of these
47. The current National Water Policy was reviewed and updated in
- a. 2002
 - b. 1987
 - c. 2012
 - d. 2000

48. Movement of debris or sediments on the earth along the slope is called as

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|--------------|---------------|
| a. seepage | b. earthquake |
| c. landslide | d. volcano |

49. The giant seismic sea waves are called as

- | | |
|------------|---------------|
| a. tornado | b. tsunami |
| c. flood | d. earthquake |

50. Impact of open cast mining is more on environment due to

- | | |
|------------------|------------------|
| a. deforestation | b. dumping |
| c. landslide | d. none of these |

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-- ROUGH WORK --