UPKAR'S
UGC
NET/JRF/SET
TEACHING &
RESEARCH APTITUDE
(GENERAL PAPER-I)

Including Previous Years' Solved Papers & Practice Test Papers

By

Dr. Lal, Jain & Dr. K. C. Vashistha

2024

Revised Edition

UPKAR PRAKASHAN AGRA

Hindi Edition is also available

CONTENTS

● Previous Years' Papers—Fully Solved

Part-I
Reasoning Test

Part-II
Logical Reasoning

(iv)

Part-III

Teaching Aptitude

Part-IV

Research Aptitude

Part-V

Part-VI

Part-VII

Part-VIII

Part-IX

Part-X

Practice Test Papers

General Information

About National Testing Agency (NTA)

The Ministry of Human Resource Development (MHRD), which is now known as Ministry of Education (MoE), Government of India (GoI), has established the **National Testing Agency (NTA)** as an independent, autonomous and self-sustained premier testing organization under the Societies Registration Act, 1860, for conducting efficient, transparent and international standards tests in order to assess the competency of candidates for admissions to premier higher education institutions.

The NTA has been entrusted by the University Grants Commission (UGC) with the task of conducting UGC-NET, which is a test to determine the eligibility of Indian nationals for 'Assistant Professor' and 'Junior Research Fellowship and Assistant Professor' in Indian universities and colleges.

National Eligibility Test (UGC-NET)

UGC-NET is a test to determine the eligibility of Indian Nationals for **Assistant Professor' and 'Junior Research fellowship and Assistant Professor'** in Indian universities and colleges.

The selection of candidates for the following Fellowships will be made through the Ministry of Social Justice and Empowerment and the Ministry of Minorities Affairs.

- National Fellowship for Scheduled Caste Students (NFSC).
- National Fellowship for Other Backward Classes (NFOBC).
- National Fellowship for Persons with Disabilities (NFPwD).

Candidates aspiring for the Fellowships listed above, shall also have to apply for the Test.

Age Limit & Relaxation

(a) For Junior Research Fellowship : Not more than 30 years as on stipulated date. A relaxation upto 5 years is provided to the candidates belonging to OBC (Non-creamy layer), as per the Central list of OBC available on website : www.ncbc.nic.in)/SC/ST/PwD/ Third gender categories and to women applicants. Relaxation will also be provided to the candidates with research experience, limited to the **period spent on research** in the relevant/related subject of Post Graduation degree, subject to a maximum of 5 years, on production of a certificate from appropriate authority which should be a recognized Indian university/Institute of National Importance/foreign university which is duly approved/ recognized/accredited in its own Country/Public Sector Undertaking of Government of India / State Government in India. The research should not have been carried out towards completion of graduation or post-graduation degree(s). **Three years' relaxation** in age will be permissible to the candidates with LL.M. degree. A relaxation of upto 5 years is provided to the candidates who have served in the armed forces subject to the length of service in the armed forces upto the first day of the month in which the concerned UGC-NET is conducted. Total **age relaxation on the above ground(s) shall not exceed five years under any circumstances.**

(b) Assistant Professor : There is no upper age limit in applying for UGC–NET for Assistant Professor.

Exemption (Eligibility for Assistant Professor)

(i) NET/SLET/SET shall remain the minimum eligibility condition for recruitment and appointment of Assistant Professors in Universities/Colleges/Institutions. In this regard, exemption from NET-SET/ SLET will be governed by UGC regulations and amendments notified in the Gazette of India from time to time.

(ii) The candidates who have passed the UGC/CSIR JRF examination prior to 1989 are also exempted from appearing in NET.

(iii) **For SET Candidates :** The candidates who have cleared the State Eligibility Test (SET) accredited by UGC for Assistant Professor held prior to 1st Dec., 2002, are exempted from appearing in NET, and are eligible to apply for Assistant Professor anywhere in India. For SET held from 1st June, 2002 onwards, the qualified candidates are eligible to apply for the post of Assistant Professor only in the universities/ colleges situated in the state from where they have cleared their SET.

UGC-NET Exam.

(i) **Mode of Examination : The Examination shall only be conducted as Computer Based Test (CBT) mode in multi shifts as per guidelines.**

(ii) **Pattern :** The Test will consist of **two** papers. Both the papers will consist of only objective type multiple choice questions. **There will be no break between papers.**

Paper	Marks	Number of Questions	Pattern	Duration
I	100	50	The questions in Paper-I intends to assess the teaching/ research aptitude of the candidate. It will primarily be designed to test reasoning ability, reading comprehension, divergent thinking and general awareness of the candidate.	3 hours (180 minutes) without any break. All questions are compulsory.
II	200	100	This is based on the **subject selected by the candidate** and will assess domain knowledge.	

● **Medium of Question Paper :**

    (i)   The medium of Question Paper shall be in English & Hindi only except language papers.

    (ii) Option of medium of Question Paper should be carefully chosen by the Candidate, while filling the Application Form online. The option once exercised cannot be changed.

    (iii) Candidates are required to answer in the medium as per option exercised in the Application Form.

    (iv) In case of any ambiguity in translation / construction of a question in the exam, **its English version shall be treated as final and the decision of NTA shall be final in this regard.**

● **Marking Scheme :**

    (a) Each question carries 2 (two) marks.

    (b) For each correct response, candidate will get 2 (two) marks.

    (c) There is no negative marking for incorrect response.

    (d) No marks will be given for questions unanswered / un-attempted / marked for Review.

    (e) To answer a question, the candidate needs to choose one option as correct option.

    (f) If a question is found to be incorrect/ambiguous or has multiple correct answers only those candidates who have attempted the question and chosen one of the correct answers would be given the credit.

    (g) If a question is found to be incorrect and the Question is dropped, then two marks (+2) will be awarded to only to those candidates who have attempted the question. The reason could be due to human error or technical error. **Since, there is no negative marking, candidate needs to choose one most nearest option as correct answer.**

Instructions :

    (i)   The eligibility **for 'Assistant Professor'** or for **'Junior Research Fellowship and Assistant Professor'** will depend on the performance of the candidate in both the papers of UGC-NET in aggregate. However, the candidates qualifying **exclusively for Assistant Professor will not be considered for the award of JRF.** Candidates appearing in UGC-NET should thoughtfully select in the Application Form whether they are applying for **'Assistant Professor'** or **'Junior Research Fellowship (JRF) and Assistant Professor'.** Candidates who qualify the Test for eligibility for Assistant Professor will be governed by the rules and regulations for recruitment of Assistant Professor of the concerned Universities/ Colleges / State governments, as the case may be.

    (ii) The candidates who qualify for the award of JRF are eligible to pursue research in the subject of their post-graduation or in a related subject and are also eligible for Assistant Professor. The universities, institutions, IITs and other national organizations may select the JRF awardees for full time research work in accordance with the procedure prescribed by them.

    (iii) **Junior Research Fellowship :** Candidates qualifying for the award of JRF will be eligible to receive fellowship of UGC under various schemes, subject to their finding placement in universities/IITs/Institutions. The validity period of the offer will be three years w.e.f. the date of issue of JRF Award Letter. However, for those candidates who have already joined M. Phil./Ph.D., the date of commencement of Fellowship shall be from the date of declaration of NET result or date of their joining, whichever is later.

    (iv) The National Fellowship for Scheduled Caste Students (NFSC) and National Fellowship for Other Backward Classes (NFOBC) shall be governed by the guidelines available on the official websites of the concerned Ministries and/or the UGC.

Procedure and Criteria for Declaration of Result

Following steps will be followed :

Step I : The number of candidates to be qualified (total slots or Eligibility for Assistant Professor) shall be equal to 6% of the candidates appeared in both the papers of NET.

Step II : The total slots shall be allocated to different categories as per the reservation policy of Government of India.

Step III : In order to be considered for **'JRF and Eligibility for Assistant Professor'** and for **'Assistant Professor',** the candidate must have appeared in both the papers and secured atleast 40% aggregate marks in both the papers taken together for General (unreserved)/ General–EWS category candidates and at least 35% aggregate marks in both the papers taken together for all candidates belonging to the reserved categories (*viz*., SC, ST, OBC (belonging to Non-Creamy Layer, PwD and Third gender).

Step IV : The number of candidates to be declared qualified in any subject for a particular category is derived as per the methodology illustrated below :

Example :	
Number of candidates to be declared qualified for Eligibility for Assistant Professor in the subject 'Economics' for the Scheduled Caste (SC) category.	Number of candidates belonging to SC category who secure at least 35% aggregate marks in both the papers taken together for SC category for 'Economics' (×) Total slots derived for SC category as per Step II (÷) Total number of candidates belonging to SC category over all subjects who secure at least 35% aggregate marks in both the papers taken together.

The aggregate percentage of the two papers corresponding to the number of slots arrived at, shall determine the qualifying cut-off for Eligibility for Assistant Professor 'in 'Economics' for the SC category.

Similar yardstick shall be employed for deriving the subject-wise qualifying cut-offs for all categories.

Step V : All candidates who had applied for 'Eligibility for JRF & Eligibility for Assistant Professor both' out of the total number of qualified candidates derived as per Step IV, shall constitute the consideration zone for JRF.

Step VI : The total number slots available for awarding JRF is allocated among different categories as per the reservation policy of Government of India. The procedure for subject-wise cum category-wise allocation of JRF slots is illustrated below :

Example :	
Number of candidates to be declared qualified for JRF and Eligibility for Assistant Professor both in the subject 'Economics' for the Scheduled Tribe (ST) category.	Number of candidates belonging to ST category who have opted for JRF and have qualified for Eligibility for Assistant Professor in the subject 'Economics' (×) Total JRF slots available for ST category (÷) Total number of candidates belonging to ST category over all subjects who have opted for JRF and have qualified for Eligibility for Assistant Professor.

The aggregate percentage of the two paper scores corresponding to the number of JRF slots arrived at, shall determine the qualifying cut-off for JRF in 'Economics' for the ST category. Similar location procedure is used for all subjects and categories.

It may be noted that the above qualifying criteria decided by UGC is final and binding.

Result of the examination shall be hosted on NTA's website www.ugcnet.nta.nic.in. The candidates will not be individually intimated about their result.

Procedure for Appearing in Computer Based Test (CBT)*

(a) A computer terminal (node) indicating roll number will be allocated to each candidate. The candidate has to sit before his/her allocated computer only. Any candidate found to have changed room/ hall or the computer on their own other than the one allotted would lead to cancellation of candidature and no plea in this regard would be entertained.

(b) The computer terminal allotted to the candidate will display Welcome login screen, Candidate's photograph and subject opted by the candidate. For login, the candidate will have to enter **login-ID and password.**

(c) After logging, the candidate shall be able to see the detailed instructions for the examination. Candidates are advised to go through the instructions carefully regarding the type of questions and Marking Scheme. At the designated time of start of the examination, the candidates will be able to proceed and see the questions on the computer screen.

The keyboard attached to the computer, if any, will be disabled during the entire duration of the examination. Depending on the type of question, the answers to questions can either be entered by clicking

on the virtual on-screen keyboard (numeric or other-wise) using the computer mouse or by clicking the chosen option(s) using the computer mouse.

Candidates will have the option to change/ modify answers already entered anytime during the entire duration of the examination.

In case the computer/mouse allotted to any candidate malfunctions anytime during the test, the candidate will be immediately allotted another computer system and the time lost due to this will be adjusted in the server so as to give the candidate the full allotted time.

(d) The on-screen computer clock counter of every candidate will be set at the server. The countdown timer in the top right side of computer screen will display the time remaining (in minutes) available for the candidate to complete the examination. When the timer reaches zero, the examination will end by itself. Candidate will not be required to end or submit the examination.

(e) The Question Palette displayed on the right side of screen will show the status of each question using one of the following text/color codes/symbols :

1 You have not visited the question yet.

2 You have not answered the question.

3 You have answered the question.

4 You have NOT answered the question, but have marked the question for review.

5 The question(s) 'answered and marked for Review' (will be considered for evaluation.)

The question(s) 'Answered and Marked for Review' status for a question indicates that candidate would like to have a relook at that question again. A candidate has the option of answering a question and simultaneously placing it under 'Marked for Review', these answers will be considered for evaluation. However, if a candidate has simply put 'Marked for Review' for a question without answering it, the corresponding question 'Marked for Review' without an answer will not be considered for evaluation. It may be noted that a candidate can return to any 'Marked for Review' question any time during the examination by clicking on the corresponding question number icon displayed on the Question Palette of the corresponding section.

(f) Candidate can click on the arrow/symbol which appears to the left of question palette to collapse the question palette thereby maximizing the question

viewing window. To view the question palette again, candidate can click on arrow/symbol which appears on the right side of question window.

(g) Candidate can click on to navigate to the bottom and to navigate to the top of the question area, without scrolling. Using the computer mouse the candidate can scroll up and down the question viewing area for viewing the entire question.

(h) The full paper can be viewed by clicking the 'Question Paper' icon on the top right corner of the screen.

(i) Blank Sheets for doing rough work/calculations shall be provided to the candidates. The Blanks Sheets would have a Header page for the candidates to write down his/her Name and Roll Number. All calculations/writing work are to be done only in the Blank Sheets provided at the Centre in the Examination Room/Hall and on completion of the test, candidates must hand over the rough sheets to the invigilator on duty in the Room/Hall.

(j) **Navigating to a Question** To navigate between questions within a Paper, candidate needs to do the following :

(i) Click on the question number in the Question Palette at the right of the screen to go to that numbered question directly. Note that using this option does NOT save the answer to the currently displayed question.

(ii) Click on 'Save & Next' to save the answer of any question. Clicking on 'Save & Next' will save the answer for the current question and the next question will be displayed on the candidate's computer screen.

(iii) Click on 'Mark for Review & Next' to mark a question for review (without answering it) and proceed to the next question.

(k) **Answering a Question**

To navigate between questions within a Paper, candidate needs to do the following :

(i) **Procedure for answering a multiple choice type question :**

(a) To select the option(s), click on the corresponding button(s) of the option(s).

(b) To deselect the chosen answer, click on the button of the chosen option again or click on the 'Clear Response' button.

(c) To save the answer, the candidate MUST click on the 'Save & Next' button.

(d) To mark the question for review (without answering it), click on the 'Mark for Review & Next' button.

(ii) **Navigating through sections :**

(a) Sections in the question paper are displayed on the top bar of the screen. Questions in a section can be viewed by clicking on the section name. The section in which candidate is currently viewing will be highlighted.

(b) After clicking the 'Save & Next' button on the last question for a section, candidate will automatically be taken to the first question of the next section.

(c) Candidate can shuffle between sections and questions within sections any time during the examination as per the convenience only during the time stipulated.

(d) Candidate can view the corresponding section summary as part of the legend that appears in every section above the question palette.

(iii) **Procedure for answering questions that require inputs from on-screen virtual key board (numeric or otherwise) :**

(a) Candidate will have to use the on-screen virtual keyboard (that would be displayed just below the question statement of these type of questions) and the attached computer mouse to enter his/her answer in the space provided for answer.

(b) The answer can be changed, if required, any-time during the test. To save the answer, the candidate MUST click on the 'Save & Next' button.

(c) To mark the question for review (without answering it), click on the 'Mark for Review & Next' button.

Candidate will have the option to change previously saved answer of any question, anytime during the entire duration of the test. To change the answer to a question that has already been answered, first select the corresponding question from the Question Palette, then click on 'Clear Response' to clear the previously entered answer and subsequently follow the procedure for answering that type of question.

(iv) **Rough Work :**

All calculations/writing work are to be done only in the rough sheet provided at the centre in the examination Room/Hall and on completion of the test candidates must hand over the rough sheets to the invigilator on duty in the Room/Hall.

Legal Jurisdiction

All disputes pertaining to the conduct of UGC-NET Examination including Results shall fall within the jurisdiction of Delhi/New Delhi only. Further, any legal question arising out of the Examination shall be entertained only when raised within 30 days from the declaration of result.

The Director (Administration) of the NTA shall be the official by whose designation the NTA may sue or be sued.

Syllabus

The main objective is to assess the teaching and research capabilities of the candidates. The test aims at assessing the teaching and research aptitude as well. Candidates are expected to possess and exhibit cognitive abilities, which include comprehension, analysis, evaluation, understanding the structure of arguments, deductive and inductive reasoning. The candidates are also expected to have a general awareness about teaching and learning processes in higher education system. Further, they should be aware of interaction between people, environment, natural resources and their impact on the quality of life.

The details of syllabi are as follows :

Note — (i) Five questions each carrying 2 marks are to be set from each Module.

(ii) Whenever graphical/pictorial question(s) are set for sighted candidates, a passage followed by equal number of questions and weightage be set for visually impaired candidates.

Unit-I Teaching Aptitude

* Teaching : Concept, Objectives, Levels of teaching (Memory, Understanding and Reflective), Characteristics and basic requirements.
* Learner's characteristics : Characteristics of adolescent and adult learners (Academic, Social, Emotional and Cognitive), Individual differences.
* Factors affecting teaching related to : Teacher, Learner, Support material, Instructional facilities, Learning environment and Institution.
* Methods of teaching in Institutions of higher learning : Teacher centred vs. Learner centred methods; Off-line vs. On-line methods (Swayam, Swayamprabha, MOOCs etc.).
* Teaching Support System : Traditional, Modern and ICT based.
* Evaluation Systems : Elements and Types of evaluation, Evaluation in Choice Based Credit System in Higher education, Computer based testing, Innovations in evaluation systems.

Unit-II Research Aptitude

* Research : Meaning, Types, and Characteristics, Positivism and Post-positivistic approach to research.
* Methods of Research : Experimental, Descriptive, Historical, Qualitative and Quantitative methods.
* Steps of Research.
* Thesis and Article writing : Format and styles of referencing.
* Application of ICT in research.
* Research ethics.

Unit-III Comprehension

* A passage of text be given. Questions be asked from the passage to be answered.

Unit-IV Communication

* Communication : Meaning, types and characteristics of communication.
* Effective communication : Verbal and Non-verbal, Inter-Cultural and group communications, Classroom communication.
* Barriers to effective communication.
* Mass-Media and Society.

Unit-V Mathematical Reasoning and Aptitude

* Types of reasoning.
* Number series, Letter series, Codes and Relationships.
* Mathematical Aptitude (Fraction, Time & Distance, Ratio, Proportion and Percentage, Profit and Loss, Interest and Discounting, Averages etc.).

Unit-VI Logical Reasoning

* Understanding the structure of arguments : argument forms, structure of categorical propositions, Mood and Figure, Formal and Informal fallacies, Uses of language, Connotations and denotations of terms, Classical square of opposition.
* Evaluating and distinguishing deductive and inductive reasoning.
* Analogies.
* Venn diagram : Simple and multiple use for establishing validity of arguments.
* Indian Logic : Means of knowledge.

* Pramanas : Pratyaksha (Perception), Anumana (Inference), Upamana (Comparison), Shabda (Verbal testimony), Arthapatti (Implication) and Anupalabddhi (Non-apprehension).
* Structure and kinds of Anumana (inference), Vyapti (invariable relation), Hetvabhasas (fallacies of inference).

Unit-VII Data Interpretation
* Sources, acquisition and classification of Data.
* Quantitative and Qualitative Data.
* Graphical representation (Bar-chart, Histograms, Pie-chart, Table-chart and Line-chart) and mapping of Data.
* Data Interpretation.
* Data and Governance.

Unit-VIII Information and Communication Technology (ICT)
* ICT : General abbreviations and terminology.
* Basics of Internet, Intranet, E-mail, Audio and Video-conferencing.
* Digital initiatives in higher education.
* ICT and Governance.

Unit-IX People, Development and Environment
* Development and environment : Millennium development and Sustainable development goals.
* Human and environment interaction : Anthropogenic activities and their impacts on environment.

* Environmental issues : Local, Regional and Global; Air pollution, Water pollution, Soil pollution, Noise pollution, Waste (solid, liquid, biomedical, hazardous, electronic), Climate change and its Socio-Economic and Political dimensions.
* Impacts of pollutants on human health.
* Natural and energy resources : Solar, Wind, Soil, Hydro, Geothermal, Biomass, Nuclear and Forests.
* Natural hazards and disasters : Mitigation strategies.
* Environmental Protection Act (1986), National Action Plan on Climate Change, International agreements/efforts -Montreal Protocol, Rio Summit, Convention on Biodiversity, Kyoto Protocol, Paris Agreement, International Solar Alliance.

Unit-X Higher Education System
* Institutions of higher learning and education in ancient India.
* Evolution of higher learning and research in Post Independence India.
* Oriental, Conventional and Non-conventional learning programmes in India.
* Professional, Technical and Skill Based education.
* Value education and environmental education.
* Policies, Governance, and Administration.

SAMPLE QUESTIONS

I. Teaching Aptitude—

1. Which one of the following is the main objective of teaching ?
   - (A) To give information related to the syllabus
   - (B) To develop thinking power of students
   - (C) To dictate notes to students
   - (D) To prepare students to pass the examination

   Key : (B)

2. Which one of the following is a good method of teaching ?
   - (A) Lecture and Dictation
   - (B) Seminar and Project
   - (C) Seminar and Dictation
   - (D) Dictation and Assignment   Key : (B)

3. Teacher uses teaching aids for—
   - (A) Making teaching interesting
   - (B) Making teaching within understanding level of students
   - (C) Making students attentive
   - (D) The sake of its use   Key : (B)

4. Effectiveness of teaching depends on—
   - (A) Qualification of teacher
   - (B) Personality of teacher
   - (C) Handwriting of teacher
   - (D) Subject understanding of teacher   Key : (D)

5. Which of the following is not characteristic of a good question paper ?
   - (A) Objectivity
   - (B) Subjectivity
   - (C) No use of vague words
   - (D) Reliable   Key : (B)

II. Research Aptitude—

1. A researcher is generally expected to—
   - (A) Study the existing literature in a field
   - (B) Generate new principles and theories
   - (C) Synthesize the ideas given by others
   - (D) Evaluate the findings of a study   Key : (B)

2. One of the essential characteristics of research is—
   - (A) Replicability   (B) Generalizability
   - (C) Usability   (D) Objectivity

   Key : (D)

3. 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

   Key : (C)

4. An academic association assembled at one place to discuss the progress of its work and future plans. Such an assembly is known as a—
   - (A) Conference   (B) Seminar
   - (C) Workshop   (D) Symposium

   Key : (A)

5. An investigator studied the census data for a given area and prepared a write-up based on them. Such a write-up is called—
   - (A) Research paper   (B) Article
   - (C) Thesis   (D) Research report

   Key : (B)

III. Comprehension—

Read the following passage and answer the question Nos. 1 to 5.

The Constitution guarantees every citizen the fundamental right to equality. Yet after 50 years of independence, just one perusal of the female infant mortality figures, the literacy rates and the employment opportunities for women is sufficient evidence that discrimination exists. Almost predictably, this gender, bias is evident in our political system as well. In the 13th Lok Sabha, there were only 43 women MPs out of a total of 543, it is not a surprising figure, for never has women's representation is Parliament been more than 10 per cent.

Historically, the manifestos of major political parties have always encouraged women's participation. It has been merely a charade. So, women's organizations, denied a place on merit, opted for the last resort, a reservation of seats for women is parliament and State Assemblies. Parties, which look at everything with a vote bank in mind, seemed to endorse this. Alas, this too was a mirage.

But there is another aspect also. At a time when caste is the trump card, some politicians want the bill to include further quotas for women from among minorities and backward castes. There is more to it. A survey shows that there is a general antipathy towards the bill. It is actually a classic case of doublespeak : in public, politicians were endorsing women's reservation but in the backrooms of Parliament, they were busy sabotaging it. The reasons are clear : Men just don't want to vacate their seats of power.

1. The problem raised in the passage reflects badly on our—
   - (A) Political system
   - (B) Social behaviour
   - (C) Individual behaviour
   - (D) Behaviour of a group of people   Key : (B)

2. According to the passage, political parties have mostly in mind—
   - (A) Economic prosperity

(B) Vote bank

(C) People' welfare

(D) Patriotism   Key : (B)

3. "Trump Card" means—

(A) Trying to move a dead horse

(B) Playing the card cautiously

(C) Sabotaging all the moves by others

(D) Making the final jolt for success   Key : (D)

4. The sentence "Men just don't want to vacate their seats of power" implies—

(A) Lust for power

(B) Desire to serve the nation

(C) Conviction in one's own political abilities

(D) Political corruption   Key : (A)

5. What is the percentage of women in the Lok Sabha ?

(A) 10   (B) 7·91

(C) 43   (D) 9·1   Key : (B)

IV. Communication—

1. Informal communication network within the organization is known as—

(A) Interpersonal Communication

(B) Intrapersonal Communication

(C) Mass Communication

(D) Grapevine Communication   Key : (D)

2. TV Channel launched for covering only Engineering and Technology subjects is known as—

(A) Gyan Darshan   (B) Vyas

(C) Eklavya   (D) Kisan   Key : (C)

3. In which state the maximum number of periodicals are brought out for public information ?

(A) Uttar Pradesh   (B) Tamil Nadu

(C) Kerala   (D) Punjab   Key : (C)

4. The main objective of public broadcasting system *i.e.,* Prasar Bharti is—

(A) Inform, Entertainment & Education

(B) Entertain, Information & Interaction

(C) Educate, Interact & Entertain

(D) Entertainment only   Key : (A)

5. The competerrcy of an effective communicator can be judged on the basis of—

(A) Personality of communicator

(B) Experience in the field

(C) Interactivity with target audience

(D) Meeting the needs of target audience

                                   Key : (D)

V. Mathematical Reasoning and Aptitude—

1. Which one of the following belongs to the category of homogeneous data ?

(A) Multi-storeyed houses in a colony

(B) Trees in a garden

(C) Vehicular traffic on a highway

(D) Student population in a class   Key : (A)

2. In which of the following ways a theory is not different from a belief ?

(A) Antecedent—consequent

(B) Acceptability

(C) Verifiability

(D) Demonstratability   Key : (B)

3. The statement—"Honesty is the best policy" is—

(A) A fact   (B) A value

(C) An opinion   (D) A value judgement
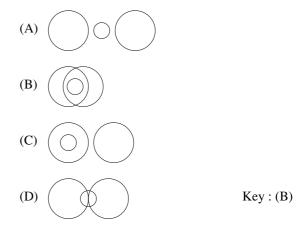
                                   Key : (D)

4. Which one is like pillar, pole and standard ?

(A) Beam   (B) Plank

(C) Shaft   (D) Timber   Key : (A)

5. Following incomplete series is presented. Find out the number which should come at the place of question mark which will complete the series—

4, 16, 36, 64 ?

(A) 300   (B) 200

(C) 100   (D) 150   Key : (C)

VI. Logical Reasoning—

1. The following question is based on the diagram given below. If the two big circles represent animals living on soil and those living in water and the small circle stands for the animals who both live on soil and in water, which figure represents the relationships among them ?

(A)

(B)

(C)

(D)   Key : (B)

2. Of the following statements, there are two statements both of which cannot be true but both can be false. Which are these two statements ?

(i)   All machines make noise

(ii) Some machines are noisy

(iii) No machine makes noise

(iv) Some machines are not noisy

(A) (i) and (ii)   (B) (iii) and (iv)

(C) (i) and (iii)   (D) (ii) and (iv)

Key : (C)

3. In the following question a statement is followed by two assumptions (i) and (ii). An assumption is something supposed or taken for granted. Consider the statement and the following assumptions and decide which of the following assumptions is implicit in the statement ?

Statement : We need not worry about errors but must try to learn from our errors.

Assumptions : (i) Errors may take place when we are carrying out certain work.
(ii) We are capable of benefiting from the past and improve our chances of error-free work.

(A) Only assumption (i) is implicit

(B) Only assumption (ii) is implicit

(C) Either assumption (i) or (ii) is implicit

(D) Both the assumptions are implicit   Key : (D)

4. The question below is followed by two arguments numbered (i) and (ii). Decide which of the arguments is 'strong' and which is 'weak'. Choose the correct answer from the given below—

(A) (B) (C) (D)

Should the press exercise some self-restraint ?

(i)   Yes, they should not publish news items which may incite the readers to indulge in wrong practices.

(ii) No, it is the responsibility of the press to present the truth irrespective of the consequences.

(A) Only the argument (i) is strong

(B) Only the agrument (ii) is strong

(C) Neither argument (i) nor argument (ii) is strong

(D) Both the arguments (i) and (ii) are strong

Key : (A)

5. Study the argument and the inference drawn from that argument, given below carefully.

Argument : Anything that goes up definitely falls down. Helicopter goes up.

Inference : So, the helicopter will definitely fall down.

What in your opinion is the inference drawn from the argument ?

(A) Valid   (B) Invalid

(C) Doubtful   (D) Long drawn one

Key : (D)

VII. Data Interpretation—

Four students W, X, Y, Z appeared in four papers, I, II, III and IV in a test. Their scores out of 100 are given below—

Students	Papers			
	I	II	III	IV
W	60	81	45	55
X	59	43	51	A
Y	74	A	71	65
Z	72	76	A	68

where 'A' stands for absent.

Read the above table and answer below mentioned questions 1–5.

1. Which candidate has secured between 60–65% marks in aggregate ?

(A) W   (B) X

(C) Y   (D) Z   Key : (A)

2. Who has obtained the lowest average in aggregate ?

(A) W   (B) X

(C) Y   (D) Z   Key : (B)

3. Who has obtained the highest average ?

(A) W   (B) X

(C) Y   (D) Z   Key : (A)

4. In which paper the lowest marks were obtained by the candidates ?

(A) I   (B) II

(C) III   (D) IV   Key : (B)

5. Which candidate has secured the highest percentage in the papers appeared ?

(A) W   (B) X

(C) Y   (D) Z   Key : (D)

VIII. Information and Communication Technology (ICT)—

1. ICT stands for—

(A) Information common technology

(B) Information and communication technology

(C) Information and computer technology

(D) Inter connected technology   Key : (B)

2. Computer can—

(A) Process both quantitative and qualitative information

(B) Store huge information

(C) Process information and fast accurately

(D) All the above   Key : (D)

3. Satellite Communication works through—

(A) Radar   (B) Transponder

(C) Receptor   (D) Transmitter

Key : (B)

4. A computer is that machine which works more like a human brain. This definition of computer is—
   (A) Correct
   (B) Incorrect
   (C) Partially correct
   (D) None of the above   Key : (A)

5. Information and communication technology includes—
   (A) E-mail
   (B) Internet
   (C) Educational television
   (D) All the above   Key : (D)

IX. People, Development and Environment—

1. It is believed that our globe is warming progressively. This global warming will eventually result in—
   (A) Increase in availability of usable land
   (B) Uniformity of climate at equator and poles
   (C) Fall in the sea level
   (D) Melting of polar ice   Key : (D)

2. In which parts of India ground water is affected with arsenic contamination ?
   (A) Haryana   (B) Andhra Pradesh
   (C) Sikkim   (D) West Bengal
                                      Key : (D)

3. Sunderban in Hooghly delta is known for—
   (A) Grasslands   (B) Conifers
   (C) Mangroves   (D) Arid forests   Key : (C)

4. Sardar Sarovar dam is located on the river—
   (A) Ganga   (B) Godavari
   (C) Mahanadi   (D) Narmada   Key : (D)

5. Which one of the following trees has medicinal value ?
   (A) Pine   (B) Teak
   (C) Neem   (D) Oak   Key : (C)

X. Higher Education System

1. Which one of the following is not considered a part of technical education in India ?
   (A) Medical
   (B) Management
   (C) Pharmaceutical
   (D) Aeronautical   Key : (A)

2. Which of the following is a Central University ?
   (A) Mumbai University
   (B) Calcutta University
   (C) Delhi University
   (D) Madras University   Key : (C)

3. Identify the main Principle on which the Parliamentary System operates—
   (A) Responsibility of Executive to Legislature
   (B) Supremacy of Parliament
   (C) Supremacy of Judiciary
   (D) Theory of Separation of Power   Key : (A)

4. The reservation of seats for women in the Panchayat Raj Institutions is—
   (A) 30% of the total seats
   (B) 33% of the total seats
   (C) 33% of the total population
   (D) In proportion to their population   Key : (B)

5. Match List I with List II and select the correct answer from the code given below—

List I (Institutions)
(a) Indian Veterinary Research Institute
(b) Institute of Armament Technology
(c) Indian Institute of Science
(d) National Institute for Educational Pannesi and Administrators

List II (Locations)
1. Pune   2. Izat Nagar
3. Delhi   4. Bangalore

	(a)	(b)	(c)	(d)
(A)	2	1	4	3
(B)	1	4	2	3
(C)	2	3	1	4
(D)	4	3	2	1

Key : (A)