#### TOPICS/CURRICULUM FOR THE POSTS OF TGTs

#### Questions relating to subject specific (relating to post)-75 Questions

Note: Difficulty level of questions relating to subject specific will be as per essential qualification prescribed for the post as mentioned in Advertisement (Pt. No. iii) under Mode of Selection and Scheme of examination)

# 1. Name of the post: TGT (Science- Medical)

#### Zoology:

Non-chordata and Chordata- Protozoans, Parazoa, Cnidaria, Platyhelminthes, Aschelminthes, Annelids, Arthropoda, Mollusca, Echinodermata, Protochordates, Pisces, Amphibia, Reptilia, Aves, Mammals. Cell Biology, Ecology, Genetics and evolution, Biochemistry, Physiology, Developmental Biology, Economic Zoology.

# **Botany:**

Bacteria and virus, Cryptogams: Algae, fungi, lichens, bryophytes, pteridophytes, Phanerogams: Gymnosperms; angiosperms. Economic Botany, Plant Anatomy, Plant Physiology, Plant Biochemistry, Cell Biology, Genetics, Molecular Biology and Evolution, Ecology and Plant Geography, Plant Breeding, Plant Biotechnology.

### **Chemistry:**

Atomic Structure, Chemical Bonding, Periodic Properties of elements- Chemistry of Coordination Compounds, Acids and Bases, Oxidation & Reduction, Non aqueous solvents, Metal – Ligand Bonding in Transition Metal Complexes, Thermodynamic and Kinetic Aspects of Metal Complexes Chemistry, Bioinorganic Chemistry, Silicones and Phosphazenes.

Carbon and its derivatives- Structure and Bonding, Mechanism of organic Reactions, Stereochemistry of organic compounds, Fats, Oils and Detergents, Organic Compounds of Nitrogen, Heterocyclic Compounds, Carbohydrates, Amino Acids, Peptides, Proteins and Nucleic Acids, Synthetic Polymers, Solid, Liquid and gaseous states, Chemical kinetics, Chemical Thermodynamics, Colloidal states, Solutions, Dilute Solutions and Colligative Properties, Chemical equilibrium, Thermo chemistry, Colligative Properties, Electro chemical Cells, Phase equilibrium, Elementary Quantum Mechanics, Photochemistry.

#### 2. Name of the post: TGT (Science- Non- Medical)

### **Physics:**

Mechanics, Vibrations, Waves & Electromagnetic Theory, Electricity and Magnetism, Thermodynamics, Ray Optics and Wave Optics, Quantum Physics, Electronics and Solid State Devices, Nuclear Physics.

### **Chemistry:**

Atomic Structure, Chemical Bonding, Periodic Properties of elements- Chemistry of Coordination Compounds, Acids and Bases, Oxidation & Reduction, Non aqueous solvents, Metal – Ligand Bonding in Transition Metal Complexes, Thermodynamic and Kinetic Aspects of Metal Complexes Chemistry, Bioinorganic Chemistry, Silicones and Phosphazenes,

Carbon and its derivatives- Structure and Bonding, Mechanism of organic Reactions, Stereochemistry of organic compounds, Fats, Oils and Detergents, Organic Compounds of Nitrogen, Heterocyclic Compounds, Carbohydrates, Amino Acids, Peptides, Proteins and Nucleic Acids, Synthetic Polymers, Solid, Liquid and gaseous states, Chemical kinetics, Chemical Thermodynamics, Colloidal states, Solutions, Dilute Solutions and Colligative Properties, Chemical equilibrium, Thermo chemistry, Colligative Properties, Electro chemical Cells, Phase equilibrium, Elementary Quantum Mechanics, Photochemistry.

### **Mathematics:**

Number system, Mensuration, Geometry, Coordinate Geometry, Statistics, Probability, Trigonometry, Matrices, Sets and Function, Algebra, Relations and functions, Mathematical Reasoning, Trigonometric Functions, Calculus, Vectors and three dimensional Geometry, Linear Programming (Difficulty level will be upto Graduation Level)

# 3. Name of the post: TGT (Mathematics)

Number system, Mensuration, Geometry, Coordinate Geometry, Statistics, Probability, Trigonometry, Matrices, Sets and Function, Algebra, Relations and functions, Mathematical Reasoning, Trigonometric Functions, Calculus, Vectors and three dimensional Geometry, Linear Programming (Difficulty level will be up to Graduation Level)

#### 4. Name of the post: TGT (English)

### English Elective:

### I. Reading Comprehension (Unseen Passage)

### II. Composition

Paragraph Writing, Essay Writing, Note making, Precis Writing, Letter writing, Report writing

### III. Grammar and Vocabulary

Voice, Narration, Preposition, Conjunctions, Synonyms, Antonyms, Translation from Vernacular to English, Punctuation, Transformation of Sentences, Corrections, Idioms and Phrases, One Word Substitution, Articles, Use of Words/Phrases in Sentences, Use of same words as different parts of Speech, Identifying Figures of Speech, Complete the incomplete Sentences, Pairs of Words to be Used in Sentences, One word for many and use in sentence, Change the form of Nouns/Verbs/Adjectives and make sentences, Determiners, Modals

#### IV Literature

- 1. Description of various Literary Terms and Concepts
- 2. Shakespeare's Works
- Major Works of Poets of Classicism, Romantic and Victorian Periods (e.g. Thomas Hardy, Mathew Arnold, Robert Browning, Tennyson, John Keats, William Wordsworth, William Blake, Thomas Gray, John Donne, Alexander Pope etc.)
- 4. Major works of 19<sup>th</sup> and 20<sup>th</sup> Century American and English Literature (e.g. Philip Larkin, Robert Frost, Hemingway, Ted Hudges, Whitman, Hawthorne, Emily Dickinson, Bernard Shaw, T. S. Eliot, W. B. Yeats, Hopkins etc.)
- 5. Indian Writing in English (e.g. R.K. Narayan, Anita Desai, Vikram Seth, Nissim Ezekiel, K.N. Daruwala, Ruskin Bond, Mulk Raj Anand, Khushwant Singh, Ramanujan etc.)
- 6. Modern Writing in English from Different parts of the world

#### 5. Name of the post: TGT (Hindi)

हिन्दी साहित्य का इतिहास आदिकाल, भिक्तकाल, रीतिकाल, आधुनिक काल हिन्दी गद्य का विकास, गद्य विधाएँ, हिन्दी भाषा का उदभव और विकास भारतीय काव्यशास्त्र और पाश्चात्य काव्यशास्त्र व्याकरण :- ध्विन एवं वर्ण, शब्द एवं शब्द भेद, उपसर्ग एवं प्रत्यय, संज्ञा और उसके भेद, लिंग एवं उसके भेद, वचन एवं उसके भेद, कारक एवं उसके भेद, सर्वनाम एवं उसके भेद, िक्रया एवं उसके भेद, िक्रया एवं उसके भेद, िक्रया एवं उसके भेद, सिन्ध एवं उदके भेद, समास एवं उसके भेद, वाच्य- परिवर्तन, पर्यायवाची और विलोम शब्द, अनेक शब्दों के एक शब्द, मुहावरे और लोकोक्तियाँ रस और उसके भेद, छन्द और उसके भेद, अलंकार और उसके भेद, अलंकार और उसके भेद, अपठित

# 6. Name of the post: TGT (Punjabi)

रिहंडा : आयुर्तिर येनाघी रिहंडा ' तरम तुग्व ' (मिथा. ) इा. नमिहिर्त मिथा, भॅयराल री चेटहीं रिहउ ' भॅयराठी राहि मुग्यी लां ' ( म्या.) इा.यत्म मिथा लाउ युताउत यीनाघी राहि ' मघर महेता ' (मिथा.) ग्रिंबन्त मिथा ( यघलीरेम्त घिपुते , येनाच खुतीहत्मिटी , चेंबीगद्भग ) थुमउरां हि चें युनमंग मिर्जि हिलाधिला लिंडे रहिउन्हां रा हिमा - हम् । यीभ मथमट रन्ता ) र्थनाघी ष्टिरांगी ' हे रतम्र ' में उ मिथा मेथें लाउ र्थनाघी ताटर ' भुष्टिला मात ता राष्टी ' में उ मिथा मेथें राहिम अंडे रहा थेथें अयि और I राष्ट्री मंग्राति ' रया - थ्रहार ' ( मंथा.) मुर्तिरत रभाव रहेमहर अंग्रे थेनाची ताहर ' रुलाचा ' लढनर लिगत तैयाहा री माग्रियर थरथ I र्थनाघी तिर्घय, 'तिर्घय युरुम ', (मैथा.) रुततेल मिथा बिर आउं 'मॅरे मॅर ' आभतीरा रा मढतराभा रा लियलैर ( यघलीरेमर घिपुते , यंनाघ सुरीहतमिटी , चेंडीगद्भा ) माग्रि हे हॅथ - हॅथ तथां ; रहिडा , गीड , गन्नल , ताहल , ताटर , रग्नि , नतभमाथी , मलेर , राढी , रिमा, हात , नंगताभा भाउं मी उन्हीं घाने भुद्धती ये मैंथेय मारियर नाटरानी I डामा : यिवडामा , यवस्तिजी , तथ भाजे भागेंजह I डामा हिगिभार सी यिवडामा भाजे थेउत I र्थनाघी बामा भारे गुरुभुधी लिथी रे नतभ , हिराम भारे हिमोम उन्हां घारे भुहली नाटरारी I हि भारतत : इतत - घेय , मघर - घेय ,हार -घेय ,हिमताभ चिंतरा ,भारेउत-थिछेउत , मॅय-भाम्य , मभामी मघर, हित्रेयी मघर, घरु लत्वर मघर, हिमभिर मघर, भुगारते, लक्षार, लाहेरात, यैतुरा वचता, मेंथेथ वचता, चिंठी - थँउव वचता I थीनाघी माग्रि राष्ट्र हिंदिग्राम : आरि राष्ट्र हें 2000 हीमही उर : रहिडा , ताटर , हिरांगी , ताहर , रगटी, मढतराभा, दाव, नंगराभा, दावउर, गुवभउ, मुढी आउ रिमा माग्रिउ मेंघीयउ भुद्धती नाटराती I

#### 7. Name of the post: TGT (Social science)

#### **History:**

Major Sources of History, Foundation of British Rule, The Uprising of 1857, Socio-Religious Reform Movements, Contribution of Jyotiba Phule, Dr. B.R. Ambedkar and Mahatma Gandhi, Growth of Political Consciousness, Rise of Communal

Politics, Towards Partition and Independence, Significant Developments after Independence, 1947-64.

World History: The American Revolution, The French Revolution, The Industrial Era, World War-I, World War II and Establishment of UN.

### Geography:

Nature & Scope of Geography, Physical Geography (Geomorphology, Climatology Oceanography) and Human Geography, India in the context of South Asia, World Regional Geography.

#### **Political Science:**

The State and its theories, Welfare State, Sovereignty, Political System, Political Culture, Political Socialisation, Rights & Duties, Universal Declaration of Human Rights, Democracy and its theories, Indian Constitution, Working of the institutions-Parliament and Judiciary, Fundamental Rights, Fundamental Duties, Directive Principles of Policy, The Election Commission, Electoral reforms in India, Pressure Groups in Indian Politics, Emerging Trends in Indian Politics, Indian Foreign Policy, Non-alignment Movement. International Politics, National Power, Bipolar, Unipolar and Multi-Polar World, Regional Organisations.

#### **Economics:**

Meaning, Nature and Scope of Economics, Important theories of economics, People as resource, Food security, Growth/Development and structural development.

Macro-Economics and its policies, Consumption Function, Investment Function, Determination of Income and Employment, Taxation, Terms of Trade, Regional Blocks, Impact of W.T.O. IMF and IBRD.

Indian Economy: Features and Characteristics of Indian Economy, Role of MNCs in India. Planning, Major Indian Economic Problems.

# **Sociology:**

Origin, Nature, Development and Significance of the Sociology and its theories, Social Groups, Socialization, Social Stratification and its theories. Social Mobility, Social Institutions, Political Institutions, Economic Institutions. Cultural Institutions. Society in India, Institutional Features, Changing Trends, Under-privileged Sections, Social Disorganization, Problems of Adolescence, Familial Problems, Problems of working women and Societal Problems.

#### **Psychology:**

Nature, Goals and Branches of Psychology, Growth and Development, Concept and types of Emotions, Emotional Intelligence, Theories of Motivation, Personality, Psychoanalytics, Cognitive Development, Intelligence, Learning Concept, Memory Sensory Register, Creativity.

Clinical Psychology: Nature and Criteria of abnormality, Causes of Abnormal Behaviour, Stress and types of Stressors, coping Strategies, Behavioural Disorders, Anxiety Based Disorders, Psychotherapies,

Significance of Statistics: Self Report Measures and Behavioural Assessment.

#### **Public Administration:**

Meaning, Nature, Scope and Significance of Public Administration, Organization and its forms, Principles of Organization, Features of Indian Administration, Union Executive, Union Legislature, State Executive, State-Legislature, Union and State Judiciary, Control over Administration, The 73<sup>rd</sup> and 74th Constitutional Amendment, India as a Welfare State, Planning Machinery in India, Role of Public Enterprises, Concept of Privatisation and, Role of Ministries and State Administration.