Reserve Bank of India Services Board

**Revised process of recruitment of
Officers in Grade-'B'- (DR)**

It has been decided by the Reserve Bank of India to introduce a new scheme of selection for recruitment of officers in Grade-'B' (DR), from recruitment year 2015. Under the new scheme of selection the examination will be computer based (Objective type with Multiple Choice Question pattern) and consists of two phases, viz., Phase-I and Phase-II, followed by Interview. While Phase-I examination will continue as per existing Phase-I examination for Grade-'B' (DR), Phase-II examination will consist of three papers of which two will be compulsory papers and one optional paper. The compulsory papers are Paper-I on 'English' and Paper-II on 'Economic and Social Issues'. The optional Paper- Paper-III will have options of subjects, viz., 'Finance & Management' or 'Economics' or 'Statistics'. In Phase-II the paper on 'English' will be descriptive type and computer based, i.e. to be typed on computer screen with the help of the keyboard. Prospective candidates are advised that Phase-II of the examination will be conducted within two to three weeks of Phase-I of the examination. The new scheme of selection is furnished in the Annex-A. The Syllabi of all the papers are furnished in Annex-B.

Annex - A

New Scheme of Selection for recruitment of officers in Grade- 'B'

A. Examination Pattern

(i) Examination will consist of two phases, viz. - Phase-I & Phase-II followed by interview.

(ii) Phase-I examination will be objective type with Multiple Choice Questions (MCQs). The Phase-I examination will continue as per the existing Phase-I examination for Grade-'B' (DR). There are four modules in Phase-I, viz.- General Awareness, English Language, Quantitative Aptitude and Reasoning.

(iii) Phase-II examinations will consist of three papers in MCQ pattern (except Paper-I) – viz. Paper-I on English (writing skills); Paper-II – Economic & Social Issues and Paper-III – (optional subjects) – Finance & Management/ Economics/ Statistics.

(iv) Candidates will be required to write all the papers online.

(v) Only successful candidates of Phase-I will appear for Phase-II examination on a later date.

(vi) Based on the results of Phase-II examinations candidates will be shortlisted for interview.

(vii) Final selection will be through merit lists which will be prepared by adding marks secured by candidates in Phase-II (Paper-I + Paper-II + Paper-III) and Interview.

B. Duration of Examinations and Distribution of Marks

(i) **Phase-I:** Objective Type - 2 hours - 200 marks

(ii) **Phase-II:** Three Papers - 300 marks

    (a) Paper-I – online- English-(writing skills)- 1½ hours - 100 marks

    (b) Paper-II – Economic and Social Issues – 1½ hours – 100 marks

    (c) Paper-III - Optional Paper (Finance & Management/ Economics/ Statistics) – 1½ hours - 100 marks

(iii) **Interview**: 50 marks

The interview will continue in its existing format.

C. Educational Qualification

A Minimum of 60% marks (50% in case of SC/ST/PWD) or equivalent in Bachelor's Degree as well as in 12th and 10th standard examinations.

D. Age Criteria and Age Relaxation in upper age limit

(i) The present age criteria of "Between 21 to 30 years" will be retained.

(ii) For M. Phil and Ph. D candidates the upper age limit will be 32 and 34 years, respectively.

(iii) As per extant practice age relaxation will be available to experienced candidates viz. candidates having experience as an officer in Commercial Bank/ Financial Institution in Public Sector as also candidates with prior experience in Reserve Bank of India, to the extent of number of years of such experience subject to a maximum of three years. For such candidates, upper age limit should not exceed 33 years including experience. For experience, probationary period will not be reckoned.

(iv) There are relaxations in upper age limit as per statutory requirements and for the staff.

As per existing practice cumulative age relaxation will not be available in combination with any items mentioned at (ii) (iii) & (iv).

E. Number of attempts:

The maximum permissible number of attempts (which were applicable for candidates belonging to Unreserved/General Category) has been increased from 4 to 6.

For detailed information, candidates may carefully read the detailed advertisement which will be uploaded on RBI website at the time of recruitment process.

Syllabi

1. English (Writing Skills):

The paper on English shall be framed in a manner to assess the writing skills including expression and understanding of the topic.

2. Economic and social Issues:

Growth and Development – Measurement of growth: National Income and per capita income – Poverty Alleviation and Employment Generation in India – Sustainable Development and Environmental issues. Economic Reforms in India – Industrial and Labour Policy – Monetary and Fiscal Policy – Privatization – Role of Economic Planning. Globalization – Opening up of the Indian Economy – Balance of Payments, Export-Import Policy – International Economic Institutions – IMF and World Bank – WTO – Regional Economic Co-operation. Social Structure in India – Multiculturalism – Demographic Trends – Urbanization and Migration – Gender Issues – Social Justice : Positive Discrimination in favor of the under privileged – Social Movements – Indian Political System – Human Development – Social Sectors in India, Health and Education.

Suggested reference material:

Books:
1. Indian Economy: Uma Kapila.(Series of Books)
2. Indian Economy: Mishra Puri. (Latest Edition)
3. Growth And Development: Devraj Ray
4. Sociology: C.N. Shankar Rao

News Papers:
1. Economic Times
2. Hindu
3. Business Standard

Weekly/Monthly Magazines/Bulletins /Reports:
1. Economic and Political Weekly
2. Southern Economist
3. Yojana
4. Business India
5. RBI Bulletins

Reports:
1. World Development Report
2. Economic Survey of India

3. Finance and Management:

(A) Finance

(a) Financial System
1. Regulators of Banks and Financial Institutions
2. Reserve Bank of India- functions and conduct of monetary policy, Banking System in India, Financial Institutions – SIDBI, EXIM, NABARD, NHB, etc.

(b) Financial Markets

Primary and Secondary Markets (Forex, Money, Bond, Equity, etc.), functions, instruments, recent developments.

(c) General Topics
1. Risk Management in Banking Sector
2. Basics of Derivatives: Forward, Futures and Swap
3. Changing Landscape of Banking sector
4. Recent Developments in the Financial Sector, Portfolio Investment, Public Sector Reforms, Disinvestments
5. Financial Inclusion- use of technology
6. Alternate source of finance, private and social cost-benefit, Public-Private Partnership
7. Corporate Governance in Banking Sector, role of e-governance in addressing the issues of corruption and inefficiency in the government sector.
8. The Union Budget – Direct and Indirect taxes; Non-tax sources of Revenue, GST, Thirteenth Finance Commission and GST, Finance Commission, Fiscal Policy, Fiscal Responsibility and Budget Management Act (FRBM),
9. Inflation: Definition, trends, estimates, consequences, and remedies (control): WPI, CPI - components and trends.

Suggested reference material:

a. *An introduction to Economics – A W Stonier and D C Hauge*
b. *Monetary Theory and Public Policy – Kenneth Kurihara*
c. *Indian Economy – Mishra and Puri*
d. *Indian Economy – R. Dutt and KPM Sundaram*
e. *Economic Growth and Development – Mayer and Baldwin*
f. *Major economic newspapers and Economic and Political Weekly*
g. *Public Finance – K K Andley and Sundaram*
h. *Financial Management – Prasanna Chandra*

(B) Management:

Management: its nature and scope; The Management Processes; Planning, Organisation, Staffing, Directing and Controlling; The Role of a Manager in an Organisation. Leadership: The Tasks of a Leader; Leadership Styles; Leadership Theories; A successful Leader versus an effective Leader. Human Resource Development: Concept of HRD; Goals of HRD; Performance Appraisal – Potential appraisal and development – Feedback and Performance Counselling – Career Planning – Training and Development – Rewards – Employee Welfare. Motivation, Morale and Incentives: Theories of Motivation; How Managers Motivate; Concept of Morale; Factors determining morale; Role of Incentives in Building up Morale. Communication: Steps in the Communication Process; Communication Channels; Oral versus Written Communication; Verbal versus non-verbal Communication; upward, downward and lateral communication; Barriers to Communication, Role of Information Technology. Corporate Governance: Factors affecting Corporate Governance; Mechanisms of Corporate Governance.

The questions on this section will be basic in nature.

4. **Economics**

   (a) Microeconomics

   1. Consumers behaviour and firms; value of resources like land, labour and capital
   2. Markets-monopoly, perfect and imperfect competition
   3. General Equilibrium of price and activity, economic welfare and case for regulatory / policy interventions

   (b) Macroeconomics

   1. Measuring national income and its components; basic macro identities and idea of macro-balance; Goods and Financial Market Equilibrium (IS-LM Framework)
   2. Major macro-economic school of thoughts; Classical, Keynesian and Monetarist
   3. Consumption and Investment demand; demand management policies and their effectiveness
   4. Money demand and supply; monetary and fiscal policies

   (c) International Economics

   1. Benefit of International trade; comparative and absolute advantage; effect of International trade on resources allocation and factor price

equalisation; non-conventional trade barriers, optimum currency areas and effect of customs union

2. International finance and exchange rates issues in an open economy, benefits and costs of an inter-connected financial markets; evolution of international financial architecture

(d) Public Economics

1. Public Goods, instruments of financing, government tax and non-tax revenue
2. Direct and Indirect taxes, efficiency costs of commodity taxes, income taxation, labour supply and savings, corporate taxation and corporate behaviour
3. Government expenditure policy-various components, deficit financing and its impact on the economy, government debt and crowding out of private capital

(e) India's Economy and Development Issues

1. India's experimentations with planned development models and the outcomes, structural issues-savings and investment, demography, urbanization, productivity, etc., issues with poverty, inequality and employment
2. Agriculture- policy and developments, manufacturing competitiveness; what is holding India back, role of public sector enterprises in the key economic sectors, India's resilient service sector; trade, tourism, communication, ITES, etc.
3. Financial sector regulation and reforms-banking, insurance and capital market, fiscal policy and the changing priorities of government, emergence of monetary policy and its new role

Suggested reference material:

a. *Microeconomics, Student Value Edition (8th edition) by Robert Pindyck, Daniel Rubinfeld*
b. *Intermediate Microeconomics : A modern Approach (8th edition) by Hal R. Varian*
c. *Macroeconomics (2011) by Rudiger Dornbusch, Stanley Fisher, Richard Starz*
d. *Macroeconomics by N. Gregory Mankiw, (Seventh Edition),*
e. *International Economics (2013) by Domimick Salvatore*
f. *International Economics (2011) by Paul Krugman and Maurics Obstfeld*
g. *International Finance and Open Economy Macroeconomics (1993) by Francisco L. Rivera-Batiz, Luis A. Rivera- Batiz*
h. *Public Finance in Theory and Practice (1989) by Richard Abel Musgrave and Peggy B. Musgrave*
i. *The Concise Oxford Companion to Economics in India, Edited by Kaushik Basu & Annemie Maertens*
j. *Indian Economy since Independence (2014) edited by Uma Kapila*
k. *Indian Economy : Performance and Policies (2015) edited by Uma Kapila*
l. *India Development Report (2015) edited by S. Mahendra Dev*

5. Statistics:

(1) **Probability:** Random variables, Theorems of probability, Conditional probability, Independent events, Bayes' theorem and its application, expectation, moments, distribution functions, Binomial, Poisson, Geometric, Exponential, Negative binomial, Hyper geometric, Cauchy, Laplace, Logistic, Pareto, Log-normal, Beta and Gamma distributions, Weibull, Uniform, Bivariate normal distribution and truncated distributions, Markov's inequality, Chebyshev's inequality, Cauchy-Schwarz inequality, Laws of large numbers, Central limit theorems and applications.

(2) **Statistical Methods:** Population and sample, Measures of central tendencies Parameter and Statistic, Correlation and Regression, intra-class correlation, multiple and partial correlations, Spearman's coefficient of rank correlation, Z, chi-square, t and F statistics and their properties and applications, Large sample distributions, Variance stabilizing transformations, sin inverse, square root, logarithmic and z transformation.

(3) **Linear Models:** General Linear models, BLUE, method of least squares, Gauss-Markoff theorem, estimation of error variance, Simple and Multiple linear regression models, Important assumptions and treatments in case of assumption's violation, Regression diagnostics, Analysis of variance in one, two and three-way classifications, Analysis of Covariance in one and two-way classifications.

(4) **Statistical Inference:** Properties of estimators, MVUE, Rao-Blackwell and Lehmann-Scheffe theorems, Cramer-Rao inequality, methods of estimation, properties of maximum likelihood and other estimators, confidence intervals. Simple and composite hypotheses, Type I and Type II errors, size and power of a test, Most Powerful and Uniformly Most Powerful tests, Neyman-Pearson lemma, Likelihood Ratio test and its properties and applications. SPRT, OC and ASN functions, Tests of goodness of fit. Parametric vs. Non-parametric Test, Frequently-used non-parametric inferential statistical methods.

(5) **Multivariate Analysis**: Bivariate and Multivariate normal distribution, marginal and conditional distribution, Estimation of mean vector and covariance matrix, Asymptotic properties of estimators, Sampling distribution of $\overline{X}$ and S, Mahalanobis D^2 and Hotelling's T^2 and its applications.

(6) **Optimisation Techniques and Statistical Quality Control**: Linear Programming, Transportation Problem, Assignment Problem, Basics of Simulation, Quality control, Process Control and Product Control, control

charts, Acceptance Sampling plan, single and double sampling plans (ASN, OC, ATI, LTPD, AOQL).

(7) **Sample Surveys and Design of Experiments:** Simple and Stratified random sampling, ratio and regression methods of estimation, Double sampling, Systematic, Cluster, two stage and PPS sampling. Sampling and Non-sampling errors. Principles of Design of Experiments, Completely Randomized Design, Randomized Block Design, Latin Square Design, missing plot technique, 2^2 and 2^3 factorial designs, Split-Plot Design and Balanced Incomplete Block Design, Fractional factorial experiments

(8) **Applied Economic Statistics:** Time Series vs. cross sectional data, Multiplicative and additive models, Auto-correlation, Partial autocorrelation, Smoothing techniques, Seasonal and cyclical adjustment. Price and Quantity Index numbers, Types of index numbers and their properties. Chain and Fixed base index numbers, Cost of Living Index numbers, Wholesale Price Index, Consumer Price Index, Index of Industrial Production, Gini's coefficient, Lorenz curves, Application of Pareto and Lognormal as income distributions.

(9) **Vital Statistics**: Sources of vital statistics compilation, Errors in census and registration data, Measurement of population, rate and ratio of vital events, Stationary and Stable population, Life Tables, Measures of Fertility, Mortality and Reproduction, Crude rates of natural growth, Pearl's Vital Index.

(10) **Numerical Analysis:** Principles of floating point computations and rounding errors, Linear Equations factorization methods, pivoting and scaling, residual error correction method, Iterative methods, Jacobi, Gauss-Seidel methods, Newton and Newton like methods, unconstrained optimization, Lagrange interpolation techniques, Cubic Splines, Error estimates, Polynomials and least squares approximation; Integration by interpolation, adaptive quadratures and Gauss methods.

(11) **Basic Computer Applications:** Functional organization of computers, algorithms, basic programming concepts, Program testing and debugging, Subprograms and Subroutines, Sorting/searching methods, Database Management Systems, Software Engineering, Basic of Networking, Internet Technologies, Web and HTML, Distributed systems, Programming using C, MINITAB and FORTRAN.

Suggested reference material:

1. *Atkinson, K.E. (1989): An Introduction to Numerical Analysis, Wiley.*
2. *Bhat, B.R. (2007): Modern Probability Theory, New Age International.*
3. *Cochran, William G. (1977): Sampling Techniques. John Wiley and Sons, New York*
4. *Das, M.N. and N. C. Giri (1986): Design and Analysis of Experiments. Wiley Eastern Ltd.*
5. *Draper, N.R. and H. Smith (1998): Applied Regression Analysis, John Wiley & Sons.*

6. *Goon, A.M., M. K. Gupta and B. Dasgupta (2001): Fundamentals of Statistics. (2 Vols.), World Press, Kolkata.*

7. *Gibbons, J.D. & S. Chakrabarti (2007): Non parametric Statistical Inference, Chapman and Hall.*

8. *Gupta, S.C. and V. K. Kapoor (2007): Fundamentals of Mathematical Statistics, Sultan Chand and Sons.*

9. *Gupta, S.C. and V. K. Kapoor (2008): Fundamentals of Applied Statistics, Sultan Chand and Sons.*

10. *Hollander Myles and Douglas A. Wolfe (2006): Non Parametric Statistical method, Wiley.*

11. *Kshirsagar, A.M. (1983): A Course in Linear Models Marcel Dekker, New York.*

12. *Montgomery, D. C. (2008): Design and Analysis of Experiments, John Wiley and Sons.*

13. *Montgomery, D.C., E. A. Peck and G. G. Vining(2006): Introduction to Linear Regression Analysis, John Wiley and Sons.*

14. *Murthy, M.N. (1967): Sampling Theory and Methods. Statistical Publishing Society, Kolkata.*

15. *Rajaraman, V. (2010): Fundamentals of Computers, Prentice-Hall India.*

16. *Rohatgi, V. K. and A. K. Md. Ehsanes Saleh (2009): An Introduction to Probability and Statistics, John Wiley and Sons.*

17. *Saxena, H.C. (2005): Finite Differences and Numerical Analysis, S. Chand and Co.*

18. *Silberschatz, A., H. F. Korth and S. Sudarshan (1997): Database System Concepts, McGraw-Hill.*

19. *Sinha, P.K. (2010): Computer Fundamentals, University Science Press.*

20. *Sukhatme, P.V., B. V. Sukhatme, S. Sukhatme and C. Asok (1984): Sampling Theory of Surveys with Applications, Iowa State University Press, Iowa, USA.*

21. *Swaroop, K., P. K. Gupta and M. M. Singh (1985): Operations Research, Sultan Chand and Sons.*

22. *Taha, H.A. (1982). Operations Research: An Introduction, Macmillan Publishing Company.*