YMCA UNIVERSITY OF SCIENCE & TECHNOLOGY FARIDABAD

(Established by Haryana State Legislative Act No.21 of 2009,
Approved by AICTE & Recognized by U.G.C. U/s. 2(f) and 12(B) of U.G.C. Act 1956)

PG. ADMISSION- 2016

ADMISSION SCHEDULE FOR PG Programmes in the Department of Humanities and Sciences

(M.Sc. Physics, M.Sc. Mathematics, M.Sc. Chemistry, M.Sc. Environmental Sciences and M.Sc. /M.A. Mass Communication and Journalism)

1. KEY DATES:

- **Availability of Prospectus and Application Form:** 04/05/2016(Wednesday) (University Website: www.ymcaust.ac.in).
- **Last date for receipt of Application forms duly filled in for admission at the University:** 03/06/2016 (Friday) upto 4 P.M.
- **Date, Time and Venue for Entrance Test:**

S.No.	Name of the course	Date	Timings
1	M.Sc. Environmental Sciences	11/06/2016 (Saturday)	10 A.M. to 12 P.M.
2	M.Sc./M.A. Mass Communication and Journalism	11/06/2016 (Saturday)	1 P.M. to 3 P.M.
3	M.Sc. Physics	12/06/2016 (Sunday)	9 A.M. to 11 A.M.
4	M.Sc. Mathematics	12/06/2016 (Sunday)	12 A.M. to 2 P.M.
5	M.Sc. Chemistry	12/06/2016 (Sunday)	3 P.M. to 5 P.M.

Venue - YMCA University of Science & Technology, Sector – 6, Faridabad.

- **Declaration of Result**: 15/06/2016 (Wednesday)

- **Date of 1st Counseling for admission to M.Sc./M.A.:**
  20/07/2016 (Wednesday, 9 A.M.) for **M.Sc. Physics and M.Sc. Mathematics**
  21/07/2016 (Thursday, 9.A.M.) for **M.Sc. Chemistry, M.Sc. Environmental Sciences and M.Sc./M.A. Mass Communication and Journalism**
- **Date of Commencement of the session:** 01/08/2016 (Monday)
- **Date & Time of 2nd Counseling for vacant seats for all courses:** 08/08/2016 (Monday, 9 A.M.)
- **Date & Time of 3rd and last Counseling without reservation (AIC & HOGC category) for vacant seats for all courses:** 08/08/2016 (Monday, 12:15 P.M.)
- **If the seats are left after the third counseling, then subsequent counseling shall be held before the last date of admission for all courses (The information of this subsequent counseling shall be available on the University website, candidates are advised to be in regular touch of University website)**

Application form can be down-loaded from the University Website i.e. www.ymcaust.ac.in and the filled application forms are to be submitted along with documents and a DD of Rs.1000/- (Rs.500/- for SC / ST Category) in favour of 'Registrar, YMCAUST Faridabad' payable at Faridabad by 03/06/2016 Friday upto 4.00 P.M. Online form and fee submission facility is likely to be made available soon.

2. GENERAL INFORMATION

- The Application Form for admission is given at the end.
- The duly completed Application Form along with all required enclosures should reach YMCA University of Science and Technology, Sector-6, Faridabad-121006, Haryana by the closing date of submission of form. No application will be entertained thereafter.
- A candidate who furnishes particulars which are found to be false or suppresses material information, will not be considered for admission and if he/ she is admitted on such information, legal action under the law of the land, his/ her admission shall be cancelled as per University rules and all fees deposited by him/ her will stand forfeited.
- Before accepting the admission, the candidate must also ensure that he/ she fulfils the minimum eligibility conditions. Fee once paid will not be refunded.
- No separate call letters will be issued.
- All the admitted candidates will be governed by the Academic Regulation and/ or Ordinance as laid down by the University.
- In the case of any inconsistencies in the rules or any clarification thereof, the matter shall be referred to the competent authority for interpretation whose decision shall be final.

- No claim of change in merit list of the candidates will be entertained by producing any category certificate / certificates after the display of merit list.
- Candidates without depositing the application fee shall not be considered for entrance test.
- The students who are appearing in the qualifying exam may also apply for this course, provided they will submit their passing certificate of qualifying exam by 30th Sept, 2016 otherwise his / her admission stands cancelled automatically and the entire fee submitted at the time of admission will be forfeited.

3. NUMBER OF SEATS FOR M.Sc. COURSES

S.No.	Name of the course	Total no. of seats
1	M.Sc. Physics	45
2	M.Sc. Mathematics	45
3	M.Sc. Chemistry	45
4	M.Sc. Environmental Sciences	30
5	M.Sc./M.A. Mass Communication and Journalism	30

The existing and as notified from time to time reservation policy of the Haryana Govt. shall be applicable and all reserved seats are meant for Haryana Domicile Candidates only.

4. DURATION FOR M.Sc./M.A. COURSES

The normal duration of the course (M.Sc./M.A.) for regular candidates shall be 2 years. Teaching in each academic year is divided into two semesters.

5. ELIGIBILITY

- **For M.Sc. (Physics)**: B.Sc./B.Sc. (Hons.) with 50% marks in aggregate (47.5% for SC/ST) with Physics as regular subject at graduation level from a recognized Univ./Institute.
- **For M.Sc. (Mathematics)**: B.Sc/B.Sc. (Hons.)/B.A./B.A. (Hons.) with 50% marks in aggregate (47.5% for SC/ST) with Mathematics as regular subject at graduation level from a recognized Univ./Institute.
- **For M.Sc. (Chemistry)**: B.Sc./B.Sc. (Hons.) with 50% marks in aggregate (47.5% for SC/ST) with Chemistry as regular subject at graduation level from a recognized Univ./Institute.
- **For M.Sc. (Environmental Sciences):** Bachelor's degree (B.Sc. or B.Tech or equivalent) in any branch of Science/Engineering/Technology/Agriculture with 50% marks in aggregate (47.5% for SC/ST) from a recognized Univ./Institute.
- **For M.Sc./M.A. (Mass Communication and Journalism):** Graduate in any discipline with 50% marks in aggregate (47.5% for SC/ST) from a recognized Univ./Institute.

4. SUBMISSION OF APPLICATION

The Application Form can be downloaded from the University Website (www.ymcaust.ac.in). The application forms should be accompanied with a Demand draft for the amount as applicable of Rs.1000/- (Rs.500/- for SC / ST Category) drawn in favour of the "Registrar, YMCAUST, FARIDABAD" payable at FARIDABAD. **Candidates seeking admission should submit application complete in all respects on the prescribed form in their own handwriting and must also enclose attested copies of the following:**

- Graduation Certificates showing the detailed marks in the qualifying examination on the basis of which admission is being sought. Those who are appearing in final year /Semester examination are also eligible to apply, provided he/she passes qualifying examination with prescribed percentage by September 30, 2016.
- Matriculation/ Hr. Secondary Examination Certificate as a proof of age.
- Valid Certificate of SC/ST/Reservation category for Haryana state residents from the Competent Authority, in case admission is sought against SC/ ST /Reservation category.
- 10+2 certificate

The duly completed Application Form along with all required enclosures should reach the University by the last date as specified, at the following address:

Coordinator (M.Sc./M.A. Admissions 2016)
YMCA University of Science & Technology
Sector-6, FARIDABAD – 121006 (HARYANA)
Email: chairperson.has@ymcaust.ac.in
Contact no. 0129-2310115, 0129-2310117

5. ENTRANCE TEST

The eligible applicants will have to appear in the M.Sc./M.A. Entrance Test as per the given schedule. This test will be of 2 hours duration having 80 questions of one mark each. 24 Questions will be from **Part-A (General)** and 56 Questions will be from **Part –B (subject specific)** with no negative marking.

No separate admit cards will be issued for the entrance test. Applicants are required to download their admit cards from the University website. Candidates must carry pen/pencil for entrance test, Identity card and Roll Number slip.

6. SYLLABUS FOR ENTRANCE TEST

Part-A

General knowledge and Analytical Skills questions for all M.Sc./M.A. courses (24 Questions of one mark each)

Questions to test analytical, reasoning capability and English of candidates.

Part - B
Syllabus for M.Sc Physics Entrance Test (56 Questions of one mark each)

1. Mechanics and Waves

Newton's laws of motion and applications, variable mass systems, projectiles. Rotational dynamics-kinetic energy, angular momentum, theorems of moment of inertia. Conservative forces, frictional forces. Gravitational potential and intensity due to spherical objects. Central forces, Kepler's problem, escape velocity and artificial satellites. Streamline motion, viscosity, Applications of Bernoulli's equation and Stokes' law. Simple harmonic motion, Lissajous figures. Damped oscillation, forced oscillation and resonance. Beats, Phase and group velocities. Longitudinal waves in solids. Doppler effect. Ultrasonic and their applications.

2. Geometrical and Physical Optics

Laws of reflection and refraction from Fermat's principle. Matrix method in paraxial optics-thin lens formula, nodal planes, system of two thin lenses. Chromatic and spherical aberrations. Huygens' principle-reflection and refraction of waves. Interference of light-Young's experiment, Newton's rings, interference by thin films, Michelson interferometer. Fraunhoffer diffraction-single slit, double slit, diffraction grating, resolving power. Production and detection of linearly, circularly and elliptically polarised light. Double refraction, quarter-waves plates and half-wave plates. Optical activity and applications. Elements of fibre optics-attenuation, pulse dispersion in step index and parabolic index fibres; material dispersion. Lasers, characteristics of laser light-spatial and temporal coherence.

3. Heat and Thermodynamics

Thermal equilibrium and temperature. The zeroth law of thermodynamics. Heat and first law of thermodynamics. Efficiency of Carnot engines. Entropy and the second law of thermodynamics. Kinetic theory and the equation of state of an ideal gas. Mean free path, distribution of molecular speeds and energies. Transport phenomena. Andrew's experiments-van der Waals equation and applications. Joule-Kelvin effect and applications. Brownian motion. Thermodynamic potentials-Maxwell relations. Phase transitions. Kirchhoff's laws. Black-body radiation-Stefan-Boltzmann law, spectral radiancy, Wien displacement law, application to the cosmic microwave background radiation, Planck’s radiation law.

4. Electricity and Magnetism

Electric charge, Coulomb's law, Electric field, Gauss' law. Electric potential, Van de Graff accelerator. Capacitors, dielectrics and polarization. Ohm's law, Kirchhoff's first and second rules, resistors in series and parallel, applications to two-loop circuits. Magnetic field-Gauss’s law for magnetism, Atomic and nuclear magnetism, magnetic susceptibility, classification of magnetic materials. Circulating charges, cyclotron, synchrotron. Hall effect. Biot-Savart law, Ampere's law, Faraday's law of induction., Lenz's law. Inductance. Alternating current circuits-RC, LR, single-loop LRC circuits, impedance, resonance, power in AC circuits. Displacement current, Maxwell's equations.

5. Atomic, Quantum and Nuclear Physics

Photoelectric effect, Einstein's photon theory. Bohr's theory of hydrogen atom. Stern-Gerlach

experiment, quantisation of angular momentum, electron spin. Pauli Exclusion Principle and applications. Zeeman effect. X-ray spectrum. Compton effect, Compton wavelength. Wave nature of matter, de Broglie wavelength, wave-particle duality. Heisenberg's uncertainty relationships. Schrodinger's equation-eigen values and eigen functions of (i) particle in a box, (ii) simple harmonic oscillator and (iii) hydrogen atom. Natural and artificial radioactivity. Binding energy of nuclei, nuclear fission and fusion. Classification of elementary particles.

6. Solid State Physics

Crystal structure, X-ray diffraction, Bragg's law, Bonding, covalent, ionic, metallic, Van der Walls bonding, Magnetism, Dia, Para and Ferromagnetism, Hysteresis. Thermal properties, lattice vibrations, Debye model. Band structure, energy band, energy gap, metals, insulators and semiconductors.

7. Electronics

Diodes in half-waves and full-wave rectification, qualitative ideas of semiconductors, p type and n type semiconductors, junction diode, Zener diode, transistors, Field Effect transistor. Binary numbers, Logic gates and truth table. Two junction devices p-n-p and n-p-n transistors Amplifiers-only bipolar junction transistor, CB, CE and CC configurations. Single stage CE amplifiers Class B push-pull amplifier. Feed back in amplifiers. Operational Amplifiers.

8. Mathematical Physics

Addition, subtraction and product of two vectors. Polar and axial vectors. Triple and quadruple product . Scalar and vector fields, differentiation of a vector w. r. t. a scalar. Unit tangent vector and unit normal vector. Directional derivatives, gradient, divergence, curl and Laplacian operations. Line, surface and volume integrals. Gauss's, Stokes and Green's theorems. Orthogonal curvilinear coordinates. Derivation of gradient, divergence, Curl and Laplacian in Cartesian, spherical and cylindrical coordinate systems. Change of variables and Jacobian transformations. Evaluation of line, surface and volume integrals. Calculus of Variations. Constrained maxima and minima. Method of Lagrange undetermined multipliers. Euler- Lagrange Equation

9. Theory of Relativity

Michelson-Morley experiment and its outcome. Postulates of special theory of relativity. Lorentz transformations. Simultaneity and order of events. Lorentz contraction and time dilation. Relativistic transformation of velocity. Velocity dependence of mass and equivalence of mass and energy. Relativistic Doppler effect. Relativistic kinematics. Transformation of energy and momentum.

Part –B

Syllabus for M.Sc. Mathematics Entrance Test (56 Questions of one mark each)

1. Algebra

Rank of matrices. Inverse of a matrix. Linear dependence and independence of rows and columns of matrices. Eigen values and Eigen vectors and characteristics of equation. Minimal polynomial of a matrix. Cayley Hamilton theorem and its use in finding the inverse of a matrix. Nature of the roots of an equation Descarte's rule of signs. Solutions of cubic equations (Cardon's method). Biquadratic equations and their solutions. Relations between the roots and coefficients of general polynomial equation in one variable. Solutions of polynomial equations having conditions on roots. Common roots and multiple roots. Transformation of equations.

2. Calculus

ε -δ definition of the limit of a function. Basic properties of limits, Continuous functions and classification of discontinuities. Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions. Limit continuity and Differentiability of real valued functions of two variables. Partial differentiation. Total Differentials. Composite functions & implicit functions. Change of variables. Homogenous functions & Euler's theorem on homogeneous functions. Taylor's theorem for functions of two variables. Schwarz and Young's theorem. Implicit function theorem. Maxima, Minima and saddle points of two variables. Lagrange's method of multipliers.

3. Trigonometry

De Moivre's Theorem and its Applications. Expansion of trignometrical functions. Direct circular and hyperbolic functions and their properties. Inverse circular and hyperbolic functions and their properties. Logarithm of a complex quantity. Gregory's series. Summation of Trigonometry series.

4. Real Analysis

Sequence & Series, Boundedness of the set of real numbers; least upper bound, greatest lower bound of a set, neighbourhoods, interior points, isolated points, limit points, open sets, closed set, interior of a set, closure of a set in real numbers and their properties. Bolzano-Weiestrass theorem, Open covers, Compact sets and Heine-Borel Theorem., Riemann integral, Integrabililty of continuous and monotonic functions, The Fundamental theorem of integral calculus. Mean value theorems of integral calculus. Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of a parameter. Continuity, Differentiability and integrability of an integral of a function of a parameter. Definition and examples of metric spaces, neighbourhoods, limit points, interior points, open and closed sets, closure and interior, boundary points, subspace of a metric space, equivalent metrics, Cauchy sequences, completeness, Cantor's intersection theorem, Baire's category theorem, Contraction Principle.

5. Groups and Rings

Groups, Subgroups and Quotient groups with example and their properties , Normal subgroups, Homoomorphisms, isomophisms, automorphisms and inner automorphisms of a group. Automorphisms of cyclic groups, Permutations groups. Even and odd permutations.

Alternating groups, Cayley's theorem, Center of a group and derived group of a group. Introduction to rings, subrings, integral domains and fields, Characteristics of a ring. Ring homomorphisms, ideals (principle, prime and Maximal) and Quotient rings, Field of quotients of an integral domain.

6. Complex Analysis

Extended Complex Plane, Stereographic projection of complex numbers, continuity and differentiability of complex functions, Analytic functions, Cauchy-Riemann equations. Harmonic functions. Mappings by elementary functions: Translation, rotation, Magnification and Inversion. Conformal Mappings. Mobius transformations. Fixed pints, Cross ratio, Inverse Points and critical mappings.

7. Linear Algebra

Vector spaces, subspaces, and their properties Quotient space., Linear transformations and linear forms on vector spaces, Vector space of all the linear transformations Dual Spaces, Bidual spaces, annihilator of subspaces of finite dimensional vector spaces, Null Space, Range space of a linear transformation, Rank and Nullity Theorem, Algebra of Linear Transformation, Minimal Polynomial of a linear transformation, Singular and non-singular linear transformations, Matrix of a linear Transformation, Change of basis, Eigen values and Eigen vectors of linear transformations.

8. Solid Geometry Sphere

Plane section of a sphere. Sphere through a given circle. Intersection of two spheres, radical plane of two spheres. Co-axial system of spheres Cones.: Right circular cone, enveloping cone and reciprocal cone. Cylinder: Right circular cylinder and enveloping cylinder. Paraboloids: Circular section, Plane sections of conicoids. Generating lines. Confocal conicoid. Reduction of second degree equations.

9. Ordinary and Partial Differential Equations

Ordinary simultaneous differential equations. Solution of simultaneous differential equations involving operators x (d/dx) or t (d/dt) etc. Simultaneous equation of the form $dx/P = dy/Q = dz/R$. Total differential equations. Condition for $Pdx + Qdy + Rdz = 0$ to be exact. General method of solving $Pdx + Qdy + Rdz = 0$ by taking one variable constant. Method of auxiliary equations. Linear differential equations of second order: Reduction to normal form. Transformation of the equation by changing the dependent variable/ the independent variable. Solution by operators of non-homogeneous linear differential equations. Reduction of order of a differential equation. Method of variations of parameters. Method of undetermined coefficients. Partial differential equations: Formation, order and degree, Linear and Non-Linear Partial differential equations of the first order: Complete solution, Singular solution, General solution, Solution of Lagrange's linear equations, Charpit's general method of solution. Compatible systems of first order equations, Jacobi's method. Classification of linear partial differential equations of second order. Method of separation of variables: Solution of Laplace's equation, Wave equation, Diffusion (Heat) equation.

10. Vector Calculus

Scalar and vector product of three vectors, product of four vectors. Reciprocal vectors. Vector differentiation Scalar Valued point functions, vector valued point functions, derivative along a curve, directional derivatives. Vector integration; Line integral, Surface integral, Volume integral Theorems of Gauss, Green & Stokes and problems based on these theorems.

11. Fourier Transform and Laplace Transforms

Fourier transforms: Linearity property, Shifting, Modulation, Convolution Theorem, Fourier Transform of Derivatives, Relations between Fourier transform and Laplace transform, Parseval's identity for Fourier transforms, solution of differential Equations using Fourier Transforms. Existence theorem for Laplace transforms, Linearity of the Laplace transforms, Shifting theorems, Laplace transforms of derivatives and integrals, Differentiation and integration of Laplace transforms, Convolution theorem, Inverse Laplace transforms, convolution theorem, Inverse Laplace transforms of derivatives and integrals, solution of ordinary differential equations using Laplace transform.

12. Numerical Analysis

Finite Differences operators and their relations. Interpolation with equal intervals and unequal intervals: Newton's divided difference, Lagrange's Interpolation formulae, Hermite Formula. Central Differences: Gauss forward and Gauss's backward interpolation formulae, Sterling, Bessel Formula. Numerical Integration: Newton-Cote's Quadrature formula, Chebychev formula, Gauss Quadrature formula. Numerical solution of ordinary differential equation of Runge-Kutta Methods. Multiple step methods; Predictor-corrector method, Modified Euler's method, Milne-Simpson's method. Solution of Algebraic and Transcendental equations: Bisection method, Regula-Falsi method, Secant method, Newton- Raphson's method. Newton's iterative method for finding pth root of a number, Order of convergence of above methods. Simultaneous linear algebraic equations: Gauss-elimination method, Gauss-Jordan method, Triangularization method (LU decomposition method). Crout's method, Cholesky Decomposition method. Iterative method, Jacobi's method, Gauss-Seidal's method, Relaxation method.

13. Dynamics & Statics

Composition and resolution of forces. Parallel forces. Moments and Couples. Analytical conditions of equilibrium of coplanar forces. Friction. Centre of Gravity. Velocity and acceleration along radial, transverse, tangential and normal directions. Relative velocity and acceleration. Simple harmonic motion. Elastic strings. Mass, Momentum and Force. Newton's laws of motion. Work, Power and Energy. Definitions of Conservative forces and Impulsive forces. Motion on smooth and rough plane curves. Projectile motion of a particle in a plane. Vector angular velocity. General motion of a rigid body. Central Orbits, Kepler laws of motion. Motion of a particle in three dimensions. Acceleration in terms of different co-ordinate system.

Part –B

Syllabus for M.Sc. Chemistry Entrance Test (56 Questions of one mark each)

Entrance examination will consist of questions based on Chemistry up to graduation level, covering following topics

1. Inorganic Chemistry

- Atomic Structure
- Periodic Table and Periodic Properties
- Metallic Bond and Semiconductors
- Chemistry of s, p, d and f block Elements
- Chemistry of Coordination Compounds
- Non-aqueous Solvents
- Theory of Qualitative and Quantitative Inorganic Analysis
- Metal-ligand Bonding in Transition Metal Complexes: CFT
- Thermodynamic and Kinetic Aspects of Metal Complexes
- Magnetic Properties of Transition Metal Complexes
- Electron Spectra of Transition Metal Complexes
- Organometallic Chemistry
- Acid-Base concepts
- Bioinorganic Chemistry

2. Physical Chemistry

- Theory of Gases and related Critical Phenomenon
- Theory of Liquid States
- Solid State
- Chemical Kinetics
- Electrochemistry
- Thermodynamics
- Chemical Equilibrium
- Distribution Law
- Quantum Mechanics
- Physical Properties and Molecular Structure:
  Optical properties, dipole moment and magnetic properties
- Spectroscopy*:* Introduction, Rotational Spectrum, Vibrational spectrum, Raman Spectrum & Electronic Spectrum
- Photochemistry
- Solutions: Dilute Solutions and Colligative Properties
- Phase Equilibrium

3. Organic Chemistry

- Structure and Bonding:

Localized and delocalized chemical bond, van der Waals interactions, resonance, hyperconjugation, inductive effect, Electromeric effect & their comparison.

- Stereochemistry of Organic Compounds
  Mechanism of Organic Reactions: Homolytic and Heterolytic bond breaking, types of reagents electrophiles and nucleophiles, types of organic reactions, energy considerations, reactive intermediates
- Structure, classification, properties, Reaction Mechanism and Synthetic Applications : Alkanes and Cycloalkanes Alkenes, Arenes and Aromaticity, Dienes, Alkynes, Alkyl and Aryl Halides, Alcohols, Phenols, Aldehydes and Ketones, Carboxylic Acids & Acid Derivatives, Epoxides, Amines, Diazonium Salts, Nitro Compounds
- Specroscopic techniques: Ultraviolet (UV) absorption spectroscopy, Infrared (IR) absorption spectroscopy, NMR Spectroscopy
- Chemistry of Natural Products: Carbohydrates, Amino Acids, Peptides & Proteins
- Heterocyclic Compounds
- Organosulphur Compounds
- Polymers

Part –B
Syllabus for M.Sc. (Environmental Sciences) Entrance Test (56 Questions of one mark each)

1. Biological sciences: Plant and Animal kingdom-classification, characteristics of various groups, morphology, anatomy, adaptations. Cell biology, structure and functions of biomolecules, genetics.

Physiology and biochemical processes - Photosynthesis, respiration, nitrogen metabolism, protein synthesis, growth hormones, enzymes.

Structural and functional aspects of digestive, respiratory, circulatory, muscular, excretory, reproductive, endocrine and nervous system of animals. Economic botany and plant diseases.

2. Chemistry: Matter in our surroundings, Atoms and Molecules, Metals and Non-metals, Carbon and its compounds, Classification of elements and periodicity, State of matter, Acids, Bases and Salts, Biomolecules and Polymers, Chemicals in Food, Cleansing Agents.

3. Physics: Fundamental forces in nature, Nature of physical laws, Motion, Heat and Thermodynamics, sound, radiations.

4. Mathematics: Sets and their Representations, Trigonometric Functions, Binomial Theorem, Sequence and Series, Integrals, Differential Equations.

5. Environmental Science: Components of Environment, Concept of biomes and biosphere, Natural resources- water, soil, food, energy, forests, minerals; levels of biodiversity, greenhouse effect and global warming, acid rain, ozone layer depletion, water pollution, social issues related to environment, agroforestry, agriculture and environmental Biotechnology.

Part –B
Syllabus for M.Sc./M.A. (Mass Communication and Journalism) Entrance Test (56 Questions of one mark each)

Apart from testing the analytical skills, aptitude for learning and reasoning abilities, the entrance test will test basic knowledge and awareness to gauge inclination towards media world. The **subject specific** topics for preparation are listed below:

1. General Awareness

2. Current Affairs

3. Historical background of Press and Journalism in India

4. Major Ideological schools and ideologies like feminism, Marxism, communism and capitalism.

5. Major publications and their editors: India and the World

6. Famous Thinkers and philosophers: quotations from famous thinkers including social activists, religious heads, poets, patriots and scientists and technocrats.

7. Regional history and current scenario: Haryana, Punjab, and Pre-partition Punjab, the Nationalist movement and partition.

8. Structure of Government and current political scenario with reference to the State of Haryana

9. English grammar

10. English vocabulary

7. RESULT OF ENTRANCE TEST

- The result of entrance test will be declared on **15/06/2016 (Wednesday)** on University website as well as Notice boards.

The merit list shall be prepared according to the following criteria:

- Based on marks in the Entrance Test.
- In case two students get same marks in Entrance Test, then the merit position will be decided on the basis of percentage of marks at graduation level as on last date of submission of his / her application form. An additional weightage of 5% will be given in the merit to those candidates who have passed their qualifying examination with Honours in relevant discipline.
- In case, merit of aptitude entrance test and percentage of marks at graduation level are same, then the candidate senior in age (as per D.O.B.) will have better merit position.

- Where CGPA is awarded and percentage of marks is not mentioned, percentage will be calculated as

  Percentage of marks = conversion number mentioned on the certificate/degree x CGPA

  otherwise

  Percentage of marks = 9 x CGPA
- Entrance test marks of applicants will be displayed on University website and notice boards**. The successful applicants will report to the Chairperson of the HAS Department on the scheduled date for Counselling.**

8. ADMISSION & COUNSELING

Only those candidates who present themselves in person on the specified date and time alongwith the originals of all the documents will be considered for admission.

Documents required at the time of counselling are as follows:

- Two attested photocopies and original for verification purpose of the following:
- Class 10th Certificate indicating date of birth and 12th mark sheet.
- Qualifying degree certificate/DMC of all examination passed.
- Character Certificate from Head of the Institution last attended / from the last employer.
- SC / BC/PH Certificate /any other reservation certificate (if applicable) issued by competent authority in the format prescribed by the Government.
- Medical Fitness Certificate from a Gazetted Medical Officer.
- Haryana resident domicile certificate (If any)
- The selected candidates will have to submit a "Migration Certificate" within one month of his/her admission, from the University/Institute last attended.

The Chairman of the HAS Department will be the Chairman of the Admission Committee for admission. The decision of the Prof. Incharge (Academics) in all matters relating to admission shall be final. Two Passport size photographs of 5 cm x 7cm will also be required at the time of counselling & admission.

The candidates admitted to M.Sc./M.A. Programme will be required to deposit total Rs.26,600/- (excluding hostel charges) in the form of DD payable to Registrar, YMCAUST Faridabad payable at Faridabad, on the spot at the time of admission.

Before accepting the admission, the candidate must ensure that he/ she fulfils the minimum eligibility conditions as laid down herein and to register with University for admission to respective course. Fee once paid will not be refunded. All the admitted candidates will be governed by the Rules and Regulations and / or Ordinance(s) of the University. All the admitted candidates may download Ordinances from the Website of the University.

YMCA UNIVERSITY OF SCIENCE & TECHNOLOGY
Sector 6, Faridabad

Affix a Passport size Photograph (attested).

Serial No. For office use.....

APPLICATION FORM FOR ADMISSION TO MSc./M.A.(2016-17)

Write one: M.Sc. Physics/Mathematics/Chemistry/Environmental Sciences

M.Sc./M.A. Mass Communication and Journalism ……

NOTE: In case candidate wants to apply for more than one course, he / she must have to fill separate application with fee.

1. A. Have you applied for the other course? If yes, please tick : Yes / No

   B. CATEGORY: All India / HOGC / SC / BCA / BCB / Special BC / Economically Weaker Section / PH _____ (Attach Certificate for reserved category)

   C. Tick the relevant category : Male / Female / Transgender

2. Name in Full (in block letters) : _____

   (A)Father's Name (in block letters) :_____

   _____

   (B)Mother's Name (in block letters) : _____

3. Date of Birth (dd/mm/yyyy) : _____

4. Address for correspondence : _____

   _____PIN_____

Ph.No. _____ Mob. No. _____Email Id: _____

5. Details of Educational Qualification:

Examination	Year of Passing	Relevant Roll No.	Name of the College/ University	Maximum Marks	Marks Obtained	% age Marks or CGPA
10th						
12th						
B.Sc./B.A./B .Tech/B.E.						

6. Details of Demand Draft :-

i. D.D No. : _____

ii. Amount : Rs._____/-

iii. Bank & Branch : _____

With address _____

- **Date, Time and Venue for Entrance Test:**

S.No.	Name of the course	Date	Timings
1	M.Sc. Environmental Sciences	11/06/2016 (Saturday)	10 A.M. to 12 P.M.
2	M.Sc./M.A. Mass Communication and Journalism	11/06/2016 (Saturday)	1 P.M. to 3 P.M.
3	M.Sc. Physics	12/06/2016 (Sunday)	9 A.M. to 11 A.M.
4	M.Sc. Mathematics	12/06/2016 (Sunday)	12 A.M. to 2 P.M.
5	M.Sc. Chemistry	12/06/2016 (Sunday)	3 P.M. to 5 P.M.

Venue - YMCA University of Science & Technology, Sector – 6, Faridabad.

DECLARATION BY THE CANDIDATE

I hereby declare that all the entries made in this form are correct. I further declare that I fulfill the minimum eligibility conditions laid down for admission. In case of detection of any false entry in

respect of qualifying examination / experience / caste / sponsoring certificate, my admission may be treated as cancelled at any time during the course of my study and I will have no claim what so ever except security charges. I will not indulge in any act of ragging, and shall follow the code of conduct prescribed for students of the University.

I have also noted that in case I would not be able to submit my result by 30th September 2016, my admission shall stand automatically cancelled and the fee deposited at the time of admission will be forfeited.

Date: **Signature of the Applicant**
Place:

DECLARATION BY THE FATHER / GUARDIAN OF THE CANDIDATE

I certify that my son / daughter / ward _____ has applied with my knowledge and consent. I hold myself responsible for his / her good conduct and its maintenance and payment of fees during the period he / she will be on the University Rolls. My son / daughter / ward will not indulge in any act of ragging, and shall follow the code of conduct prescribed for students of the University.

Date: **Signature of the Father / Guardian**

LIST OF ENCLOSURES -- (Please put Tick Mark) :

Enclose one copy with application and bring two attested photocopies and original for verification purpose at the time of counselling of the following:

1. Class 10th Certificate indicating date of birth and marks.
2. 12th mark sheet.
3. Qualifying degree certificate & DMC(B.Sc./B.A./B.E/BTech)
4. Character Certificate from Head of the Institution last attended / from the last employer.
5. SC / BC Certificate/Reservation Certificate (if applicable) issued by competent authority in the format prescribed by the Government.
6. Medical Fitness Certificate from a Gazetted Medical Officer.
7. Haryana resident certificate (If required).

For office use only:

Remarks of Verification committee regarding discrepancies of candidate……

Member Member Member

The candidate ---------- with Overall merit list Rank …….. is admitted for M.Sc./M.A. Course 2016-17 as per his/her merit.

Member Member **Chairperson**

COF Received Rs……..vide receipt no. ……

Dated…….. **Cashier**

YMCA University of Science And Technology
Faridabad-121006
Roll no Slip M.Sc. (Physics) 2016-17

Name of the candidate

Fathers Name

Roll No.

Exam Centre: University Building

Passport size Photograph

Signature of the Candidate **Signature of the Invigilator**

This is a provisional roll number slip subjected to the condition that documents will be verified at the time of admission

YMCA University of Science And Technology
Faridabad-121006
Roll no Slip M.Sc. (Mathematics) 2016-17

Name of the candidate

Fathers Name

Roll No.

Exam Centre: University Building

Passport size Photograph

Signature of the Candidate **Signature of the Invigilator**

This is a provisional roll number slip subjected to the condition that documents will be verified at the time of admission

YMCA University of Science And Technology
Faridabad-121006
Roll no Slip M.Sc. (Chemistry) 2016-17

Name of the candidate

Fathers Name

Roll No.

Exam Centre: University Building

Passport size Photograph

Signature of the Candidate **Signature of the Invigilator**

This is a provisional roll number slip subjected to the condition that documents will be verified at the time of admission.

YMCA University of Science And Technology
Faridabad-121006
Roll no Slip M.Sc. (Environmental Sciences) 2016-17

Name of the candidate

Fathers Name

Roll No.

Exam Centre: University Building

Passport size Photograph

Signature of the Candidate **Signature of the Invigilator**

This is a provisional roll number slip subjected to the condition that documents will be verified at the time of admission

YMCA University of Science And Technology
Faridabad-121006
Roll no Slip M.Sc./M.A. (Mass Communication and Journalism) 2016-17

Name of the candidate

Fathers Name

Roll No.

Exam Centre: University Building

Passport size Photograph

Signature of the Candidate **Signature of the Invigilator**

This is a provisional roll number slip subjected to the condition that documents will be verified at the time of admission