



MAHARSHI DAYANAND UNIVERSITY ROHTAK

(A State University established under Haryana Act No. XXV of 1975)

'A+' Grade University Accredited by NAAC

No. AC-I/Pros./24/ 7119-20
Dated: 27.05.2024

To

1. The C.P.A. to Controller of Examinations,
M.D. University,
Rohtak
2. The Director (University Computer Centre),
M.D. University,
Rohtak

Sub: Syllabi & Pattern for Entrance Examination for admission to various 4-Year UG Program & 5-Year Integrated Programs-2024-25

Sir,

Please find enclosed herewith the Syllabi and Pattern for Entrance Examination for admission to the following 4-Year Under-Graduate Programs [UG Honours)/UG (Honours with Research)] and 5-Year Integrated Programs as per NEP-2020 offered by University Teaching Departments at MDU Rohtak and MDU-Centre for Professional & Allied Studies (MDU-CPAS), Gurugram for the academic session 2024-25 for information and necessary action.

Sr. No.	Name of Program
1.	B.A. (English) 4-Year
2.	LL.B (Hons) 5-Year
3.	B.Sc. (Mathematics) 4-Year
4.	B.Sc. (Statistics) 4-Year
5.	i) BBA 4-Year ii) BHMCT 4-Year iii) BTM 4-Year iv) MHMCT 5-Year
6.	BCA 4-Year
7.	BA Fine Arts (Painting) 4-Year
8.	BA (Economics) 4-Year
9.	BA (Public Admn.) 4-Year
10.	BA (Sanskrit) 4-Year
11.	BA (History) 4-Year
12.	B.Sc. (Genetics) 4-Year
13.	B.Com. 4-Year

Yours faithfully,

Encl: As above.

Asstt. Registrar (Academic)
For DEAN ACADEMIC AFFAIRS

DEPARTMENT OF ENGLISH AND FOREIGN LANGUAGES

No. ENG/24/_____

Dated : _____

To

DR / AR (Academic)
M. D. University,
Rohtak.

Subject: Syllabi for the Entrance Examination of UG English 4 Year for the session 2024-25.

Madam/Sir,

With reference to your email dated 22.05.2024 the syllabi of Entrance Examination for the Session 2024-25 is as follows:

Sr. No.	Name of the Program	Syllabus	Total Marks
1	UG (English) 4 Year	1. English Language, Grammer & Composition - 70 Marks 2. Indian Art, Literature & Culture - 30 Marks	100 Marks

P. S.
23/5/24
Head

Head
Department of English
& Foreign Languages
M. D. University, Rohtak

PROFESSIONAL PROGRAMS

i.	B.A.LLB(Hons)5-year	<p>a) Legal Aptitude b) Reasoning c) General English d) General Hindi e) General Knowledge</p> <p>The General Knowledge area will cover the following fields of knowledge:-</p> <ol style="list-style-type: none"> 1) Current Events of National and Inter-national Importance 2) General Science 3) History of India 4) Geography 5) Indian Polity & Economy <p>Note: The standard of questions will be that of 12th standard as prescribed by the Board of School of Education, Haryana..</p>	<p>20 20 20 20 20</p>
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Regarding supply the syllabus of entrance test for admission to 4 year/ 5-Year integrated course

HOD OF MATHEMATICS MD University, Rohtak <hod.maths@mdurohtak.ac.in>
To: Academic Branch MDU <academic.br@mdurohtak.ac.in>

Thu, May 23, 2024 at 12:30 PM

Dear Sir,

Please refer to your email dated 23/05/2024 on the subject cited above.
The patten of entrance test for 4-Year/ 5-year Integrated Programme in Mathematics for the session 2024-25 is given below and syllabus is attached herewith/

Syllabi	No. of Questions
10+1 & 10+2 level of CBSE/ Haryana Board of School Education, Bhiwani	
a) 10+1 level	40%
b) 10+2 level	60%

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Head
Department of Mathematics
M.D. University, Rohtak
Phone No. 01262293015

"Use Paper with care, so our trees don't become rare"

2 attachments

Syllabi-12th (1).pdf
918K

Syllabi-11th (2).pdf
2237K

Department of Statistics, M.D. Un
Syllabus for Entrance Test for Four Year Undergraduate Program in Statistics (Single Major) w.e.f. 2024-25
(Under NEP-2020)

Duration: 1:15 Hours

Max. Marks: 100 Marks

Note: The Examiner is required to set 100 multiple choice questions each of mark one as per syllabus described in all the five units.

Unit – 1 (20 Marks)

Sets and their Representations, Types of Sets, Operations on Sets; Relations & Functions and their types, Composition of Functions, Invertible Functions, Binary Operations; Trigonometric Functions; Inverse Trigonometric Functions; Complex Numbers, Algebra of Complex Numbers; Linear Inequalities; Binomial Theorem; Sequence, Series, Arithmetic Progression (A.P.), Sum of n-terms of A.P., Geometrical Progression (G.P.), Sum of n-terms of G.P., Sum of n-terms of Special Series; Matrices, Determinants and its Properties; Minors and Co-factors, Ad-joint and Inverse of Matrix.

Unit – 2 (20 Marks)

Limits, Algebra of Limits, Limits of Polynomials and Trigonometric Functions; Derivatives and Algebra of Derivatives of Functions, Derivatives of Polynomials and Trigonometric Functions; Continuity, Differentiability, Exponential and Logarithmic Functions, Derivatives of Functions in Parametric Forms, Second Order Derivatives, Mean Value Theorem, Applications of Derivatives; Integrals, Applications of the Integrals, Solution of Differential Equations; Straight lines; Linear Programming.

Unit – 3 (20 Marks)

Permutations and Combinations, Probability: Random Experiment, Sample Space, Event, Certain Event, Impossible Event, Independent Events, Complementary Events, Exhaustive Events, Mutually Exclusive Events, Algebra of Events, Axiomatic Approach to Probability, Conditional Probability, Addition and Multiplication theorem of Probability (Two Events Only), Bayes' Theorem, Random Variable and its Probability Distributions, Bernoulli Trials and Binomial Distribution.

Unit – 4 (25 Marks)

Statistics: Definition, Scope & Limitations; Data and Its Types; Tabular and Graphical Representation of Data: Classification, Tabulation, Diagrammatic Representation using Bar Graph, Pie Chart, Histogram; Measures of Central Tendency for Grouped & Ungrouped Data: Arithmetic Mean (A.M.), Geometric Mean (G.M.), Harmonic Mean (H.M.), Mode, Median, Relation between A.M., G.M. & H.M.; Measures of Dispersion for Grouped & Ungrouped Data: Range, Mean Deviation, Variance, Standard Deviation; Data Interpretation.

Unit – 5 (15 Marks)

Quantitative Aptitude and Reasoning: Series Completion and Inserting; Logical Venn Diagrams; Coding-Decoding; Alpha-Numeric Sequence; Mathematical Operations; Cube and Dice; Direction Sense Test; Embedded Figures; Mirror and Water Images; Analogy; Blood Relations, Problems on Ages; Time and Distance; Time and Work; Problems on H.C.F. and L.C.M.; Profit and Loss; Simple and Compound Interest.

Shu
24/5/2024

6

Institute of Management Studies and Research Maharshi Dayanand University, Rohtak

**Syllabus for Entrance Test of BBA 4 Year Program
Session: 2024-2025**

Duration: 75 Minutes

Maximum Marks: 100

The entrance test shall comprise of four (04) sections:

Section 01: General English

Synonyms and Antonyms, Vocabulary, Grammar - Prepositions, Articles, Fill in the blanks, Error Spotting, Analogy, One Word Substitution, Sentence Improvement

Section 02: Quantitative Aptitude

Percentage, Discount, Profit & Loss, Time & Work, Time, Speed & Distance, Algebra, Permutation & Combination, Number System, Probability, Ratios and Proportion, Fraction and Decimals, Pie chart, Bar Chart, Line Graph

Section 03: Analytical and Logical Reasoning

Arrangement - Seating/Circular, Venn Diagram, Series, Blood Relationship, Coding-Decoding, Assumption, Cubes, Syllogisms, Odd-Man Out, Non Verbal Tests (Visual reasoning), Inferences

Section 04: General Awareness

Business Awareness, Science and Technology, Computer, Sports and Media, Books and Authors, Awards and Events, International Affairs, Commerce and Economics Literature.

Note: A set of 100 Multiple Choice Questions comprising 25 questions from each section carrying equal marks and bearing Serial No 1 to 100 with four choices namely A, B, C, D (only capital letters) of each question shall be prepared by the Paper Setter. Out of four choices only one option will be the right answer. The candidate will be given 75 minutes to attempt these questions. Standard of questions will be as may be expected of 10+2 level.

INSTITUTE OF HOTEL & TOURISM
MAHARSHI DAYANAND UNIVER

MENT
TAK

Syllabus for Entrance Test
(For BHMCT/BTTM/5 Yr MHMCT)
Session 2024-2025

Duration: 75 Minutes

Maximum Marks: 100

The entrance test shall comprise of four (04) sections:

Section 01: Tourism & Culture of India

Tourist Places (Amritsar, Haridwar, Jaipur, Agra, Delhi, Ajmer, Panaji, Badrinath, Kedarnath, Puri, Dwarka) , Airports, Hotels, Travel Agencies, Indian Religions, Beliefs, Customs, Rituals, Art, Architecture, Philosophy, Cuisine, Languages, Dance, Music, Festivals, Fairs, Pilgrimage, Museums and Movies, State Tourism Departments, Ministry of Tourism, Transport Network (Air, Rail, Road, Shipping & Mass Transportation)

Section 02: Logical Reasoning & Service Aptitude

Blood Relationships, Alphabet Test, Direction Sense Test, Linear Arrangements, Ordering & Sequencing, Problems Based On Symmetry, Average, Simplification, Profit & Loss, Area, Volume & Surface Area, Discount, Time & Distance, Hospitality Services, Guest Relation, Customer care, Customer Experience, Communication, Interpersonal Skill, and Customer Feedback.

Section 03: General English

Parts of Speech-Noun, Pronoun, Adjective, Adverb, Verb, Preposition, Conjunction, Interjection, Tenses, Sentences, Vocabulary, Synonyms, Antonyms, Analogies, Spelling Errors, One Word Substitution, Simple Passage.

Section 04: General Knowledge & Current Affairs

Basic Computer Knowledge, Indian Literature, Indian History, Indian Politics, Indian Famous Personalities, Sports, Books, Authors, Awards & Honors, Cinema, Science Invention, Discoveries, Organizations, Current National & International Affairs, Important Days And Weeks.

Note: A set of 100 Multiple Choice questions comprising 25 questions from each section carrying equal marks and bearing Serial No 1 to 100 with four choices namely A, B, C, D (only capital letters) of each question shall be prepared by the Paper Setter. Out of four choices only one option will be the right answer. The candidate will be given 75 minutes to attempt these questions. Standard of questions will be as may be expected of 10+2 level.

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UNIVERSITY INSTITUTE OF ENGINEERING & TECHNOLOGY
MAHARSHI DAYANAND UNIVERSITY
(A State University established under Haryana Act No. 10 of 1987)
'A+' Grade University Accredited by NAAC
Department of Computer Science and Engineering

Syllabus for Entrance Test of Bachelor of Computer Applications (BCA) 4 Year Programme

Session 2024-2025

Time: 75 Minutes

Maximum Marks: 100 Marks

Note: Standard of Questions will be that of 11th and 12th standard as prescribed by CBSE and other state boards. Question Paper comprises 100 MCQs of one mark each.

Section A:

General Awareness: 10 Marks

Logical Reasoning: 10 Marks

General Science: 10 Marks

Section B:

Basic Mathematics: 30 Marks

Numbers, HCF & LCM, Decimal Fractions, Simplification, Square and Cube roots, Average, Problems on numbers, Problems on Ages, Percentage, Profit and Loss, Ratio and Proportion, Time and work, Time and distance, Simple and Compound interest, Data Interpretation.

Basic Computer Awareness: 15 Marks

Introduction to Computer: Basic Applications of Computer, Components of Computer, Connecting Computer Components, Computer Hardware & Software.

Computer Operating System: Basics of Operating System, Linux, Windows, Task Icons, Bars, System Settings, Setting Date & Time, File Management.

Introduction to Internet, WWW & Web Browsers: Basics of Computer Networks: LAN, MAN, WAN; Internet, Search Engines, URLs, How to Use Web Browser.

Communications & Collaboration: Basics of Email, How to Use Email, Instant Messaging, Format an E-mail.

General English: 25 Marks

Reading Comprehension, Para Jumbles/ Jumbled Sentence, Paragraph Completion, Synonyms and Antonyms, Spelling Test, One Word Substitution, Active and Passive Voice, Direct & Indirect Speech, Fill in Blanks – Conjunction, Preposition, Tenses, etc., Sentence Correction/Error Spotting.

MAHARSHI DAYANAND UNIVERSITY, ROHTAK
Department of Visual Arts

To
Assistant Registrar,
Academic Branch
MDU, Rohtak

Subject: - Proposed duration and Pattern regarding syllabus of the entrance test BFA (Painting) 4 year UG course & M.A Fine Art (Drawing & Painting) for the Session 2024-25.

It is submitted that the Department of Visual Arts will conduct the Entrance Test of BFA (Painting) 4 year UG course and M.A Fine Art (Drawing & Painting) CBCS Scheme. (Syllabus Subject, Marks and duration as under.

Sr. No	Course	Subject	Marks	Proposed Duration
1	BFA (Painting) 4 year UG course	Paper 1. Object Drawing (Practical)	- 35	1:30 hour
		Paper 2. Composition (Practical)	- 35	1:30 hour
		<u>Paper3. G.K. basic Fine Art & current affairs (theory - 30</u>		30 minutes
		<u>Total Marks</u>	<u>100</u>	
2.	MA (Drawing & Painting) CBCS Scheme	1. Painting Composition (Practical)	=25	1:20 hour
		2. Life Sketch (Practical)	= 25	1:20 hour
		<u>3. Art History and Appreciation and G.K.(Theory) 20+30 = 50</u>		50 minutes
		<u>Total</u>	<u>Marks</u>	
		<u>100</u>		

Note: - The students have to bring their own half cartridge sheets, art material and stationary for these exams.

HOD (Visual Arts)

1. A copy forward to Controller of Examinations, Maharshi Dayanand University, Rohtak.

HOD (Visual Arts)

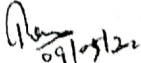
Maharshi Dayanand University Rohtak
Department of Economics

Max Marks: 100

Syllabi for Entrance Examination for Admission to MA Hons 5 Year Integrated Course

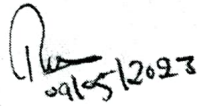
Content	No of Questions
<p>Collection, Organisation and Presentation of Data Sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation; Meaning and types of variables; Frequency Distribution;</p> <p>Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (Bar diagrams and pie diagrams), (ii) Frequency diagrams (Histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph).</p>	10
<p>Statistical Tools and Interpretation Arithmetic mean, median and mode; Correlation – meaning and properties, scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation; Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers.</p>	10
<p>Consumer's Equilibrium and Demand Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis; Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium. Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method and total expenditure method.</p>	10
<p>Producer Behaviour and Supply Meaning of Production Function – Short-Run and Long-Run; Total Product, Average Product and Marginal Product. Returns to a Factor Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships. Revenue - total, average and marginal revenue - meaning and their relationship. Producer's equilibrium-meaning and its conditions in terms of marginal revenue- marginal cost. Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method.</p>	10
<p>Forms of Market and Price Determination under Perfect Competition with simple applications Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply; Simple Applications of Demand and Supply: Price ceiling, price floor.</p>	10
<p>National Income and Related Aggregates Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP. GDP</p>	10

4


Head,
Department of Economics
M.D. University, Rohtak

and Welfare	
Money and Banking Money – meaning and functions, supply of money - Currency held by the public and net demand deposits held by commercial banks. Money creation by the commercial banking system. Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.	10
Government Budget and the Economy Government budget - meaning, objectives and components. Classification of receipts - revenue receipts and capital receipts; Classification of expenditure – revenue expenditure and capital expenditure. Balanced, Surplus and Deficit Budget – measures of government deficit.	15
Indian Economic Development Development Experience (1947-90) and Economic Reforms since 1991: A brief introduction of the state of Indian economy on the eve of independence. Indian economic system and common goals of Five Year Plans. Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), industry (IPR 1956; SSI – role & importance) and foreign trade. Economic Reforms since 1991: Features and appraisals of liberalisation, globalisation and privatisation (LPG policy); Concepts of demonetization and GST	15

Note: It is acknowledged that this Entrance Syllabi has been sourced from CBSE Website


Head,
Department of Economics
M.D. University, Rohtak

कक्षा-ग्यारहवीं
विषय-लोकप्रशासन

मास	पुस्तक का नाम	विषय-वस्तु	शिदाण के पीरियड	दीहराई के पीरियड
अप्रैल		1. Public Administration Meaning, Scope and Significance.	16	8
मई		2. Public and Private Administration i. Similarities ii. Differences	12	4
जून		3. State Administration Governor - Appointment Power and Position	10	
जुलाई		श्रीभकालीन अवकाश		
		4. Chief Minister Appointment, Power and Position.	12	4
		5. Relationship of public administration with i. Political Science ii. Economics iii. History iv. Sociology	10	
अगस्त		6. District Administration i. Deputy Commissioner ii. S.S.P. (Sr. Superintendent of Police)	10 10	5
सितम्बर		7. Organization and its basis	06	04
अक्टूबर		8. Principles of organization i. Hierarchy ii. co-ordination iii. Supervision iv. Centralization and decentralization	03 03 03 03	04
		9. Local Administration municipal committee organization and functions	08	
नवम्बर		10. Gram Panchayat and Panchayat smities organization and functions	12	08
		11. Source of Income of Local Administration and Financial difficulties	12	
दिसम्बर		12. Public Relation meaning and significance in democratic Administration	8	2
		13. Financial administration meaning and principles of Budget	10	
जनवरी		14. Estimate and Public Account Committee	12	00
फरवरी		Revision		
मार्च		Exam		

Class : XII
Subject : Public Administration
Syllabus

Month	Book name	Sub Topic/ Contents	Study Periods	Revision Period
April	Public Admn.	1 Chief Executive: Meaning, Function, Relationship between ministers and civil servants.	09	08
		2 Union Executive: Presidents- Appointment (election system), Term and Power and Function	05	
May	-do-	2 Union Executive:		05
		Prime Minister-Appointment, Term, Removal, Power and Function and Position	05	
		Council of Ministers- Organisation and Functions	05	
		Bills – Ordinary bill, Money bill Procedure of Making Law	05 05	
June				
July	-do-	3 Indian Federalism	12	04
		4 Supreme Court of India	12	
August	-do-	5 Union Public Service Commission	12	04
		6 Comptroller and Auditor general of India	12	
September	-do-	7 Union Budget	10	02
October	-do-	8 Department	08	04
		9 Public Corporation	08	
November	-do-	10 Recruitment	10	02
		11 Training	10	
December	-do-	12 Promotion	10	04
January	-do-	13 Panchayati Raj	12	06
February		Revision		
March		Exam		



MAHARSHI DAYANAND UNIVERSITY
(A State University established under Haryana Act No.25 of 1975)
NAAC Accredited 'A' Grade

DEPARTMENT OF SANSKRIT, PALI & PRAKRIT

Syllabus for Entrance Test of Undergraduate Programme Single Major Sanskrit

Duration- 75 Minutes

Maximum Marks-100

Sr. No.	Subject	Topics
1	General Hindi	संज्ञा, सर्वनाम, क्रिया, विशेषण, क्रियाविशेषण, शब्दार्थ, पर्यायवाची शब्द, विलोम शब्द, लोकोक्ति एवं मुहावरे
2	General English	Noun, Pronoun, Verbs, Adverb, Adjectives, Word Meanings, Synonyms, Antonyms, Proverbs, Preposition, Tenses, Voice
3	General Knowledge	Ancient India- Indus Valley Civilization, Vedic period, Maurya and Gupta Empires Medieval India- Delhi Sultanate, Mughal and Maratha Empire Modern India- British Rule, Indian Independent Movement Physical Geography- Mountains, Rivers, Natural Resources Political Geography- States & Union Territories of India, Capitals & Major Cities Current Affairs- Politics, Sports, Major Events
4	General Sanskrit	प्रमुख शब्द रूप , धातु रूप, संधि, समास, कारक, विभक्ति, वैदिक साहित्य का सामान्य परिचय , रामायण व महाभारत का सामान्य परिचय, लौकिक संस्कृत साहित्य का सामान्य परिचय

Note:- A set of 100 Multiple Choice Questions comprising 25 questions from each section carrying equal marks and bearing serial No. 1 to 100 with four choices namely A B C D (Only Capital Letters) of each question shall be prepared by the paper setter. Out of four choices, only one option will be the right answer. The candidate will be given 75 minutes to attempt these questions. Standard of questions will be as may be expected of 10+2 level.

HOD, Sanskrit

अध्यक्ष
संस्कृत, पालि एवं प्राकृत विभाग
महर्षि दयानन्द विश्वविद्यालय, रोहतक

13

Syllabus/Pattern for Entrance Exam. for Admission in 4-Year Undergraduate Program in History (Single Major) under NEP-2020

Sr.	Name of program	Syllabus/Pattern	
1.	4-Year Undergraduate Program in History (Single Major) under NEP-2020	A) History (NCERT Books upto 10+2 Standard)	80 Marks
		B) The General Knowledge area will cover the following fields of knowledge: i) Current Events of National and Inter-National Importance ii) General Science iii) History of India iv) Geography v) Indian Polity and Economy Note: The standard of questions will be that of 12th Standard as prescribed by the Board of School of Education, Haryana	20 Marks

12

DEPARTEMNT OF GENETICS
Maharshi Dayanand University, Rohtak

Syllabus for Entrance Test of B.Sc. Genetics 4 Year Program
Session: 2024-2025

Duration: 75 Minutes

Maximum Marks: 100

Note: A set of 100 Multiple Choice Questions comprising no. of questions mentioned against each section carrying equal marks and bearing Serial No. 1 to 100 with four choices namely A,B,C, D (only capital letters) of each question shall be prepared by the Paper Setter. Out of four choices only one option will be the right answer. The candidate will be given 75 minutes to attempt these questions. Standard of questions will expected as of 10+2 level.

Section01: Biology

Reproduction in organisms: Reproduction, a characteristic feature of all organisms for continuation of species; Modes of reproduction – Asexual and sexual; Asexual reproduction; Modes- Binary fission, sporulation, budding, gemmule, fragmentation; vegetative propagation in plants.

Sexual reproduction in flowering plants: Flower structure; Development of male and female gametophytes; Pollination–types, agencies and examples; Out breedings devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events– Development of endosperm and embryo, Development of seed and formation of fruit; Special modes– apomixis, parthenocarpy, polyembryony; Significance of seed and fruit formation.

Human Reproduction: Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis- spermatogenesis & oogenesis; Menstrual cycle; Fertilisation, embryo development upto blastocyst formation, implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea).

Reproductive health: Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control- Need and Methods, Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT (Elementary idea for general awareness).

(20 questions)

Section02: Genetics and Evolution

Heredity and variation: Mendelian Inheritance; Deviations from Mendelism– Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Sex determination–In humans, birds, honeybee; Linkage and crossingover; Sex linked inheritance- Haemophilia, Colour blindness; Mendelian disorders in humans– Thalassemia; Chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Molecular Basis of Inheritance: Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation– Lac Operon; Genome and human genome project; DNA fingerprinting.

Evolution: Origin of life; Biological evolution and evidences for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence); Darwin's contribution, Modern Synthetic theory of Evolution; Mechanism of evolution– Variation (Mutation and Recombination) and Natural Selection with examples, types of natural selection; Gene flow and genetic drift; Hardy-Weinberg's principle; Adaptive Radiation; Human evolution.

(20 Questions)

Section03: Human Health

Health and Disease: Pathogens; parasites causing human diseases (Malaria, Filariasis, Ascariasis, Typhoid, Pneumonia, common cold, amoebiasis, ring worm); Basic concepts of immunology–vaccines; Cancer, HIV and AIDs; Adolescence, drug and alcohol abuse.

Improvement in food production: Plant breeding, tissue culture, single cell protein, Biofortification; Apiculture and Animal husbandry. (15 Questions)

Microbes in human welfare: In household food processing, industrial production, sewage treatment, energy generation and as bio control agents and bio fertilizers.

Section04: Biotechnology and its Application

Principles and process of Biotechnology: Genetic engineering (Recombinant DNA technology).

Application of Biotechnology in health and agriculture: Human insulin and vaccine production, gene therapy; Genetically modified organisms- Bt crops; Transgenic Animals; Biosafety issues– Biopiracy and patents. (15 Questions)

Section05: Ecology and Environment

Organisms and environment: Habitat and niche; Population and ecological adaptations; Population interactions– mutualism, competition, predation, parasitism; Population attributes–growth, birth rate and death rate, age distribution.

Ecosystems: Patterns, components; productivity and decomposition; Energy flow; Pyramids of number, biomass, energy; Nutrient cycling (carbon and phosphorous); Ecological succession; Ecological Services– Carbon fixation, pollination, oxygen release.

Bio diversity and its conservation: Concept of Biodiversity; Patterns of Biodiversity; Importance of Bio diversity; Loss of Biodiversity; Biodiversity conservation; Hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, National parks and sanctuaries.

Environmental issues: Air pollution and its control; Water pollution and its control; Agro chemicals and their effects; Solid waste management; Radioactive waste management; Greenhouse effect and global warming; Ozone depletion; Deforestation; Any three case studies as success stories addressing environmental issues. (15 Questions)

Section06: Elementary Chemistry

Classification of solids based on different binding forces: molecular, ionic covalent and metallic solids, amorphous and crystalline solids (elementary idea), types of solution. The distinction between true solutions, colloids and suspensions; lyophilic multi molecular and macromolecular colloids; electrolysis and laws of electrolysis elementary ideas. Chemistry in Everyday Life

Chemicals in medicines–analgesics, tranquilizers, antiseptics, disinfectants, antimicrobials, anti fertility drugs, antibiotics, antacids, antihistamines. Chemicals in Food – preservatives, artificial sweetening agents, elementary idea of antioxidants. Cleansing agents – soaps and detergents, cleansing action. (15 Questions)

MAHARSHI DAYANAND UNIVERSITY ROHTAK

DEPARTMENT OF COMMERCE

Syllabus of entrance examination for admission to Bachelor of Commerce 4-Year
for the session 2024-25

MAXIMUM MARKS = 100

ACCOUNTANCY 10+1: (15 Marks)

Introduction to Accounting: Accounting- concept, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business. Basic Accounting Terms- Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Fixed assets (Tangible and Intangible), Expenditure (Capital and Revenue), Expense, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount).

(No. of questions =2)

Theory Base of Accounting: Fundamental accounting assumptions: GAAP: Concept Business Entity, Money Measurement, Going Concern, Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism, Materiality and Objectivity. Basis of Accounting: cash basis and accrual basis; Accounting Standards: Applicability in Indian AS Goods and Services Tax (GST): Characteristics and Objective.

(No. of questions =2)

Accounting Process: Recording of Business Transactions Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit. Recording of Transactions: Books of Original Entry- Journal Special Purpose books Cash Book: Simple, cash book with bank column and petty cash book Purchases book Sales book Purchases return book Sales return book Note: Including trade discount, freight and cartage expenses for simple GST calculation. Ledger: Format, Posting from journal and subsidiary books, Balancing of accounts Bank Reconciliation. Statement: Need and preparation, Bank Reconciliation Statement with Adjusted Cash Book.

(No. of questions =3)

Depreciation, Provisions and Reserves: Depreciation: Concept, Features, Causes, factors Other similar terms: Depletion and Amortisation Methods of Depreciation: i. Straight Line

Method (SLM) ii. Written Down Value Method (WDV) Note: Excluding change of method, Difference between SLM and WDV; Advantages of SLM and WDV, Accounting treatment of depreciation i. Charging to asset account ii. Creating provision for depreciation/accumulated depreciation account iii. Treatment for disposal of asset Provisions and Reserves: Difference Types of Reserves: i. Revenue reserve ii. Capital reserve iii. General reserve iv. Specific reserve. Secret Reserve Difference between capital and revenue reserve Accounting for Bills of Exchange Bill of exchange and Promissory Note: Definition, Specimen, Features, Parties. Difference between Bill of Exchange and Promissory Note Terms in Bill of Exchange: i. Term of Bill ii. Accommodation bill (concept). iii. Days of Grace iv. Date of maturity v. Discounting of bill vi. Endorsement of bill vii. Bill after due date viii. Negotiation ix. Bill sent for collection x. Dishonour of bill xi. Retirement of bill xii. Renewal of bill, Accounting Treatment. Note: excluding accounting treatment for accommodation bill.

(No. of questions =2)

Trial balance and Rectification of Errors: Trial balance: objectives and preparation (Scope: Trial balance with balance method only) Errors: types-errors of omission, commission, principles, and compensating; their effect on Trial Balance. Detection and rectification of errors; preparation of suspense account. **Financial Statements of Sole Proprietorship:** Financial Statements Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Trading and Profit and Loss Account: Gross Profit, Operating profit and Net profit. Preparation. Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation. Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, Abnormal loss, Goods taken for personal use/staff welfare, interest on capital and managers commission. Preparation of Trading, Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments. **Incomplete Records:** Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method. Difference between accounts from incomplete records and Statement of Affairs. Preparation of Trading, Profit and Loss account and Balance Sheet.

(No. of questions =4)

Computers in Accounting: Introduction to computer and accounting information system {AIS}: Introduction to computers (elements, capabilities, limitations of computer system) Introduction to operating software, utility software and application software. Introduction to

accounting information system (AIS) as a part of Management Information System. Automation of accounting process: meaning Stages in automation: (a) Accounting process in a computerised environment; comparison between manual accounting process and computerised accounting process, (b) Sourcing of accounting software; kinds of software: readymade software; customised software and tailor-made software; generic considerations before sourcing accounting software (c) creation of account groups and hierarchy (d) generation of reports - trial balance, profit and loss account and balance sheet.

(No. of questions =2)

BUSINESS STUDIES 10+1: (15 Marks)

Evolution and Fundamentals of Business: History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities: Merchant Corporations, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy. Business – meaning and characteristics. Business, profession and employment, Concept. Objectives of business Classification of business activities- Industry and Commerce. Industry-types: primary, secondary, tertiary Meaning and subgroups. Commerce-trade: (types-internal, external; wholesale and retail) and auxiliaries to trade; (banking, insurance, transportation, warehousing, communication, and advertising) – meaning. Business risk-Concept.

(No. of questions =3)

Forms of Business organizations: Sole Proprietorship-Concept, merits and limitations. Partnership - Concept, types, merits and limitation of partnership, registration of a partnership firm, partnership deed. Types of partners Partnership vs. Limited Liability Partnership (LLP). Hindu Undivided Family Business: Concept. Cooperative Societies-Concept, merits, and limitations. Company - Concept, merits and limitations; Types: Private, Public and One Person Company – Concept Private Company vs. Limited Liability Partnership (LLP). Formation of company - stages, important documents to be used in formation of a company. Choice of form of business organization.

(No. of questions =3)

Public, Private and Global Enterprises: Public sector and private sector enterprises – Concept, Forms of public sector enterprises: Departmental Undertakings, Statutory Corporations and Government Company. Global Enterprises – Feature. Joint ventures, Public private partnership – concept. Business Services: Business services – meaning and types. Banking: Types of bank accounts - savings, current, recurring, fixed deposit and multiple option deposit account, Banking services with particular reference to Bank Draft, Bank

Overdraft, Cash credit. E-Banking meaning, Types of digital payments, Insurance – Principles. Types – life, health, fire and marine insurance – concept, Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier – meaning. Emerging Modes of Business: E - business: concept, scope and benefits, Business Process Outsourcing (BPO): Concept, need and scope. **(No. of questions =3)**

Social Responsibility and Business Finance: Social Responsibility of Business and Business Ethics: Concept of social responsibility, Case for social responsibility, Responsibility towards owners, investors, consumers, employees, government and community. Role of business in environment protection, Business Ethics - Concept and Elements. Sources of Business Finance: Concept of business finance: Owners' funds - equity shares, preference share, retained earnings, Global Depository receipt (GDR), American Depository Receipt (ADR) and International Depository Receipt (IDR) – concept, Borrowed funds: debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD). **(No. of questions =2)**

Small Business and Enterprises: Entrepreneurship Development (ED): Concept, Characteristics and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship, Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act), Role of small business in India with special reference to rural areas, Government schemes and agencies for small scale industries: National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas. **(No. of questions =2)**

Internal Trade and International Trade: Internal trade - meaning and types services rendered by a wholesaler and a retailer, Types of retail-trade-Itinerant and small scale fixed shops retailers, Large scale retailers-Departmental stores, chain stores – concept, GST (Goods and Services Tax): Concept and key-features International Trade: International trade: concept and benefits, Export trade – Meaning and procedure, Import Trade - Meaning and procedure, Documents involved in International Trade; indent, letter of credit, shipping order, shipping bills, mate's receipt (DA/DP), World Trade Organization (WTO) meaning and objectives. **(No. of questions =2)**

ACCOUNTANCY 10+2 (35 Marks)

Financial Statements of Not-for-Profit Organizations: Not-for-profit organizations: concept. Receipts and Payments Account: features and preparation. Income and Expenditure Account: features, preparation of income and expenditure account and balance sheet from the given receipts and payments account with additional information. Scope: (i) Adjustments in a question should not exceed 3 or 4 in number and restricted to subscriptions, consumption of consumables and sale of assets/ old material. (ii) Entrance/admission fees and general donations are to be treated as revenue receipts. (iii) Trading Account of incidental activities is not to be prepared. **(No. of questions =03)**

Accounting for Partnership Firms: Partnership: features. Partnership Deed. Provisions of the Indian Partnership Act 1932 in the absence of partnership deed. Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account: division of profit among partners, guarantee of profits. Past adjustments (relating to interest on capital, interest on drawing, salary and profit sharing ratio). Goodwill: nature, factors affecting and methods of valuation - average profit, super profit and capitalization.

Note: Interest on partner's loan is to be treated as a charge against profits. Goodwill to be adjusted through partners capital/ current account. Note: Raising and writing off goodwill is excluded. Accounting for Partnership firms - Reconstitution and Dissolution. Change in the Profit Sharing Ratio among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves and accumulated profits. Preparation of revaluation account and balance sheet. Admission of a partner - effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and re- assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet. Retirement and death of a partner: effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits and reserves, adjustment of capital accounts and preparation of balance sheet. Preparation of loan account of the retiring partner. Calculation of deceased partner's share of profit till the date of death. Preparation of deceased partner's capital account and his executor's account. Dissolution of a partnership firm: meaning of dissolution of partnership and partnership firm, types of dissolution of a firm. Settlement of accounts - preparation of realization account, and other related accounts:

capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)). Note: (i) If realized value of an asset is not given, it is to be presumed that it has not realised any amount. (ii) If a partner has borne and/ or paid the realisation expenses, it should be stated.

(No. of questions =12)

Accounting for Companies: Accounting for Share Capital Share and share capital: nature and types. Accounting for share capital: issue and allotment of equity and preferences shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. Concept of Private Placement and Employee Stock Option Plan (ESOP). Accounting treatment of forfeiture and reissue of shares. Disclosure of share capital in the Balance Sheet of a company. Accounting for Debentures: Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security concept, interest on debentures. Writing off discount / loss on issue of debentures. Note: Discount or loss on issue of debentures to be written off in the year debentures are allotted from Security Premium Reserve/ Capital Reserve/ Statement of Profit and Loss as Financial Cost (AS 16) in that order. Redemption of debentures-Methods: Lump sum, draw of lots. Creation of Debenture Redemption Reserve. Investment in Debenture Redemption Investment Note: Related sections of the Companies Act, 2013 will apply. Concept of Tax Deducted at Source (TDS) is excluded.

(No. of questions =12)

Analysis of Financial Statements: Financial statements of a Company: Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013) Note: Exceptional items, extraordinary items and profit (loss) from discontinued operations are excluded. Financial Statement Analysis: Objectives, importance and limitations. Tools for Financial Statement Analysis: Comparative statements, common size statements, cash flow analysis, ratio analysis. Accounting Ratios: Meaning, Objectives, classification and computation. Liquidity Ratios: Current ratio and Quick ratio. Solvency Ratios: Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio. Activity Ratios: Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio and Working Capital Turnover Ratio. Profitability Ratios: Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment.

(No. of questions =05)

Cash Flow Statement: Meaning, objectives and preparation (as per AS 3 (Revised) (Indirect Method only) Note: (i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax. (ii) Bank overdraft and cash credit to be treated as short term borrowings. (iii) Current Investments to be taken as Marketable securities unless otherwise specified. **(No. of questions =03)**

BUSINESS STUDIES 10+2: (35 Marks)

Nature and Significance of Management: Management - concept, objectives, and importance, Management as Science, Art and Profession, Levels of Management, Management functions-planning, organizing, staffing, directing and controlling. Coordination- concept and importance. Principles of Management: Principles of Management- concept and significance, Fayol's principles of management, Taylor's Scientific management- principles and techniques. **(No. of questions =05)**

Business Environment: Business Environment- concept and importance, Dimensions of Business Environment Economic, Social, Technological, Political and Legal Demonetization - concept and features, Impact of Government policy changes on business with special reference to liberalization, privatization and globalization in India. **(No. of questions =04)**

Planning: Concept, importance and limitations, Planning process, Single use and standing plans. Objectives, Strategy, Policy, Procedure, Method, Rule, Budget and Programme. **(No. of questions =03)**

Organising: Concept and importance, Organising Process, Structure of organization - functional and divisional concept. Formal and informal organization - concept, Delegation: concept, elements and importance, Decentralization: concept and importance. **(No. of questions =03)**

Staffing: Concept and importance of staffing, Staffing as a part of Human Resource Management - concept, Staffing process, Recruitment process, Selection - process, Training and Development - Concept and importance, Methods of training - on the job and off the job - vestibule training, apprenticeship training and internship training. **(No. of questions =03)**

Directing: Concept and importance, Elements of Directing, Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives, Leadership - concept, styles - authoritative, democratic and laissez faire. **(No. of questions =03)**

Communication and Controlling: Communication - concept, formal and informal communication; barriers to effective communication, how to overcome the barriers.
Controlling: Controlling - Concept and importance, Relationship between planning and controlling, Steps in process of controlling.
(No. of questions =02)

Financial Management: Concept, role and objectives of Financial Management, Financial decisions: investment, financing and dividend- Meaning and factors affecting them, Financial Planning - concept and importance, Capital Structure – concept and factors affecting capital structure, Fixed and Working Capital - concept and factors affecting their requirements.
(No. of questions =04)

Financial Markets: Financial Markets: Concept, Functions and Types, Money market and its instruments, Capital market and its types (primary and secondary), methods of floatation in the primary market, Stock Exchange - Functions and trading procedure, Securities and Exchange Board of India (SEBI) - objectives and functions.
(No. of questions =04)

Marketing: Marketing – Concept, functions and philosophies, Marketing Mix – Concept and elements, Product - branding, labelling and packaging – Concept, Price - Concept, Factors determining price, Physical Distribution – concept, components and channels of distribution, Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public Relations. Consumer Protection: Concept and importance of consumer protection, The Consumer Protection Act, 2019: Consumer awareness - Role of consumer organizations and Non-Governmental Organizations (NGOs).
(No. of questions =04)