



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

M.Sc. 4Th SEMESTER (C B C S) EXAMINATION OF SUMMER, 2018

-: PROGRAMME (WRITTEN) :-

TIME : 2. 30 P.M. TO 5. 30 P.M.

Sr. No	Subject	Day Date Paper	Thursday 03-05-2018 I	Saturday 05-05-2018 II	Tuesday 08-05-2018 III	Friday 11-05-2018 IV
1.	Physics		Nuclear and Particle Physics	Solid State Physics	Core Elective 1. Materials Science – II 2. X-rays – II 3. Nanoscience and Nanotechnology – II 4. Atomic and Molecular Physics– II 5. Applied Electronics – II 6. Methods of Theoretical Physics –II 7. Nonlinear Dynamics-II	Foundation Course Spectroscopic Application OR Optics and Optical Instruments Subject Centric Core 1. Nonlinear Geophysics 2. Experimental Techniques In Physics 3. Communication Electronics 4. Electro Acoustics
2.	Chemistry		Special I – Inorganic / Organic / Physical / Analytical	Special II – Inorganic / Organic / Physical / Analytical	Elective –Nuclear / Environmental / Polymer / Medicinal	Foundation Course- Applied Anal. Chemistry-II Core Subject Centric- Spectroscopy-II
3.	Bio-Chemistry		Advanced Clinical Biochemistry	Advanced Immunology	Elective A) Toxicology OR B) Nutrition (Applied Nutritional Biochemistry)	Foundation Enzyme Technology Core Subject Centric Bioresearch Technology
4.	Microbiology		Virology(VIR)	Microbial Fermentation Technology (MFT)	Elective :- Any One Of The Following 1) Microbial Diversity, Evolution and Ecology (MDEE) 2) Bioinformatics (BIF)	Foundation Course :- Any One Of The Following 1. Advance Microbiology Core Subject Centric Vaccines And Delivery System
5.	Botany		Cell and Molecular Biology-II	Plant Biotechnology and Plant Breeding	Elective 1) Molecular Biology and Plant Biotechnology 2) Reproductive Biology of Angiosperms 3) Advanced Psychology and Hydrobiology 4) Mycology and Plant Pathology 5) Palaeobotany 6) Palynology 7) Plant Physiology	Foundation Course 1) Applied Botany Core Subject Centric- Plant Resources
6.	Zoology		Biotechnique, Biostatistics ,Ethology,Toxicology and Bioinformatics	Special Group – Paper – II Elective Entomology Fish and Fisheries Mammalian Reproductive Physiology (MRP) Animal Physiology Cell Biology Fresh Water Zoology Aquaculture Environmental Biology Sericulture	Special Group – Paper – III Elective Entomology Fish and Fisheries Mammalian Reproductive Physiology(MRP) Animal Physiology Cell Biology Fresh Water Zoology Aquaculture Environmental Biology Sericulture	Foundation Applied Zoology Applied and Industrial Entomology Applied Fresh Water Fisheries Applied Human Physiology Core Subject Centric -2 Chronobiology & Radiation Biology

Sr. No	Subject	Day Date Paper	Thursday 03-05-2018 I	Saturday 05-05-2018 II	Tuesday 08-05-2018 III	Friday 11-05-2018 IV
7.	Environmental Science	Air and Noise Pollution Control Technology		Solid and Hazardous Waste Management	Elective - I Environment Impact Assessment and Legislation Elective –II Environmental Management	Foundation I Fundamentals of Environmental Science-II OR Core Subject Centric Disaster Management
8.	Statistics	Multivariate Analysis		Computational Statistics	Elective Operation Research Reliability Theory Data Mining Time Series Analysis	Core Subject Centric Industrial Statistics Actuarial Statistics Stochastic Models In Finance Statistical Pattern Recognition Foundation Applied Statistics Bio-Statistics
09.	Mathematics	Dynamical Systems		Partial Differential Equations	Advanced Numerical Methods	Core Elective Paper (opt any one of the following) 1. Fluid Dynamics – II 2. Cosmology Paper V:- Monday, 14-05-2018 Foundation Paper (opt any one of the following) 1. Elementary Discrete Mathematics 2. Fuzzy Mathematics II 3. Linear Programming Core (Subject Centric) .Operations Research II
10.	Electronics	Electromagnetic Fields and Antennas		Digital Communications	Elective 1. Microwave and Optical Communication 2. Computer Communication	Foundation Course : Pc and Pc Interfacing Core (Subject Centric) Mobile and Satellite Communication
11.	Computer Science	Data Mining		Artificial Intelligence & Expert System	Elective Design and Analysis of Algorithm Embedded System Pattern Recognition	Foundation Course II Advances in Information Technology Enterprise Resource Planning Supply Chain Management Total Quality Management Banking Operation And Services Information Security And Cyber Law Subject Centric 1. Parallel Computing 2. Mobile and Cyber Forensics
12.	Sericulture	Mulberry Silk Technology		Non- Mulberry Silk Technology	Elective A) Economics of Sericulture and Trading of Silk OR B) Extension, Management and Product Analysis	Insect Cell Culture & Molecular Informatics Technology

Sr. No	Subject	Day Date Paper	Thursday 03-05-2018 I	Saturday 05-05-2018 II	Tuesday 08-05-2018 III	Friday 11-05-2018 IV
13.	Molecular Biology and Genetic Engineering	Plant & Animal Tissue Culture		Recombinant DNA Technology-II	Elective A) Plant Genetic Engineering B) Molecular Diagnostics C) Bioinformatics and Datamining	Foundation Course Biostatics Core Subject Centric Personality Development Through Fine Arts
14.	M.Sc. Tech. Applied Geology	Mineral Exploration (4)		Elements of Mining and Drilling Techniques(3+1)	Geomorphology, Remote Sensing and GIS(1+2+1)	Fuel Geology (Coal, Petroleum and Nuclear) (2+1+1)
15.	Information Technology	Data Warehousing and Data Mining		Artificial Intelligence and Expert System	Core Elective 1. Design and Analysis of Algorithm 2. Cloud Computing 3. Mobile Computing	Foundation 1. Advances in Information Technology 2. Banking Operations and Services 3. Information Security and Cyber Law Core Subject Centric 1. Enterprise Computing 2. Mobile and Cyber Forensics
16.	Biotechnology	Animal Biotechnology		Biostatistics, Bioinformatics, Ethics & Patenting	Elective A) Industrial Biotechnology II OR B) Environmental Biotechnology II	Foundation Molecular Biotechnology Core Subject Centric Therapeutic Medical Biotechnology
17	Geology	Ore Geology and Ore Microscopy (3+1)		Indian Mineral Deposits and Mineral Economics (3+1)	Elective 1. Exploration Geochemistry (4) 2. Quaternary Geology & Limnogeology(3+1) 3. Basin Analysis and Sequence Stratigraphy(2+2) 4. Marine Geology and Oceanography(2+2)	Foundation Course Paleobiology Core (Subject Centric) Fuel Geology (Coal, Petroleum & Nuclear)
18.	Forensic Science	Instrumentation, Quality Management, Research Methodology and Statistics		Special Paper-I 1. Forgery and Its Forensic Detection 2. Advanced Forensic Toxicology 3. Forensic Anthropology, Odontology and Forensic Pathology 4. Cyber Security, Cyber Forensic Mobile and Cyber Forensic	Special Paper-II 1. Automated Fingerprint Identification System 2. Advanced Forensic Chemistry 3. DNA Fingerprint and Interpretation 4. Ethical Hacking and Recovery Forensic	Foundation Course Applied Analytical Chemistry-II Monday, 14-05-2018 Special Paper-III 1. Forensic Linguistics 2. Forensic Pharmacology 3. Microbial Forensic and Bioinformatics 4. Digital Image Processing Paper V:- Wednesday, 16-05-2018 Special Paper-IV 1. Forensic Photography 2. Forensic Analysis of Drugs 3. Wildlife and Environmental Forensic 4. Biometrics
19.	Medicinal Plant	Herbal Drugs Technology & Development (HDD)		Drug Standardization and Regulation (DSR)	Core Elective Natural Plant Products & Photochemistry-II (NPP-II) OR Forensic and Industrial Botany-II	Foundation Course Ethnobotany (ETH) OR Core Subject Centric Cultivation and Utilization of Aromatic Plants

M.Sc. 6TH SEMESTER(CBCS) EXAMINATION OF SUMMER, 2018

-: PROGRAMME (WRITTEN) :-

TIME : 2.30 P.M. TO 5.30 P.M.

Sr. No	Subject	Day Date Paper	Friday 04-05-2018 I	Monday 07-05-2018 II	Saturday 12-05-2018 III	Tuesday 15-05-2018 IV
20.	M.Sc. (Tech.) Applied Geology	Engineering Geology and Geotechniques.		Applied and Industrial Micropaleontology	Core Elective 2. Optional Any One 1. Petroleum Exploration 2. Basin Analysis and Sequence Stratigraphy 3. Marine Geology and Oceanography	Foundation Course 2. Geology 2 ; Paleobiology OR Core Subject Centric 2 1) Geodesy and Mapping

GENERAL INSTRUCTIONS FOR SEATING ARRANGEMENT

The name of the Examination Centre is already printed on the Admission Card of each candidate. However, it is notified for general information of the candidates that, the seating arrangement for the Examination Centre will be notified separately seven days prior to the commencement of the written examination at the respective Examination Centre. The candidates concerned will also be able to get the necessary information about his/her Examination Centre from the concerned College of the candidate.

NAGPUR.

Date: 10th March, 2018.

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**Sd/-
Director
Board of Examination & Evaluation
Rashtrasant Tukadoji Maharaj
pNagpur University.**