AMRITA
VISHWA VIDYAPEETHAM
DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF UGC ACT. 1956

"Our educational system needs to give importance to the intellect and the heart"

Sri Mata Amritanandamayi Devi
Chancellor, Amrita Vishwa Vidyapeetham

INFORMATION HANDBOOK 2023

ADMISSIONS FOR UG PROGRAMMES

AMARAVATI | AMRITAPURI | BENGALURU | CHENNAI | COIMBATORE | FARIDABAD | MYSURU

INTRODUCING!
Amrita Entrance Examination (AEE)

One-stop admission system to apply for 200+ undergraduate programs

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AEEP
Amrita Entrance Examination -
Physical Sciences
(PCM Based)

AEEE
Amrita Entrance Examination -
Engineering

AEEB
Amrita Entrance Examination -
**Behavioural Sciences**
(Arts, Humanities & Commerce)

AEEL
Amrita Entrance Examination -
Life Sciences, Agriculture & Medical Sciences
(PCB Based)

Education for Life. Education for Living.

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ABOUT AMRITA VISHWA VIDYAPEETHAM

Amrita Vishwa Vidyapeetham is a multi-campus, multi-disciplinary research academia that is accredited **'A++'** by **NAAC** and is ranked as one of the best research Institutions in India. Amrita Vishwa Vidyapeetham has been ranked 5th best among all universities in India in 2022 **National Institutional Ranking Framework** (NIRF) released by MHRD, Govt. of India. Amrita is spread across **eight campuses in five states of India – Andhra Pradesh, Haryana, Karnataka, Kerala and Tamil Nadu with the headquarters in Tamil Nadu at Ettimadai, Coimbatore.** Amrita Vishwa Vidyapeetham continuously collaborates with top US Universities including Ivy league Universities and top European Universities for regular student exchange programs, and has emerged as one of the fastest growing Institutions of higher learning in India. The Institution is managed by the Mata Amritanandamayi Math.
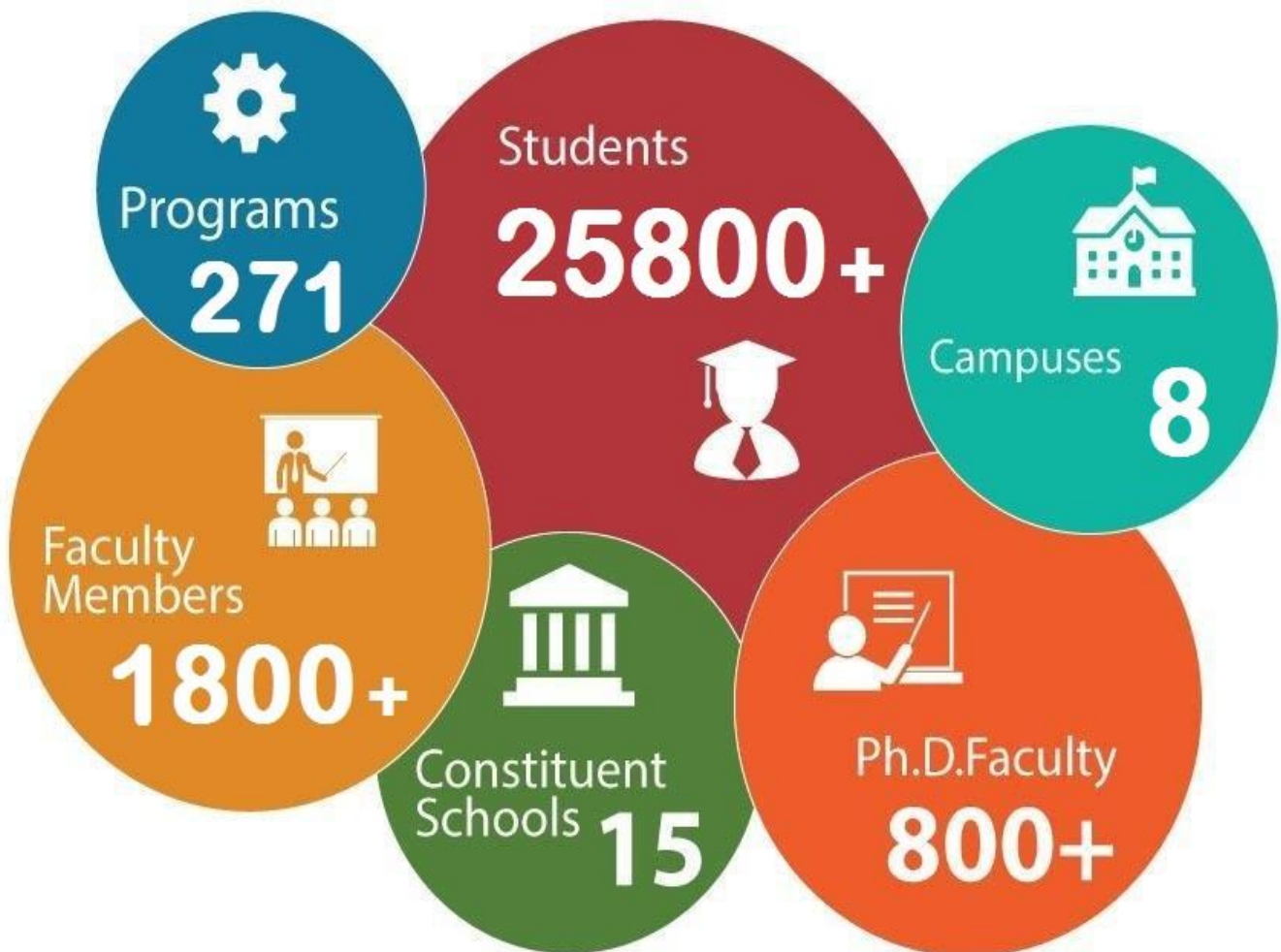
AMARAVATI CAMPUS

Located near the banks of the Krishna River between natural getaways and places of heritage, Amaravati city is built around sustainability and liveability principles. We are building one of the most buoyant center of the research, education and technological advancement, in the all new greenfield capital city. With over 100 acres' campus, that will feature green lawns and the burgeoning trees, is well connected by road, rail and air to the IT and business hubs of the both Andhra Pradesh and Telangana states.

AMRITAPURI CAMPUS

The Amritapuri campus, nestled in the backdrop of the beautiful village of Vallikavu, provides warmth and serenity to its visitors. It provides a homely atmosphere to the students. Located close to the international headquarters of the Mata Amritanandamayi Math, the campus provides an environment that harmoniously blends learning and research. The technical excellence of the campus has made it a learning hub for students from all around the globe. Advanced research facilities helps enhance one's appetite for learning.

BENGALURU CAMPUS

Located at the heart of Bengaluru, is one of the most effervescent center of the research, education, and technological advancement, in the tech-city. The 50 acres campus, featuring green lawns and the burgeoning trees, is well connected by road, rail and air.

CHENNAI CAMPUS

The Chennai Campus of Amrita Vishwa Vidyapeetham is spread over 54,834 sq.m. of land and a total built up area of 24,956.435 sq m. The Institution's Chennai campus is home to School of Engineering. The School of Engineering, Amrita Vishwa Vidyapeetham, Chennai Campus, was setup as part of the vision of world-renowned, Mata Amritanandamayi Math.

COIMBATORE CAMPUS
HEADQUARTERS

Amrita Vishwa Vidyapeetham is situated in the obscure village of Ettimadai, at the foothills of the mesmerising Bouluvanpatty ranges of the Western Ghats in the Coimbatore district of Tamil Nadu. The pristine beauty of nature offers a soothing environment for the students which is conducive for growth. The campus, through its value based education, provides a diverse platform for personality development. Amrita provides a unique educational experience that matches the global level. This indelible experience remains a lasting memory in the students.

FARIDABAD CAMPUS

Aland that has witnessed the historical prominence of ultra-modern facilities in India. A place where science, technology, and research merge to embrace good health across a 130-acre sprawling health city campus. It is India's largest multi-specialty hospital and extend beyond teaching and learning to include research, which is at the forefront of innovation and discovery. This multidisciplinary institution will impart knowledge to a vibrant community of more than 20,000 students with 800+ Ph.D. faculty and over 250 programs. The medical college with a built-up area of 5.2 lakh square feet with a completely dedicated research block looks forward to the advancements and innovations of every student.

KOCHI CAMPUS

The expansive and serene Brahmasthanam Temple Complex at Edappally, Kochi, by the NH-17 is home to Amrita Viswa Vidyapeetham-Kochi Campus, which is candidly achieving fame and glory.

MYSURU CAMPUS

One of the eight campuses of Amrita Vishwa Vidyapeetham established under Section 3 of the UGC Act 1956 is a multi campus institution and is accredited by NAAC with 'A++' Grade. Amrita Vishwa Vidyapeetham, Mysuru Campus located in a peaceful environment, away from the hustle & bustle of city, yet well connected by road, provides an ambience for learning, combining state-of-the-art facilities with a serene ashram and temple atmosphere.

ADMISSION PROCEDURE

Admission to programmes offered at various campuses & schools of Amrita Vishwa Vidyapeetham is managed by Directorate of Admissions & Academic Outreach.

Admission to various undergraduate and integrated programmes is through 4 different entrance examinations conducted by the University. Students desirous of joining any UG/Integrated programme, after passing their plus two or equivalent examination are required to attend the eligible entrance examinations.

Note: Those who appear for +2 or Equivalent examination in March/April 2023 and expect to secure minimum marks **(as specified),** may also apply

ENTRANCE EXAMINATIONS OF AMRITA VISHWA VIDYAPEETHAM

Following are the entrance examinations conducted by Amrita as part of the selection process.

01. Amrita Entrance Examination – Engineering (AEEE)

for admission to all the B.Tech programmes offered by the University in **Amaravati, Amritapuri, Bengaluru, Chennai, Coimbatore**

Subjects	:	**Physics, Chemistry, Mathematics, English**
Durations of Examination	:	**2.5 hrs**
No. of Questions	:	**100**

02. Amrita Entrance Examination – Physical Sciences (AEEP)

is conducted for the students passing out their +2 with Physics, Chemistry and Mathematics as the core subjects. Candidates desiring to join programmes offered in Physics, Chemistry, Mathematics, BCA etc. are required to attend this examination to secure admissions to the respective programme.

Subjects	:	**Physics, Chemistry, Mathematics, English**
Durations of Examination	:	**2 hrs**
No. of Questions	:	**80**

03. Amrita Entrance Examination – Life Sciences, Agriculture & Medical Sciences (AEEL)

is conducted for the students passing out their +2 with Physics, Chemistry and Biology as core subjects. Candidates desiring to join the programmes with Physics, Chemistry, Biology as the eligibility are required to attend this examination to secure admission to the respective programme.

Subjects	:	**Physics, Chemistry, Biology, English**
Durations of Examination	:	**2 hrs**
No. of Questions	:	**80**

04. Amrita Entrance Examination – Behavioural Sciences (Arts, Humanities & Commerce) (AEEB)

is conducted for the students passing out their +2 with any stream. `

Candidates desiring to any programme with Arts, Humanities, Commerce as eligibility are required to attend this examination to secure admission to the respective programmes.

Subjects	:	**Reasoning, Computing Skills, English**
Durations of Examination	:	**2 hrs**
No. of Questions	:	**80**

CAMPUSES & COURSES OFFERED:

Amaravati (AMR) | Amritapuri (AMP) | Benagluru (BLR) | Chennai (CHE) Coimbatore (CBE) | Faridabad (FBD) | Kochi (KOH) | Mysuru (MYU)

Admission to B.Tech Programmes	AMR	AMP	BLR	CBE	CHE	FBD	KOH	MYU
Through AEEE 2023 / JEE Mains 2023								
Aerospace Engineering (AEE)				✓				
Automation & Robotics Engineering (ARE)		✓		✓	✓			
Civil Engineering (CIE)				✓				
Chemical Engineering (CHE)				✓				
Computer Science & Engineering (CSE)	✓	✓	✓	✓	✓			
Computer Science & Engineering (Artificial Intelligence - AIE)	✓	✓	✓	✓	✓			
Computer & Communication Engineering (CCE)	✓*			✓	✓			
Computer Science & Engineering (Cyber Security - CYS)		✓*		✓	✓			
Electronics & Communication Engineering (ECE)		✓	✓	✓	✓			
Electrical & Electronics Engineering (EEE)		✓	✓	✓				
Electronics & Computer Engineering (EAC)		✓	✓					
Electrical & Computer Engineering (ELC)		✓	✓*	✓				
Mechanical Engineering (MEE)		✓	✓	✓	✓			

Admission to Programmes	AMR	AMP	BLR	CBE	CHE	FBD	KOH	MYU
Through AEEP 2023 / HSC Marks* **								
5 Year Integrated M.Sc Chemistry		✓						✓***
5 Year Integrated M.Sc Chemistry with specialisation in Chemical Biology *(with Exit Option after 3 years)*				✓				
5 Year Integrated M.Sc Chemistry with specialisation in Applied Electrochemistry *(with Exit Option after 3 years)*				✓				
5 Year Integrated M.Sc Physics with Minor in Scientific Computing		✓						
5 Year Integrated M.Sc Mathematics with Minor in Data Sciences		✓						
Bachelor of Computer Applications		✓					✓***	✓***
Bachelor of Computer Applications (Specialisation in Data Science)		✓					✓***	✓***
5 Year Integrated M.Sc Physics							✓***	
5 Year Integrated M.Sc Physics with specialisation in Theoretical Physics *(with Exit Option after 3 years)*				✓				
5 Year Integrated M.Sc Physics with specialisation in Applied Materials *(with Exit Option after 3 years)*				✓				
5 Year Integrated M.Sc Mathematics							✓***	
5 Year Integrated M.Sc Mathematics with a minor in Computer Science				✓*				
5 Year Integrated M.Sc Data Science *(No Exit Option)*				✓				
B,Sc Honours in Mathematics with Minor in Data Science/Computer Science		✓						
5 Year Integrated BCA – MCA *(No Exit option in Mysuru Campus)*							✓***	✓***
B.Sc Honours in Chemistry with Minor in Materials Design								✓***
B.Sc in Physics, Chemistry, Mathematics								✓***
B.Sc in Physics, Mathematics, Computer Science								✓***

Admission to Programmes	AMR	AMP	BLR	CBE	CHE	FBD	KOH	MYU
Through AEEL 2023 / HSC Marks***								
B.Sc (Honours) Food Science and Nutrition *(with exit option after 3 years)*				✓*				
B.Sc (Honours) Agricultural Sciences				✓				
B.Sc Biotechnology		✓***						
B.Sc Microbiology		✓***						
B.Sc Hons. Biotechnology and Integrated Systems Biology*		✓ ***						
B.Pharm (Regular)							✓***	
Pharm D							✓***	
B.Sc Nursing						✓	✓	
B.Sc Allied Health Sciences								
Bachelor in Audiology & Speech Language Pathology (B.ASLP)						✓	✓	
Cardio Vascular Technology (CVT)						✓	✓	
Cardiac Perfusion Technology (CPT)						✓	✓	
Dialysis Therapy (DT)						✓	✓	
Respiratory Therapy (RPT)						✓	✓	
Neuro Electro Physiology (NEP)						✓	✓	
Optometry (OPT)						✓	✓	
Medical Radiologic Technology (MRT)						✓	✓	
Echo Cardiography (ECT)						✓	✓	
Anaesthesia Technology (AT)						✓	✓	
Physician Assistant (PAT)						✓	✓	
Medical Laboratory Technology (MLT)						✓	✓	
Diabetes Sciences (DBS)						✓	✓	
Emergency Medical Technology (EMT)						✓	✓	
Intensive Care Technology (ICT)						✓	✓	
Operation Theatre Technology (OTT)						✓	✓	

Admission to Programmes	AMR	AMP	BLR	CBE	CHE	FBD	KOH	MYU
Through AEEB 2023 / HSC Marks***								
B.Sc in Visual Media							✓**, ***	✓***
5 Year Integrated B.Sc-M.Sc Visual Communication *(with exit option after 3 years)*								✓***
5 Year Integrated BSW-MSW *(with exit option after 3 years)*		✓***						
BBA		✓					✓**, ***	✓***
B.Com								✓***
B.Com (Taxation and Finance)		✓					✓***	✓***
B.Com (Hons.) in FinTech							✓*, ***	
5 Year Integrated M.A. English (Language & Literature)		✓					✓***	

*   Subject to approval

** Girls only

***Programmes offered at Kochi (except courses related to Medical sciences other than B.Pharm and Pharm D) and Mysuru campuses under AEEP, AEEL and AEEB, and B.Sc Biotechnology / B.Sc Microbiology, B.Sc Hons. Biotechnology and Integrated Systems Biology, 5 Year Integrated BSW-MSW offered at Amritapuri will have additional option to secure admission based on the marks scored in +2. For both B.Pharm and Pharm D admission will be considered based on +2 marks with PCM stream.

BCA, BCA(Data science) and Int.BCA-MCA Courses in Kochi and Mysuru campuses:

Candidates passing 10+2 or equivalent with Statistics / Accountancy will have an option to secure admission based on the marks scored in +2.

ADMISSION / ALLOCATION FOR ALL LISTED PROGRAMMES :

I.   ADMISSION TO B.TECH PROGRAMS :

Admission to B.Tech Programmes offered at **Amrita School of Engineering** – Amaravati, Amritapuri, Bengaluru, Chennai & Coimbatore campuses for the Academic Year (AY) 2023-2024 is **through and based on the rank scored in:**

      1.   Amrita Entrance Examination – Engineering (AEEE) 2023
           (OR)
      2.   JEE Mains 2023

If JEE Mains is conducted multiple times, all the scores released prior to the **Amrita B.Tech. Centralised Seat Allotment Process (CSAP)** will be looked into and the best result considered.

ALLOCATION OF SEAT for B.TECH PROGRAMS:

AEEE 2023	:	**70 % of the seat allotment**
JEE Mains 2023	:	**30 % of the seat allotment**
A candidate can choose to apply either through AEEE or JEE Mains 2023 individually or even select both.		

II.   ADMISSION TO LISTED UG / INTEGRATED PROGRAMMES (OTHER THAN B.TECH):

➢ Admission to UG Programmes offered at **Amrita School of Physical Sciences** – Amritapuri, Coimbatore, Kochi and Mysuru campuses for the Academic Year (AY) 2023-2024 is **through and based on the rank scored in:**

    (i)   Amrita Entrance Examination – Physical Sciences (AEEP) 2023

                (OR)

    (ii)   Marks in the qualifying examination (+2) for programmes in Kochi and Mysuru campuses only.

ALLOCATION OF SEAT For UG/INTEGRATED PROGRAMMES OF PHYSICAL SCIENCES (AEEP):

AEEP 2023	:	**100 % of the seat allotment**
❖ Programmes offered at Kochi and Mysuru campuses will have additional option to secure admission based on the marks scored in +2.		
❖ **BCA, BCA(Data science) and Int.BCA-MCA Courses in Kochi and Mysuru campuses:** Candidates passing 10+2 or equivalent with Statistics / Accountancy will have an option to secure admission based on the marks scored in +2.		
In such Cases, allocation of seat will be :		
AEEP 2023	:	**70 % of the seat allotment**
Qualifying Examination (+2) Marks	:	**30% of the seat allotment**

- Admission to UG Programmes offered at **Amrita School of Life Sciences, Agriculture & Medical Sciences – Amritapuri, Coimbatore, Faridabad and Kochi campuses** for the Academic Year (AY) 2023-2024 is **through and based on the rank scored in:**

    (i)   Amrita Entrance Examination – Life Sciences, Agriculture & Medical Sciences (AEEL) 2023
                (OR)

    (ii)   Marks in the qualifying examination (+2) for programmes in Kochi (except courses related to Medical sciences other than B.Pharm and Pharm D) **and Mysuru campuses and for B.Sc. Biotechnology, B.Sc Microbiology and B.Sc Hons. Biotechnology and Integrated Systems Biology,   offered at Amritapuri campus.**

ALLOCATION OF SEAT For UG/INTEGRATED PROGRAMMES OF LIFE SCIENCES, AGRICULTURE & MEDICAL SCIENCES (AEEL):

AEEL 2023	**: 100 % of the seat allotment**
Programmes offered in Kochi (except courses related to Medical sciences other than B.Pharm and Pharm D) and Mysuru campuses, B.Sc Biotechnology, B.Sc Microbiology and B.Sc Hons. Biotechnology and integrated Systems Biology offered at Amritapuri campus will have additional option to secure admission based on the marks scored in +2. In such Cases, allocation of seat will be :	
AEEL 2023	**: 70 % of the seat allotment**
Qualifying Examination (+2) Marks	**: 30% of the seat allotment**

- Admission to UG Programmes offered at **Amrita School of Behavioural Sciences (Arts, Humanities & Commerce) – Amritapuri, Kochi and Mysuru campuses** for the Academic Year (AY) 2023-2024 is **through and based on the rank scored in:**

    (i)   Amrita Entrance Examination – Behavioural Sciences (AEEB) 2023
                    (OR)
    (ii)   Marks in the qualifying examination (+2) for programmes in Kochi and Mysuru campuses and 5 Year Integrated BSW-MSW offered at Amritapuri campus

ALLOCATION OF SEAT For UG/INTEGRATED PROGRAMMES OF BEHAVIOURAL SCIENCES (Arts, Humanities & Commerce) (AEEB):

AEEB 2023	**: 100 % of the seat allotment**
Programmes offered at Kochi and Mysuru campuses and 5 Year Integrated BSW-MSW offered at Amritapuri campus will have additional option to secure admission based on the marks scored in +2. In such Cases, allocation of seat will be :	
AEEB 2023	**: 70 % of the seat allotment**
Qualifying Examination (+2) Marks	**: 30% of the seat allotment**

AMRITA ENTRANCE EXAMINATIONS - 2023:

Amrita Entrance Examinations 2023 **(AEEE, AEEP, AEEL, AEEB)** in the year 2023 will be conducted **ONLY** in **Computer Based Test** (CBT) mode in various centres at selected cities. Please be in touch with the admission website for latest updates.

COMPUTER BASED TEST (CBT):

Refer **APPENDIX I & II** for exam centres in selected cities.

DURATION OF THE CBT EXAMINATION:

Name of the Examination	Year	Duration	No. of Questions
AEEE	2023	150 Minutes (2.5 Hours)	100 Questions
AEEP	2023	120 Minutes (2 Hours)	80 Questions
AEEL	2023	120 Minutes (2 Hours)	80 Questions
AEEB	2023	120 Minutes (2 Hours)	80 Questions

EXAMINATION DATES (TENTATIVE):

Amrita Vishwa Vidyapeetham is planning to conduct the Amrita Entrance Examinations - 2023 as follows:

Name of the Examination	Year	Date of Examination	Slots per day	Timing
AEEE	2023	Phase I – April 21 to 28	2 slots	10.00 AM to 12.30 PM 2.00 to 4.30 PM
		Phase II – May 05 to 11		
AEEP	2023	April 28, 29, and 30	3 Slots – 1 slot for each exam	9.30 to 11.30 AM 12.30 to 2.30 PM 3.00 to 5.00 PM
AEEL	2023			
AEEB	2023			

(slot bookings will be opened in advance before the date of examination)

Important Note:

(i)   These dates are tentative
(ii) The number of days of all the Examinations will be changed depending on the strength of the candidates.
(iii) Dates may get deferred -
    a)   Based on the government notifications
    b)   In case there is any other major examination scheduled on these dates and / or due to which majority of the candidates are unable to appear for **Amrita Entrance Examinations 2023**.
    c)   Because of any other reason
(iv) Candidates who are unable to appear in Phase I of the AEEE 2023 will have the provision to appear in Phase II.
(v)   Candidates who have appeared in Phase I of the AEEE 2023 examination can also appear for Phase II examination by paying an additional fee of INR 600.   This is an opportunity given to the candidates for improving their scores.
(vi) Best score from both Phase I and Phase II in AEEE 2023 examinations will be taken for AMRITA Ranking.
(vii) Candidates appearing for AEEP, AEEL and AEEB will have only one chance to appear for the examination.
(viii) University holds the right to defer the mode / dates /slots of the examinations as per the situation, whatsoever, prevailing at that time.
(ix) Candidates are advised to keep in touch with our website regularly for the latest updates."

ELIGIBILITY CRITERIA:

<table>
<tr>
<td colspan="4"><h2 style="text-align:center">B.TECH Programmes
(Admission through AEEE 2023 / JEE Mains 2023 Score)</h2></td>
</tr>
<tr>
<td colspan="4">Educational Qualification:
A pass in 10 + 2 (Class XII) or its equivalent examination from a recognized board with minimum 60% aggregate of marks in Mathematics, Physics and Chemistry and with not less than 55% in each of these three subjects, Physics, Chemistry and Mathematics.</td>
</tr>
</table>

Branches	Duration	Campus(s)	Eligibility Criteria
Aerospace Engineering (AEE)		Coimbatore	
Automaticn & Robotics Engineering (ARE)		Amritapuri, Coimbatore, Chennai	
Civil Engineering (CIE)		Coimbatore	
Chemical Engineering (CHE)		Coimbatore	
Computer Science & Engineering (CSE)		Amaravati, Amritapuri, Bengaluru, Coimbatore, Chennai	
Computer Science & Engineering (Artificial Intelligence - AIE)		Amaravati, Amritapuri, Bengaluru, Coimbatore, Chennai	**Educational Qualification:** A pass in 10 + 2 (Class XII) or its equivalent examination from a recognized board with minimum **60% aggregate of marks in Mathematics, Physics and Chemistry and with not less than 55% in each of these three subjects, Physics, Chemistry and Mathematics.**
Computer & Communication Engineering (CCE)	**4 Years**	Amaravati, Coimbatore, Chennai	
Computer Science & Engineering (Cyber Security - CYS)		Amritapuri, Coimbatore, Chennai	
Electronics & Communication Engineering (ECE)		Amritapuri, Bengaluru, Coimbatore, Chennai	
Electrical & Electronics Engineering (EEE)		Amritapuri, Bengaluru, Coimbatore	
Electronics & Computer Engineering (EAC)		Amritapuri, Bengaluru	
Electrical & Computer Engineering (ELC)		Amritapuri, Bengaluru, Coimbatore	
Mechanical Engineering (MEE)		Amritapuri, Bengaluru, Coimbatore, Chennai	

Physical Sciences Programmes
(Admission through AEEP)

Educational Qualification:

A pass in 10 + 2 (Class XII) or its equivalent examination from a recognized board with Physics, Chemistry and Mathematics and with minimum marks specified hereunder.

Courses	Duration of the Course	Campus(s)	Eligibility Criteria
5 Year Integrated M.Sc Chemistry	**5 Years**	Amritapuri Mysuru	A pass in +2 or equivalent with minimum 50% marks in Chemistry and an aggregate of 55 % marks in Physics, Chemistry and Mathematics.
5 Year Integrated M.Sc Chemistry with specialisation in Chemical Biology *(with exit option after 3 years)*	B,Sc Degree – 3 Yrs. B.Sc Honours – 4 Yrs. M.Sc Degree – 5 Yrs.	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Chemistry and aggregate of 55% marks in Physics, Chemistry and Mathematics.
5 Year Integrated M.Sc Chemistry with specialisation in Applied Electrochemistry *(with exit option after 3 years)*	B,Sc Degree – 3 Yrs. B.Sc Honours – 4 Yrs. M.Sc Degree – 5 Yrs.	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Chemistry and aggregate of 55% marks in Physics, Chemistry and Mathematics.
5 Year Integrated M.Sc Physics with Minor in Scientific Computing	**5 Years**	Amritapuri	A pass in +2 or equivalent with an aggregate minimum of 50% marks in Physics, Chemistry & Maths and a separate minimum of 60% marks in Physics & Maths from CBSE /State Board/ICSE
5 Year Integrated M.Sc Mathematics with Minor in Data Sciences	**5 Years**	Amritapuri	A pass in +2 with an aggregate of 50% and 55% marks in Mathematics.
Bachelor of Computer Applications	**3 Years**	Amritapuri, Kochi, Mysuru	A pass in +2 or equivalent with an aggregate minimum of 55% marks In **Physics, Chemistry and Mathematics** from CBSE /State Board/ICSE. **Note :** Candidates passing 10+2 or equivalent with **Statistics / Accountancy** will have an option to secure admission based only on the marks scored in **+2** (In Kochi and Mysuru campuses only).
Bachelor of Computer Applications (Specialisation in Data Science)	**3 Years**	Amritapuri, Kochi, Mysuru	A pass in +2 or equivalent with an aggregate minimum of 55% marks In **Physics, Chemistry and Mathematics** from CBSE /State Board/ICSE **Note :** Candidates passing 10+2 or equivalent with **Statistics / Accountancy** will have an option to secure admission based only on the marks scored in **+2** (In Kochi and Mysuru campuses only).
5 Year Integrated M.Sc Physics	**5 Years**	Kochi	A pass in +2 or equivalent with minimum 50% marks in Physics and an aggregate of 55 % marks in Physics, Chemistry and Mathematics.
5 Year Integrated M.Sc Physics with specialisation in Theoretical Physics *(with Exit Option after 3 years)*	B,Sc Degree – 3 Yrs. B.Sc Honours – 4 Yrs. M.Sc Degree – 5 Yrs.	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Physics and an aggregate of 55% marks in Physics, Chemistry and Mathematics.
5 Year Integrated M.Sc Physics with specialisation in Applied	B,Sc Degree – 3 Yrs. B.Sc Honours – 4 Yrs. M.Sc Degree – 5 Yrs.	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Physics and an aggregate of 55% marks in

Materials *(with Exit Option after 3 years)*			Physics, Chemistry and Mathematics..
5 Year Integrated M.Sc Mathematics	**5 Years**	Kochi	A pass in +2 (MPC) or equivalent with at least 60% marks in Mathematics
5 Year Integrated M.Sc Mathematics *(with a minor in Computer Science)*	**5 Years**	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Mathematics and an aggregate of 55% marks in Physics, Chemistry and Mathematics..
5 Year Integrated M.Sc Data Science *(No Exit Option)*	**5 Years**	Coimbatore	A pass in +2/HSC or equivalent with 50% marks in Mathematics and an aggregate of 55% marks in Physics, Chemistry and Mathematics..
B.Sc Hons. in Mathematics with Minor in Data Science/Computer Science	**4 Years**	Amritapuri	A pass in +2 or equivalent with an aggregate of 50% and 55% marks in Mathematics.
5 Year Integrated BCA – MCA	**5 Years**	Kochi, Mysuru	A pass in 10+2 or equivalent with 50% marks in **Physics, Chemistry and Mathematics**. **Note :** Candidates passing 10+2 or equivalent with **Statistics / Accountancy** will have an option to secure admission based only on the marks scored in **+2** (in Kochi and Mysuru Campuses only).
B.Sc Hons. in Chemistry with Minor in Materials Design	**4 Years**	Mysuru	A pass in +2 or equivalent with minimum 50% marks with Mathematics as a subject.
B.Sc in Physics, Chemistry, Mathematics	**3 Years**	Mysuru	A pass in +2 in any discipline or its equivalent with 50% aggregate or 3-year Polytechnic Diploma
B.Sc in Physics, Mathematics, Computer Science	**3 Years**	Mysuru	A pass in +2 in any discipline or its equivalent with 50% aggregate or 3-year Polytechnic Diploma

Life Sciences, Agriculture and Medical Sciences Programmes
(Admission through AEEL)

Educational Qualification :

A pass in 10 + 2 (Class XII) or its equivalent examination from a recognized board with Physics, Chemistry and Biology as core subjects and with minimum marks specified hereunder.

Courses	Duration of the Course	Campus(s)	Eligibility Criteria
B.Sc (Honours) Food Science and Nutrition	**B.Sc Degree – 3 Yrs.** **B.Sc Honours – 4 Yrs.**	Coimbatore	A pass in +2/HSC or equivalent with minimum 50% marks in Biology and an aggregate of 55% marks in Physics, Chemistry and Biology
B.Sc (Honours) Agricultural Sciences	**4 Years**	Coimbatore	A pass in 10 + 2 (Class XII) or its equivalent examination with minimum 60% aggregate of marks in Biology, Physics and Chemistry and with not less than 55% in each of Physics, Chemistry and Biology .
B.Sc Biotechnology	**3 Years**	Amritapuri	A pass in higher secondary examination or its equivalent is mandatory with **60%** marks in Physics, Chemistry and Biology/Biotechnology taken together
B.Sc Microbiology	**3 Years**	Amritapuri	A pass in higher secondary examination or its equivalent is mandatory with **60%** marks in Physics, Chemistry and Biology/Biotechnology taken together
B.Sc Hons. Biotechnology and Integrated Systems Biology	**4 Years**	Amritapuri	A pass in higher secondary examination or its equivalent is mandatory with **60%** marks in Physics, Chemistry and Biology/Biotechnology taken together
B.Pharm	**4 Years**	Kochi	A Pass in Plus Two with 50% marks in Physics, Chemistry, Biology. In place of Biology or Maths are also eligible. Admission will also be considered based on +2 marks with PCM stream.
Pharm D	**6 Years**	Kochi	A Pass in Plus two examination with 50% in Physics and Chemistry as compulsory subjects along with Mathematics or Biology. Any other qualification approved by Pharmacy Council of India as equivalent to any of the above examinations. Admission will also be considered based on +2 marks with PCM stream.

B.Sc Allied Health Sciences:			
B.Sc. Medical Radiologic Technology (MRT)	**4 Years**	Faridabad, Kochi	Pass in Plus Two with 60% Aggregate marks in Physics, Chemistry, Biology, English & 60% Marks separately in Mathematics
B. Sc. Cardio Vascular Technology (CVT)	**3+1 Year Internship**		Pass in Plus Two with 60% Aggregate Marks in Physics, Chemistry, Biology & English.
B. Sc. Medical Laboratory Technology (MLT)	**4 Years**		
B. Sc. in Optometry	**3 +1 Year Internship**		
B. Sc. Neuro Electro Physiology	**3 + 1 Year Internship**		
B. Sc. Emergency Medical Technology	**3 + 1 Year Internship**		
B. Sc. Anaesthesia Technology	**3 + 1 Year Internship**		
B. Sc. Operation Theatre Technology	**3 + 1 Year Internship**		
B.Sc. Cardiac Perfusion Technology (CPT)	**3 + 1 Year Internship**		
BSc Physician Assistant (PAT)	**3 + 1 Year Internship**		
B. Sc. Intensive Care Technology	**3 + 1 Year Internship**		
B. Sc. Diabetes Sciences	**3 + 1 Year Internship**		
B. Sc. in Respiratory Therapy	**3 + 1 Year Internship**		
B. Sc. Dialysis Therapy	**3 + 1 Year Internship**		
B. Sc. Echocardiography Technology	**3 + 1 Year Internship**		
Bachelor in Audiology and Speech Language Pathology	**3 Years + 10 Months Internship**	Faridabad, Kochi	Pass in Plus Two with 60% Aggregate Marks in Physics, Chemistry and any one of the subject Biology / Mathematics / Computer Science / Statistics / Electronics / Psychology.
B.Sc Nursing	**4 Years**	Faridabad, Kochi	Must have passed 12th in the first attempt and with a minimum of 60% in English and 60% in Physics, Chemistry and Biology taken together from any State Higher Secondary Board or equivalent

Behavioural Sciences (Arts, Humanities and Commerce) Programmes
(Admission through AEEB)

Educational Qualification:

A pass in 10 + 2 (Class XII) or its equivalent examination from a recognized board in any discipline and with minimum marks specified hereunder.

Courses	Duration of the Course	Campus(s)	Eligibility Criteria
B.Sc in Visual Media	3 Years	Kochi, Mysuru	A pass in +2 in any discipline or its equivalent with 50% aggregate or 3-year Polytechnic Diploma
Integrated B.Sc-M.Sc Visual Communication	5 Years	Mysuru	A pass in +2 in any discipline or its equivalent with 50% aggregate or 3-year Polytechnic Diploma
5 Year Integrated BSW-MSW *(with exit option after 3 years)*	B.Sc Degree – 3 Yrs. B.Sc Honours – 4 Yrs. M.Sc Degree – 5 Yrs.	Amritapuri	A pass in +2 or its equivalent with aggregate of 50% marks from State Board / CBSE / ICSE.
BBA	3 Years	Amritapuri, Mysuru, Kochi	A pass in +2 in any discipline from CBSE /State Board/ICSE or equivalent with an aggregate minimum of 50% marks
B.Com	3 Years	Mysuru	A pass in +2 from CBSE /State Board/ICSE or equivalent with an aggregate minimum of 50% marks
B.Com (Taxation and Finance)	3 Years	Amritapuri, Kochi, Mysuru	
B.Com (Hons.) in FinTech	4 Years	Kochi	A pass in +2 from CBSE /State Board/ICSE.or equivalent with an aggregate minimum of 50% marks
5 Year Integrated M.A. English (Language & Literature)	5 Years	Amritapuri, Kochi	A pass in +2 in any discipline or equivalent with an aggregate minimum of 50% marks.

COST OF APPLICATION:

AEEE 2023		AEEP 2023		AEEL 2023		AEEB 2023	
AEEE only : INR 1200		**AEEP : INR 750**		**AEEL : INR 750**		**AEEB : INR 750**	
AEEE + JEE : INR 1200		**+2 Marks : INR 500**		**+2 Marks : INR 500**		**+2 Marks : INR 500**	
JEE only : INR 500							

The application fee may be paid online either by credit / debit card or net banking. **In case the examination fee is paid through credit / debit card, the candidates may have to pay an additional processing charges of the concerned bank.**

Please note that fee submitted through any other mode like money order, demand draft, IPO etc. is not accepted for online applications.

Application fee once paid will not be refunded (full or partial) under any circumstances.

Post your payment queries in Query Management System in the **Amrita Online Application Portal (AOAP)** to get a faster response.

APPLICATION SUBMISSION – ONLINE

Application submission is online and shall be submitted via the website: **www.amrita.edu/admissions**

The candidates are advised to have their own personal and valid email ID and mobile No. The candidates are advised to retain the registered mobile number and email-id they have submitted in the application form till all the admission procedures are completed as all important updates will be informed to the candidates through SMS / e-mail or both.

You need to complete the following sections in order to submit the application. Refer next section for more details on application form data. You can fill all the details initially and complete the payment at a later stage. However, the application is deemed to be completed only after the payment.

Details to be filled are:
a) **Personal Profile** (Name, Address & Contact details, upload Photograph, Signature)
b) **Application Details** (Available courses to be selected)
c) **Payment** (Cost of application for the relevant courses)
d) **Academic Profile*** (Marks of the qualifying examination & year, Last attended school, etc.,)
e) **Upload Documents***.

NOTE: *** Academic Profile, documents upload and JEE Mains 2023 scores may be entered after the publication of the results. It is not mandatory to fill the same at the time of filling the application.**

APPLICATION FORM DATA ENTRY

The name of the candidate and his/her parents' name in the application form must exactly be the same as registered in Class 10th Certificate. Prefix/title such as Mr./Shri/Fr/Dr/Mrs./Smt./Col etc., must not be used.

Candidates shall correct / modify some of the particular(s) of the application data, prior to the commencement of Seat Allotment.

Request for change will not be accepted through phone/ fax/ e-mail etc.

The candidates are advised not to send hard copy of the online application to the University. However, the candidates are advised to retain the hard copy of the application, i.e., acknowledgement page for future reference or correspondence, if any. Candidate(s) may check the status of their application online in our website: www.amrita.edu/admissions

EXAMINATION CITIES – CENTRES / TOWNS

The names of the cities where CBT Examinations will be conducted is listed in **Appendix–I**. Choose the city listed in the online application to write the examination. A candidate appearing for CBT should submit three preferences from the list of cities in Appendix – I & II . Examination will be conducted in a centre in these cities, provided only if there are enough candidates. The preferences submitted by the candidate are only indicative and a guide to the University for deciding the number of cities & centres. A candidate will be allotted one out of the three preferred cities, preferably the first preferred city. If exam cannot be conducted at the first preference of a candidate, he / she will be allotted to second / third preference as applicable. University will put all efforts to conduct examination at all the cities listed in the appendix. If any city in the list is cancelled due to very less registrations, the candidates who have opted for that city will be allotted another city nearest to their preference and the same will be informed to the candidates by email.

REQUESTS FOR CHANGE OF EXAMINATION CITY/ TOWN

Normally, the requests for change of cities will not be entertained after the application submission. The decision of the Admission Committee will be final in case of any such requests raised in this regard.

SYLLABUS, PATTERN AND EVALUATION

- The questions are based on the syllabus in Class 11th & Class 12th.
- **The syllabus for AEEE, AEEP, AEEL and AEEB 2023 is appended in Appendix – III**
- The pattern of examination paper for **AEEE, AEEP, AEEL and AEEB 2023** is given in the website: **www.amrita.edu/admissions**
- All the questions are of **Multiple-Choice type** and will have four options as possible answers.
- Candidates can choose the most appropriate answer for each question in the Computer Based Test (CBT) mode. Answers marked can be changed later, before the final submission of all the answers.
- **3 (Three) marks** are awarded for each correct answer and -1(**negative one**) for each wrong answer.

NUMBER OF QUESTIONS AND MARK DISTRIBUTION:

AEEE 2023:

Subject	No. of Questions	Marks (3)
Mathematics	40	120
Physics	30	90
Chemistry	25	75
English	05	15
TOTAL	**100**	**300**

AEEP 2023 :

Subject	No. of Questions	Marks (3)
Physics	25	75
Chemistry	25	75
Mathematics	25	75
English	05	15
TOTAL	**80**	**240**

AEEL 2023 :

Subject	No. of Questions	Marks (3)
Physics	25	75
Chemistry	25	75
Biology	25	75
English	05	15
TOTAL	**80**	**240**

AEEB 2023 :

Subject	No. of Questions	Marks (3)
Reasoning (Reasoning, Verbal Reasoning & Quantitative Aptitude)	30	90
Computing Skills (Basic Computer Science answerable by a 12[Th] graduate)	25	75
English	25	75
TOTAL	**80**	**240**

Use of Calculator and Communication Aids

Use of electronic devices like mobile phones, calculators etc. are **NOT PERMITTED** for Amrita Entrance Examinations 2023. Materials like log table, book, notebook, etc. should **NOT** be brought into the examination hall for CBT.

SLOT BOOKING FOR ENTRANCE EXAMINATIONS 2023:

Candidates registered for Computer Based Test of the respective Entrance Examinations shall select **"DATE AND TIME SLOT"** of their choice, SUBJECT TO AVAILABILITY, by visiting the University website prior to the last date. This process is called "**SLOT BOOKING**." Test Centre, Number of days and Number of operating slots in a day will be finalised based on the number of candidates for a particular city. The allotment of date / slot will be on first come first serve basis. If a candidate does not exercise his / her option, he/she shall be assigned a date/ slot as per the availability of the same. To Book Exam Date and Slot, registered candidates need to click the slot booking link provided in the University webpage **www.amrita.edu/admissions** and follow the instructions given below:

COMPUTER BASED TEST AT CENTRES (CBT)

a) Candidates can login using their Application Number and Date-of-Birth. In case of any difficulty logging in, open a ticket in the online query management in the application portal.

b) After logging in, the candidates can select the test date and test slots based on the availability. To choose the date, click on the available date and click continue button. In the next screen, candidates will be prompted to select test slot based on its availability status.

c) Since other candidates are also simultaneously using the same slot booking portal, sometimes the status presented may change by the time the candidate finishes his/her selection and the particular slot chosen by the candidate may not be available. In such case, the candidate will be prompted to choose another date and slot. To change the test date, click on Change Test Date button. Candidates are advised to check selection of Test. Centre, Date and Time before confirmation. Click "Confirm Slot" button to confirm booking.

d) A slot once booked cannot be changed under any circumstances. Requests for change of test centers also will not be entertained. The address of the examination centre for a candidate will be mentioned in the Admit Card, which can be downloaded.

ADMIT CARD DOWNLOAD

Admit Card is issued provisionally to the candidate to attend the Entrance Examination. Admit Card to write the examination is generated only to those eligible candidates who have submitted their application form complete in all respects.

Admit cards to attend the respective Amrita Entrance Examinations 2023 shall be downloaded from the website by logging into the registered account using the registered Email ID / Application Number and Date of Birth. Intimation in this regard will be sent by SMS and email.

1. Admit Card will not be sent by post. Visit **www.amrita.edu/admissions** to see the link to download the Admit Card. The Admit Card will contain details like the Name and Registration Number of the candidate, Date of Exam, Address of the Exam Centre allotted etc.

2. After downloading the admit card, ensure that the data is printed as per the application form submitted by you. In case of any discrepancy, open a ticket in the online query management system for a faster resolution.

3. Admit Card is an important document and must be kept safe till the completion of admission procedure.

Note: Request from a candidate for change of city allotted to him/her will NOT be entertained under any circumstances for CBT. Candidate will not be permitted to appear for the CBT entrance examination without a valid Admit Card. In the examination hall, candidate should produce his/her Admit Card when demanded by the invigilator.

AMRITA ENTRANCE EXAMINATIONS 2023 - GUIDELINES - COMPUTER BASED TEST (CBT)

A sample/mock test is available on our website for practice purpose and to give the candidate an awareness of the Computer Based Test (CBT). The examination rooms / hall for CBT will be opened one hour before the commencement of the test on the respective dates. The candidates should take their seats in the examination hall 30 minutes prior to the commencement of the examination. If the candidates do not report on time, they are likely to miss some of the general instructions to be announced in the examination hall. A seat indicating the roll number is allocated to each candidate. Candidates should find out and occupy only their allotted seat. Any candidate found to have changed room or the seat on his/her own other than allotted, his/her candidature shall be cancelled, and no plea would be accepted for it. The candidate must show, on demand, the Admit Card for admission in the examination room/hall. The test will start exactly at the time mentioned in the Admit Card. During the examination time, the invigilator will check Admit Card of the candidate to satisfy himself/herself about the identity of each candidate.

CODE OF CONDUCT

The candidates are governed by all Rules and Regulations of the University regarding their conduct in the Examination Hall. All cases of unfair means will be dealt with as per University rules. Candidates shall maintain perfect silence and attend to their question paper only. Any conversation or gesture or disturbance in the Examination Room / Hall shall be deemed as misbehaviour.

If a candidate is found using unfair means or impersonating, his/her candidature shall be cancelled, and he/she will be liable to be debarred for taking examination either permanently or for a specified period according to the nature of offence. The decision of the Admission Committee is final and is binding on the candidate.

AMRITA ENTRANCE EXAMINATIONS 2023 RESULT

Result will be released for all the candidates who have appeared in Amrita Entrance Examinations 2023 provided the candidate has not indulged in any sort of malpractice and /or against the rules and regulations of the examination as laid by the University. Candidates will be able to access their result by entering the login details in our admission portal.

TERMS AND CONDITIONS FOR AWARD AND RENEWAL OF SCHOLARSHIP FEES:

Scholarship Fees, i.e. Slabs 1 to 3 is allotted for the Academic Year **2023-2024 ONLY**. Renewal of scholarship Fees for subsequent years is subject to meeting the following conditions:

1. **Consistent Academic performance by securing a Cumulative Grade Point Average (CGPA) of**
   i. 8.0 and above in the case of Scholarship Slab 1 at the end of each academic year
   ii. 7.5 and above in the case of Scholarship Slab 2 at the end of each academic year
   iii. 7.0 and above in the case of Scholarship Slab 3 at the end of each academic year

2. **No disciplinary action during the period of study in the University.**

3. **Clearing each semester without any arrear**

Failing to meet the aforesaid conditions 1,2 and 3, the candidate will be required to pay higher fees in the subsequent years.

- o If Slab 1 Student maintains CGPA 8.0 and above, the same fees slab will continue. If his/her CGPA is between 7.5 and 8.0, he/she will pay Slab 2 fees in the subsequent year. If his/her CGPA is between 7.0 and 7.5, he/she will pay Slab 3 fees in the subsequent year. If CGPA is below 7.0, the candidate will be required to pay slab 4 fees in the subsequent year.

- o In the event a student moves to higher fee slab due to not meeting conditions 1, 2 and 3 above, the student will not be able to move back to the old slab even if his/her CGPA improves in further subsequent years.

FEE STRUECTURE:

Refer our website : www.amrita.edu/admissions

WITHDRAWAL / CANCELLATION OF ADMISSION – POLICIES & RULES

Procedures and rules on the withdrawal from the admission process is published prior to the counseling process. Candidates are requested to visit website www.amrita.edu/admissions
for all the admission updates.

REFUND POLICY

- ❖ Refund will be made as per the norms of University Grants Commission (UGC)/respective Statutory Council.
- ❖ Refund will be made only after submission of fee receipt, Provisional Seat Allotment Order [received by email] & no dues certificate. The refund will be made through account transfer to the account number mentioned in the withdrawal request. Hence, the correct bank account details may be provided in the withdrawal request.
- ❖ Refund will be effected only after the final allotment.

SETTLEMENT OF DISPUTES:

In case of any disputes in the interpretation of any of the conditions included in this handbook or in any other matter related to admissions covered by the Rules and Regulations contained herein, decision of the Director of Admissions & Academic Outreach, Amrita Vishwa Vidyapeetham will be final and binding on the candidate.

JURISDICTION:

Courts situated in Coimbatore District, Tamil Nadu only will have jurisdiction over disputes, if any, arising on the matter of application and/or admission to the courses covered in these Rules and Regulations.

Note: University reserves the right to change the admission related matters.

ALL CORRESPONDENCE RELATED TO ADMISSIONS SHOULD BE ADDRESSED TO:
Directorate of Admissions & Academic Outreach,
Amrita Vishwa Vidyapeetham, Amritanagar (PO), Ettimadai,
Coimbatore – 641112, Tamilnadu.
Phone**: 044 - 46276066** [Toll Free]
Email : **directoradmissions@amrita.edu**

Amrita Entrance Examination-Engineering(AEEE) - 2023
EXAMINATION CITIES FOR COMPUTER BASED TEST (CBT) Only for B.TECH

sl. No	State	Exam City Name	Exam City Code
1	Andhra Pradesh	ANANTAPUR	1001
2		CHITOOR	1002
3		EAST GODAVARI	1003
4		GUNTUR	1004
5		KRISHNA	1005
6		KURNOOL	1006
7		PRAKASAM	1007
8		SPSR NELLORE	1008
9		SRIKAKULAM	1009
10		VISAKHAPATNAM	1010
11		VIZIANAGARAM	1011
12		WEST GODAVARI	1012
13		Y.S.R.	1013
14		VIJAYAWADA	1014
15	Assam	KAMRUP METRO	1201
16	Bihar	BHAGALPUR	1301
17		GAYA	1302
18		PATNA	1304
19	Chhattisgarh	BILASPUR	1401
20		DURG	1402
21		RAIPUR	1403
22	Goa	GOA	1501
23	Gujarat	AHMEDABAD	1601
24		BHARUCH	1602
25		GANDHINAGAR	1603
26		JAMNAGAR	1604
27		RAJKOT	1605
28		SURAT	1606
29		VADODARA	1607
30		VALSAD	1608
31	Haryana	FARIDABAD	1701
32		GURUGRAM	1702
33		YAMUNANAGAR	1705
34	Himachal Pradesh	SHIMLA	1801
35	Jammu and Kashmir	JAMMU	1901
36	Jharkhand	RANCHI	2001
37	Karnataka	BALLARI	2101
38		BENGALURU	2102
39		DAKSHIN KANNAD	2104
40		DAVANGERE	2105
41		MYSURU	2106

sl. No	state	Exam City Name	Exam City Code
42	Kerala & Mahe	ALAPUZHA	2201
43		ERNAKULAM	2202
44		KANNUR	2203
45		KOLLAM	2204
46		KOTTAYAM	2205
47		KOZHIKODE	2206
48		MALAPPURAM	2207
49		PALAKKAD	2208
50		PATHANAMTHITTA	2209
51		THIRUVANANTHAPURAM	2210
52		THRISSUR	2211
53		DUBAI	2212
54	Madhya Pradesh	BHOPAL	2301
55		GWALIOR	2302
56		INDORE	2303
57		JABALPUR	2304
58	Maharashtra	AURANGABAD	2401
59		KOLHAPUR	2404
60		MUMBAI	2405
61		NAGPUR	2407
62		NASHIK	2408
63		PUNE	2409
64		RAIGAD	2410
65		THANE	2411
66	Manipur	IMPHAL	2501
67	Meghalaya	SHILLONG	2601
68	Odisha	CUTTACK	2901
69		KHORDHA	2903
70	Punjab	JALANDHAR	3001
71		LUDHIANA	3002
72	Rajasthan	BIKANER	3105
73		JAIPUR	3108
74		JODHPUR	3109
75		KOTA	3110
76		SIKAR	3111
77		UDAIPUR	3112

sl. No	state	Exam City Name	Exam City Code
78		CHENNAI	3302
79		COIMBATORE	3303
80		CUDDALORE	3304
81		DINDIGUL	3305
82		ERODE	3306
83		KANYAKUMARI	3308
84		KARUR	3309
85		KRISHNAGIRI	3310
86		MADURAI	3311
87		NAMAKKAL	3312
88		PONDICHERY	3313
89	Tamil Nadu & Puducherry (UT)	SALEM	3314
90		THANJAVUR	3315
91		THE NILGIRIS	3316
92		THENI	3317
93		THIRUVALLUR	3318
94		TIRUCHIRAPALLI	3319
95		TIRUNELVELI	3320
96		TIRUPPUR	3321
97		TUTICORIN	3322
98		VELLORE	3323
99		VILLUPURAM	3324
100		VIRUDHUNAGAR	3325
101		HOSUR	3326
102		HYDERABAD	3402
103		KARIMNAGAR	3403
104		KHAMMAM	3404
105	Telangana	MEHBUBNAGAR	3406
106		NALGONDA	3407
107		NIZAMABAD	3408
108		RANGA REDDY	3409
109		WARANGAL	3412
110		AGRA	3601
111		ALLAHABAD	3602
112		GAUTAM BUDDHA NAGAR	3603
113		GHAZIABAD	3604
114	Uttar Pradesh	KANPUR NAGAR	3605
115		LUCKNOW	3606
116		MEERUT	3607
117		VARANASI	3608
118	Uttarakhand	DEHRADUN	3701
119	West Bengal	KOLKATA	3802
120	Andaman and Nicobar Islands	ANDAMAN & NICOBAR ISLANDS	3901
121	Chandigarh	CHANDIGARH	4001
122	Delhi	DELHI	4301

	Amrita Entrance Examination – Physical Sciences (AEEP)	
	Amrita Entrance Examination – Life Sciences, Agriculture & Medical Sciences (AEEL)	
	Amrita Entrance Examination – Behavioural Sciences (Arts, Humanities & Commerce) (AEEB)	
	Entrance Exam Cities List – 2023 (Except B.TECH PROGRAMMES ONLY)	
S.L No	**State**	**District**
1	KERALA	ALAPPUZHA
2	KERALA	ERNAKULAM
3	KERALA	IDUKKI
4	KERALA	KANNUR
5	KERALA	KASARAGOD
6	KERALA	KOLLAM
7	KERALA	KOTTAYAM
8	KERALA	KOZHIKODE
9	KERALA	MALAPPURAM
10	KERALA	PALAKKAD
11	KERALA	PATHANAMTHITTA
12	KERALA	THIRUVANANTHAPURAM
13	KERALA	THRISSUR
14	KERALA	WAYANAD
15	TAMILNADU	CHENNAI
16	TAMILNADU	COIMBATORE
17	TAMILNADU	CUDDALORE
18	TAMILNADU	DINDIGUL
19	TAMILNADU	ERODE
20	TAMILNADU	KANNIYAKUMARI
21	TAMILNADU	KARUR
22	TAMILNADU	KRISHNAGIRI
23	TAMILNADU	MADURAI
24	TAMILNADU	NAMAKKAL
25	TAMILNADU	PONDICHERRY
26	TAMILNADU	SALEM
27	TAMILNADU	THANJAVUR
28	TAMILNADU	THE NILGIRIS
29	TAMILNADU	THENI
30	TAMILNADU	THIRUVALLUR

S.L No	State	District
31	TAMILNADU	TIRUCHIRAPPALLI
32	TAMILNADU	TIRUNELVELI
33	TAMILNADU	TIRUPPUR
34	TAMILNADU	TUTICORIN
35	TAMILNADU	VELLORE
36	TAMILNADU	VIRUDHUNAGAR
37	KARNATAKA	BENGALURU
38	ANDHRA PRADESH	ANANTAPUR
39	ANDHRA PRADESH	CHITTOOR
40	ANDHRA PRADESH	EAST GODAVARI
41	ANDHRA PRADESH	GUNTUR
42	ANDHRA PRADESH	KRISHNA
43	ANDHRA PRADESH	SPSR NELLORE
44	ANDHRA PRADESH	VISAKHAPATANAM
45	TELANGANA	HYDERABAD
46	TELANGANA	RANGAREDDI
47	MAHARASHTRA	PUNE
48	MAHARASHTRA	THANE
49	DELHI	DELHI
50	BIHAR	PATNA
51	CHHATTISGARH	RAIPUR
52	GUJARAT	AHMEDABAD
53	HARYANA	FARIDABAD
54	HARYANA	GURUGRAM
55	HARYANA	YAMUNANAGAR
56	JHARKHAND	RANCHI
57	MADHYA PRADESH	INDORE
58	RAJASTHAN	KOTA
59	UTTAR PRADESH	LUCKNOW
60	WEST BENGAL	KOLKATA
61	ANDAMAN AND NICOBAR ISLANDS	ANDAMAN AND NICOBAR ISLANDS

SYLLABUS FOR AEEE 2023

MATHEMATICS

Unit 1: Sets, Relations and Functions: Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one- one, into and onto functions, the composition of functions.

Unit 2: Complex Numbers: Complex numbers in the form a+ib and their representation on a plane. Argand diagram. Algebra of complex numbers, Modulus and argument (or amplitude) of a complex number, square root of a complex number. Cube roots of unity, triangle inequality.

Unit 3: Permutations and Combinations: Fundamental principle of counting; Permutation as an arrangement and combination as selection, simple applications.

Unit 4: Binomial Theorem: Binomial theorem for positive integral indices. General and middle terms in binomial expansions, simple applications.

Unit 5: Sequences and Series: Arithmetic, Geometric and Harmonic progressions. Insertion of Arithmetic, Geometric and Harmonic means between two given numbers. Relation between A.M., G.M. and H.M. Special series $\sum n$, $\sum n2$, $\sum n3$.Arithmetico-Geometric Series, Exponential and Logarithmic Series.

Unit 6: Matrices and Determinants: Determinants and matrices of order two and three, Properties of determinants. Evaluation of determinants. Addition and multiplication of matrices, adjoint and inverse of matrix. Solution of simultaneous linear equations using determinants.

Unit 7: Quadratic Equations: Quadratic equations in real and complex number system and their solutions. Relation between roots and coefficients, Nature of roots, Formation of quadratic equations with given roots.

Unit 8: Trigonometry: Trigonometrical identities and equations. Inverse trigonometric functions and their properties. Properties of triangles including centroid, incentre, circumcentre and orthocentre, Solution of triangles. Heights and distances.

Unit 9: Measures Of Central Tendency and Dispersion: Calculation of Mean, Median and Mode of grouped and ungrouped data, Calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

Unit 10: Probability: Probability of an event, addition and multiplication theorems of probability and their applications; Conditional probability; Bayes' theorem, Probability distribution of a random variate; Binomial and Poisson distributions and their properties.

Unit 11: Differential Calculus: Polynomials, rational, trigonometric, logarithmic and exponential functions; Graphs of simple functions, Limits, Continuity; Differentiation of the sum, difference, product and quotient of two functions; Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions; Derivatives of order upto two, Applications of derivatives; Maxima and Minima of functions one variable, tangents and normals, Rolle's and Langrage's Mean Value Theorems.

Unit 12: Integral Calculus: Integral as an anti-derivative. Fundamental integrals involving algebraic, trigonometric, exponential and logarithmic functions; Integration by substitution, by parts and by partial fractions; Integration using trigonometric identities; Integral as a limit of sum; Properties of definite integrals. Evaluation of definite integral; Determining areas of the regions bounded by simple curves.

Unit 13: Differential Equations: Ordinary differential equations, their order and degree; Formation of differential equation; Solutions of differential equations by the method of separation of variables; Solution of Homogeneous and linear differential equations of first order.

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Unit 15: The Straight Line and Pair of Straight Lines: Various forms of equations of a line, intersection of lines, angles between two lines, conditions for concurrence of three lines, distance of a point from a line. Equations of internal and external bisectors of angles between two lines, equation of family lines passing through the point of intersection of two lines, homogeneous equation of second degree in x and y, angle between pair of lines through the origin, combined equation of the bisectors of the angles between a pair of lines, condition for the general second degree equation to represent a pair of lines, point of intersections and angles between two lines.

Unit 16: Circles and Family of Circles: Standard form of equation of a circle, general form of the equation of a circle, its radius and centre, equation of a circle in the parametric form, equation of a circle when the end points of a diameter are given, points of intersection of a line and circle with the centre at the origin and condition for a line to be tangent, equation of a family of circles through the intersection of two circles, condition for two intersecting circles to be orthogonal.

Unit 17: Conic Sections: Sections of cones, equations of conic sections (parabola, ellipse and hyperbola) in standard forms, conditions for y = mx+c to be a tangent and point(s) of tangency.

Unit 18: Vector Algebra: Vector and scalars, addition of two vectors, components of a vector in two dimensions and three-dimensional space, scalar and vector products, scalar and vector triple product. Application of vectors to plane geometry.

Unit 19: Three-Dimensional Geometry: Distance between two points. Direction cosines of a line joining two points. Cartesian and vector equation of a line. Coplanar and skew lines. Shortest distance between two lines. Cartesian and vector equation of a plane. Angle between (i) two lines (ii) two planes (iii) a line and a plane. Distance of a point from a plane.

PHYSICS

Unit 1: Units and dimensions

Units for measurement, system of units, SI, fundamental and derived units, dimensional analysis.

Unit 2: Kinematics:

Uniform and non-uniform motion, average speed and instantaneous velocity, uniformly accelerated motion, velocity- time, position-time graph, relations for uniformly accelerated motion, Scalars and Vectors, Vector. Addition and subtraction, zero vector, scalar and vector products, Unit Vector, Resolution of a Vector. Relative Velocity, Motion in a plane, Projectile Motion, Uniform Circular Motion.

Unit 3: Mechanics

Motion in one-dimension, uniform and non-uniform motion, uniformly accelerated motion; Scalars and Vectors, resolution of Vectors, vector properties. Motion in a plane, Projectile motion, Uniform circular motion.

Newton's laws of motion, conservation of linear momentum, Friction; Work-Energy theorem, kinetic energy, potential energy, conservation of energy; elastic collision in one and two dimensions.

Center of mass of a system of particles, centre of mass of a rigid body, rotational motion and torque, angular momentum and its conservation, moments of inertia for various geometries , parallel and perpendicular axes theorem.

Universal law of gravitation, acceleration due to gravity, planetary motion, Kepler's laws, Satellites, gravitational potential and potential energy and escape velocity.

Unit 4: Solids and Fluids

Solids: Elastic properties, Hooke's law, Young's modulus, bulk modulus, rigidity modulus.

Liquids: Cohesion and adhesion; surface energy and surface tension; flow of fluids; Bernouli's theorem and applications; viscosity, Stoke's law, terminal velocity

Unit 5: Oscillations and Waves

Oscillations: Oscillatory motion - periodic and non-periodic motion; simple harmonic motion (SHM), angular SHM, linear harmonic oscillator – both horizontal and vertical; combination of springs – series and parallel, simple pendulum; Expression of energy – potential energy, kinetic energy and total energy; Graphical representation of SHM; Types of oscillations – free, damped, maintained and forced oscillations and resonance.

Wave Motion: Properties of waves; Transverse and Longitudinal waves; Superposition of waves, Progressive and Standing waves; Vibration of strings and air columns, beats, Doppler Effect.

Unit 6: Heat and Thermodynamics

Heat, work and temperature; Ideal gas laws; Specific heat capacity, Thermal expansion of solids, liquids and gases, Relationship between C_p and C_v for gases; Newton's law of cooling, black body, Kirchoff's law, Stafan's law and Wein's law, thermodynamic equilibrium, internal energy; Zeroth, first and second law of thermodynamics, thermodynamic processes, Carnot cycle, efficiency of heat engines, refrigerator

Unit 7: Electrostatics, Current Electricity and Magnetostatics

Electric charges and Fields: Electric Charge; Conductors and Insulators, Charging by Induction, Basic Properties of Electric Charge, Coulomb's Law, Forces between Multiple Charges, Electric Field, Electric Field Lines, Electric Flux, Electric Dipole, Dipole in a Uniform External Field, Continuous Charge Distribution, Gauss's Law, Applications of Gauss's Law.

Electrostatic potential and Capacitance: Electrostatic potential, Potential due to a point charge, electric dipole, system of charges. Equipotential surfaces; Potential energy of a system of charges, potential energy in an external field, Electrostatics of conductors, Dielectric and Polarization, Capacitors and Capacitance, parallel plate capacitor, effect of dielectric on capacitance combination of capacitors, energy stored in a capacitor, Van de Graaff Generator.

Current Electricity: Electric current, electric currents in conductors, Ohm's law, drift of electrons and the origin of Resistivity, temperature dependence of resistivity, electrical energy, power, combination of resistors, series and parallel, cells, emf, internal resistance, cells in series and in parallel, Kirchhoff's Rules, Wheatstone bridge, Meter bridge, potentiometer.

Heating effects of current: Electric power; concept of thermoelectricity – Seebeck effect and thermocouple, chemical effect of current – Faraday's laws of electrolysis.

Magnetic effects: Oersted's experiment, BiotSavart's law, magnetic field due to a straight wire, circular loop and solenoid, force on a moving charge in a uniform magnetic field (Lorentz force), forces and torques on a current carrying conductor in a magnetic field, force between current carrying wires, moving coil galvanometer and conversion to ammeter and voltmeter.

Magnetostatistics: Bar magnet, magnetic field, lines of force, torque on a bar magnet in a magnetic field, earth's magnetic field; para, dia, and ferro magnetism, magnetic induction and magnetic susceptibility.

Unit 8: Electromagnetic Induction and Electromagnetic Waves

Electromagnetic Induction: Induced e. m. f: Magnetic flux, Faraday's law, Lenz's Law and Conservation of Energy, self and mutual inductance.

Alternating Current: Impedance and reactance; power in AC circuits; AC voltage applied to resistor, inductor, capacitor, LCR circuits and resonance, transformer and AC generator.

Electromagnetic Waves: Electromagnetic waves characteristics, electromagnetic spectrum from gamma to radio waves.

Unit 9: Kinetic Theory of Gases: Equation of state of a perfect gas, work done on compressing a gas, Kinetic theory of gases - assumptions, the concept of pressure. Kinetic energy and temperature: RMS speed of gas molecules: Degrees of freedom. Law of equipartition of energy, applications to specific heat capacities of gases; Mean free path. Avogadro's number.

Unit 10: Ray and Wave Optics

Ray Optics and optical instruments: Reflection and refraction of light by plain spherical mirrors - Total Internal Reflection; optical fiber; deviation and dispersion of light by a prism; lens formula; magnification and resolving power; microscope and telescope.

Wave Optics: Huygens principle: Wave nature of light, interference of light waves and Young's experiment, thin films, Newton's rings, Diffraction – single slit, grating, Polarization and applications.

Unit 11: Modern Physics

Dual nature of radiation and matter: De Broglie relation, Electron emission, photoelectric effect, experimental study, Einstein's photoelectric equation: Energy quantum of radiation; particle nature of light, the photon, wave nature of matter.

Atoms: Alpha-particle scattering and Rutherford's nuclear model of atom, atomic spectra, Bohr model of the hydrogen atom; the line spectra of the hydrogen atom.

Nuclei: Atomic masses and composition of nucleus; size of the nucleus; mass-energy and nuclear binding energy; nuclear force; radioactivity; nuclear energy

Semiconductor materials, devices and simple circuits: Energy bands in solids; classification of metals, conductors and semiconductors; intrinsic semiconductor, extrinsic semiconductor, p-n junction, semiconductor diode, junction diode as a rectifier, junction transistor, transistor as an amplifier.

CHEMISTRY

Unit 1 – Basic Chemical calculations: Density - mole concept - empirical and molecular formula – stoichiometry - volumetry, equivalent and molecular masses, percentage composition

Unit 2 - Atomic structure & periodicity: Atomic models, sub-atomic particles, orbital shapes, Pauli's exclusion, Hund's rule, Aufbau principle, de-Broglie relation, Heisenberg's uncertainty, electronic configuration and periodic properties.

Unit 3 - Chemical bonding: Ionic bonding, lattice energy – Born-haber cycle, covalent bond - Fajan's Rule –VSEPR theory -- hybridization, valence bond and molecular orbital theory, coordinate, metallic and hydrogen bonding

Unit 4 - S-block and hydrogen: Hydrogen, isotopes, liquid hydrogen as fuel, alkali metals, oxides and hydroxides, extraction and properties of lithium, sodium and potassium. Group 2 elements and their properties.

Unit 5 - P-block elements: Boron - borax, boranes, diboranes, Carbon - allotropes, oxides, carbides, halides and sulphides of carbon group- silicon and silicates – silicones, Nitrogen – Fixation – compounds of nitrogen- Phosphorous – allotropes and compounds. Oxygen - oxides and peroxide. Sulphur – its compounds - inter-halogen compounds.

Unit 6 - d and f block elements: d-block elements configuration and properties - transition elements, chromium, copper, zinc, silver, interstitial compounds and alloys, f - block elements and extraction, lanthanides and actinides

Unit 7 - Solid state: Solids - amorphous and crystalline, classification of crystalline - unit cell, Miller indices - packing efficiency, unit cell dimensions, crystal structure, ionic crystals, imperfections in solids, electric and magnetic properties.

Unit 8 - Coordination compounds: Terminology in coordination- isomerism, Werner, VBT, CFT theories - Bio- coordination compounds.

Unit 9 - Gaseous State & Surface chemistry: Gaseous state and gas laws, deviation- van der Waal's constants - Joule-Thomson effect - liquefaction of gases, theory of catalysis, colloids and emulsions.

Unit 10 - Colligative properties: Lowering of vapour pressure, Depression of freezing point, Elevation in boiling point, Osmotic pressure, abnormality - dissociation and association

Unit 11 – Electrochemistry: Faraday's laws - specific, equivalent and molar conductances, Kohlraush's law and applications- electrode potentials - EMF, electrochemical and, galvanic cells, Nernst equation, batteries, fuel cells, corrosion and its prevention.

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Unit 13 - Chemical and Ionic Equilibria: Law of chemical equilibrium, homogenous and heterogeneous equilibrium, Le Chatlier's principle, equilibrium constants, factors affecting- Ionic equilibrium, ionization of acids and bases, buffer solutions, pH -solubility of sparingly soluble salts

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Unit 15 - Basic Organic chemistry: Classification, functional groups, nomenclature and isomerism, types of organic reactions, mechanism, purification, qualitative and quantitative analysis carbocation, carbanion and free radical, electron displacement in covalent bond.

Unit 16 - Hydrocarbons & Polymers: IUPAC nomenclature, alkanes –alkynes – aromatic hydrocarbons- nomenclature, preparation, physical and chemical properties uses. Polymerization – types, molecular mass, biodegradable and commercial polymers.

Unit 17 - Organic halogen compounds: Nature of C-X bond- preparation - properties and reactions of alkyl and aryl halides- polyhalogen compounds - substitution and elimination – mechanism- Grignard reagents.

Unit 18 - Stereochemistry and Organic nitrogen compounds: Preparation - properties and uses of Aliphatic and aromatic nitro compounds --aliphatic and aromatic amines, nitriles, Diazonium salts. – 1°, 2°, and 3° amines – distinction - Optical activity.

Unit 19 - Organic functional groups – hydroxyl, carbonyl compounds and ethers: Nomenclature, preparation, properties and uses of alcohols, ethers, aldehydes, ketones, aliphatic carboxylic acids, benzoic acid - salicylic acid.

Unit 20 - Biomolecules and Environmental chemistry: Carbohydrates, proteins, amino acids - enzymes, vitamins, and nucleic acids - lipids. Pollution. - air, water and soil - industrial waste, acid rain, greenhouse effect, global warming, Strategies to control pollution.

ENGLISH

Articles, Synonyms, Antonyms, Preposition, Verbs.

SYLLABUS FOR AEEP 2023

PHYSICS

Unit 1: Units and dimensions: Units for measurement, system of units, SI, fundamental and derived units, dimensional analysis.

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Unit 18 - Biomolecules and Environmental chemistry: Carbohydrates, proteins, amino acids - enzymes, vitamins, and nucleic acids - lipids. Pollution. - air, water and soil - industrial waste, acid rain, greenhouse effect, global warming, Strategies to control pollution.

MATHEMATICS

Unit 1: Sets, Relations and Functions: Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one one, into and onto functions, the composition of functions.

Unit 2: Complex Numbers: Complex numbers in the form a+ib and their representation on a plane. Argand diagram. Algebra of complex numbers, Modulus and argument (or amplitude) of a complex number, square root of a complex number. Cube roots of unity, triangle inequality.

Unit 3: Permutations and Combinations: Fundamental principle of counting; Permutation as an arrangement and combination as selection, simple applications.

Unit 4: Binomial Theorem: Binomial theorem for positive integral indices. General and middle terms in binomial expansions, simple applications.

Unit 5: Sequences and Series: Arithmetic, Geometric and Harmonic progressions. Insertion of Arithmetic, Geometric and Harmonic means between two given numbers. Relation between A.M., G.M. and H.M. Special series $\sum n$, $\sum n2$, $\sum n3$.Arithmetico-Geometric Series, Exponential and Logarithmic Series.

Unit 6: Matrices and Determinants: Determinants and matrices of order two and three, Properties of determinants. Evaluation of determinants. Addition and multiplication of matrices, adjoint and inverse of matrix. Solution of simultaneous linear equations using determinants.

Unit 7: Trigonometry: Trigonometrical identities and equations. Inverse trigonometric functions and their properties. Properties of triangles including centroid, incentre, circumcentre and orthocentre, Solution of triangles. Heights and distances.

Unit 8: Probability: Probability of an event, addition and multiplication theorems of probability and their applications; Conditional probability; Bayes' theorem, Probability distribution of a random variate; Binomial and Poisson distributions and their properties.

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Elastic properties, Hooke's law, Young's modulus, bulk modulus, rigidity modulus. Liquids: Cohesion and adhesion; surface energy and surface tension; flow of fluids; Bernouli's theorem and applications; viscosity, Stoke's law, terminal velocity

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CHEMISTRY

Unit 1 – Basic Chemical calculations:

 Density - mole concept - empirical and molecular formula – stoichiometry - volumetry, equivalent and molecular masses, percentage composition

Unit 2 - Atomic structure & periodicity:

Atomic models, sub-atomic particles, orbital shapes, Pauli's exclusion, Hund's rule, Aufbau principle, de-Broglie relation, Heisenberg's uncertainty, electronic configuration and periodic properties.

Unit 3 - Chemical bonding:

Ionic bonding, lattice energy – Born-haber cycle, covalent bond - Fajan's Rule –VSEPR theory - -hybridization, valence bond and molecular orbital theory, coordinate, metallic and hydrogen bonding

Unit 4 - d and f block elements:

d-block elements configuration and properties - transition elements, chromium, copper, zinc, silver, interstitial compounds and alloys, f - block elements and extraction, lanthanides and actinides

Unit 5 - Solid state:

Solids - amorphous and crystalline, classification of crystalline - unit cell, Miller indices - packing efficiency, unit cell dimensions, crystal structure, ionic crystals, imperfections in solids, electric and magnetic properties.

Unit 6 - Coordination compounds:

 Terminology in coordination- isomerism, Werner, VBT, CFT theories - Bio coordination compounds.

Unit 7 - Gaseous State & Surface chemistry:

Gaseous state and gas laws, deviation- van der Waal's constants - Joule-Thomson effect - liquefaction of gases, theory of catalysis, colloids and emulsions.

Unit 8 - Colligative properties:

Lowering of vapour pressure, Depression of freezing point, Elevation in boiling point, Osmotic pressure, abnormality - dissociation and association

Unit 9 – Electrochemistry:

Faraday's laws - specific, equivalent and molar conductances, Kohlraush's law and applications-electrode potentials - EMF, electrochemical and, galvanic cells, Nernst equation, batteries, fuel cells, corrosion and its prevention.

Unit 10 -Thermodynamics:

First and second law- internal energy, enthalpy, entropy, free energy changes– specific heats at constant pressure and constant volume – enthalpy of combustion, formation and neutralization, Kirchoff law – Hess's law - bond energy

Unit 11 - Chemical and Ionic Equilibrium:

Law of chemical equilibrium, homogenous and heterogeneous equilibrium, Le Chatlier's principle, equilibrium constants, factors affecting- Ionic equilibrium, ionization of acids and bases, buffer solutions, pH -solubility of sparingly soluble salts

Unit 12 - Chemical kinetics:

Order, molecularity, rate and rate constant – first and second order reactions - temperature dependence, factors influencing rate of reaction, integrated rate equation, collision theory of chemical reaction

Unit 13 - Basic Organic chemistry:

Classification, functional groups, nomenclature and isomerism, types of organic reactions, mechanism, purification, qualitative and quantitative analysis carbocation, carbanion and free radical, electron displacement in covalent bond.

Unit 14 - Hydrocarbons & Polymers:

IUPAC nomenclature, alkanes –alkynes – aromatic hydrocarbons nomenclature, preparation, physical and chemical properties uses. Polymerization – types, molecular mass, biodegradable and commercial polymers.

Unit 15 - Organic halogen compounds:

Nature of C-X bond- preparation - properties and reactions of alkyl and aryl halides- polyhalogen compounds - substitution and elimination – mechanism- Grignard reagents.

Unit 16 - Stereochemistry and Organic nitrogen compounds:

Preparation - properties and uses of Aliphatic and aromatic nitro compounds --aliphatic and aromatic amines, nitriles, Diazonium salts. – 1°, 2°, and 3° amines – distinction - Optical activity.

Unit 17 - Organic functional groups – hydroxyl, carbonyl compounds and ethers:

Nomenclature, preparation, properties and uses of alcohols, ethers, aldehydes, ketones, aliphatic carboxylic acids, benzoic acid - salicylic acid.

Unit 18 - Biomolecules and Environmental chemistry:

Carbohydrates, proteins, amino acids - enzymes, vitamins, and nucleic acids - lipids. Pollution. - air, water and soil - industrial waste, acid rain, greenhouse effect, global warming, Strategies to control pollution.

BIOLOGY

Unit 1: Diversity of Living Organisms The Living World:

Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature. Biological Classification: Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids. Plant Kingdom: Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae Animal Kingdom: Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level

Unit 2: Structural Organization in Animals and Plant Morphology of Flowering Plants:

Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae Anatomy of Flowering Plants: Anatomy and functions of tissue systems in dicots and monocots. Structural Organisation in Animals: Morphology, Anatomy and functions of different systems of frog.

Unit 3: Cell Structure and Function Cell-The Unit of Life:

Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus. Biomolecules: Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzyme - types, properties, enzyme action. Cell Cycle and Cell Division: Cell cycle, mitosis, meiosis and their significance

Unit 4: Plant Physiology Photosynthesis in Higher Plants:

Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis. Respiration in Plants: Exchange of gases; cellular respiration -

glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient. Plant - Growth and Development: Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA;

Unit 5: Human Physiology Breathing and Exchange of Gases:

Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders. Body Fluids and Circulation: Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure. Excretory Products and their Elimination: Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant. Locomotion and Movement: Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout. Neural Control and Coordination: Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse Chemical Coordination and Integration: Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease. Note: Diseases related to all the human physiological systems to be taught in brief.

Unit 6: Reproduction Sexual Reproduction in Flowering Plants:

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding 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 dispersal and fruit formation. Human Reproduction: Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and 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 (STDs); 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).

Unit 7: 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 and honey bee; linkage and crossing over; 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 8 expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting. Evolution: Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); 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

Unit 8 Biology and Human Welfare: Human Health and Diseases:

Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse. Microbes in Human Welfare: Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.

Unit 9: Biotechnology and its Applications Biotechnology - Principles and Processes:

Genetic Engineering (Recombinant DNA Technology). Biotechnology and its Applications: Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents

Unit 10: Ecology and Environment Organisms and Populations:

Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Abiotic Factors, Responses to Abiotic Factors, Adaptations) Ecosystem: Ecosystems Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles) Biodiversity and its Conservation: Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.

ENGLISH

Articles, Synonyms, Antonyms, Preposition, verbs.

SYLLABUS FOR AEEB 2023

Reasoning, Computing Skills, English - General Syllabus

The University reserves the right to modify the contents of this Information handbook.