COCHIN UNIVERSITY OF SCIECNCE AND TECHNOLOGY

NOTIFICATION

<u>ADMISSION to PG and Three year LL.B Programmes</u>

Admission to all Postgraduate (except M.Tech) and Three year LL.B programmes of CUSAT for the academic year 2020 - 2021 will be conducted based on the marks obtained by the candidates in the qualifying examination as detailed in the procedure attached below.

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Director
Directorate of Admissions

Table-1 : General Formula for Calculating Index Mark   (For courses with specific group of subjects in the eligibility criteria)
Mark Based System

Let P1, P2 and P3 (Part-III of Degree course) be the three main subjects considered for calculating Index.

Total part-III can be calculated as

    M= P1 Mark +P2 Mark +P3 Mark

Adding weightage for P1, the subject need more weightage as per the eligibility criteria of the course.

    T=M+P1= 2P1+P2+P3

$$Index\ Mark = \left(\frac{T}{2 * Max.\ Mark\ of\ P1 + Max.\ Mark\ of\ P2 + Max.\ Mark\ of\ P3} \right) * 1000$$

<u>Example1</u>:
For Msc Physics the eligibility criteria is B.Sc. degree with Physics main and Mathematics subsidiary with at least 55% marks in Physics.
So P1- Physics, P2 - Mathematics and P3 - other complementary subject, let it be Chemistry.

Let P1= 400 , P2=190, P3=175 , Max.mark of P1 = 600, Max.Mark of P2= 200 and Max.Mark of P3= 200 , then
    T= 2*400+190+175 = 1165
    Index Mark = (1165 / 2*600+200+200) * 1000 = **728.125**

<u>Example2:</u>
For Msc Marine Geology the eligibility criteria is B.Sc. degree in Geology/Physics/Chemistry with at least 60% aggregate marks.

So P1 can be Geology / Physics / Chemistry (main) which can be selected as per the candidate's mark list . P2 and P3 can be the marks for other two subsidiary / complementary subjects.
Suppose candidate secured Bsc. Degree in Geology with Chemistry and Mathematics as subsidiary subjects , then we can chose
P1 – Geology, P2 -Chemistry and P3-Mathematics

Calculation of Index mark is same as Example-1

Credit Bases System

Let P1,P2 and P3 (Part-III of Degree course) be the three main subjects considered for calculating Index. Let C1 , C2 and C3 are total credits of each of the subjects as per the mark list of the candidate , CP1,CP2 and CP3 are percentage of GPA/CGPA of P1 , P2 and P3 respectively secured by the candidate. Then, total equivalent mark of part-III can be calculated as

$$S=\frac{(CP1*C1)+(CP2*C2)+(CP3*C3)}{C1+C2+C3}$$

CP1=(CGPA or GPA of P1)*100/k
CP2=(CGPA or GPA of P2)*100/k
CP3=(CGPA or GPA of P3)*100/k

where k is the scale of the credit system. k=4 for 4 credit system, k=6 for 6 credit system and k=10 for 10 credit system .

Standardize S out of 1000

S1= Sx10

Add weightage of P1 subject that need more weightage as per the eligibility criteria of the course.

T=S1+CP1 (out of 1100)

Index Mark = (T/1100)*1000

Example1:
For Msc Physics , the eligibility criteria is B. Sc. degree with Physics main and Mathematics subsidiary with at least 55% marks in Physics. So P1- Physics, P2-Mathematics and P3 – other complementary subject.

Let 4 point credit system, scale k=4.
Let Total Credit for P1 C1=50, Total Credit for P2, C2=18 and Total Credit for P3 C3=18
and CGPA for P1= 3.8, and CGPA for P2 = 3.2 and CGPA for P3=3.54 .

CP1= (3.8x100)/4 = 95   CP2= (3.2x100)/4=80 CP3= (3.54*100)/4=88.5

S= (50x95 + 18x80 + 18 x 88.5)/(50+18+18) = 90.5

S1= Sx10= 90.5 x 10 = 905   T= S1+95 = 905+95= 1000

Index Mark = (1000/1100)*1000 = 909.09

Note: In case of multiple main Subjects P1, P2 and P3 cab be taken as per the eligibility criteria of the course.

Table-2: General Formula for Calculating Index Mark (For courses with various combinations of subjects in the eligibility criteria)
Mark Based System

To calculate index mark index mark can be calculates by considering the mark or grade of the subjects excluding languages.

Let P1,P2,P3,P4 etc.. be the subjects excluding languages , .then

   T= P1 Mark + P2 Mark + P3 Mark + P4 Marks +...

$$Index\,Mark = \left(\frac{T}{Max.\,Mark\,of\,P1 + Max.\,Mark\,of\,P2 + Max.\,Mark\,of\,P3 + Max.\,Mark\,of\,P4 + ...} \right) * 1000$$

Example1:

For MCA, the eligibility criteria is Any Science graduate with Mathematics as one of the subjects or graduate in Electronics / Information Technology/Computer Science / Computer Applications/ Engineering Technology.
Suppose the candidate studied Bsc. Mathematics with Physics and Chemistry as Subsidiary then
consider P1- Mathematics, P3-Physics P3-Chemistry and P4- Subjects other than languages .

Let P1= 400 , P2=190, P3=175,P4=150 , Max.Mark of P1 = 600, Max.Mark of P2= 200, Max.Mark of P3= 200 , Max.Mark of P4 = 200 ,then
   T= 400+190+175 +150= 915
   Index Mark = (915 / 600+200+200+200) * 1000 = 762.5

Credit Bases System

Let P1,P2, P3,P4 etc.. be the the the subjects excluding languages considered for calculating Index.
Let C1,C2,C3 etc.. be the total credits of the subject as per the mark list of the candidate , CP1,CP2,CP3,CP4 etc. are percentage of GPA/CGPA of P1,P2,P3,P4 etc.. secured by the candidate. Then

$$Index\, Mark = \left(\frac{(CP1*C1)+(CP2*C2)+(CP3*C3)+(CP4*C4)+...}{C1+C2+C3+C4+....} \right) * 10$$

CP1=(CGPA or GPA of P1)*100/k
CP2=(CGPA or GPA of P2)*100/k
CP3=(CGPA or GPA of P3)*100/k
CP4=(CGPA or GPA of P4)*100/k etc…

where k is the scale of the credit system. k=4 for 4 credit system, k=6 for 6 credit system and k=10 for 10 credit system .

Example1:
For MCA, the eligibility criteria is Any Science graduate with Mathematics as one of the subjects or graduate in Electronics / Information Technology/Computer Science / Computer Applications/ Engineering Technology.
Suppose the candidate studied Bsc.Mathematics with Physics and Chemistry as Subsidiary then
consider

P1- Mathematics, P2-Physics P3-Chemistry and P4- Subject other than languages .
Let 4 point credit system, k=4.

Let Total Credit for P1, C1=50, Total Credit for P2, C2=18,Total Credit for P3, C3=18, Total Credit for P4 C4=8
and CGPA for P1= 3.8, CGPA for P2 = 3.2 ,CGPA for P3=3.54 and CGPA for P4=3.0 .

CP1= (3.8x100)/4 = 95   CP2= (3.2x100)/4=80 CP3= (3.54*100)/4=88.5 CP4=(3.0*100)/4=75

Index Mark = [(50x95 + 18x80 + 18 x 88.5 + 8x75)/(50+18+18+8)]x10 = 891.808

		Faculty of Science
SI.No	**Course**	**Proposed criteria for calculating index mark**
1.	MSc Chemistry	To calculate index marks , use the formula given in Table-1 with P1- Chemistry /Polymer Chemistry /Environmental Chemistry / Industrial Chemistry/Petrochemical (main) P2- Mathematics P3- Other complementary subject
2.	MSc Biotechnology	To calculate index marks ,use the formula given in Table-1 with P1- Life Sciences (main) P2- Other Complementary subeject1 P3- Other Complementary subject 2
3.	MSc Mathematics	To calculate index marks ,use the formula given in Table-1 with P1- Mathematics (main) P2- Other complementary subject 1 P3- Other complementary subject 2
4.	MSc Physics	To calculate index marks ,use the formula given in Table-1 with P1- Physics (main) P2-Mathematics P3- Other subsidiary/complementary subject
5.	MSc Statistics	To calculate index marks ,use the formula given in Table-1 with P1- Mathematics / Statistics (main) P2 – Statistics (if main is mathematics) / Other complementary subject P3 – Other subsidiary/complementary subject
6.	MSc Microbiology	To calculate index marks ,use the formula given in Table-1 with P1- Life Sciences (main) P2- Other Complementary subeject1 P3- Other Complementary subject 2
7.	Msc Forensic Science	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.

		Faculty of Technology
8.	MSc Computer Science With Specialization In Soft Computing	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
9.	MSc. Computer Science With Specialization In Data Science	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
10.	Master of Computer Applications (MCA)	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
11.	MSc Electronic Science	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
12.	MSc Instrumentation	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
		Faculty of Marine Sciences
13.	MSc Hydrochemistry	To calculate index marks ,use the formula given in Table 1 with P1- Chemistry / Polymer Chemistry/ Industrial Chemistry/Petrochemicals/ Environment and Water Management (main) P2- Mathematics (subsidiary/complementary) P3 – Physics / Computer Science (subsidiary / complementary)
14.	MSc Marine Biology	To calculate index marks ,use the formula given in Table-1 with P1- Life Sciences / Fisheries Science (Main) P2- Other Complementary subeject1 P3- Other Complementary subject 2

15.	MSc Meteorology	Use the formula given in Table 1 with P1 - Physics / Mathematics /Chemistry / Computer Science (main) P2 - Physics / Mathematics /Chemistry (subsidiary / complementary) P3 - Other subsidiary/complementary subject
16.	MFSC Sea Food Safety And Trade	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
17.	MSc Marine Geology	To calculate index marks ,use the formula given in Table 1 with P1- Geology/Physics/Chemistry (main) P2- Other supplementary / complementary subject1 P3- Other supplementary / complementary subject 2
18.	MSc Marine Geophysics	To calculate index marks ,use the formula given in Table 1 with P1- Physics/Geology (main) P2- Mathematics (subsidiary / complementary) P3- Other subsidiary / complementary subject
19.	MSc Oceanography	To calculate index marks ,use the formula given in Table 1 with P1- Physics / Mathematics (main) P2- Physics - subsidiary or complementary (in case of Mathematics main) / Other subsidiary / complementary P3- Other subsidiary / complementary subject
20.	MSc Industrial Fisheries	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
	Faculty of Social Sciences	
21.	MA Applied Economics	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.

Faculty of Environmental Studies		
22.	MSc Environmental Technology Stream II: Environmental Biotechnology	To calculate index marks ,use the formula given in Table 1 with P1- Life Sciences/ Environmental Science/ Zoology/ Botany/ Microbiology (Main) P2- Other subsidiary / complementary subject 1 P3- Other subsidiary / complementary subject 2
23.	MSc Environmental Technology Stream I: Environmental Engg.	To calculate index marks ,use the formula given in Table 1 with P1- Chemistry (Main) P2- Physics P3- Mathematics
Faculty of Humanities		
24.	MA Hindi Language And Literature	Total marks secured by the candidate in Hindi (Main for BA Hindi and subsidiary / Complimentary for BA/BSC) . Standardize marks obtained by the candidates out of 1000. In case of credit based system with scale =k, The index mark can be calculated using the formula **Index=[(CP for Hindi * Total Credits for Hindi)/Total Credits for Hindi]*10** Where CP=(CGPA for Hindi *100)/ k , k= 4,6,10 etc.. based on scale of the credit system
Faculty of Law		
25.	One Year LLM	Total marks secured by the candidates in the qualifying examination can be used to calculate the index mark. Standardize marks obtained by the candidates out of 1000. The equation used by the respective University can be utilized to convert CGPA/GPA to percentage , in case of credit based system.
26.	Three Year LLB	Total marks secured by the candidates in the qualifying examination can be used to calculate the index mark. Standardize marks obtained by the candidates out of 1000. The equation used by the respective University can be utilized to convert CGPA/GPA to percentage , in case of credit based system.

	Inter University Centre for IPR studies	
27.	One Year LLM (IPR)	Total marks secured by the candidates in the qualifying examination can be used to calculate the index mark. Standardize marks obtained by the candidates out of 1000. The equation used by the respective University can be utilized to convert CGPA/GPA to percentage , in case of credit based system.
28.	LLM (IPR) Phd	Total marks secured by the candidates in the qualifying examination can be used to calculate the index mark. Standardize marks obtained by the candidates out of 1000. The equation used by the respective University can be utilized to convert CGPA/GPA to percentage , in case of credit based system.
29.	LLM (IP) Phd	Total marks secured by the candidates in the qualifying examination can be used to calculate the index mark. Standardize marks obtained by the candidates out of 1000. The equation used by the respective University can be utilized to convert CGPA/GPA to percentage , in case of credit based system.
	Dean Dayal Upadyay Kaushal Kendra	
30.	MVOC Technology And Management Consulting	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.
31.	MVOC Mobile Phone Application Development	Total marks secured by the candidates excluding languages (if any) can be used to calculate the index mark. Use the formula provided in **Table-2** to calculate the index mark. Standardize marks obtained by the candidates out of 1000 . In case languages are not a part of the candidates course, use total mark scored in the qualifying examination to calculate index.

Preparing Rank List

1. Rank list for the course can be prepared based on the index mark.

2. In case tie in the index mark following procedure can be followed.

   For index mark calculated using formula provided in table-1

       (1) First use the mark of P1

       (2) If tie continues use mark of P1+P2+P3

       (3) If tie continues use English Mark.

       (4) If tie continues use Total Mark scored in Degree Examination may be considered.

       (5) If tie continue take the Date of Birth of the Candidate and then Alphabetical order of the name may be considered.

   For index mark calculated using Total Mark excluding Languages

       (1) First use total marks scored in English/Part-I

       (2) If tie continues use Total Mark scored in Degree Examination may be considered

       (3) If tie continue take the Date of Birth of the Candidate and then Alphabetical order of the name may be considered.

   For index mark calculated using Total Marks of the Degree

       (1) First use total marks scored in English/Part-I

       (2) If tie continue take the Date of Birth of the Candidate and then Alphabetical order of the name may be considered.

   For MA Hindi

       1) First use tot Total Mark scored in Degree Examination,

       2) If tie continue take the Date of Birth of the Candidate and then Alphabetical order of the name may be considered.