

## Note No. \#1

## Subject: The minutes of the meeting of BOS held on 2/8/2021 and the syllabus of 5th and 6th semester of B.Sc. (Hons.) Mathematics

The meeting of the BOS of Mathematics was held online on $2 / 8 / 2021$. The following members were present:

1. Prof. (Dr.) Ashish Arora (Chairperson)
2. Prof. S. K. Srivastva, SBSSU, Gurdaspur
3. Dr. Amritbir Singh, Baba Banda Singh Bahadur College
4. Prof. D. S. Pathania, GNE, Ludhiana
5. Dr. Jitender Singh, GNDU, Amritsar
6. Dr. Rajesh Narula, IKGPTU main campus
7. Dr. Gurjinder Singh, IKGPTU main campus
8. Dr. Megha Goyal, IKGPTU main campus

The syllabus of 5th and 6th semester of B. Sc. (Hons), Mathematics for batch 2019 onwards was formulated in the meeting. The structure and the detailed syllabus contents along with CO and PO are attached herewith. The approval of the members of BOS is also displayed. Kindly forward the file to IT cell for updating the syllabus on website and also to examination branch for further action.
The file is submitted for your consideration and necessary action please.
(1) Structure and Syllabus.pdf

29/09/2021 3:38 PM

Note No. \#2
For necessary action as per norms.
29/09/2021 3:38 PM
DR. VIKAS CHAWLA
(DIRECTOR(MAIN CAMPUS))

Note No. \#3
For n/a
29/09/2021 3:47 PM
(DR(ACADEMICS))

Note No. \#4
For necessary action please.
29/09/2021 5:34 PM

## Re: Fw: Meeting of BOS of Mathematics (Updated Syllabus for Approval)

Amritbir Singh [amritbir.singh@bbsbec.ac.in](mailto:amritbir.singh@bbsbec.ac.in)
Wed 9/1/2021 2:45 PM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
Dear Sir

I am giving my approval for the syllabus of B.Sc (Hons.) Mathematics 5th-6th semester, attached with your email.

Name : Dr. Amritbir Singh
Bank Name : Punjab National Bank
Branch : Jyoti Sarup Mor, Fatehgarh Sahib
Account Number : 06452010008520
IFSC Code : PUNB0064510
With warm regards
Dr. Amritbir Singh
Professor-in-Mathematics
B.B.S.B. Engg. College, Fatehgarh Sahib-140407

On Thu, Aug 12, 2021 at 1:33 PM Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com) wrote: Respected Sir
The meeting of the Board of Studies of Mathematics, IKGPTU was held on $2 / 8 / 2021$. The contents of the syllabus of B.SC (Hons.) Mathematics 5th-6th semester was finalized. The updated copies of the syllabus of different subjects as recommended by the members of the board for the 5th-6th semester are attached herewith for your consideration and approval. A copy of the syllabus from the 1st-4th semester is also attached for your reference. It is submitted for your approval, please. Also, please provide the following information for the online transfer of the honorarium.
Name:
Bank Name:
Branch:
Account Number:
IFSC code:
Looking forward to your reply.
With best regards
Ashish Arora

From: Dr. Ashish Arora
Sent: Monday, July 26, 2021 10:47 AM
To: Amritbir.singh@bbsbec.ac.in [Amritbir.singh@bbsbec.ac.in](mailto:Amritbir.singh@bbsbec.ac.in); hod_ash@bbsbec.ac.in
[hod_ash@bbsbec.ac.in](mailto:hod_ash@bbsbec.ac.in)
Subject: Meeting of BOS of Mathematics
Respected Sir,
It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University.

Meet at the following link:
Board of Studies, Department of Mathematical Sciences, I. K. Gujral Punjab Technical University. Monday, 2 August • 11:00am -3:00pm
Google Meet joining info
Video call link: https://meet.google.com/mon-wrqc-imb


## Meet

Real-time meetings by Google. Using your browser, share your video, desktop, and presentations with teammates and customers.
meet.google.com

The agenda of the meeting is

1. To finalize the syllabus of B. Sc.(Hons.) Mathematics 5 th and 6 th semester for batch 2019 and onwards.
2. To finalize the syllabus of B. Sc. (Hons) Mathematics 1st and 2nd semester for batch 2021 onwards
3. Any other matter with the permission of Chair.

You are requested to participate and contribute through your suggestions. Kindly confirm your participation in the said meeting through e-mail or SMS at 9478098067 . Looking forward for your reply.

With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

# Fw: Meeting of BOS Mathematics (Updated Syllabus for Approval) 

devinder singh [despathania@yahoo.com](mailto:despathania@yahoo.com)
Thu 8/12/2021 5:56 PM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)

U 10 attachments (2 MB)
BSM 605 Integral Equations and Integral Transforms.pdf; B.Sc.(Hons.) 1st to 4th semester IKGPTU.pdf; BSM502 Algebra-II.pdf; BSM503 Numerical Methods.pdf; BSM603 Mechanics.pdf; BSM602 Complex Analysis.pdf; BSM504 Partial Differential equations.pdf; BSM501 Real Analysis-II.pdf; BSHM604 Discrete Mathematics.pdf; BSHM601 Number Theory.pdf;

After going through all the syllabi. Everything is correct now and I hereby recommend the same.

## Dr D.S.Pathania Professor and Head,GNDEC Ludhiana

## --- Forwarded Message ---

From: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
To: despathania@yahoo.com [despathania@yahoo.com](mailto:despathania@yahoo.com)
Sent: Thursday, August 12, 2021, 01:31:03 PM GMT+5:30
Subject: Fw: Meeting of BOS Mathematics (Updated Syllabus for Approval)

Name: D.S.Pathania
Bank Name: Punjab and Sind Bank
Branch: Gill Ludhiana
Account Number:00211000021008
IFSC code:PSIB0000021
Looking forward to your reply.
With best regards
Ashish Arora
From: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
Sent: Monday, August 2, 2021 10:50 AM
To: despathania@yahoo.com [despathania@yahoo.com](mailto:despathania@yahoo.com)
Subject: Fw: Meeting of BOS Mathematics

## From: Dr. Ashish Arora

Sent: Monday, July 26, 2021 10:48 AM
To: despathania@yahoo.com [despathania@yahoo.com](mailto:despathania@yahoo.com)
Subject: Meeting of BOS Mathematics
Respected Sir,
It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University. The meeting of the Board of Studies is scheduled on August 2nd, 2021 at 11:00 AM. at Google Meet at the following link:
Board of Studies, Department of Mathematical Sciences, I. K. Gujral Punjab Technical University.
Monday, 2 August - 11:00am - 3:00pm
Google Meet joining info
Video call link: https://meet.google.com/mon-wrqc-imb


## 63959/2021/Dept of Mathematical Sciences

The agenda of the meeting is

1. To finalize the syllabus of B. Sc.(Hons.) Mathematics 5th and 6th semester for batch 2019 and onwards.
2. To finalize the syllabus of B. Sc. (Hons) Mathematics Ist and 2nd semester for batch 2021 onwards
3. Any other matter with the permission of Chair.

You are requested to participate and contribute through your suggestions. Kindly confirm your participation in the said meeting through e-mail or SMS at 9478098067 . Looking forward for your reply.

With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

## 63959/2021/Dept of Mathematical Sciences

## Re: Fw: Meeting BOS of Mathematics (Updated Syllabus for Approval)

## Gurjinder Singh [gurjinder11@gmail.com](mailto:gurjinder11@gmail.com)

Thu 8/19/2021 3:18 PM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)

## Dear Sir

The syllabi of all courses are OK by my side.

## Sincerely

Gurjinder Singh
On Thu, Aug 12, 2021 at 1:34 PM Dr. Ashish Arora \lldr.ashish10@hotmail.com> wrote:

## Respected Sir

The meeting of the Board of Studies of Mathematics, IKGPTU was held on 2/8/2021. The contents of the syllabus of B.SC (Hons.) Mathematics 5th-6th semester was finalized. The updated copies of the syllabus of different subjects as recommended by the members of the board for the 5th-6th semester are attached herewith for your consideration and approval. A copy of the syllabus from the 1st-4th semester is also attached for your reference. It is submitted for your approval, please. Also, please provide the following information for the online transfer of the honorarium.
Name:

## Bank Name:

Branch:
Account Number:
IFSC code:
Looking forward to your reply.
With best regards
Ashish Arora

From: Dr. Ashish Arora
Sent: Monday, July 26, 2021 12:26 PM
To: gurjinder11@gmail.com [gurjinder11@gmail.com](mailto:gurjinder11@gmail.com)
Subject: Meeting BOS of Mathematics

Respected Sir

It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University. The meeting of the Board of Studies is scheduled on August 2nd, 2021 at 11:00 AM. at Google Meet at the following link:

Board of Studies, Department of Mathematical Sciences, I. K. Gujral Punjab Technical University.
Monday, 2 August • 11:00am-3:00pm
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## Meet

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meet.google.com

The agenda of the meeting is

2. To finalize the syllabus of B. Sc. (Hons) Mathematics 1st and 2nd semester for batch 2021 onwards
3. Any other matter with the permission of Chair.

You are requested to participate and contribute through your suggestions. Kindly confirm your participation in the said meeting through e-mail or SMS at 9478098067 . Looking forward for your reply.

With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

Sent from Mail for Windows 10

## Re: Fw: Meeting of BOS Mathematics (Updated Syllabus for Approval)

Jitender Singh [sonumaths@gmail.com](mailto:sonumaths@gmail.com)
Mon 8/16/2021 4:19 PM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
Dear Professor Ashish

Thank you very much. You and your team have worked very well on the Syllabi. Therefore, I approve of the contents of the syllabus of B.Sc (Hons.) Mathematics 5th and 6th semester (as received from you through the last email) as discussed in the online meeting of BOS, IKGPTU, held on 2/8/2021.

## Name: Jitender Singh

Bank Name: State Bank of India

Branch: Guru Nanak Dev University Campus
Account Number: $5 \mathbf{5 1 4 4 4 0 0 6 2 1}$
IFSC code: SBIN0051135
Best regards
-
Jitender Singh
Associate Professor
Department of Mathematics
Guru Nanak Dev University Amritsar-143005
Punjab, INDIA
http://sites.google.com/site/sonumaths2/homeJitender-Singh
--
Never take some one for granted, Hold every person Close to your Heart because "You might wake up one day and realize that you have lost a diamond while you were too busy in collecting stones." Remember this always happens in life.

On Thu, Aug 12, 2021 at 1:29 PM Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com) wrote:
Respected Sir
The meeting of the Board of Studies of Mathematics, IKGPTU was held on 2/8/2021. The contents of the syllabus of B.Sc (Hons.) Mathematics 5th-6th semester was finalized. The updated copies of the syllabus of different subjects as recommended by the members of the board for the 5th-6th semester are attached herewith for your consideration and approval. A copy of the syllabus from the 1st-4th semester is also attached for your reference. It is submitted for your approval, please. Also, please provide the following information for the online transfer of the honorarium. Name:
Bank Name:
Branch:
Account Number:
IFSC code:
Looking forward to your reply.
With best regards
Ashish Arora

## From: Dr. Ashish Arora

Sent: Monday, July 26, 2021 11:49 AM
To: sonumaths@gmail.com [sonumaths@gmail.com](mailto:sonumaths@gmail.com)
Subject: Meeting of BOS Mathematics

## Respected Sir

It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University. The meeting of the Board of Studies is scheduled on August 2nd, 2021 at 11:00 AM. at Google Meet at the following link: Board of Studies, Department of Mathematical Sciences, I. K. Gujral Punjab Technical University.

Google Meet joining info
Video call link: https://meet.google.com/mon-wrgc-imb


The agenda of the meeting is

1. To finalize the syllabus of B. Sc.(Hons.) Mathematics 5th and 6th semester for batch 2019 and onwards.
2. To finalize the syllabus of B. Sc. (Hons) Mathematics 1st and 2nd semester for batch 2021 onwards 3. Any other matter with the permission of Chair.

You are requested to participate and contribute through your suggestions. Kindly confirm your participation in the said meeting through e-mail or SMS at 9478098067 . Looking forward for your reply.

With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

## 63959/2021/Dept of Mathematical Sciences

## Re: Fw: Meeting of BOS Mathematics

## Dr. Rajesh Narula [dr.rknarula@gmail.com](mailto:dr.rknarula@gmail.com)

Wed 8/25/2021 10:01 AM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
It seems ok. Please ignore the earlier mail sent by mistake.
On Thu, Aug 12, 2021 at 1:35 PM Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com) wrote: Respected Sir
The meeting of the Board of Studies of Mathematics, IKGPTU was held on 2/8/2021. The contents of the syllabus of B.Sc (Hons.) Mathematics 5th-6th semester was finalized. The updated copies of the syllabus of different subjects as recommended by the members of the board for the 5th-6th semester are attached herewith for your consideration and approval. A copy of the syllabus from the 1st-4th semester is also attached for your reference. It is submitted for your approval, please. Also, please provide the following information for the online transfer of the honorarium. Name:
Bank Name:
Branch:
Account Number:
IFSC code:
Looking forward to your reply.
With best regards
Ashish Arora

From: Dr. Ashish Arora
Sent: Monday, July 26, 2021 10:52 AM
To: dr.rknarula@gmail.com [dr.rknarula@gmail.com](mailto:dr.rknarula@gmail.com)
Subject: Meeting of BOS Mathematics

Respected Sir,
It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University. The meeting of the Board of Studies is scheduled on August 2nd, 2021 at 11:00 AM. at Google Meet at the following link:
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## 63959/2021/Dept of Mathematical Sciences

```
With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University
```

Regards;
Dr. Rajesh Narula

# Re: BOS meeting (Updated Syllabus for Approval) 

## sanjay srivastava [sks64_bcet@yahoo.co.in](mailto:sks64_bcet@yahoo.co.in)

Thu 9/2/2021 10:45 AM
To: Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
Dear Dr. Ashish
The contents of all the subjects are approved on my behalf.
Sanjay K. Srivastava
SBSSU Gurdaspur
(BCET Gurdaspur)

My details:
Sanjay Kumar Srivastava
Bank Name: State Bank of India
Branch: BCET, Gurdaspur
Account Number: 55108992450
IFSC code: SBIN0051295
PAN No. : ABPPS6551E

On Thursday, 12 August, 2021, 01:05:52 pm IST, Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com) wrote:

## Respected Sir

The meeting of the Board of Studies of Mathematics, IKGPTU was held on 2/8/2021. The contents of the syllabus of B.Sc (Hons.) Mathematics 5th-6th semester was finalized. The updated copies of the syllabus of different subjects as recommended by the members of the board for the 5th-6th semester are attached herewith for your consideration and approval. A copy of the syllabus from the 1st-4th semester is also attached for your reference. It is submitted for your approval, please. Also, please provide the following information for the online transfer of the honorarium.
Name:
Bank Name:
Branch:
Account Number:
IFSC code:
Looking forward to your reply.
With best regards
Ashish Arora

## From: Dr. Ashish Arora

Sent: Monday, August 2, 2021 10:28 AM
To: Dr. Srivastva BCET [sks64_bcet@yahoo.co.in](mailto:sks64_bcet@yahoo.co.in)
Subject: BOS meeting
Respected Sir,
It's my immense pleasure to inform you that you have been nominated as the member of the board of studies of the department of Mathematical Sciences, I. K. Gujral Punjab Technical University. The meeting of the Board of Studies is scheduled on August 2nd, 2021 at 11:00 AM. at Google Meet at the following link:
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With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

## 63959/2021/Dept of Mathematical Sciences

## Fw: BOS meeting (Updated Syllabus for Approval)

Dr. Ashish Arora [dr.ashish10@hotmail.com](mailto:dr.ashish10@hotmail.com)
Thu 8/12/2021 1:05 PM
To: Dr. Srivastva BCET [sks64_bcet@yahoo.co.in](mailto:sks64_bcet@yahoo.co.in)
(0. 10 attachments (2 MB)
B.Sc.(Hons.) 1st to 4th semester IKGPTU.pdf; BSHM601 Number Theory.pdf; BSHM604 Discrete Mathematics.pdf; BSM501 Real Analysis-II.pdf; BSM502 Algebra-II.pdf; BSM503 Numerical Methods.pdf; BSM504 Partial Differential equations.pdf; BSM602 Complex Analysis.pdf; BSM603 Mechanics.pdf; BSM 605 Integral Equations and Integral Transforms.pdf;

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With best regards
Ashish Arora

## From: Dr. Ashish Arora

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To: Dr. Srivastva BCET [sks64_bcet@yahoo.co.in](mailto:sks64_bcet@yahoo.co.in)
Subject: BOS meeting
Respected Sir,
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2. To finalize the syllabus of B. Sc. (Hons) Mathematics 1st and 2nd semester for batch 2021 onwards
3. Any other matter with the permission of Chair.
meeting through e-mail or SMS at 9478098067 .

With best regards,
Ashish Arora
Professor\& Head
Department of Mathematical Sciences
I. K. Gujral Punjab Technical University

