CRITERION 1	CURRICULAR ASPECTS	100 MARKS

CRITERION 1 (Curricular Aspects)

1.1 Curricular Planning and Implementation

1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including academic calendar and conduct of continuous internal assessment.

Table of Contents

PUNJAB TECHNICAL UNIVERSITY, JALANDHAR

ACADEMIC CALENDAR

Session: 2017-18

Odd Semester		
Sr. No.	**Description**	**Period**
1	Session (Old students)	12th July, 2017- 13th November, 2017
2	Session (1st semester)	17th July, 2017- 13th November, 2017
3	First Mid Semester Examination	September, 2017 (4th – 6th)
4	Second Mid Semester Examination	November, 2017 (1st - 3rd)
5	Preparatory Holidays	November, 2017 (13th – 19th)
6	End Semester Examination	November, 2017 (20th)
7	*End Semester Practical Examination	December , 2017 (15th– 20th)
8	Winter Vacations	December , 2017 (21st - 31st)

Even Semester		
Sr. No.	**Description**	**Period**
1	Session	02nd January, 2018 – 21st April, 2018
2	First Mid Semester Examination	February, 2018 (26th - 28th)
3	Second Mid Semester Examination	April, 2018 (9th – 11th)
4	Preparatory Holidays	April, 2018 (22nd -24th)
5	End Semester Examination	April, 2018 (25th) - May 2018 (14th)
6	*End Semester Practical Examination	May, 2018 (14th –19th)
7	Institutional Training/ Workshop Training	May 2018 (21st) - July 2018 (6th)
8	Vacations for Faculty	May 2018 (21st) - July 2018 (6th)

Note 1. ***Practical examinations for all the branches will start immediate after the end of regular examinations.

2. Number of days falling short of 90 should be compensated by making Saturdays Working by the institutions.

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY
KABIR NAGAR, JALANDHAR-144008, Punjab (India)
ACADEMIC CALENDAR FOR EVEN SEMESTER OF THE SESSION (2017-18)

EPABX-0181-2207650 Fax: 2205851-52 E-mail: daviet@davietjal.org

S. No.	Activity	Deptt.	Schedule
	Registration for Even Semester (ALL) 08th January, 2018		
	Commencement of Classes (ALL) 09th January, 2018		
1	Expert Talk on Cloud Computing	IT	17th January,2018
2	Karaoke Fun Event	EE	17th January,2018
3	Inauguration of American Society of Civil Engg. Student Chapter	CE	19th January,2018
4	FDP on NABL in collaboration with NITTR, Chandigarh	CE	20th -23rd January,2018
5	Expert lecture in Chemistry	AS	23rd January, 2018
6	Mock Gate Exam by TechLit Club	ME	23rd January, 2018
7	Technical Quiz- on CN & Database (6th Sem)	CSE	23rd January, 2018
8	Poster Making Competition	EE	24th January, 2018
9	Virtual Quiz	EE	28th January, 2018
10	Aptitude Test	MCA	29th January, 2018
11	Electro Vision	ECE	29th January, 2018
12	Industrial Visit of MBA 1st Year	MBA	29th January, 2018
13	Aptitude Test (6th Sem)	CSE	2nd February, 2018
14	Workshop on Devops	IT	6th February, 2018
15	Expert Talk on Advertising	MBA	6th February, 2018
16	Basket Ball Tournament (Inter Departmental)	EE	7th- 9th February, 2018
17	Industry Week (Expert Talk & Workshop + Industrial visit)	ECE	12th -16th February, 2018
18	Technical Quiz on DS & C++ (4th Sem)	CSE	12th February, 2018
19	Ad Show	MBA	13th February, 2018
20	Expert lecture in Physics	AS	16th February, 2018
21	Expert talk on SMOG in India Causes & Prevention	CE	16th February, 2018
22	Seminar on Emerging Technologies (4th /6th Sem)	CSE	16th February, 2018
23	Industry Week (Expert Talk & Workshop + Industrial visit)	EE	19th -23rd February, 2018
24	Paper Presentation	MCA	21st February, 2018
	MST-I 26th -28th February, 2018		
25	Expert Talk on Export and Import	MBA	2nd March, 2018
26	Technical Quiz (DBMS)	MCA	2nd March, 2018
27	Role Play	EE	2nd March, 2018
28	Industry Week (Expert Talk & Workshop + Industrial visit)	MBA	5th -9th March, 2018

29	Industry Week Expert Talk & Workshop + Industrial visit)	ME	5th -9th March, 2018
30	Industry Week (Expert Talk & Workshop on Emerging Technologies + Industrial visit)	CSE	5th -9th March, 2018
31	Science Day Celebration	AS	6th March, 2018
32	CSI Event	IT	8th March, 2018
33	Expert Lecture by Adjunct Faculty	ECE	9th March, 2018
34	Expert Lecture involved GD by Tech Lit Club	ME	12th –15th March, 2018
35	Quiz by Robotics Club	ME	13th March, 2018
36	Expert Talk in Math	AS	16th March, 2018
37	Role Play	MBA	16th March, 2018
38	Workshop on Stress Management	MBA	19th March, 2018
39	Expert Talk on Renewable Energy	EE	19th March, 2018
	DAVitya **22nd -23rd March, 2018**		
40	Mock Placement Drive	EE	26th -27th March, 2018
41	Industry week (Expert Talk & Workshop + Industrial visit)	MCA	27th -31st March, 2018
42	Aptitude Test (4th Sem)	CSE	27th March, 2018
43	Biz Quiz Contest	MBA	27th March, 2018
44	Expert talk in C. English	AS	28th March, 2018
45	Technical Quiz (DS/DCN/OS)	MCA	29th March, 2018
46	Industry Week (Expert Talk & Workshop + Industrial visit)	IT	2nd -6th April, 2018
47	Tech Quiz by Tech Lit Club	ME	3rd April, 2018
48	Poster & Paper Presentation (Environmental & Scientific Issues)	AS	3rd April, 2018
49	Debate (Recent trends in electronics & communication)	ECE	4th April , 2018
50	Expert Talk on Modern Power System	EE	4th April, 2018
51	Workshop on Cyber Security (4th/ 6th Sem)	CSE	5th – 6th April, 2018
52	Practical Robotics Making Competition by Robotics Club	ME	6th April, 2018
53	Alumni/Student Interaction	MCA	6th April, 2018
54	Coding event by PRISMA Club	CSE	9th April, 2018
	Annual Function **12th April, 2018**		
55	Expert Talk/Workshop on Linux	IT	19th April, 2018
	MST-II **19th -21st April, 2018**		

Dr. Sonia Chawla
Dean (Academics)

Dr. Manoj Kumar
(Principal)

DAV Institute of Engineering and Technology, Jalandhar

Department of Mechanical Engineering

Ref. No. DAVIET/2018-19/ME- 352 Dated: 21.12.2018

Circular

Teaching load of the department for even Semester (Jan-June 2019) shall be as follows:

Faculty Name	Subject	Class / Sem	Contact Hours/Week			Total/Week	Sign
			L	T	P		
Dr. Gaurav Dhuria	MP-II	ME-4th	4		4	10	
	Advisory	ME -6th			2		
Dr. Sanjeev Saini	NDT (DE)	ME - 6th	4			10	
	Manufacturing Practice (MP)	ECE -A 2nd Sem	1				
	MP	ECE – B 2nd	1				
	MP	EE 2nd Sem	1				
	MP	ME 2nd Sem	1				
	Advisory	ME-4th			2		
Sh. Pankaj Sadana	HT	ME -6th	4	2	4	14	
	Mentoring & Professional Dev.	ME – 2nd Sem			4		
Sh. R. S. Johal	EGD	CSE 2nd	1		6	15	
	DoME – II	ME-6th	4	4			
Dr. D. Priyadarshi	Fluid Machinery	ME -6th	3	2	4	11	
	Minor Project Coordinator	ME -6th			2		
Sh. S. K. Uppal	EGD	CE 2nd	1		6	13	
	SOM-II	ME - 4th	4	2			
Sh. Ankush Kohli	FM	ME - 4th	3	2	4	16	
	EGD	CE 2nd	1		6		
Sh. Chetan Darshan	AT-II	ME-4th	4	4		15	
	EGD	CSE 2nd	1		6		
Sh. Aman Maini	NTM (DE)	ME 6th	4			11	
	EGD	IT 2nd	1		6		
Sh. Gurveen Singh	EGD	IT 2nd	1		6	17	
	TOM-II	ME-4th	4	2	4		

Teaching load assigned to other Departments

Subject	Class	L	T	Deptt.
SNME	ME-6th	3	2	Applied Sciences

Head of the Department

Copy to : The Principal, for kind information

Dean Academics

Head of Department (AS)

Faculty/Staff members of ME Department

Sh. Chetan Darshan, Department Time Table Incharge

DAV Institute of Engineering & Technology, Jalandhar

Department of Computer Science and Engineering

Load of Even Semester (Jan'18 –Apr'18)

Ms. Harpreet Kaur Bajaj

S.No	Class	Strength of Students	Subject	L	T	P	Total
1	CSE 4th Sem	72	Computer Networks-1	3	1(2)	3(2)	11
TOTAL							11

Mr. Parveen Kakkar

S.No	Class	Strength of Students	Subject	L	T	P	Total
1	M.Tech- CSE 2nd Sem	8	Adv. Operating Systems	3	1	-	4
2	MCA 2nd Sem	6	Data Communication	4	1	-	5
3	2nd Sem Gp1	20	FCPIT	-	-	2(2)	4
TOTAL							13

Dr. Vinay Chopra

S.No	Class	Strength of Students	Subject	L	T	P	Total
1	M.Tech CSE 2nd Sem	8	Soft Computing	3	1	-	4
2	CSE 6th Sem	71	Simulation and Modeling	3	-	2(2)	7
3	2nd Sem Gp3	20	FCPIT	-	-	2(2)	4
TOTAL							15

Ms. Shaveta Kalsi

S.No	Class	Strength of Students	Subject	L	T	P	Total
1	M.Tech CSE 2nd Sem	8	Data Warehousing & Mining	3	1	-	4
2	CSE 6th Sem	71	RDBMS-II	3	1(2)	3(2)	11
TOTAL							15

Mr. Sahul Goyal

S.NO	CLASS	Strength of Students	SUBJECT	L	T	P	Total
1	CSE 4th Sem	72	Operating Systems	3	1(2)	2(2)	9
2	MCA2		EWA	4	1	1(2)	7
TOTAL							16

Mr. Gursewak Garcha

S.NO	CLASS	Strength of Students	SUBJECT	L	T	P	Total
1	CSE 6th Sem	71	Ethical Hacking	3	1(2)	3(2)	11
2	M Tech 2nd Sem	8	Research Methodology	3	1	-	4
3	CSE 6th Sem	36	Computer Networks-I	-	-	1(2)	2
TOTAL							17

Ms. Sonali Talwar

S.NO	CLASS	Strength of Students	SUBJECT	L	T	P	Total
1	CSE 6th Sem	71	Software Engineering	3	-	2(2)	7
2	CSE 6th Sem	71	HRM	3	1(2)	-	5
3	CSE 6th Sem	35	RDBMS-II	-	-	1(2)	2
4	CSE 6th Sem	35	Ethical Hacking	-	-	1(2)	2
5	ECE 2A & 2B		DBMS	2	-	-	2
TOTAL							18

Ms. Amanjot Kaur

S.NO	CLASS	Strength of Students	SUBJECT	L	T	P	Total
1	CSE 2nd Sem Gp1	40	FCPIT	3	-	2(2)	7
2	CSE 4th Sem	72	System Programming	3	1(2)	2(2)	9
3	ECE 2A & 2B		C++	2	-	-	2
TOTAL							18

Time Table In-charge

Harpreet Kaur Bajaj
Asstt. Prof & HpOD (CSE)

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY, JALANDHAR

TIME TABLE FOR IT DEPARTMENT w.e.f JAN 2018 TO JUNE 2018

SEMESTER : Even | Date of Issue:

DAY	TIME	IT- 4th SEM		IT- 6th SEM	
M	9:00	SP(RV) R-8		HRM (JD)R-10	
O	10:00	DS (AS) R-8		CC(RK) R-10	
N	11:00	MP(RW) R-8		SE (PS) LAB-5	NP(RJ) R-10
D	12:00	BREAK			HRM (JD) R-10
A	1:00	MP(BJ) lab	OS(RJ) R-9	BREAK	
Y	2:00		DS(AS)R-8	NP(RJ) R-10	
	3:00	CN-I (RV) Lab-6	MOOC/Virtual LAB/OS (RK) Lab-4	EST(Aptitude) (DD) R-10	
	4:00			WT(AB) R-10	
T	9:00	SP(RV) R-8		NP(RJ) R-10	
U	10:00	SP(RV) R-8	MP(RW) R-9	SE (PS) R-10	
E	11:00	OS(RJ) R-8		CC(RK) R-10	
S	12:00	MP(RW) R-8	CN-I(PS) R-9	HRM (JD) R-10	
D	1:00	BREAK		BREAK	
A	2:00	CN-I (PS) R-8		ISRM(RV) R-10	
Y	3:00			WT(AB) LAB-6	SE(PS) R-10
	4:00				CC(RK) R-10
W	9:00	CN(PS) R-8		NP(RJ) LAB-4	WT(AB) LAB-5
E	10:00	DS(AS)R-8	SP(RV) R-10		
D	11:00	CN (PS)R-8	CN-I(DK) LAB-6	WT(AB) R-10	
N	12:00	OS(RJ) R-8		EST(Aptitude) (DD)R-10	
E	1:00	BREAK		BREAK	
S	2:00			SE (PS) R-10	
D	3:00	CN-I(PS) LAB-6	SP (RV) LAB-5	ISRM(RV) R-10	
A	4:00			HRM (JD) R-10	
T	9:00	OS(RJ) R-8		WT(AB) R-10	
H	10:00	CN(PS) R-8		EST(Aptitude) (DD) R-10	
U	11:00	SP (RV) LAB-5	CN-I(DK) LAB-6	NP(RJ) R-10	
R	12:00			SE (PS) R-10	
S	1:00	BREAK		BREAK	
D	2:00	MP(RW) R-8		NP(RJ) R-9	Virtual LAB/WT(AB) (LAB-4)
A	3:00	DS (AS) R-8		CC(RK) R-10	
Y	4:00				
F	9:00	SP(RV) R-8		Virtual LAB/WT(AB) LAB-4	SE(PS) LAB-5
R	10:00	DS (AS) R-8		HRM (JD)R-10	
I	11:00	OS(RJ) R-8		CC(RK) R-10	
D	12:00	MP(RW) R-8			
A	1:00	BREAK		BREAK	
Y	2:00	MOOC/Virtual LAB/OS(RK) LAB-5	MP(BJ) lab	ISRM(RV) R-10	
	3:00			SE(PS) R-10	NP(RJ) LAB-4
	4:00				

DK = Dr. Dinesh Kumar (HC | PS = Dr. PS Maan | RV=Dr. Rajeev Vashisht | AB=Ms. Avani Bhatia | RK= Mr. Rajesh Kochher
RJ= Ms. Rajindervir Kaur | JD= Mr. Jaswinder Dhillon | RW= Mr. Rajesh Wadhwa | BJ=Ms. Bindia Jain | AS= Mr. Amit Sharma
DD=Dikshant Dawar

PRINCIPAL

HEAD OF DEPARTMENT

9/2/18
TIME TABLE INCHARGE

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY, JALANDHAR

DEPARTMENT OF CIVIL ENGINEERING

Time -Table Jan-Apr.2019 (Even SEM.) — **w.e.f. 7 /01/2019**

Day	No.	Time	CE-4	CE-6	CE-8	M.TECH-II
MONDAY	1	9:00-10:00	SA-I (R23) SC	NMCE(R-24)NK	TE-II(R31)MB	WQM(R30) T- MKK
	2	10:00-11:00	IE-I(R23)MSB	PP(R-24)SJ	DM(R31)SN	EE(R30) -GK
	3	11:00-12:00	FM-II (R23) MKK	EEE (R24) SC	DSS-II(R31)SG	ATE(R30) MSB
	4	12:00-1:00	DCS-I(R23)GK	FE(R-24)SN	IE-II(R31)SJ	ERM(R-30)MB
	5	1:00-2:00	BREAK			
	6	2:00-3:00	DCS-I(R-29)GK / SA-I(R23)SC	EE LAB (MKK) / FE(R24)SN	TE-II(R30)MB / IE-II(R31)SJ	
	7	3:00-4:00	IE-1 (R31)MSB / SA-I(R23)SC	EE LAB (MKK) / PP(R-24)SJ	DSS-II(R30)SG / TE-II (R-33)MB	
	8	4:00-5:00				
TUESDAY	1	9:00-10:00	CMWM(R23) SJ	DCS-II(R24)GK	PSC(R31)SG	ATE(R30) MSB
	2	10:00-11:00	IE-I(R23)MSB	EE-II (R24) MKK	DM(R31)SN	ERM(R-30)MB
	3	11:00-12:00	SA-I (R23) SC	PP(R-24)SJ	TE-II(R31)MB	WQM(R30) MKK
	4	12:00-1:00	GEOMATICS(R23)MB	FE(R-24)SN	H&D(R31)MSB	IND.STR. (R30) SG
	5	1:00-2:00	BREAK			
	6	2:00-3:00	FM-II (R23) MKK / SA LAB (SC)	NMCE(R-24)NK / CASD LAB (MB)	H&D(R-29)MSB / DSS-II(R-31)SG	EE(R30) T-GK
	7	3:00-4:00	CMWM (R23)SJ / SA LAB (SC)	EE-II(R-24)MKK / CASD LAB (MB)	PSC(R31) SG	
	8	4:00-5:00	SA LAB (SC)	PP(R-24)SJ / CASD LAB (MB)		
WEDNESDAY	1	9:00-10:00	CMWM(23)SJ	DCS-II(R24)GK	H&D(R31)MSB	ERM(R-30)MB
	2	10:00-11:00	GEOMATICS(R23)MB	EEE (R24) SC	DSS-II(R31)SG	WQM(R30) MKK
	3	11:00-12:00	DCS-I(R23)GK	FE(R-24)SN	IE-II(R31)SJ	ATE(R30) T- MSB
	4	12:00-1:00	IE-I(R23)MSB	NMCE(R-24)NK	TE-II(R31)MB	IND.STR. (R30) SG
	5	1:00-2:00	BREAK			
	6	2:00-3:00	DCS LAB (SN) / GeoMat (R23)MB	PP(R-24)SJ	H&D(R-31)MSB	EE (R30) GK
	7	3:00-4:00	DCS LAB (SN) / IE-1 (R23)MSB	EEE (R24) SC / DCS-II(R31)GK	PROJECT	
	8	4:00-5:00	GeoMat (R-23)MB	EEE (R24) SC / PP(R-31)SJ	PROJECT	
THURSDAY	1	9:00-10:00	DCS-I(R23)GK	EE-II (R24) MKK	PSC(R31)SG	ATE(R30) MSB
	2	10:00-11:00	DCS-I(R23)GK	FE(R-24)SN	IE-II(R31)SJ	ERM T (R30) MB
	3	11:00-12:00	SA-I (R23) SC	NMCE(R-24)NK	DSS-II(R31)SG	
	4	12:00-1:00	FM-II (R23) MKK	DCS-II(R24)GK	PROJECT	IND.STR. (R30) SG
	5	1:00-2:00	BREAK			
	6	2:00-3:00	SA-I(R23)SC / FM-II (R30) MKK	DCS-II(R24)GK / EEE (R-31) SC	IE-II(R31)SJ / PSC(R-29)SG	
	7	3:00-4:00	DCS LAB (SG)	FE(R24)SN / EE LAB (MSB)	PROJECT	
	8	4:00-5:00	DCS LAB (SG)	PP(R-24)SJ / EE LAB (MSB)	PROJECT	
FRIDAY	1	9:00-10:00	GEOMATICS(R23)MB	EE-II (R24) MKK	PSC(R31)SG	EE(R-30)GK
	2	10:00-11:00	CMWM(R23)SJ	DCS-II(R24)GK	H&D(R31)MSB	IND.STR. (R30) T- SG
	3	11:00-12:00	FM-II (R23) MKK	EEE (R24) SC	PROJECT	
	4	12:00-1:00	SA-I(R23)SC / DCS-I(R-29)GK	NMCE(R-24)NK	DSS-II(R31)SG	WQM(R30) MKK
	5	1:00-2:00	BREAK			
	6	2:00-3:00	SA LAB (SC) / CMWM (R23)SJ	CASD LAB (GK) / EE-II(R-24)MKK	DM(R31)SN	
	7	3:00-4:00	SA LAB (SC)	CASD LAB (GK) / NMCE(R-24)NK	DM(R31)SN	
	8	4:00-5:00	SA LAB (SC)	CASD LAB (GK) / EEE (R24) SC		

Faculty:

SN	Sanjeev Naval	SC	Sonia Chutani
SG	Sanjay Goel	MB	Manish Bhutani
MSB	M S Bedi	GK	Gobind Khurana
MKK	MK Kaushik	SJ	Sudhir K Jala
NK	Nitin Kalra		

Lab Tech.:

VP	Vinay Prashar
HK	Harvinder Kumar

Deptt. Time Table Incharge — Time Table Incharge — HOD (CE) — Principal

Received 3/1/19

Course contents as per IKG PTU curriculum:

Detailed Contents	Contact hours
Unit-I Statistics and Probability: Introduction to Statistics – Origin of Statistics, Features of Statistics, Scope of Statistics, Functions of Statics, Uses and importance of Statistics, Limitation of Statistics, Distrust of Statistics Collection of Data: Introduction to Collection of Data, Primary and Secondary Data, Methods of Collecting Primary Data, Methods of Secondary Data, Statistical Errors, Rounding off Data (Approximation). **[CO1]**	12hours
Unit-II Classification of Data Frequency Distribution: Introduction Classification of Data, Objectives of Classification, Methods of Classification, Ways to Classify Numerical Data or Raw Data. Tabular, Diagrammatic and Graphic Presentation of Data: Introduction to Tabular Presentation of Data, Objectives of Tabulation, Components of a Statistical Table, General Rules for the Construction of a Table, Types of Tables, Introduction to Diagrammatic Presentation of Data, Advantage and Disadvantage of Diagrammatic Presentation, Types of Diagrams, Introduction to Graphic Presentation of Data, Advantage and Disadvantage of Graphic Presentation, Types of Graphs. **[CO2]**	12hours
Unit –III Measures of Central tendency: Introduction to Central Tendency, Purpose and Functions of Average, Characteristics of a Good Average, Types of Averages, Meaning of Arithmetic Mean, Calculation of Arithmetic Mean, Merit and Demerits of Arithmetic Mean, Meaning of Median, Calculation of Median, Merit and Demerits of Median, Meaning of Mode, Calculation of Mode, Merit and Demerits of Mode, Harmonic Mean- Properties, Merit and Demerits. **[CO3]**	12 hours
Unit-IV Measures of Dispersion: Meaning of Dispersion, Objectives of Dispersion, Properties of a good Measure of Dispersion, Methods of Measuring Dispersion, Range Introduction, Calculation of Range , Merit and Demerits of Range, Mean Deviation, Calculation of Mean Deviation , Merit and Demerits of Mean Deviation, Standard Deviation Meaning, Calculation of Standard Deviation , Merit and Demerits of Standard Deviation, Coefficient of Variation, Calculation of Coefficient Variance, Merit and Demerits of Coefficient of Variation. **[CO4] [CO5]**	12 hours

Prerequisite: Students must have the basic knowledge of mathematic terms.

Textbooks:

1. Statistics and Data Analysis, A.Abebe, J. Daniels, J.W.Mckean, December 2000.
2. Statistics, Tmt. S. EzhilarasiThiru, 2005, Government of Tamilnadu.
3. Introduction to Statistics, David M. Lane.
4. Weiss, N.A., Introductory Statistics. Addison Wesley, 1999.
5. Clarke, G.M. & Cooke, D., A Basic course in Statistics. Arnold, 1998.

Reference Books:

1. Banfield J.(1999), R-web: Web-based Statistical Analysis, Journal of Statistical Software.
2. Bhattacharya,G.K. and Johnson, R.A.(1997), Statistical Concepts and Methods, New York, John Wiley & Sons.

E-Books/ Online learning material:

1. http://onlinestatbook.com/Online_Statistics_Education.pdf
2. https://textbookcorp.tn.gov.in/Books/12/Std12-Stat-EM.pdf
3. https://3lihandam69.files.wordpress.com/2015/10/introductorystatistics.pdf

Course Objectives

1. Understand the basic concepts of mathematics and its usage
2. Introduce students to the basic word processing, Spreadsheet and Presentation related softwares and skills.
3. Learn basic internet applications including email, online secure transactions and advanced computing related concepts.

Course Outcomes: After studying this course, students will be able to:

CO#	Course Outcome
CO1	Highlight the need of studying & analyzing Statistics.
CO2	Identify visualization tools for representing data.
CO3	Describe various statistical formulas.
CO4	Compute various statistical measures.
CO5	Compare result of different statistical measures.

Mapping of syllabus with Course Outcomes

Syllabus/ Contents/ unit	CO1	CO2	CO3	CO4	CO5
Unit 1: Introduction to Statistics	**3**	---	---	---	---
Unit 1: Collection of Data	**3**	---	---	---	---
Unit 2: Classification of Data & Frequency Distribution	**1**	**3**	---	---	---
Unit 2: Tabular, Diagrammatic and Graphic Presentation of Data	**1**	**3**	---	---	---
Unit 3: Measures of Central tendency	**1**	**1**	**3**	---	---
Unit 4: Measures of Dispersion	**1**	**1**	**1**	**3**	**3**

Mapping may be done using numbers 1, 2 & 3

1- Slight(Low) 2- Moderate (medium) 3- Substantiate (High)

Mapping of COs with PO(s)

PO's / CO's	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	1	1	---	---	---	---	---	1
CO2	3	2	3	1	---	---	---	---	---	1
CO3	3	3	1	1	---	---	---	---	---	1
CO4	3	2	3	1	---	---	---	---	---	1
CO5	3	3	1	1	---	---	---	---	---	1

1- Slight(Low) 2- Moderate (medium) 3- Substantiate (High)

Mapping of COs with PSO(s)

PSO's / CO's	**PSO1**	**PSO2**	**PSO3**
CO1	1	---	---
CO2	2	1	---
CO3	2	1	---
CO4	1	---	---
CO5	1	---	---

1- Slight(Low) 2- Moderate (Medium) 3- Substantiate (High)

COURSE INFORMATION SHEET

PROGRAMME: BCA	
COURSE: Fundamental of Statistics (FOS)	**SEMESTER:** 1st **CREDITS:** 4
COURSE CODE: UGCA1907	**COURSE TYPE:** Compulsory
COURSE AREA/ DOMAIN: Computer Application	**CONTACT HOURS:** 48 L T P 3 1 4
Internalmax.marks:40	**Theory/Practical:**Theory
Externalmax.marks:60	**Duration ofEnd SemesterExam:**3hrs
Totalmarks:100	**Electivestatus:core/elective:**Core
CORRESPONDING LAB CODE: UGCA1911	**LAB COURSE NAME:**FOS Lab

COURSE PLAN

Unit No.	Detailedcontents	Contacthours
Unit-I	Statistics and Probability: Introduction to Statistics – Origin of Statistics, Features of Statistics, Scope of Statistics, Functions of Statics, Uses and importance of Statistics, Limitation of Statistics, Distrust of Statistics Collection of Data: Introduction to Collection of Data, Primary and Secondary Data, Methods of Collecting Primary Data, Methods of Secondary Data, Statistical Errors, Rounding off Data (Approximation). **[CO1]**	**12 hours**
Unit-II	Classification of Data Frequency Distribution: Introduction Classification of Data, Objectives of Classification, Methods of Classification, Ways to Classify Numerical Data or Raw Data. Tabular, Diagrammatic and Graphic Presentation of Data: Introduction to Tabular Presentation of Data, Objectives of Tabulation, Components of a Statistical Table, General Rules for the Construction of a Table, Types of Tables, Introduction to Diagrammatic Presentation of Data, Advantage and Disadvantage of Diagrammatic Presentation, Types of Diagrams, Introduction to Graphic Presentation of Data, Advantage and Disadvantage of Graphic Presentation, Types of Graphs. **[CO2]**	**12 hours**
Unit -III	Measures of Central tendency: Introduction to Central Tendency, Purpose and Functions of Average, Characteristics of a Good Average, Types of Averages, Meaning of Arithmetic Mean, Calculation of Arithmetic Mean, Merit and Demerits of Arithmetic Mean, Meaning of Median, Calculation of Median, Merit and Demerits of Median, Meaning of Mode, Calculation of Mode, Merit and Demerits of Mode, Harmonic Mean-Properties, Merit and Demerits. **[CO3]**	**12 hours**
Unit-IV	Measures of Dispersion: Meaning of Dispersion, Objectives of Dispersion, Properties of a good Measure of Dispersion, Methods of Measuring Dispersion, Range Introduction, Calculation of Range , Merit and Demerits of Range, Mean Deviation, Calculation of Mean Deviation , Merit and Demerits of Mean Deviation, Standard Deviation Meaning, Calculation of Standard Deviation , Merit and Demerits of Standard Deviation, Coefficient of Variation, Calculation of Coefficient Variance, Merit and Demerits of Coefficient of Variation. **[CO4] [CO5]**	**12 hours**

DAV Institute of Engineering & Technology, Jalandhar
Department of Applied Sciences

CAY: 2021-2022

Lecture Delivery Plan

Subject: Fundamental of Statistics **Faculty: Mr. Ashwani Kumar**

Subject Code:UGCA1907 **Branch/Semester**: BCA/2nd

Sr N.	Name of Topics to be Covered/Planned	L/T	Date (Planned)	Date (Actual)	Teaching Aid Used	COs Mapped	Self Remarks
1.	Introduction and Meaning of Statistics, Origin & various definitions of Statistics	**L1**	**21Feb, 2022**	**21Feb, 2022**	Chalk & Board	CO1	
2.	Various forms of Statistics: Descriptive and Inferential Statistics (&singular, plural) and examples	**L2**	**22Feb, 2022**	**23Feb, 2022**	Chalk & Board	CO1	
3.	Various features of Statistics	**L3**	**23Feb,2022**	**24Feb, 2022**	Chalk & Board	CO1	
4.	Importance and Functions of Statistics	**L4**	**25Feb, 2022**	**25Feb, 2022**	Chalk & Board	CO1	
5.	Scopes of Statistics, Limitations of Statistics	**L5**	**28Feb, 2022**	**28Feb, 2022**	Chalk & Board	CO1	
6.	Distrust on Statistics causes and treatment	**L6**	**02 Mar, 2022**	**02 Mar, 2022**	Chalk & Board	CO1	
7.	Statistics is an art or Science?	**L7**	**03 Mar, 2022**	**03 Mar, 2022**	Chalk & Board	CO1	
8.	Necessarily of Empirical and Quantitative analysis of data and types of data	**L8**	**04 Mar, 2022**	**04 Mar, 2022**	Chalk & Board	CO1	
9.	Sources of Primary and Secondary data and merits and demerits	**L9**	**07 Mar, 2022**	**14 Mar, 2022**	Chalk & Board	CO1	
10.	Methods of collection of Primary data with merits and demerits	**L10**	**09 Mar, 2022**	**17 Mar, 2022**	Chalk & Board	CO1	
11.	Methods of collection of Secondary data with merits and demerits	**L11**	**10 Mar, 2022**	**10 Mar, 2022**	Chalk & Board	CO1	**Timetable revised**
12.	Questionnaire versus schedule and Drafting Questionnaire	**L12**	**11 Mar, 2022**	**11 Mar, 2022**	Chalk & Board	CO1	

13.	Classification of data and its features: Introduction & objective	**L13**	**14 Mar, 2022**	**14 Mar, 2022**	Chalk & Board	CO2	
14.	Modes of classification and statistical series	**L14**	**16 Mar, 2022**	**16 Mar, 2022**	Chalk & Board	CO2	
15.	Frequency distributions-1	**L15**	**17 Mar, 2022**	**17 Mar, 2022**	Chalk & Board	CO2	
16.	Frequency distributions-2	**L16**	**21 Mar, 2022**	**21 Mar, 2022**	Chalk & Board	CO2	
17.	Presentation of data: Tabulation, its objectives and limitations, Classification versus Tabulation	**L17**	**23 Mar, 2022**	**23 Mar, 2022**	Chalk & Board	CO2	
18.	Features of good table,components, rules of constructions of various types of tables	**L18**	**24 Mar, 2022**	**24 Mar, 2022**	Chalk & Board	CO2	
19.	Diagrammatic presentation of the data: Utility, qualities and limitations, tabulation versus presentation, Bar charts, various types and merits/demerits	**L19**	**25 Mar, 2022**	**25 Mar, 2022**	Chalk & Board	CO2	
20.	Diagrammatic presentation: Square, circular diagrams and Pie charts, pie charts evaluation, Pictograms and Cartograms	**L20**	**28 Mar, 2022**	**28 Mar, 2022**	Chalk & Board	CO2	
21.	Graphical presentation: Histogram, frequency polygon and frequency curve	**L21**	**30 Mar, 2022**	**30 Mar, 2022**	Chalk & Board	CO2	
22.	Graphical presentation: Cumulative frequency distributions and ogives	**L22**	**31 Mar, 2022**	**31 Mar, 2022**	Chalk & Board	CO2	
23.	Diagrammatic vs Graphical presentations	**L23**	**04Apr, 2022**	**04Apr, 2022**	Chalk & Board	CO2	
24.	Advantages and Disadvantages of Graphs	**L24**	**06Apr, 2022**	**06Apr, 2022**	Chalk & Board	CO2	
25.	Mathematical averages definitions, meaning of central tendency of data	**L25**	**07Apr, 2022**	**07Apr, 2022**	Chalk & Board	CO3	
26.	Simple arithmetic mean	**L26**	**08Apr,**	**08Apr,**	Chalk &	CO3	

	(ungrouped data, grouped data		**2022**	**2022**	Board		
27.	Merits and demerits, properties of mean	**L27**	**11Apr, 2022**	**11Apr, 2022**	Chalk & Board	CO3	
28.	deviation and step deviation methods	**L28**	**13Apr, 2022**	**13Apr, 2022**	Chalk & Board	CO3	
29.	Combined, weighted arithmetic mean	**L29**	**18Apr, 2022**	**18Apr, 2022**	Chalk & Board	CO3	
30.	correcting arithmetic mean and finding missing frequencies	**L30**	**20Apr, 2022**	**20Apr, 2022**	Chalk & Board	CO3	
31.	Positional Averages meaning and definition, Median: grouped and ungrouped data	**L31**	**21Apr, 2022**	**21Apr, 2022**	Chalk & Board	CO3	
32.	Merits, demerits and properties of median	**L32**	**22Apr, 2022**	**22Apr, 2022**	Chalk & Board	CO3	
33.	Mode and its findings, merits demerits and properties of mode	**L33**	**25Apr, 2022**	**25Apr, 2022**	Chalk & Board	CO3	
34.	Method of groupings to find Mode in grouped data (bimodal, trimodal)	**L34**	**27Apr, 2022**	**27Apr, 2022**	Chalk & Board	CO3	
35.	Graphic presentation of mean, median and mode, empirical relation between mean, median, mode and symmetry	**L35**	**28Apr, 2022**	**28Apr, 2022**	Chalk & Board	CO3	
36.	Harmonic Mean-Properties, merits and demerits and miscellaneous problems on central tendency	**L36**	**29Apr, 2022**	**29Apr, 2022**	Chalk & Board	CO3	
37.	Meaning of measures of dispersion, Objective and properties of good measure of dispersion	**L37**	**02May, 2022**	**02May, 2022**	Chalk & Board	CO4, CO5	
38.	Absolute and relative measures, Range and coefficient of range: calculations	**L38**	**04 May, 2022**	**04 May, 2022**	Chalk & Board	CO4, CO5	
39.	Merit and demerits of range and examples	**L39**	**05 May, 2022**	**05 May, 2022**	Chalk & Board	CO4, CO5	
40.	Mean deviation about mean, median and mode: calculations	**L40**	**06 May, 2022**	**06 May, 2022**	Chalk & Board	CO4, CO5	

41.	Properties, merits and demerits of mean deviation about averages	**L41**	**09 May, 2022**	**09 May, 2022**	Chalk & Board	CO4, CO5	
42.	Standard deviation and variance and their calculations	**L42**	**11 May, 2022**	**11 May, 2022**	Chalk & Board	CO4, CO5	
43.	Properties of Standard Deviation and Variance	**L43**	**12 May, 2022**	**12 May, 2022**	Chalk & Board	CO4, CO5	
44.	Merits and demerits of Standard Deviation and Variance	**L44**	**13 May, 2022**	**13 May, 2022**	Chalk & Board	CO4, CO5	
45.	Coefficient of Variation: calculations and examples	**L45**	**16 May, 2022**	**16 May, 2022**	Chalk & Board	CO4, CO5	
46.	Properties, merits and demerits of Coefficient of Variation	**L46**	**18 May, 2022**	**18 May, 2022**	Chalk & Board	CO4, CO5	
47.	Various miscellaneous problems on measures of dispersion	**L47**	**19 May, 2022**	**19 May, 2022**	Chalk & Board	CO4, CO5	
48.	Various miscellaneous problems on measures of dispersion	**L48**	**20 May, 2022**	**20 May, 2022**	Chalk & Board	CO4, CO5	
49.	Extra lectures for revision		**onwards**	**onwards**			

Syllabus Coverage Report:

MST-I

Give Details of Chapter's / syllabus covered before MST-1

Unit-I

Statistics and Probability: Introduction to Statistics – Origin of Statistics, Features of Statistics, Scope of Statistics, Functions of Statics, Uses and importance of Statistics, Limitation of Statistics, Distrust of Statistics

Collection of Data: Introduction to Collection of Data, Primary and Secondary Data, Methods of Collecting Primary Data, Methods of Secondary Data, Statistical Errors, Rounding off Data (Approximation). **[CO1]**

Unit-II

Classification of Data Frequency Distribution: Introduction Classification of Data, Objectives of Classification, Methods of Classification, Ways to Classify Numerical Data or Raw Data. Tabular, Diagrammatic and Graphic Presentation of Data: Introduction to Tabular Presentation of Data, Objectives of Tabulation, Components of a Statistical Table, General Rules for the Construction of a Table, Types of Tables, Introduction to Diagrammatic Presentation of Data, Advantage and Disadvantage of Diagrammatic Presentation, Types of Diagrams, Introduction to Graphic Presentation of Data, Advantage and Disadvantage of Graphic Presentation, Types of Graphs. **[CO2]**

MST-II

Give Details of Chapter's / syllabus covered before MST-2

Unit -III

Measures of Central tendency: Introduction to Central Tendency, Purpose and Functions of Average, Characteristics of a Good Average, Types of Averages, Meaning of Arithmetic Mean, Calculation of Arithmetic Mean, Merit and Demerits of Arithmetic Mean, Meaning of Median, Calculation of Median, Merit and Demerits of Median, Meaning of Mode, Calculation of Mode, Merit and Demerits of Mode, Harmonic Mean- Properties, Merit and Demerits. **[CO3]**

Unit-IV

Measures of Dispersion: Meaning of Dispersion, Objectives of Dispersion, Properties of a good Measure of Dispersion, Methods of Measuring Dispersion, Range Introduction, Calculation of Range , Merit and Demerits of Range, Mean Deviation, Calculation of Mean Deviation , Merit and Demerits of Mean Deviation, Standard Deviation Meaning, Calculation of Standard Deviation , Merit and Demerits of Standard Deviation, Coefficient of Variation, Calculation of Coefficient Variance, Merit and Demerits of Coefficient of Variation. **[CO4] [CO5]**

No. of proposed lectures= 48
No. of proposed Assignments=4

No. of proposed MST=2
No. of Quiz = 2

DAV Institute of Engineering & Technology, Jalandhar
Department of Applied Sciences

CAY: 2021-2022

Assignment no. 1

Class: BCA (Semester: 1st) **Subject: Mathematics (UGCA1907)**
Level of difficulty: Average **Max Marks: 12**
Date of Issue: 1 Apr, 2022 **Date of Submission: 10 Apr, 2022**

<table>
<tr><th>Q No.</th><th>Question</th><th>CO's, RBT Level</th><th>Marks</th></tr>
<tr><td>1</td><td>Define Statistics. Elaborate its features, functions, scopes and limitations.
What are the different modes of classification of data?
Define tabulation
Explain different levels of measurements of data with example.</td><td>CO1, L2</td><td>1</td></tr>
<tr><td>2</td><td>Frame a questionnaire for preference of various jobs by the youth these days in this pandemic.</td><td>CO1, L2</td><td>1</td></tr>
<tr><td>3</td><td>A researcher wishes to do study on daily earnings of sample of 50 employees of a large company, the data is as follows:
<table>
<tr><td>405</td><td>510</td><td>520</td><td>880</td><td>820</td><td>780</td><td>810</td><td>580</td><td>555</td><td>850</td></tr>
<tr><td>790</td><td>505</td><td>610</td><td>620</td><td>650</td><td>680</td><td>350</td><td>530</td><td>495</td><td>585</td></tr>
<tr><td>480</td><td>695</td><td>610</td><td>710</td><td>810</td><td>525</td><td>530</td><td>680</td><td>705</td><td>690</td></tr>
<tr><td>370</td><td>760</td><td>590</td><td>705</td><td>300</td><td>590</td><td>390</td><td>460</td><td>590</td><td>670</td></tr>
<tr><td>450</td><td>540</td><td>690</td><td>480</td><td>420</td><td>410</td><td>595</td><td>750</td><td>620</td><td>560</td></tr>
</table>
a. What type of data is the above data?
b. Classify the data into discrete frequency distribution and represent it into polygon curve
c. Classify the data in continuous frequency distribution and represent it into histogram</td><td>CO1, L6</td><td>1</td></tr>
<tr><td>4</td><td>The following data were collected on the number of blood tests a hospital conducted for a random sample of 50 days.
<table>
<tr><th>Number of tests per day</th><th>Frequency (days)</th></tr>
<tr><td>25</td><td>5</td></tr>
<tr><td>27</td><td>9</td></tr>
<tr><td>29</td><td>11</td></tr>
<tr><td>31</td><td>15</td></tr>
<tr><td>33</td><td>6</td></tr>
<tr><td>35</td><td>3</td></tr>
<tr><td>37</td><td>1</td></tr>
</table>
What type of data is the above data? Represent the data as in the following:
a. Bar Diagram
b. Frequency Curve
c. Frequency Polygon</td><td>CO1, L2</td><td>1</td></tr>
</table>

<table>
<tr><td></td><td>d. Histogram
e. Pie Chart
f. Pictogram</td><td></td><td></td></tr>
<tr><td>5</td><td>A mathematics achievement test contained 40 questions for which the answers were marked either right or wrong. The distribution below summarizes the results.

<table><tr><th>No. of Correct Answers</th><th>Frequency</th></tr><tr><td>10-8</td><td>04</td></tr><tr><td>8-16</td><td>10</td></tr><tr><td>16-24</td><td>18</td></tr><tr><td>24-32</td><td>06</td></tr><tr><td>32-40</td><td>02</td></tr></table>
What type of data is the above data? Represent the data as in the following:
a. Bar Diagram
b. Frequency Curve
c. Frequency Polygon
d. Histogram
e. Pie Chart
f. Pictogram</td><td>CO1, L2</td><td>1</td></tr>
<tr><td>8</td><td>Data on vehicles passing through seven different highways during a day and the number of accidents are given below. Compute the coefficient of correlation.
<table><tr><td>No. of Vehicles (in 000s) X</td><td>9</td><td>11</td><td>14</td><td>15</td><td>16</td><td>19</td><td>21</td></tr><tr><td>No. of accidents reported Y</td><td>30</td><td>40</td><td>60</td><td>70</td><td>85</td><td>95</td><td>110</td></tr></table></td><td>CO3, L4</td><td>1</td></tr>
<tr><td>9</td><td>Given the following:
<table><tr><td></td><td>X-series</td><td>Y-series</td></tr><tr><td>Arithmetic Mean</td><td>74.50</td><td>125.50</td></tr><tr><td>Assumed Mean</td><td>69.00</td><td>112.00</td></tr><tr><td>Standard Deviation</td><td>13.07</td><td>15.85</td></tr><tr><td>No. of pairs of observations</td><td>8</td><td>8</td></tr><tr><td>Summation of the products of deviations of X and Y series</td><td>2176</td><td>2176</td></tr></table>Calculate the Karl Pearson’s coefficient of correlation</td><td>CO3, L4</td><td>1</td></tr>
<tr><td>10</td><td>Given the following results:
<table><tr><td></td><td>X-series</td><td>Y-series</td></tr><tr><td>No. of Observations</td><td>20</td><td>20</td></tr><tr><td>Arithmetic Mean</td><td>15</td><td>20</td></tr><tr><td>Standard Deviation</td><td>4</td><td>5</td></tr><tr><td>Coefficient of correlation</td><td colspan="2">0.3</td></tr></table>At the time of checking it was observed that one item 27 was wrongly taken as 17 in X-series and 35 instead of 30 in case of Y-series. Find the corrected coefficient of correlation.</td><td>CO3, L4</td><td>1</td></tr>
<tr><td>11</td><td>Obtain the rank correlation coefficient between the variable X and Y from the following pairs of observed values:
<table><tr><td>X:</td><td>50</td><td>55</td><td>65</td><td>50</td><td>55</td><td>60</td><td>50</td><td>65</td><td>70</td><td>75</td></tr></table></td><td>CO3,L 4</td><td>1</td></tr>
</table>

	Y:	110	110	115	125	140	115	130	120	115	160	
	Differentiate the terms correlation and regression.											
12	Given the following data on sales and purchase:											1
	X:	50	55	65	50	55	60	50	65	70	75	
	Y:	110	110	115	125	140	115	130	120	115	160	
	a) Obtain regression equations of Y on X and X on Y b) Why we have two regression lines? How would you establish coefficient of correlation from the two regression lines? c) Use above result to calculate coefficient of determination. d) Estimate Y when X is 88 and X when Y is 56											CO3,L 4

Tutorial No. 1

Subject: Mathematics-I (UGCA1907) **Semester: 1st**

Date of Issue: 15 March, 2022 Date of Submission: 22 March, 2022

Q No.	Question	CO's, RBT Level	Marks
1	Define statistics in its different senses and explain it briefly.	CO1, L2	0.5
2	Write any six definitions of statistics along with the name of the proposer. Which definition do you think to be the best and what does it define?	CO1, L2	0.5
3	Elaborate the characteristics of statistics in singular and plural senses.	CO1, L5	0.5
4	Differentiate statistics in plural and singular senses.	CO1, L2	0.5
5	Explain the functions of statistics.	CO1, L2	0.5
6	Explain the scope and importance of statistics in different fields.	CO1, L2	0.5
7	What are the merits and demerits of statistics?	CO1, L2	0.5

Tutorial No. 2

Subject: Mathematics-I (UGCA1907) **Semester: 1st**

Date of Issue: 22 March, 2022 Date of Submission: 29 March, 2022

1	What are the various sources of data? Briefly explain.	CO1, L2	0.5
2	Explain the types of data with merits and demerits.	CO1, L2	0.5
3	Differentiate between primary and secondary data.	CO1, L4	0.5
4	Explain various methods of collection of primary and secondary data.	CO1, L2	0.5
5	Form a questionnaire to analyze the consumer preference over various types of eating habits of customers.	CO1, L6	0.5

B. Tech. Mechanical Engineering 4th Sem
Subject: Material Engg. (BTME-404-18)
Quiz-2 (02/05/2022)
Topic: Phase Diagrams
Max. Marks: 10

1. How many types of systems are applicable for phase diagrams? (CO3/RBTL2)

(1 Point)

- One
- Two
- Three
- Four

2. Separation of single-phase solid regions from two-phase solid regions is done by _____. (CO3/RBTL3)

(1 Point)

- Solidus line
- Solidus line
- Solvus line
- Eutectic point

3. During solidification of a pure molten metal, the grains in the casting near the mould wall are. (CO3/RBTL2)

(1 Point)

- coarse and randomly oriented
- fine and randomly oriented
- fine and ordered
- coarse and ordered

4. The reaction in which liquid phase transforms into two different solid phase is called. (CO3/RBTL2)

(1 Point)

- Eutectoid reaction
- Peritectic reaction
- Eutectic reaction
- Peritectoid reaction

5. A specific body of material or a series of alloys with the same compositions is/are known as _____. (CO3/RBTL1)

(1 Point)

- Component
- System

- Alloy
- Solute

6. Which of the following cannot be obtained using a phase diagram? (CO3/RBTL2)

(1 Point)

- Melting temperatures of various phases
- Temperature range for solidification
- Equilibrium solid solubility
- Purity of materials

7. The reaction in which a liquid phase transforms into two different solid phases is called _____ (CO3/RBTL3)

(1 Point)

- Eutectoid reaction
- Peritectic reaction
- Eutectic reaction
- Peritectoid. reaction

8. Which of the following is not a name for phases present in a system of material in various conditions? (CO3/RBTL2)

(1 Point)

- Phase diagram
- Equilibrium diagram
- Interstitial diagram
- Constitutional diagram

9. How is Gibb's rule defined? (CO3/RBTL3)

(1 Point)

- (•) C+P+1
- C+P+2
- C-P+2
- C-P

10. The point at which two liquidus lines meet is known as __ _____. (CO3/RBTL3)

(1 Point)

- Eutectic point
- (•) isothermal point
- Solvus point
- Peritectic point

Name of Activity	**Mind Map: Problem Solving (Hypothesis Testing)**	
Class	**B. Tech. (CSE) Semester: 2**	
Academic Year	**2021-22**	
Course name	**Probability & Statistics: BTAM204-18**	
Semester	**2nd**	**Date: 10 May, 2022**
Faculty Coordinator	**Ashwani Kumar (Department of Applied Sciences)**	

Context: Planned activity is the group activity. Basically student involvement, thinking on problem statement, group discussion among the team and identification of solution is done.

Five groups of 5-5 students formed as per the choice of students and comfort zone to get better outcome. Each group has assigned a group leader (on the bases of performance in the previous assessments) and given a **problem to solve**. The problem statements will be different for each group so that the group members concentrate on their own problem. Leader first explain the topic to the group to which the problem is concerned and the method to solve the problem (if required) so that every member become a master to solve the problem. Then leader of the group will discuss the given problem with the group members and decide and distribute the tasks among the group members for timely submission of task. This will help students to **work in a team** and the leader member to enhance his/her **leadership qualities**. During their task of problem solving students are kept free to ask any doubt or query with the teacher. After all satisfactory discussion, students sit together (group wise) and prepare a solution for the given problem statement. Once the flowchart of the methodology and problem solution is ready, students have to draw the complete details on a chart paper and present in front of the complete class. It is kept mandatory for every member of the group to present a part of the problem solution which will **enhance the communication skill** of every individual student and will **remove the stage fear** of the students. The instructor and other students are expected to ask the cross questions and get involve in each other's work.

Activity Description

Step1- A lecture on the topic was earlier delivered
Step 2- Selection of team members as per choice and comfort level and assigning a leader.
Step 2- Assigning problem to solve to each group
Step 4- Discussion on topic related to problem within group by the leader
Step 4- Discussion on solution to the problem and explain methodology of it within group.
Step 3- Distribution of tasks by leader in coordination of team members
Step 5- Finalization of most suitable solution
Step 6- Drawing the complete flow chart, solution and key points on chart
Step 7- Presentation of the solution to problem given and chart in front of the class
Step 8- Discussion and answering the questions by friends and teacher.

Practice (Problem Statement, Rubrics)

1. This activity will be in class activity. **This will be graded activity**. Students groups will be formed with 5 students per group. Problem statement is given well in advance to students so that they can get prepared well and come with the required solution. 15-20 minutes will be given for understanding topic and discussion among the members after giving problem before presentation.
2. After 15 mins instructor will announce the time and take review on student's performance. Students will be instructed to present the work in front of complete class.
3. Faculty will coordinate and will help students in clarifying the understanding of the problem statement and the topic anytime.
4. Faculty then will invite each group to present their poster and explain the flowchart and problem solving methodology. Likewise every group will be evaluated.
5. Faculty will give feedback (reflections on performances) on every group's performance.
6. All groups will be asked to submit a chart on the activity including flowchart, problem solution and the key points.
7. Forum will kept open for suggestions and discussions.
8. Questions sample:

Sr. No.	Problem Statements	COs	RBT Level
1	In a hospital 475 female and 525 male babies were born in a week. Do these figures confirm the hypothesis that male babies born more as compared to female babies?	CO3	L6
2	In a city a sample of l000 people were taken and out of them 540 are vegetarian and the rest are non-vegetarian. Can we say that the both habits of eating (vegetarian or non-vegetarian) are equally popular in the city at (i) 1% level of significance (i) 5% level of significance?	CO3	L6
3	325 men out of 600 men chosen from a big city were found to be smokers. Does this information support the conclusion that the majority of men in the city are smokers?	CO3	L6
4	Random sample of 400 men and 600 women were asked whether they would like to have a school near their residence. 200 men and 325 women were in favour of proposal. Test the hypothesis that the proportion of men and women in favour or the proposal are same at 5% level of significance.	CO3	L6
5	ln a town A, there were 956 births of which 52.5% were males while in towns A and B combined, this proportion in total of 1406 births was 0.496. 1s there any significant difference in the proportion of male births in the two towns?	CO3	L6
6	A sample of 1000 students from a university was taken and their average weight was found to be 112 pounds with a S.D. of 20 pounds. Could the mean weight of students in the population be 120 pounds?	CO3	L6
7	A random sample of 200 measurements from a large population gave a mean value of 50 and a S.D. of 9. Determine 95% confidence interval for the mean of population.	CO3	L6

Criteria	Ratings				Pts.
	10	**08**	**06**	**04**	
Flowchart making & problem solution	Correct Solution with proper explanation and correct answers to all logical asked questions during presentation	Correct Solution with good explanation but failed to answer two OR more than two basic questions asked during explanation	Partially correct solution to the problem with limited explanation but answer all questions	Partially correct solution with partial explanation and failed to answer two or more questions	**10**
Chart making and presentation	**5**	**4**	**3**	2	**05**
	Good Poster prepared with correct Flowchart & neat & complete explanation	Moderately good Poster prepared with correct flowchart & good explanation	Poster prepared with Partially correct design and good explanation	Poster prepared with partially correct design and partially good explanation	
				Total	**15**

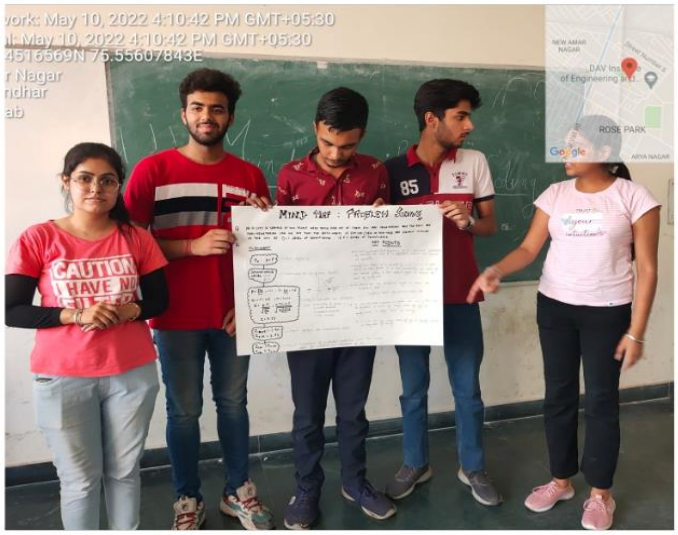
Evidence of Success / Outcome / Post reflection:

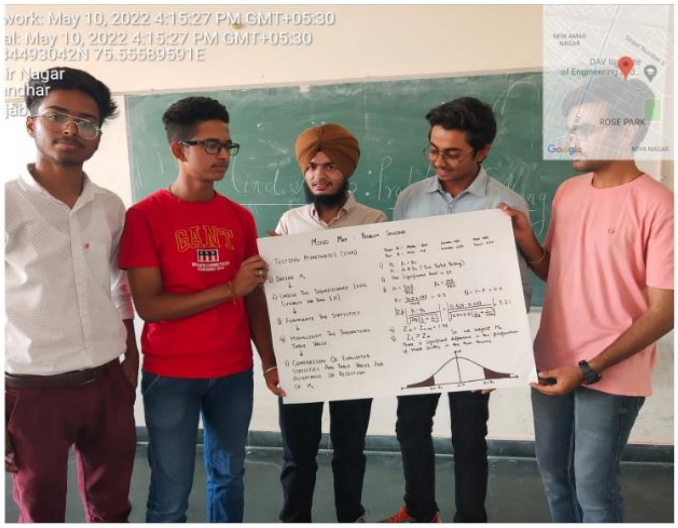
This activity basically help the students in developing the various essential qualities among them like, team work, group discussion, involvement, thinking and learning critical topics, presentation skills, communication skills and leadership qualities and removal of stage fear of the students. Students are motivated to work well and produce good results. Also it is always desired that all the team members are involved and participated equally. Definitely student's involvement was always good and satisfactory performance is observed during the presentations.

PHOTOS OF THE ACTIVITY:

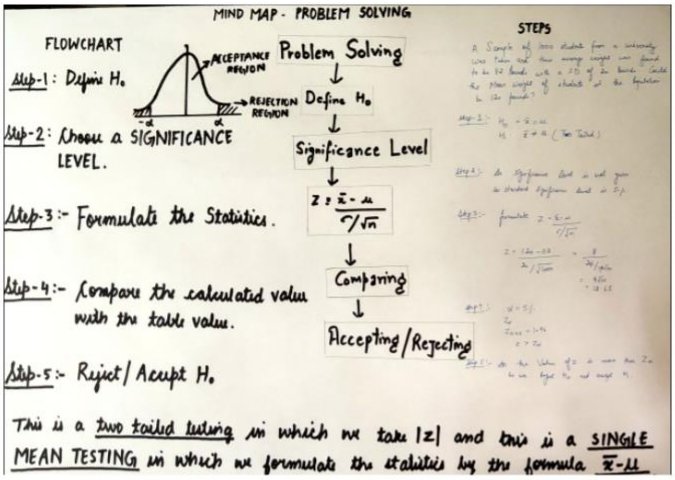
Students having a discussion in group

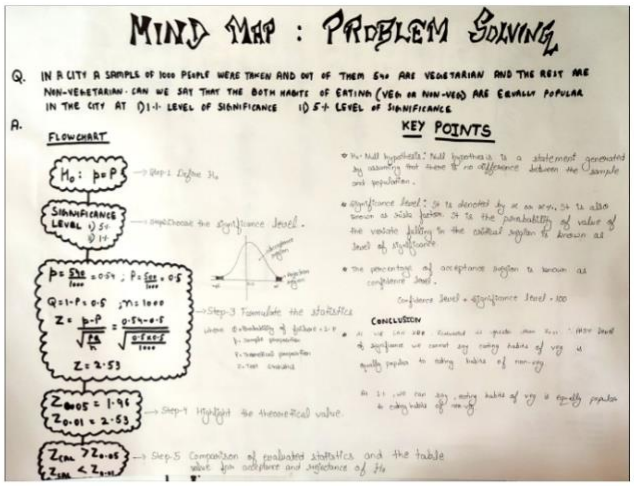
Mind map-chart preparation by students

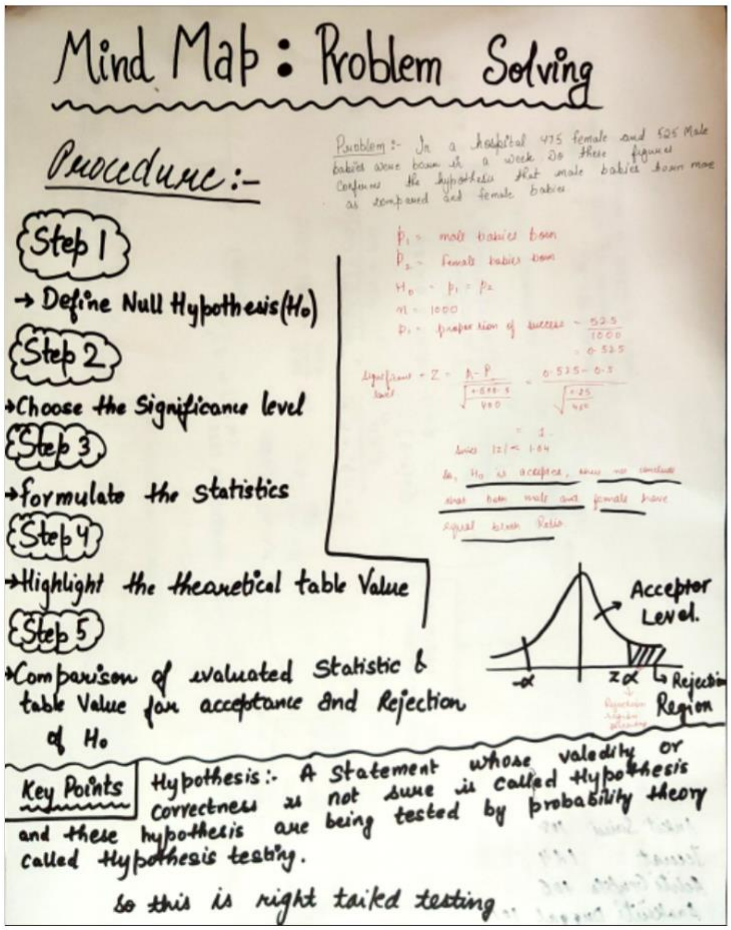


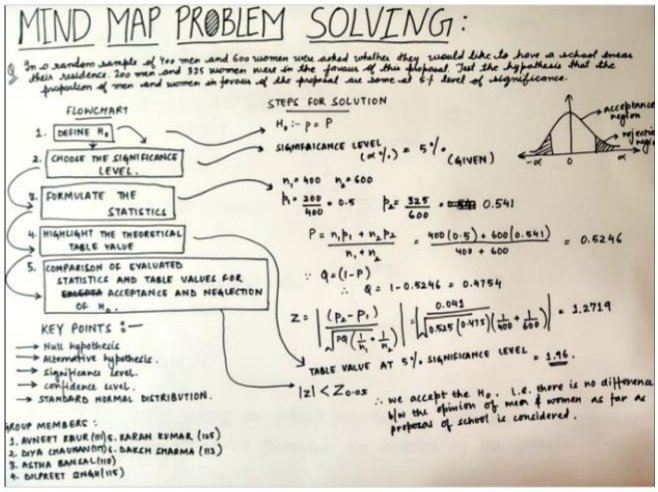


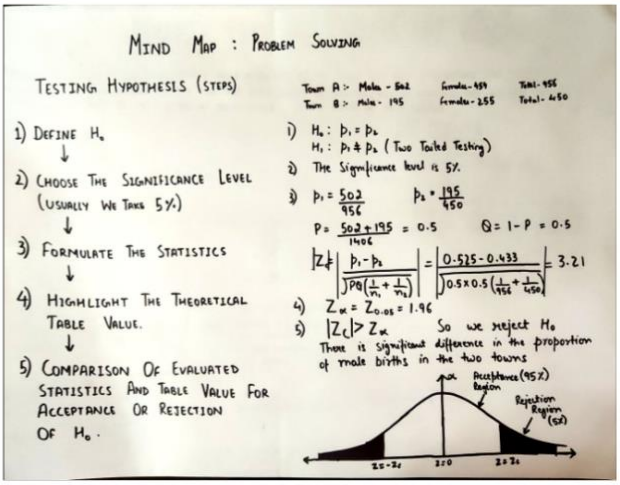
Groups presented on stage one by one











Mind maps-charts prepared by students

Critics:

Following are the observation related to Mind map activity

Feedback has been taken from students orally as well as through Google form:

https://forms.gle/B25mkL6ntaK3tpeA8

Positive observations –

- Students are groomed to enhance the Communication skill and presentation skills
- Students start thinking to find solution of problem on their own way
- Enhance the team work, leadership and social responsibilities
- Students are groomed to reduce their stage fear
- Most of the students are active in this activity
- Most students like the idea of involving activities in teaching-learning

Negative observations –

- In many group it has been observed that few students are inactive and not much involved.

D.A.V Institute of Engg. & Technology

B.Tech Electrical Engineering- 4th Semester

Batch: 2020-2024

Name of Activity: JIGSAW

Date: 10.05.22

Context: Jigsaw helps students learn cooperation as group members share responsibility for each other's learning by using critical thinking and social skills to complete an assignment. Subsequently, this strategy helps to improve listening, communication, and problem-solving skills.

Step 1: Divide students into groups of 4 people per group. ...

Step 2: Divide your content into 4 chunks. ...

Step 3: Assign one chunk of content to each person in the Jigsaw Group. ...

Step 4: Have students meet in Expert Groups. ...

Step 5: Students return to Jigsaw Groups. ...

Step 6: Assess all students on all the content.

Phase 1: Students meet in home groups

1	2
3	4

1	2
3	4

1	2
3	4

1	2
3	4

Phase 2: Students meet in expert groups

1	1
1	1

2	2
2	2

3	3
3	3

4	4
4	4

Phase 3: Students return to home groups to teach ….

1	2
3	4

1	2
3	4

1	2
3	4

1	2
3	4

Practice (Problem Statement , Rubrics)

Home Group

For the first part of the activity, students require to group into their HOME group. Each HOME group consists of four students which has been assigned different topics of Minimization Technique. The classification of sub topics are as follows:

1. Boolean Algebra
2. De-Morgan's Theorem
3. 4-Variables K-Map
4. 5-Variables K-MAP

	Student 1, Expert on	Student 2, Expert on	Student 3, Expert on	Student 4, Expert on
Minimizations Techniques	Boolean Algebra	De-Morgan's Theorem	4-Variables K-Map	5-Variables K-MAP

JIGSAW ACTIVITY PICS

EXPERT GROUP

In the next phase, students need to go to the EXPERT group (Group with the same topic) where they are sharing their own opinions and explanations regarding the assigned topics. After they achieved a good understanding regarding the topics, they will proceed to sketch the notes interactively to enable their HOME group to understand their given topics.

JIGSAW ACTIVITY PICS

JIGSAW ROTATION

In the last part of the activity, students need to return to their respective HOME group. After that, each student will explain the given subtopics to their fellow HOME group members based on the designed notes in the previous procedure. Their fellow group members can ask any questions and they can make a short discussion regarding the explained topics.

Q. No. 1	Question Description	Marks	CO Mapped	Bloom Taxonomy
1	Prove that if A+B= A+C and A'+B=A'+C, Then B=C Draw Circuit Diagram	5	2	6
2	By using De-Morgan's theorem implement the following equation and also implement the circuit using AOI [(ABC+AB')' + BC]'	5	2	6
3	Minimize the following expression using K-Map and implement the circuit using NAND gates only Y = ∑m(2,3,4,5,13,15) + ∑d(8,9,10,11)	5	2	6
4	Minimize the following using K-map: Y(A,B,C,D,E) = Лm(0,5,7,10,11,14,15,16,21,26,27,30,31)	5	2	6
	Total	20		

Rubrics of the Activity

Criteria	Ratings			marks
This criterion is linked to a course process. Draw Circuit Diagram	5-Marks Solve and Draw	2.5 marks for Solution 2.5 marks for Draw the circuit diagram	0 marks for no description	5-Marks
This criteria is linked to a course process Apply Demorgan's theorem Implement the circuit by using AOI	5-Marks Solve and Draw	2.5 marks for Solution 2.5 marks for Draw the circuit diagram	0 marks for no description	5-Marks
This criteria is linked to a course process Minimization by using K-Map(4-	5-Marks Solve and Draw	2.5 marks for Solution 2.5 marks for Realization by using NAND gates	0 marks for no description	5-Marks

variables) Realize by using NAND gates				
This criteria is linked to a course process Minimization by using K-Map(5-variables) Using POS form	5-Marks Solve and Draw	2 marks for Graphical representation 3 marks for minimize the function.	0 marks for no description	5-Marks

DAV Institute of Engineering & Technology, Jalandhar				
Department of Electrical Engineering				
Class: B.Tech EE- 4th Sem Batch: 2020-2024				
Subject: Digital Electronics Subject Incharge: Dr. Neeru Malhotra				
Activity Name: Jigsaw				
S.No.	Class Roll No.	University Reg. No.	Name of Student	Signature
1	302/20	2003695	Drishti Bhatia	Bhatia
2	303/20	2003696	Kishpreet Kaur	Kishpreet
3	304/20	2003697	Navraj Singh	Navraj Singh
4	305/20	2003698	Rajanpreet Singh	Ab.
5	306/20	2003699	Rajat	Rajat Arora
6	307/20	2003700	Sahit Devgan	Sahit Devgan
7	308/20	2003701	Shifali Sharma	Shifali Sharma
8	309/20	2003702	Tushar Gill	Tushar
9	371/19	1903741	Kaushal Kumar	Ab.
10	311 /20	2103332	Abhihek Prasher	Abhishek
11	312 /20	2103333	Akhil Sharma	Akhil Sharma
12	313 /20	2103334	Amandeep Kaur	Aman
13	314 /20	2103335	Ashish Koundal	Ashish
14	316 /20	2103337	Deepak Kumar	Deepak
15	317 /20	2103338	Dheeraj Kumar	Dheeraj Kumar.
16	318 /20	2103339	Jujhar Singh	Jujhar Singh
17	320 /20	2103341	Nikhil Kumar	Ab.
18	321 /20	2103342	Prabhat	Prabhat
19	322 /20	2103343	Rahul Sahota	Rahul Sahota
20	323 /20	2103344	Tarun Sharotry	Tarun
21	324 /20	2103345	Vishal	Ab.
22	354/19	1903688	Sonu Singh	Ab.

Dr. Neeru Malhotra

DAV Institute of Engineering & Technology, Jalandhar

Department of Electrical Engineering

Note on Role Play

Role-play is a technique that allows students to explore realistic situations by interacting with other people in a managed way in order to develop experience and trial different strategies in a supported environment. It is a very flexible teaching approach because it requires no special tools, technology or environments. The students of 7th semester, Electrical Engineering organized role plays on 27th September, 2018 for B.Tech. Electrical Engineering 5th and 7th semester students in a seminal hall. Dr. Sudhir Sharma (HoD – EE), Dr. Chintu Rza (AP), Mr. Baljit Singh (AP), Mr. Mani Bansal (AP), Mr, Rahul Sharma (AP), Mr. Inderdeep Singh (AP) were present at the event. Topics for role play were i) System protection and ii) Working of alternator. The basic idea of "System protection" was to show how different types of protective schemes like relays, fuse, circuit breaker etc. are used for protection and also the role of an electrical engineer in clearing the fault. Similarly the basic idea of "Working of alternator" was to show how different parts of alternator like stator, rotor, exciter, prime mover etc., worked together to generate output and also to show the precautionary measures when there is fault in transformer. At the end, Dr. Sudhir Sharma (Head – EE) encouraged all the participants with his kind words. He appreciated the efforts done by the department of Electrical Engineering and motivated the students to participate more in future.

Role Play: System Protection

Crossword Puzzle

Class: B. Tech. **Semester: 3rd**
Subject: EM&I **Tutorial Sheet No. 5**
Date of Issue: 28-9-18/27-9-18 **Date of Submission: 28-9-18/27-9-18**

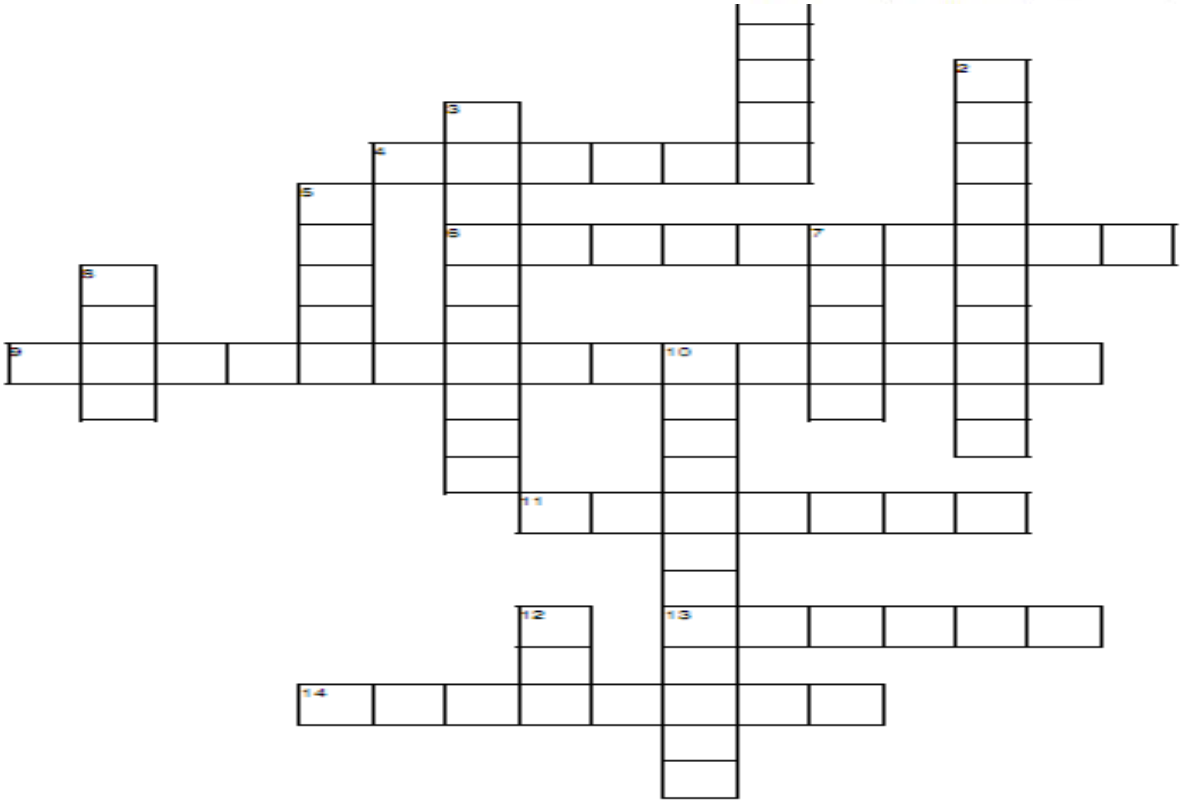
Solve the crossword Puzzle

Across

4. Bridge modification of wheatstone bridge
6. force required to move pointer from its zero position
9. damping used in galvanometers
11. It is control which can be used in vertical mounted instruments
13. In PMMC, first M stands for_____.
14. modern day potentiometer

Down

1. second name of universal shunt
2. employed to extend the range of voltmeter
3. used as detector in bridge circuits
5. used to extend the range of ammeter.
7. foster bridge to determine the difference between standard and unknown resistance
8. base unit of SI
10. used for null indication in measurements
12. In V.O.M, O stands for_____.



REINFORCE THE SOFT SOILS WITH GEOGRID AND ENCASED STONE COLUMNS: NUMERICAL INVESTIGATION

Major Project Report

Submitted in Partial Fulfilment of the Requirement for

the award of Degree of Bachelor of Technology

(2017-2021)

Submitted By:

Antriksh Chander (1803983), Asim Amin (1803984), Dikshant (1803986) Karan (1803990), Karanveer Dhawan (1803991), Madhav Pahwa (1803992) Prince (1803995), Raghav Pahwa (1803996), Rahul Bhagat (1803997)

Under the Guidance of

Er. Sudheer Kumar Jala (Assistant Professor) 3/12/2020

Department of Civil Engineering

D.A.V. Institute of Engineering and Technology,

Kabir Nagar, Jalandhar

MST- Circular

DAVIET
ENGINEERING FUTURES THROUGH INNOVATION
(ISO 9001:2008 CERTIFIED)

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY
Kabir Nagar, Jalandhar, Punjab - 144 008
Accredited by NAAC with "A" Grade & Recognized by UGC under Section 2(f)
Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/21-22/Exam/279 Dated : 05/10/21

Circular

It is for the information of all the students of B.Tech., B. Com., BBA, BCA, and MCA (5th & 7th semesters only) that **I st Mid Semester Tests** shall be held w.e.f. **11/10/2021** as per the schedule enclosed. A student failing to appear in any of the MSTs will lose the internal assessment related to that subject accordingly. Each MST shall be of 24 marks and 1.30 hrs duration.

Pattern of MSTs (Common to all streams)

- There will be six questions in each MST.
- Two questions (1&2) of 02 marks each, three questions (3, 4 & 5) of 04 marks each and one question (6) of 08 marks.
- Question Nos. 1 – 5 will be compulsory. Question no. 6 will have two choices and the student is required to attempt any one.
- Questions may have sub parts.
- Atleast 40% weightage shall be given to numerical based questions (if any).

Notes:

1. **The students are advised to take their respective seats in the examination hall 15 minutes before the scheduled start of examination.**
2. **No extra sheet will be provided.**
3. **No student shall be allowed to leave the examination hall before half time; however, in case of an emergency a student can leave the examination hall early with the permission of the concerned invigilator.**

Dr. Devinder Priyadarshi
Controller of Examination

Copy to:-

1. Principal, for information please.
2. All HoD(s): To circulate the above information amongst the students of their respective departments.
3. Website Coordinator: To display the date sheet on the institute website.
4. Information corner, Departmental and Hostel notice boards.

Website : www.davietjal.org
Email : daviet@davietjal.org
Ph. : 0181-2207650, 2200232, 2343400
Toll Free : 1860 180 0126

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Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/ 21-22/Exam/280

Circular

Dated : 05/10/21

It is for the information of all the faculty members that **I^st^ Mid Semester Tests** of 5^th^ and 7^th^ semesters shall be held w.e.f. **11/10/2021** as per the schedule enclosed. A student failing to appear in any of the MSTs will lose the internal assessment related to that subject accordingly. Each MST shall be of 24 marks and 1.30 hrs duration.

General guidelines for framing the question paper:-

- The question paper shall be strictly in the format already circulated vide an O/o 5972 dated 23/08/2018.
- Questions of Mid Semester Test should be framed corresponding to various knowledge levels of Revised Bloom's Taxonomy.
- Questions of Mid Semester Test should be mapped with the course outcomes of the respective course.
- The course outcomes of the respective course shall also be printed on the question paper.
- 40% and 60% weightage shall be given to LOTS and HOTS respectively while setting the question paper.
- Atleast 40% weightage shall be given to numerical based questions if any.
- **It shall be the duty of the faculty members to intimate the undersigned regarding requirement of any extra material like Log Tables/Graph paper/ Semilog paper/Steam tables/ I S Codes etc. well in time.**

The concerned faculty members are requested to submit the required number of copies of the question paper corresponding to the strength of their class (in a sealed envelope) to the exam branch on or before **07/10/2020.**

Dr. Devinder Priyadarshi
Controller of Examination

Copy to:-

1. Principal, for information please.
2. All HoD(s): To circulate the above information amongst the faculty/Staff members of their respective departments.

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DAV INSTITUTE OF ENGINEERING & TECHNOLOGY, JALANDHAR

Date sheet for 1st Mid Semester Test- October 11, 2021 to October 13, 2021.

All Programmes

DATE	SHIFT	UGC Courses 5th Sem.				B. Tech. 5th Sem.						B. Tech. 7th Sem.					
		BBA	BCA	B COM.	MCA	CSE	IT	ECE	EE	ME	CE	CSE	ECE	EE	ME	IT	CE
11th Oct. 2021	I	OR	PHP	FM	MLDA	ERP	JAVA	ADC	PS-1	HT	EG	NS	IoT/ PY	HSSM/ ETAS	MV	STQA	PPLE
	II	ML	JAVA	GST	AWT	DBMS	DBMS	DSP	CS	DoM	EEE	DWM	BD/ AIML	EHV	AIM	DWM	OB
12th Oct. 2021	I	CB/CA/ IRLL	CC	PFP/ BSM	NLP & SR	FLAT	FLAT	LIC	MP	MEE	CEM	WSN	AI/ SC	DG	FME	SPM	RWS
	II	ASM/FM/ OCD	SPM	AFM/ ISM		SE	SE	CS	S&P/ RES	MP	EE	A S/W		ESS	DE	MCN	PGDH
13th Oct. 2021	I					CN	CLIPR	R&S/ JAVA			SE	OPEN ELECTIVE (MCN/CS/EECA)					DHS
	II					PP	UHV2	PM			GE	OPEN ELECTIVE (MSE/AI/RES)					

SHIFT TIMINGS:

Shift-I	10:00 a.m. - 11:30 a.m.
Shift-II	02:30 p.m. - 04:00 p.m.

Controller of Examination

MST-Date Sheet

DAV Institute of Engineering & Technology, Jalandhar

Department of Electrical Engineering

Program	B.Tech (EE)	**Semester**	5th
Subject Code	BTEE- 502	**Subject Title**	Electric Generation and Economics
MST No.	1	**Course Coordinator**	Ms. Shivani Mehta
Max. Marks	24	**Time Duration**	1 hour 30 minutes
Date of MST	5-9-18 (M)	**Roll No.**	

Note: Attempt all questions

Ques No.	Question	COs RBT Level	Marks
1	Rearrange the following power plants in descending order of capital investment and fuel cost: steam, hydro, nuclear and diesel power plants.	CO1 L2	2
2	Enlist the different conventional and non-conventional energy sources used in power generation.	CO1 L1	2
3	Compare the straight line depreciation, sinking fund depreciation and percentage depreciation.	CO3 L4	4
4	Compute the generation cost per kWh from the following data: Installed capacity = 200 MW, Capital cost = Rs.45000 per kW, Interest and depreciation = 12%, Fuel consumption = 0.6 per kWh, Fuel cost = Rs.1230 per 1000 kg, Other operating costs = 30% of fuel costs, Peak load = 170MW, load factor = 80%.	CO3 L4	4
5	Draw and discuss the characteristics of different types of load for typical summer and winter day.	CO 2 L3	4
6	a) Define the terms: connected load, maximum load, demand factor, load factor. **b)** A residence has following connected loads : 6 lamps of 100W each, 6 lamps of 40W each, 5 fans of 60W each, 2 power plug points 1000W each, 4 light plug points 100W each, one geyser 3000W.The electricity use on a summer day can be described as under: Lamps- One 100W lamp from 5am to 6am, 3lamps each of 100W and 3 lamps each of 40W from 7pm to 11pm.; Fans- Two fans used simultaneously from 8am to 11pm.; Power plug load- Nil; Light plug load- One point used from 6am to 8am, 12 noon to 2pm and 7pm to 10pm ; Geyser- 9am to 10am. Plot the chronological load curve for this residence for summer and evaluate the Maximum demand, Demand factor, Average load, Monthly consumption of electricity. **OR** a) Discuss the importance of diversity of loads in a power system. b) The load on a power plant on typical day is as under: Time 12-5am 5-9am 9-6pm 6pm-10pm 10pm-12am Load(MW) 20 40 80 100 20 Plot the chronological load curve, load duration curve, mass curve and energy curve. Also compute the load factor of the plant and the energy supplied by the plant in 24 hours.	CO2 L1 L5 L2, L5	2,6

COURSE OUTCOMES (COs) *Student will be able to*	
1	CO 1: know the performance of different energy sources and organization of power sector.
2	CO 2: to make use of load curves and related factors for determining power generation and selection of plants.
3	CO 3: carry out the economic analysis of electrical energy generation for different power plants.
4	CO 4: aware of different tariff plans with need and methods to improve power factor.
5	CO 5: to demonstrate the engineering issues in scheduling of thermal and combined hydro & thermal power plants, cogeneration plants along with their environmental aspects.

RBT Classification	**Lower Order Thinking Skills (LOTS)**			**Higher Order Thinking Skills (HOTS)**		
RBT Level	**L1**	**L2**	**L3**	**L4**	**L5**	**L6**
RBT Level Name	**Remembering**	**Understanding**	**Applying**	**Analyzing**	**Evaluating**	**Creating**

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY

Kabir Nagar, Jalandhar-144008

9223

ANSWER SHEET

Name ..Mamta Devi..... Father's Name ..Mr. chaman lal Thakur.....

Class Roll No. ....316/17/EE.....Univ. Regn. No..1704515..... Subject ..C-I (Circuit Th...

Branch ...Electrical.....Semester .....IIIrd..... Section ..Group(A).....

Mid Semester Test .....1st..... Date .....04-09-2018.....

Signatures of the Invigilator

INSTRUCTIONS FOR STUDENTS

1. Write on both sides of the pages.
2. No answer book or paper of any kind should be taken away from examination hall except the question paper.
3. No page of the answer sheet shall be torn out on any account.
4. Nothing should be written on the question paper/calculator/scale etc. except the Roll No.
5. The use of Mobile phone, programmable calculators, smart watch and digital diaries in the examination hall is not permitted & their usage shall be considered illegal. However the use of scientific calculator is allowed.
6. The student must write in Blue/Black ink only in the answer book.
7. No extra sheet will be provided in any case.
8. Rough work, if any, should be done on the last page of the answer book.
9. The possession of book, paper or any reference material of any kind by the student shall be treated as a case of unfair means according to the rules.
10. This answer book must be handed over to the invigilator before leaving the examination hall even if no question has been attempted.

MARKS AWARDED

Q. No.	Sections (if any) (a)	(b)	(c)	(d)	Sub. Total
1.					12
2.					2
3.					32
4.	2	1			3
5.	12	2			32
6.	2	42			62

Total marks in figures: 20

Total marks in words: Twenty only

Signatures & Full name of examiner: Shivani

DAV Institute of Engineering & Technology, Jalandhar

Award Sheet MST-II November-2021

Class: ECE-7th	C. Code: BTEC-907D-18		Course Name: Python Programming
Total Students: 22	**Absent: 3**	**Pass: 14**	**Pass(%) = 74**

Q. No				1	2	3	4	5	6	Total
CO Mapped				CO2	CO4	CO4	CO1	CO2	CO3	
RBT Level				L2	L2	L3	L2	L3	L3	
Max Marks				2	2	4	4	4	8	24
S.No.	**Roll_No**	**Uni.Roll No.**	**Student**	**Marks Awarded**						
1	204/18.	1803780	Manpreet Kaur	1.5	2	3	4	0.5	0	**11**
2	206/18.	1803782	MD Fayeem	1.5	0	2	2.5	0	0	**6**
3	209/18.	1803785	Pooja	1.5	0	3	3	1	1	**10**
4	210/18.	1803786	Priya	1	0	2.5	3	0	0	**7**
5	212/18.	1803788	Ravi Kumar	1	0	0	0	0	0	**1**
6	214/18.	1803790	Ritik Garg	2	2	2.5	3.5	2.5	7	**20**
7	215/18.	1803791	Ritvik Sharma	**Absent**						
8	216/18.	1803792	Riya Joshi	2	1.5	4	4	3.5	3	**18**
9	217/18.	1803793	Riya Vinocha	2	2	2	3	2	1	**12**
10	220/18.	1803796	Sahil Rana	**Absent**						
11	221/18.	1803797	Sahil Syal	1.5	1.5	4	3.5	3	3	**17**
12	222/18.	1803798	Sahil Parmar	2	2	4	4	4	8	**24**
13	223/18.	1803799	Samridh Khanna	**Absent**						
14	224/18.	1803800	Shaswat Thakur	2	0	3	2	0	6	**13**
15	225/18.	1803801	Souravpreet Singh	1.5	2	4	2	2	5.5	**17**
16	226/18.	1803802	Sukhdeep Singh	1.5	1.5	3.5	2	2	4	**15**
17	227/18.	1803803	Surbhi Joshi	1.5	2	3.5	4	3	6	**20**
18	228/18.	1803804	Sushant Dogra	2	2	3.5	3	3	6	**20**
19	230/18.	1803806	Vatanpreet Kaur	1	1.5	4	4	3	7	**21**
20	231/18.	1803807	Vikas	0	0	1.5	0	1.5	0	**3**
21	234/18.	1803810	Yogesh Kumar	1	0	0	2	0	0	**3**
22	235/18.	1819883	Muskan Roda	1.5	1.5	4	3.5	0	2	**13**

D.A.V Institute of Engineering & Technology, Jalandhar

Ref. No.: DAVIET/ U.P.C. Dated: _____

To,
Surinder Singh
652, Janta Colony, Maqsudan Jalandhar City
Punjab 144027

Subject: Attendance-cum-Performance Report - .MST1

Dear Sir/Madam,

The attendance and MST1 record of your ward **Arshdeep Singh** Roll No.**309/18** studying in **B.Tech-EE-3** Semester is as under:

Attendance Record from - *16/Jul/2019* to *17/Sep/2019* — **Maximum Marks for each subject are 24**

S.no	Subject	Theory		Tutorial		Practical		Percentage	Marks Obtained	Highest Marks
		Att.	Del	Att.	Del	Att.	Del			
1	MENTORING & PROFF.DEVELOPMENT STUDENTS	0	0	7	7	0	0	100.00		
2	ELECTRICAL MACHINES – I LABORATORY	0	0	0	0	12	15	80.00		
3	ANALOG ELECTRONICS LABORATORY	0	0	0	0	12	12	100.00		
4	ENGINEERING MECHANICS	21	22	3	3	0	0	96.00	21	21
5	INDIAN CONSITUTION	20	22	0	0	0	0	90.00	14	21
6	ELECTRICAL MACHINES – I	22	24	0	0	0	0	91.00	16	19
7	ANALOG ELECTRONICS	22	24	0	0	0	0	91.00	11	16
8	ELECTROMAGNETIC FIELDS	20	20	5	6	0	0	96.00	24	24
9	ELECTRICAL CIRCUIT ANALYSIS	24	24	9	9	0	0	100.00	16	21
Total		129	136	24	25	24	27	94.15	**PASS - 70.83 %**	

Minimum Attendance requirement is 75%

Passing Marks required for each subject is 40%

Remarks:

1) Your ward is quite regular in the classes. He/She has a chance to be a part of the elite excellent attendance rating by making an extra effor

2) Your ward is performing well. He/She has a potential to perform better. Encourage him/her for the same.

3) Your ward is not participating in Co-/Extra Curricular activities. Please encourage him/her to participate in these activities.

Note: You are requested to make a remark on this note i.e. seen and send it back with feed back/comments to the Institute at the earliest for our record purpose. You may also post your feedback at rahulruddra@gmail.com

7/x/19
RAHUL SHARMA
9780086665
(Class In-charge)

Dr. Sudhir Sharma
9872203726
(H.O.D.)

Principal

Remarks of Parents: _____

Surinder Singh
Signature

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY, JALANDHAR

DEPARTMENT OF: APPLIED SCIENCE

RESULT ANALYSIS OF: MST2

Session: 2020-2021 **Class: CE-1** **Semester: Second** **Date 22-07-2020**

Subject Wise Analysis

Sr. No.	Subject	Subject Code	Appeared	Passed	Pass %age	Name of Faculty
1	Engineering Maths -II	BTAM-201/18	15	15	100	Dr. Neeru Sharma

Consolidated Analysis

Total No. of Students	**16**
No. of Students Appeared	15
No. of Students Passed	15
No. of Students Failed	Nil
Pass Percentage	100%

Performance

Sr. No.	Percentage Slab	No. of Students
1	Above 75%	12
2	Above 60% and up to 75%	3
3	Above 50% and up to 60%	-
4	Below 50 %	-

Advanced Learners

Name of Student	Roll No	Percentage of marks	Remarks
Taniya	605/20	92%	

Action Agenda & Follow up action plan

Suggested extra reading material for good position in university exams.

Slow Learners

Name of Student	Roll No	Result	Remarks
NIL			

Action Agenda & Follow up action plan (Subject Wise)
Students were motivated to improve their performance, given youtube links

Name & Signature of Subject In-charge **Name & Signature of HoD**

DAV INSTITUTE OF ENGINEERING AND TECHNOLOGY, JALNDHAR

RESULT ANALYSIS OF MST-1

Session: 2021-2022 **Class: MBA** **Semester: 3rd** **Date: 25/11/21**

Subject Wise Analysis

Sr. No.	Subject	Subject Code	Appeared	Passed	Pass %age	Name of Faculty
1	Human Values, De-addiction and Traffic Rules	BTAM-201/18	53	50	94%	Dr. Shivani Vij

Subject Code: - HVDTR 101-18

Consolidated Analysis

Total No. of Students	59
No. of Students Appeared	53
No. of students Passed	50
No. of Students Failed	3
Pass Percentage	94%

Performance

Sr. No.	Marks Obtained	No. of Students
1	Above 75%	1
2	Above 60% and up to 75%	11
3	Above 50% and up to 60%	13
4	Below 50 %	28

Advanced Learners

Name of Student	Roll No	Percentage of Marks	Remarks
Jyoti Rawat	2122/20	87.5%	
Kanica Kaushal	2124/20	71%	
Neha sareen	2134/20	71%	
Pawni Arora	2139/20	71%	
Shivya goyal	2154/20	71%	
Jyoti Rawat	2122/20	71%	

Action Agenda & Follow up action plan

1. Previous Year Question papers and extra questions of higher level will be discussed thoroughly.

Slow Learners

Roll No	Name of Student	Result	Remarks
Gautam kumar	2115/20	Fail	Low Attendance
Prabhjapan kaur	2140/20	Fail	Low Attendance
Abhinav Maheshwari	2102/20	Fail	Low Attendance

Action Agenda & Follow up action plan (Subject Wise)

1. Attention paid to students individually and counseled them to study the subject regularly.
2. Extra notes and guidance will be provided for the better results.

Name & Signatures of Subject In charge Dr. Shivani Vij

Name & Signatures of HoD

DAV Institute of Engineering & Technology, Jalandhar

Department of Electronics and Communication Engineering

Reference No. DAVIET/ECE/1709 Date: 29-08-2018

Time – Table (Extra Classes): Odd Semester (Session 2018-19)

Day: Saturday (01/09/2018, 15/09/2018, 29/09/2018, 06/10/2018 and 27/10/2018)

Class / Time	ECE-4A (R-15)	ECE-4B (R-18)	ECE-3A (R-16)	ECE-3B (R-17)	ECE-2 (R-14)
9:00-9:50	SIP(PS)	NNFL(NSR)	DSP(GC)	DSP(JS)	ADC(RS)
9:50-10:40	OFC(LK)	ES(RS1)	MP(HS)	DCS(AM)	DCLD(NM)
10:40-11:30	CN(BJ)	SIP(PS)	LIC(RS)	LIC(JSM)	NAS(AA)
11:30-12:20	NNFL(NSR)	OFC(LK)	DCS(AM)	MP(HS)	OOPS(AB)
12:20-1:10	ES(RS1)	CN(BJ)	DS(GS)	DS(PR)	M-3 (AK)

NM: Dr. Neeru Malhotra; JSM: Dr. Jagjit Malhotra; JS: Dr. Jagroop Singh; BJ: Ms. Bindiya Jain; RS: Dr. Ramnik Singh; AA: Mr. Amit Arora; LK: Mr. Love Kumar; PS: Ms. Poonam Sethi; HS: Mr. Hari Singh; GC: Mr. Ganesh Chand; AM: Mr. Ashish Malhotra; NSR: Mr. N S Rekhi; RS1: Ms. Risha Sharma: AB: Ms. Avni Bhatia (IT); AK: Mr. Ashwani Kumar (AS); GC: Mr. Gursewak Singh (CSE); PR: Ms. Pariya (CSE)

Dr. Neeru Malhotra
HoD

C/c:

1. The Principal for kind information
2. Dean (Academics)
3. HoD (CSE,IT and Applied Sciences)
4. Notice board (ECE)

DAVIET
ENGINEERING FUTURES THROUGH INNOVATION
(ISO 9001:2008 CERTIFIED)

DAV INSTITUTE OF ENGINEERING & TECHNOLOGY

Kabir Nagar, Jalandhar, Punjab - 144 008

Accredited by NAAC with "A" Grade & Recognized by UGC under Section 2(f)

Approved by AICTE; Affiliated to IKG-PTU, Jalandhar | Managed by DAV College Managing Committee, New Delhi

Ref. No. : DAVIET/21-22/Exam/378

Dated : 9/12/21

Circular

It is for the information of faculty and staff that as per the University guidelines, the performance of both the MST(s) is to be taken into account for the internal assessment awards. The entire record pertaining to the awarding of the internal assessment is to be maintained and will be verified by the rationalization committee constituted by the University. However, the students of 5th and 7th semesters who have already appeared in both the MSTs and their awards have been communicated to them may improve upon their performance in the makeup test(s), which shall be conducted from 16/12/21 to 18/12/21 by the respective subject incharges (Course Instructor).

A student shall adopt the following procedure for appearing in the makeup test.

1. The student desirous of appearing in the makeup test shall fill up the form (available on the website) and get it endorsed from the Exam Branch, DAVIET.
2. The student shall then take a photocopy of the form and deposit the requisite fee in the accounts office.
3. The photocopy of the form shall be retained by the accounts office.
4. The student shall then take the original application form and original receipt to the concerned course instructor for conducting the makeup test.

The last date for depositing the fee in the accounts office is 13/12/21. The student shall report to the course instructors latest by 10:00 a.m. on Wednesday, December 15, 2021.

The students applying for the makeup test in a particular course shall appear in a common test as planned by the concerned course instructor during the above mentioned dates only.

The course instructors shall maintain complete record of the makeup tests conducted by them and shall consider the performance of the students in the makeup test for awarding final internal assessment awards.

Dr. Manoj Kumar
Principal

Copy to:

1. All HoD(s)/HCD(s): For information and circulation amongst the faculty & students of their respective departments.
2. CoE DAVIET: For information and necessary action.
3. Sr. Asstt. (Admn. & Accounts): For information and necessary action.

Website : www.davietjal.org
Email : daviet@davietjal.org
Ph. : 0181-2207650, 2200232, 2343400
Toll Free : 1860 180 0126

DAV Institute of Engineering and Technology, Jalandhar

Department of Electronics and Communication Engineering

Reference No. DAVIET/ECE/2018-19/1910 Date: 22-04-2019

Date Sheet (Special Test) – Even Semester (2018-19)

Date	B. Tech. – ECE (6th Semester)	B. Tech. – ECE (4th Semester)
24/04/2019 (M)	VLSI	EMI
24/04/2019 (E)	WCS	LCS
25/04/2019 (M)	Int. Instn./ITC	EMA
25/04/2019 (E)	EEIM	PWSS
26/04/2019 (M)	MWR	SAS
26/04/2019 (E)	OS	ACS

Morning Timings: 9:30 AM – 11:00 AM
Evening Timings: 2:00 PM – 3:30 PM

Note: Students should get a written permission from the undersigned to appear in these examinations and submit a copy of the permission letter to the respective subject coordinators by Monday evening i.e. 22/04/2019.

Dr. Neeru Malhotra
Associate Professor & HoD

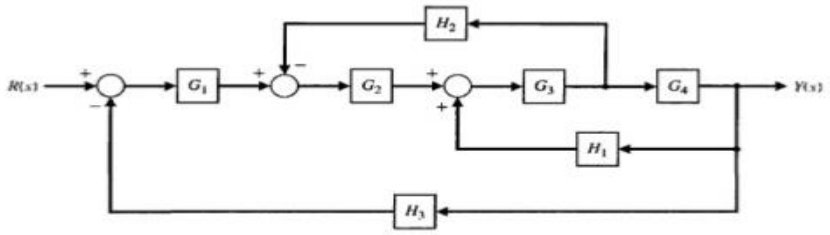
C/c:

1. The Principal for kind information
2. Dean (Academics)
3. Circulation amongst faculty members teaching ECE-4th & 6th Semester
4. Notice Board (ECE)

DAV Institute of Engineering & Technology, Jalandhar
Department of Electronics & Communication Engineering

Programme	**B. Tech. (ECE)**	**Semester**	**5th**
Subject Code	**BTEC-504-18**	**Subject title**	**Control Systems**
MST	**Make-Up Test**	**Course Coordinator**	**Ms. Poonam Sethi**
Max. Marks	**24**	**Time Duration**	**1 Hour 30 Minutes**
Date of MST	**16.06.2022 (Shift-II)**	**Roll No.**	

Note: Attempt all questions.

Ques. No.	Question	COs, RBT Level	Marks
1	Give an example of industrial control system.	CO4, L2	2
2	For a system having characteristic equation $\mathbf{2s^4+4s^2+1=0}$, determine stability using Routh-Hurwitz criteria.	CO2, L4	2
3	For a unity feedback control system whose open loop transfer function is given, determine static error coefficients and steady state error for unit step and unit ramp input. $\mathbf{G(s)\ H(s)=K/[s(s^2+4s+200)]}$	CO2, L4	4
4	Discuss mathematical modelling of pneumatic system.	CO4, L3	4
5	Draw Nyquist plot for the function :$1/s^2(s+1)$ and comment on stability.	CO2, L4	4
6	Determine the transfer function C\R for the system shown in Fig. using Block diagram reduction technique and verify the answer using Mason's gain formula. 	CO1, L6	8
	OR		
	Derive an expression for rise time, peak time and max overshoot for a second order control system.	CO2, L6	

Course Outcomes (COs):

Students will be able to

1. Characterize a system and find its study state behaviour
2. Investigate stability of a system using different tests
3. Design various controllers
4. Solve linear, non-linear and optimal control problems

Internal Evaluation system followed by the institute as per IKGPTU

Internal Evaluation

Total Internal Marks	**: 40**	Attendances **:** <75%	: 00
First Mid-term Examination	: 12	Marks breakup: 75% to 80%	: 02
Second Mid-term Examination	: 12	: 81% to 85%	: 03
Attendance	: 06	: 86% to 90%	: 04
Assignments	: 05	: 91% to 95%	: 05
Tutorials	: 05	: 96% to 100%	: 06

Course Exit Survey (Python Programming) Session 21-22

Timestamp	Name	Roll No	Read and write simple Python programs	Develop Python programs with conditionals and loops.	Define Python functions and to use Python data structures and lists, tuples, dictionaries.	Perform input/output operations with files in Python.	Execute Searching, sorting and merging in Python.
2022/04/28	Sahil Parmar	222	3	3	3	3	3
2022/04/28	Sahil Syal	221/18	3	3	3	2	2
2022/04/28	Sushant dogra	228/18	3	3	3	3	3
2022/04/28	Manpreet Kaur	1803780	3	2	3	3	2
2022/04/28	Sukhdeep Singh	226/18	3	2	2	3	2
2022/04/28	Muskan Roda	235/18	2	2	3	3	2
2022/04/28	Riya Vinocha	217/18	3	3	3	3	3
2022/04/29	Vatanpreet kaur	230/18	3	3	3	3	2

Questionnaire for Student Feedback on Faculty

1. The teacher had the thorough and comprehensive knowledge of subject.
2. Soft Skill of subject in-charge in handling of contents?
3. Online learning materials/notes provided by the subject in-charge in enhancing my understanding of the subject?
4. The teacher thoroughly answered the student's questions?
5. There was positive interaction between students and teacher?
6. Quality of work was emphasized more than quantity?
7. You were encouraged to do extra reading about the course material?
8. The teacher gave assignments that were useful for learning subject matter?
9. Students were free to interrupt presentations if points needed clarifications?
10. Video, sound quality and duration of video lectures prepared by subject in-charge?
11. Lectures were held regularly and on time?
12. Students were introduced with the relevant information viz, Registration and certification for MOOC based online course as a supplement activity to the course?
13. Students were introduced with the relevant information on "Virtual Labs" for the course?
14. The online teaching technologies used by the subject in-charge in enhancing my understanding of the subject?
15. Overall rating of the online teaching activities in this subject?

FACULTY FEEDBACK (May 2022)

Name of Department: ECE

Sr No.	Name of the faculty member	Course	Semester	Subject	students in class	No. of students given feedback	% of students given feedback	Comments/Suggestions	Overall performance	Rating
1	Dr. Bindiya Jain	B.TECH	6th	WCS	76	51	67%		80.00%	9
2	Dr.Kiran Ahuja/Mr Shaul Goyal	B.TECH	6th	WLAN	25	25	100%		93.00%	10
3	Dr Amit Arora	B.TECH	6th	MWA	76	55	72%		93.00%	10
4	Dr. Love Kumar	B.TECH	6th	OFC	76	57	75%		93.00%	10
5	Dr. Hari Singh	B.TECH	6th	COA	76	54	71%		93.00%	10
6	Mr. Ganesh Chand	B.TECH	6th	CN	76	50	66%		80.00%	9
7	Mr Sahul Goyal	B.TECH	6th	C#	51	33	65%		93.00%	10

C

Department- Electronics and Communication Engg. Sem-4th

Sr No	Name of the faculty m	Course	Semest	Subject	. of studen	dents give	dents given	erall performa	Rating
1	Dr.Jagjit Malhotra	B.TECH	4TH	Analog Circuits	35	27	77%	93.00%	9
2	Dr.Jagroop Singh	B.TECH	4TH	Signals and Systems	35	22	63%	95.00%	9
3	Dr.Dinesh Kumar	B.TECH	4TH	Data Structures & Algorithms	35	22	63%	93.00%	9
4	Ms.Poonam Sethi	B.TECH	4TH	Environmental Sciences	35	22	63%	89.00%	9
5	Dr.Hari Singh	B.TECH	4TH	Microprocessors and Microcontro	35	23	66%	95.00%	9
6	Mr.Ashish Malhotra	B.TECH	4TH	Universal Human Values – 2	35	22	63%	95.00%	10

Rajesh Wadhwa

(Dr. Neeru Malhotra)
HoD, ECE

Prof. (Dr.) Vikas Chawla
Dean (Academics)

PTU
ਆਈ. ਕੇ. ਗੁਜਰਾਲ ਪੰਜਾਬ ਟੈਕਨੀਕਲ ਯੂਨੀਵਰਸਿਟੀ
Estd. Under Punjab Technical University Act, 1996
(Punjab Act No.1 of 1997)

Ref. No. IKGPTU/DA/2904 Dated 22/06/21

Principal
D A V Institute of Engineering and Technology,
Kabir Nagar, Jalandhar

Subject: Appreciation letter for the conduct of the Online Classes during on-going Covid-19 pandemic.

Sir/Madam,

Greetings from IKGPTU !

At the outset, I hope that all will be safe and healthy at your esteemed institution during this Covid-19 pandemic.

Further, in compliance to our letter No. IKGPTU/DA/2832 dated 19-05-2021; your good office has submitted the links of online classes along with the timetable of courses of the current semester in the prescribed format for virtual inspection by the University inspection team.

I understand that online teaching during this pandemic is a huge task for all the educational institutions. I am really glad to share with you that during virtual inspection by our inspection team, the report of your esteemed institute regarding conduct of online classes have been found satisfactory. The timetable of conduct of online classes has been prepared very meticulously by the team of your faculty members under your able guidance. The inspection team of the University is impressed with the teaching methodology of your faculty during the online classes. I really appreciate the way in which your faculty members are putting in a lot of effort to conduct online classes in an innovative way and also grab the attention of the far-flung students. Your institute has done a commendable job by providing quality education (by virtual mode also) to our budding students.

At the end, I extend my best wishes to your institute, faculty and staff who are earnestly doing their duty during these difficult times of Covid-19 pandemic and hope that your institute will continue this in future also for the benefit of the students and society.

With Regards,

Prof.(Dr.) Vikas Chawla
Dean (Academics)

Teachers of the Institution participate in activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years

Session	Name of teacher participated	Name of the body in which full time teacher participated
2017-19	Dr. Sudhir Sharma	Member, BoS, IKG Punjab Technical University, Jalandhar
2017-19	Dr. Jagroop Singh Sidhu	Member, BoS(ECE), IKG Punjab Technical University,Kapurthala
2017-19	Dr. Kanchan L Singh	BoS (Physical Sciences), IKG Punjab Technical University, Jalandhar
2017-19	Dr. Ashok Kumar	BoS (Chemical Sciences), IKG Punjab Technical University, Jalandhar
2017-19	Dr. Dinesh Kumar	BoS CSE, IKG Punjab Technical University, Kapurthala
2017-19	Dr. Sanjeev Naval	Member of BoS for Civil Engineering, MRSPTU, Bathinda
2017-18	Dr. Love Kumar	Member, BoS Department of Electronics,Kanya Maha Vidyalaya,Jalandhar
2018-19	Dr. Devinder Priyadarshi	BoS (Mechanical Engg. / Production Engg.), IKG Punjab Technical University, Jalandhar
2019-21	Dr. Manoj Kumar	Chairman, BoS(ECE), IKG Punjab Technical University,Kapurthala
2019-21	Dr. Jagjit Malhotra	Member, BoS(ECE),IKG Punjab Technical University,Kapurthala
2019-21	Dr. Harpreet Kaur Bajaj	Member, BoS (CSE), IKG Punjab Technical University, JALANDAHR
2019-21	Dr. Devinder Priyadarshi	BoS (Mechanical Engg. / Production Engg.), IKG PTU Jalandhar
2019-21	Dr. Sanjeev Naval	Member of BoS for Civil Engineering, Environmental Science and Engg of IKG PTU Jalandhar
2019-21	Dr. Sanjay Goel	Member of BoS for Civil Engineering, Environmental Science and Engg of IKG PTU Jalandhar
2019-21	Dr. Kanchan L Singh	BoS (Physical Sciences), IKG Punjab Technical University, Jalandhar
2019-21	Dr. Ashok Kumar	BoS (Chemical Sciences), IKG Punjab Technical University, Jalandhar
2019-21	Dr. Dinesh Kumar	BoS CA, IKG Punjab Technical University, Kapurthala
2021-22	Dr. Manoj Kumar	Member, BoS(ECE), IKG Punjab Technical University,Kapurthala
2021-22	Dr. Jagjit Malhotra	Member, BoS(ECE), IKG Punjab Technical University,Kapurthala
2021-22	Dr. Devinder Priyadarshi	BoS (Mechanical Engg./ Production Engg.), IKG PTU Jalandhar
2021-22	Dr. Harpreet Kaur Bajaj	Member, BoS (CSE), IKG Punjab Technical University, JALANDAHR
2021-22	Dr. Kanchan L Singh	BoS (Physical Sciences), IKG Punjab Technical University, Jalandhar
2021-22	Dr. Ashok Kumar	BoS (Chemical Sciences), IKG Punjab Technical University, Jalandhar
2021-22	Dr. Sanjeev Naval	Member of BoS for Civil Engineering, Environmental Science and Engg of IKG PTU Jalandhar
2021-22	Dr. Sanjay Goel	Member of BoS for Civil Engineering, Environmental Science and Engg of IKG PTU Jalandhar
2021-22	Mr. Nitesh Thakur	Member of BoS for Hotel Management, Tourism and Travel Management, IKG PTU Jalandhar

Teachers of the Institution participate in activities related to curriculum development and assessment of the affiliating University and /are represented on Academic council/BoS of affiliating university during the last five years

IK Gujral Punjab Technical University
Notification

Ref. No.: IKGPTU/Reg/NF/26 Date: 01/03/17

The Vice Chancellor of the IK Gujral Punjab Technical University is please to constitute the following Board of studies for a period of two years from the date of notification. The board of studies shall be under the guidance of concerned Faculties headed by Dean, Faculty. Board of studies listed in Part-A, shall function under the chairmanship of Head of Concerned Teaching Departments in the University Campus. In subjects for which Teaching Department are yet to be established in the University Campus as listed in Part-B, shall continue to function under the supervision of Dean (Academics) with one internal faculty member as BOS coordinator from IKGPTU internal system.

Part-A

1. Board of Studies, Electrical Engineering

	Name	Address	Phone	Email ID
Chairman (Ex-officio)	Dr. Y.S Brar	Head, Department of ECE, IKGPTU, Kapurthala	9478098013	braryadwinder@yahoo.co.in
Professors	Dr. Raja Singh Khela	DIET, Kharar	0160-5032525	qifoundaion@gmail.com
	Dr. Pramod Aggarwal	IIT, Roorkee	9927017873	dean.acadres@iitr.ac.in
	Dr. Shiv Narayan	PEC, Chandigarh	9417061712	shivnarayan@pec.ac.in
Associate Professors	Dr. Gagandeep Kaur	IKGPTU, Kapurthala	9478098118	gaganpitk@gmail.com
	Dr. Kanwardeep Singh	GNDEC, Ludhiana	9501411533	Kds97dee@gmail.com
	Dr. Sudhir Sharma	DAVIET, Jalandhar	0181-227650	Ss_daviet@yahoo.co.in
Assistant Professors	Dr. Jaspreet Singh Chahal	IKGPTU, Kapurthala	9465884841	jschahal@ptu.ac.in
	Dr. Deepika Bhalla	IKGPTU, Kapurthala	7508540590	deppikbhalla89@gmail.com
	Dr. Navneet Singh Bhangu	GNDEC, Ludhiana	9872827229	navneetbhangu@gndec.ac.in
Outside experts	Dr. Yogesh Vijay Hote	IIT, Roorkee	01332-285134	yhotefee@iitr.ac.in
	Dr. S. Gosh	Thapar University, Patiala	9872710783	smarajitg@hotmail.com
	Dr. Chakradhar Reddy	IIT, Ropar	9417034192	reddy@iitrpr.ac.in
Training Placements	S. Navdeepak Sandhu	IKGPTU, Kapurthala	9478098040	placements.ptu@gmail.com
Industrial Representative	CII Nominee	To be nominated by CII		

1/3/17

Page 1 of 18

2. Board of studies, Electronics and Communication Engineering

	Name	Address	Phone	Email ID
Chairman (Ex-officio)	Dr. Avtar Singh Buttar	Head, Department of ECE, IKGPTU, Kapurthala	9478098153	danshavtar@redifmail.com
Professors	Dr. Sandeep Singh Gill	GNDEC, Ludhiana	9814801718	g@gndec.ac.in
	Dr. Charanjit Singh	RBIET, Hoshiarpur	9463569976	rbcentwh@rayatbahra.com
	Dr. Harbhajan Singh	SSIET, Derabssi	94174-23524	drharbhajansingh@gmail.com
Associate Professors	Dr. Satbir Singh	IKGPTU, Kapurthala	9465884850	drsatbir.in@gmail.com
	Dr. Jagroop Singh sidhu	DAVIET, Jalandhar	9915749651	roopasidhu@gmail.com
	Dr. Jaswinder Singh	BCET, Gurdaspur	9855550667	jaswinder.ece@bcetgsp.ac.in
Assistant Professors	Dr. Dalveer Kaur	IKGPTU, Kapurthala	9478098066	Dn_dogra@redifmail.com
	Dr. Rakesh Goyal	IKGPTU, Kapurthala	9988834220	errakeshgoyel@gmail.com
	Dr. Amit Gupta	IKGPTU, Kapurthala	9872223212	Amitgupta45@hotmail.com
Outside Experts	Dr. Nina Gupta	PEC, Chandigarh	9815503245	Ng65@redifmail.com
	Dr. Dharminder Singh	IIT, Rorkee	01332285695	dharmtec@iitr.ac.in
	Dr. A.K. Charterjee	Thapar University	9876389932	akchaterjee@thaper.edu
Training Placements	S. Navdeepak Sandhu	IKGPTU, Kapurthala	9478098040	placements.ptu@gmail.com
Industrial Representative	CII Nominee	To be nominated by CII, President		

5. **Board of Studies, Physical Sciences (Material Science/ Nano science and Technology)**

	Name and Designation	Addresses	Phone	Email ID
Chairman (Ex-officio)	Dr. Amit Sarin	Head, Physical Sciences, IKGPTU, Kapurthala	9872998760	amit.sarin@yahoo.com
Professors	Dr. Devinder Mehta	PU, Chandigarh	9815973101	dmehta@pu.ac.in
	Dr. R.K. Bedi	SIET, Amritsar	9814729284	rkbedi2008@gmail.com
	Dr. Rakesh Dogra	BCET Gurdaspur	9872150166	rakesh.as@bcetgsp.ac.in
Associate Professors	Dr. Harpreet Kaur Garewal	GNDEC Ludhiana	9815657551	hkgrewal@gndec.ac.in
	Dr. Arvind Kumar	BCET, Gurdaspur	9872615601	arvind.as@bcetgsp.ac.in
	Dr. Kanchan L singh	DAVIET, Jalandhar	9914001756	kanchan_69@rediffmail.com
Assistant Professors	Dr. Hitesh Sharma	IKGPTU, Kapurthala	9478098060	dr.hitesh@ptu.ac.in
	Dr. Maninder Kaur	IKGPTU, Kapurthala	9915591468	Manisaini153@gmail.com
	Dr. Rajiv Malhotra	BCET, Gurdaspur	9876114979	Rajeev_bcet@yahoo.co.in
Outside Experts	Dr. Ranjan Kumar	PU, Chandigarh	8283084499	p.arumugam@gmail.com
	Dr. R. Armugam	IIT, Roorkee	8979890366	gdvarfph@iitr.ac.in
	Dr.B.D. Gupta	IIT, Delhi	011-26591355	bdgupta@physics.iitd.ac.in
Training Placements	S. Navdeepak Sandhu	IKGPTU -Kapurthala	9478098040	placements.ptu@gmail.com
Industrial Representative	CII Nominee	To be nominated by CII		

6. **Board of Studies, Chemical Sciences**

	Name and Designation	Addresses	Phone	Email ID
Chairman (Ex-officio)	Dr. Gaurav Bhargava	Head, Department of Chemical Sciences IKGPTU, Kapurthala	9478098058	gauravorganic@gmail.com
Professors	Dr. R.K. Mahajan	GNDU, Amritsar	9872856579	Rakesh_chem@yahoo.com
	Dr. R.P. Singh Grewal	GNDEC, Ludhiana	9815298388	Spsinghgrewal@gmail.com
	Dr. Neeraj Kumar	CEC, Landran	9316162615	Kumarnk31@gmail.com
Associate Professors	Dr. Gurjaspreet Singh	PU, Chandigarh	9814302099	gjpsingh@pu.ac.in
	Dr. Ashok Kumar	DAVIET, Jalandhar	9915378828	dryadavashok@gmail.com
	Dr. Anju Awasthi	BCET, Gurdaspur	88727-00517	anju.as@bcetgsp.ac.in

IKG PUNJAB TECHNICAL UNIVERSITY, JALANDHAR
Minutes of Meetings

A meeting of Board of Studies, Computer Science Engineering, was scheduled on 6th July 2017 at 11.30 a.m. in Seminar Hall, 2nd floor, Dept. of Academics, IKGPTU, Kapurthala.
The agenda of the meeting was to discuss and finalize:

- Scheme and syllabi for M.Tech. (Big Data Analytics) 2016 batch
- Scheme and syllabi for M.Tech. (Computer science and Engineering) 2017 batch
- Scheme for B. Tech. (Computer science and Engineering) 2017 batch
- Equivalence of Ph. D. in Computer Applications with Ph. D in Computer Sc. and Engineering
- Any other matter with the permission of chair

Following Members were Present at the meeting:
Dr. Monika Sachdeva, IKGPTU Main Campus, *Chairman (Ex-officio)*
Dr. Akshay Girdhar, Professor, GNDEC, Ludhiana
Dr. Baljit Singh, Professor, BBSEC, Fatehgarh Sahib
Dr. Rajesh Bhatia, Panjab Technology University, Chandigarh, *outside Expert*
Dr. Krishan Saluja, Panjab University, Chandigarh, *outside Expert*
Dr. R.C. Gangwar, Associate Professor, BCET,Gurdaspur
Dr. S.K. Gupta, Associate Professor, BCET,Gurdaspur
Dr. Dinesh, Associate Professor, DAVIET, Jalandhar
Dr. Anshu Bhasin, IKGPTU Main Campus, *Member*
Dr. Sumesh Sood, IKGPTU Dinanagar campus, *Member*
Dr. Raman, IKGPTU Dinanagar Campus, *Member*
Mr. Vipin, Industry Expert, *Special Invitee*

Following members could not attend the meeting:
Dr. Parminder Singh, Professor, GNDEC, Ludhiana
Dr. Harsh Verma, NIT, Jalandhar, *outside Expert*
Mr. Navdeepak Sandhu, Training and Placements, IKGPTU, Kapurthala

The Board took the agenda and following decisions were taken.

1. The scheme and syllabi for M Tech (Big Data Analytics) has been approved.
2. The scheme for M Tech (CSE) for the batch 2018 has been finalized.
3. Every student has to earn 20%-25% credits through MOOCs courses. The department will decide the equivalency of existing courses with the MOOCs courses for online learning.
4. An open elective may be introduced in third semester of M. Tech. (CSE).
5. Evaluation criteria for evaluating M. Tech. dissertation may be as follows:
   a. Papers published in SCI/SCIE journals may be assigned grade 'O'.
   b. Papers published in SCOPUS indexed journals may not be assigned above grade 'A+'.
   c. Papers published in UGC approved journal list not covered above and IEEE/Springer/ACM/Proceedia may not be assigned above grade 'A'.
   d. Other grades may be assigned based on the performance of students below grade 'A'.
6. Due to shortage of time the scheme of B. Tech. (CSE) could not be taken up. However, the board was of opinion that a course "Soft Skills (covering all placement pre-requisites)" may be introduced from third semester onwards.
7. The committee strongly recommended workshops/short term courses on latest technologies due to major revisions in both B. Tech. and M. Tech. curriculum.
8. The board was of view that Ph.D. in Computer Applications may be considered equivalent to Ph.D. in Computer Science. However, it should be considered under Faculty of Sciences.

Sumesh Sood