



## SUPPORTING DOCUMENTS

AQAR: 2022-23

1.1.2	<i>The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)</i>
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**Attachment:** [Supporting Document](#)



**IMS Engineering College**  
NH-09, Adhyatmik Nagar, Near Dasna, Distt. Ghaziabad, U.P.  
Tel: (0120) 4940000

**Department of Computer Science & Engineering**

**Adherence Report for Even Semester (2022-23) – III & IV Year**

S. No.	Event	Date	Adherence Date	Adherence Report	Remarks
1	Course Allocation, Faculty load calculation and projection of requirement of resources	15-Jan-23	19-Jan-23	OK	By HOD
2	Subject Allotment	20-Jan-23	01-Feb-23	OK	By HOD & Time Table Committee
3	Department Time Table for III & IV Year	27-Jan-23	07-Jan-23	Pre-Poned	By Time Table Committee
4	Finalisation of LAB Manual	02-Feb-23	15-Feb-23	Post-Poned	By Lab Manual coordinator
5	Registration of Third & Final Year Students	03-Feb-23	03-Feb-23	OK	BY Registrar
6	Commencement of Classes for IV year of B.Tech	06-Feb-23	06-Feb-23	OK	By HOD
7	Departmental Meeting - I	07-Feb-23	09-Feb-23	OK	BY HOD
8	Department Academic Calendar Presentation	10-Feb-23	25-Feb-23	Post-Poned	By HOD & PAC Member
9	NBA Meeting (Review of criteria of 1 & 2)	10-Feb-23	27-Jan-23	Pre-Poned	By HOD & NBA Coordinator & PAC Committee
10	Alumni Sports Meet	11-Feb-23	11-Feb-23	OK	By Alumni Committee
11	Auditing of Lecture Plan / CO-PO-PSO mapping / course file for Third & Final Year	13-Feb-23	10-Feb-23	OK	By NBA & Module Coordinator
12	Module Coordinator Meeting with HOD	13-Feb-23	27-Jan-23	Pre-Poned	BY HOD
13	Alumni Coordinator meeting with HOD	14-Feb-23	14-Feb-23	OK	By HOD
14	Result Analysis committee meeting with HOD	20-Feb-23	20-Feb-23	OK	By HOD
15	Project Review - I	20-Feb-23	20-Feb-23	OK	By Project Coordinator and Project Module Coordinator
16	Project Coordinator meeting with HOD	21-Feb-23	21-Feb-23	OK	By HOD
17	Mentors Meeting	27-Feb-23	08-Feb-23	Pre-Poned	By Mentoring Coordinator
18	Departmental Meeting - II	01-Mar-23	25-Feb-23	OK	By HOD
19	First Audit by Module Coordinator	10-Mar-23	25-Mar-23	Post-Poned	by NBA & Module Coordinator
20	Convocation Batch 2022	19-Mar-23	19-Mar-23	OK	Dean (Academic) & Team Members



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**Department of Computer Science & Engineering**

21	Project Review - II	20-25 Mar-23	20-23 Mar-23	OK	By Project Coordinator and Project Module Coordinator
22	Detention list of CT-1 Students	23-Mar-23	25-Mar-23	OK	By Class Coordinator
23	Letters of detained students to be send to parents	25-Mar-23	25-Mar-23	OK	By Attendance Review Committee
24	Attendance and course coverage send to Dean Academic	25-Mar-23	25-Mar-23	OK	By HOD
25	Sessional – I Test	27 Mar-03 Apr 23	27 Mar-03 Apr 23	OK	BY Exam Cell Committee
26	VIBGIOR (Techno Cultural Event)	07-08 Apr-23	04-05 May-23	Post-Poned	Event Coordinator
27	Last Date of showing evaluated answer sheet to students & compilation of marks & uploading CT-1 marks on ERP	10-Apr-23	07-Apr-23	OK	By all faculty
28	Sending CT-1 Marks to AMC	10-Apr-23	08-Apr-23	OK	By HOD
29	Departmental Meeting - III	10-Apr-23	25-Apr-23	Post-Poned	By HOD
30	Project Review - III	10-Apr-23	08-09 May-23	Post-Poned	By Project Coordinator and Project Module Coordinator
31	Students, parents meeting with HOD's (for showing student attendance & weak student performance in CT-I)	12-Apr-23	12-Apr-23	OK	By Attendance Review Committee
32	Industrial Visit	14-Apr-23	19-Apr-23	OK	By IIC
33	Internal Lab Exam & Lab Viva-2	21-Apr-23	08-10 May-23	Post-Poned	By Subject Faculty
34	Second Audit by module coordinator	27-Apr-23	24-28 May-23	Post-Poned	By Module Coordinator
35	Letters of detained students to be send to parents	28-Apr-23	13-May-23	Post-Poned	By Attendance Review Committee
36	Attendance and course coverage send to Dean Academic	28-Apr-23	25-Apr-23	OK	BY HOD
37	Detention list of CT-II Students	28-Apr-23	13-May-23	Post-Poned	By Class Coordinator
38	Third Mentor Meeting	28-Apr-23	28-Apr-23	OK	By Mentoring Coordinator
39	Student Feedback-II	28-29 Apr-23	03-May-23	OK	By NBA Coordinator
40	Sessional – II Test	01-04 May-23	15-19 May-23	Post-Poned	By Exam Cell Committee



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41	Departmental Meeting - IV	08-May-23	08-May-23	OK	By HOD
42	Last Date of showing evaluated answer sheet to students & compilation of marks & uploading CT-2 marks on ERP	09-May-23	24-May-23	Post-Poned	By all faculty
43	Sending CT-2 Marks to AMC	09-May-23	25-May-23	Post-Poned	By HOD
44	Students, parents meeting with HOD's (for showing student attendance & weak student performance in CT-II)	10-May-23	25-May-23	Post-Poned	By HOD
45	Third Audit by module coordinator	10-May-23	12-May-23	OK	by NBA & Module Coordinator
46	Submission of Sessional marks and answers sheet to the exam cell	30-May-23	17-20 Jun-23	Post-Poned	By NBA Coordinator
47	NBA Meeting (Review of criteria of 7)	04-Jun-23	04-Jun-23	OK	By HOD & NBA Coordinator & PAC Committee
48	Calculation of internal marks	12-Jun-23	08-Jun-23	OK	By Respective class Coordinator
49	Publication of Departmental Newsletter	20-Jun-23	27-Jun-23	OK	By News Letter Committee
50	University End semester Examination	--			As per university announcement
51	End semester practical examinations	--			As per university Announcement



## Department of Computer Science & Engineering

### Adherence Report for ODD Semester (2022-23) (II Year)

S. No.	Event	Actual Date	Adherence Date	Adherence Report	Remarks
1	Course Allocation, Faculty load calculation and projection of requirement of resources	15-Jun-22	22-June-22	OK	By HOD
2	Subject Allotment	22-Jul-22	27-June-22	OK	By HOD & Time Table Committee
3	Finalisation of LAB Manual	26-Jul-22	07-July-22	Delayed	By Lab Manual coordinator
4	Department Academic Calendar Presentation	04-Aug-22	22-Aug-22	Delayed	By HOD & PAC Member
5	Registration of Second Year	21-Aug-22	16-Aug-22	OK	BY Registrar
6	Department Time Table for II Year	22-Aug-22	26-Aug-22	OK	By Time Table Committee
7	Commencement of Classes for II year	29-Aug-22	29-Aug-22	OK	By HOD
8	Auditing of Lecture Plan / CO-PO-PSO mapping / course file for II Year	31-Aug-22	01-Sep-22	OK	By NBA & Module Coordinator
9	Module Coordinator Meeting with HOD	01-Sep-22	25-Aug-22	OK	BY HOD
10	Letters of detained students to be send to parents	24-Sep-22	24-Sep-22	OK	By Attendance Review Committee
11	Student Feedback	26-Sep-22	26-Sep-22	OK	By NBA Coordinator
12	Attendance and course coverage send to Dean Academic	24-Sep-22	24-Sep-22	OK	By HOD
13	Detention list of CT-1 Students	26-Sep-22	26-Sep-22	OK	By Class Coordinator
14	Sessional – I Test	28-30 Sep-22	28-30 Sep-22	OK	BY Exam Cell Committee
15	Uploading of Sessional Marks on ERP	03-Oct-22	03-Oct-22	OK	By all faculty
16	Students, parents meeting with HOD's	24-Nov-22	24-Nov-22	OK	By Attendance Review Committee
17	Letters of detained students to be send to parents	30-Dec-22	30-Dec-22	OK	By Attendance Review Committee
18	Student Feedback	29-Dec-22	29-Dec-22	OK	By NBA Coordinator





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19	Attendance and course coverage send to Dean Academic	29-Dec-22	29-Dec-22	OK	BY HOD
20	Detention list of CT-II Students	29-Dec-22	29-Dec-22	OK	By Class Coordinator
21	Sessional – II Test	2-4 Jan-23	2-4 Jan-23	OK	By Exam Cell Committee
22	Uploading of Sessional Marks on ERP	09-Jan-23	09-Jan-23	OK	By all faculty
23	Industrial Visit	01-Dec-22	01-Dec-22	OK	By IIC
24	Letters of detained students to be send to parents	17-Feb-23	17-Feb-23	OK	By Attendance Review Committee
25	Student Feedback	18-Feb-23	18-Feb-23	OK	By NBA Coordinator
26	Attendance and course coverage send to Dean Academic	18-Feb-23	18-Feb-23	OK	BY HOD
27	Detention list of CT-III Students	18-Feb-23	18-Feb-23	OK	By Class Coordinator
28	Sessional – III Test	20-03 Mar-23	20-03 Mar-23	OK	By Exam Cell Committee
29	Uploading of Sessional Marks on ERP	05-Mar-23	05-Mar-23	OK	By all faculty
30	Submission of Sessional marks and answers sheet to the exam cell	13-Mar-23	13-Mar-23	OK	By NBA Coordinator
31	Calculation of internal marks	20-Mar-23	20-Mar-23	OK	By Respective class Coordinator
32	University End semester Examination	--	--		As per university announced
33	End semester practical examinations	--	--		As per university announced



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## COURSE FILE



Faculty Name	: Mr. Amit Kumar	Course Code	: KCS -713
Course Name	: Cloud Computing	NBA Code	: C 403
Year/Sem/Sec	: 4th/7th/CSI:3,CSI:4	Academic Year	: 2022-2023
Email ID	: Amit.kumar3@insec.ac.in	Mobile Number	: 8603320372



Department of Computer Science & Engineering

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7.	Faculty Time Table	
8.	Lecture Plan	
9.	Course Outcomes	
10.	CO-PO-PSO Mapping & its Justification	
11.	Student List	
12.	Question Paper CT1	
13.	Attendance of CT1 with obtained marks	
14.	Sessional Mapping with CO (CO-PO Attainment sheet)	
15.	List of Bright and weak student	
16.	Action taken for Weak Students <u>Attach proof of action taken</u>	
17.	Evaluated Answer Scripts (Highest/Average/Poor category) 2 from each category	
18.	Question Paper CT2	
19.	Attendance of CT2 with obtained marks	
20.	Sessional Mapping with CO (CO-PO Attainment sheet)	
21.	List of Bright and weak student	
22.	Action taken for weak students <u>Attach proof of action taken</u>	
23.	Evaluated Answer Scripts (Highest/Average/Poor category) 2 from each category	
24.	Question Paper CT 3	
25.	Attendance of CT3 with obtained marks	
26.	Sessional Mapping with CO (CO-PO Attainment sheet)	
27.	List of Bright and weak student	
28.	Action taken for weak students <u>Attach proof of action taken</u>	
29.	Evaluated Answer Scripts (Highest/Average/Poor category) 2 from each category	
30.	Assignments / Tutorials	
31.	Sample assignment / tutorial sample 2 from each assignment / tutorial	
32.	Any innovative teaching learning practice used	
33.	Lecture Notes	
34.	Notes / Study Material for content beyond syllabus	
35.	Last three years question papers	
36.	Model Question paper	
37.	Final Marks Statement (CT1, CT2 and CT3)	
38.	File Closure (Final Attainments, Result Analysis, Feedback) - Course Review with HOD Signature	





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## **Department of Computer Science & Engineering**

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### **Vision and Mission of the Institute and Department**

#### **Vision of the Institute**

“To make IMS EC a leading and continuously evolving educational institution that provides a transformative learning experience for its students to become global leaders and also engage all stakeholders in the process of achieving its goals.”

#### **Mission of the Institute**

- To imbibe in the students of IMSEC a desire for lifelong learning.
- To develop and use pedagogy based on participative and experiential learning.
- To undertake research, projects and consultancy assignments.
- To inculcate in its students the qualities of Leadership, Professionalism, and Technical Competence for achieving sustainable development.
- To enable students to become socially responsible individuals by inculcating in them a sense of human values and concern for the environment.

#### **Vision of the Department**

To provide globally competent professionals in the field of Computer Science & Engineering embedded with sound technical knowledge, aptitude for research and innovation with ethical values to cater to the industrial & societal needs.

#### **Mission of the Department**

- M1: To provide quality undergraduate education in both the theoretical & applied foundations of Computer Science Engineering.
- M2: Conduct research to advance the state of the art in Computer Science & Engineering and integrate the research results as innovations.
- M3: To inculcate team building skills and promote life-long learning with a high societal and ethical values.

**Vision:**

To make IMSEC an Institution of Excellence for empowering students through technical education coupled with incorporating values and developing engineering acumen for innovations and leadership skills for the betterment of society.

**Mission:**

- To promote academic excellence by continuous learning in core and emerging Engineering areas using innovative teaching and learning methodologies.
- To inculcate values and ethics among the learners.
- To promote industry interactions and produce young entrepreneurs.
- To create a conducive learning and research environment for life-long learning to develop the students as technology leaders and entrepreneurs for addressing societal needs.



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## **Department of Computer Science & Engineering**

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### **Program Specific Outcomes (PSOs)**

PSO1: To apply standard software engineering practices & strategies in real-time software project development

PSO2: To apply latest programming languages in creating innovative career opportunities.

### **Program Educational Objectives (PEOs)**

Graduate Will:

PEO1: Possess knowledge to enable continued professional development.

PEO2: Engage in life-long learning to foster personal & organization growth.

PEO3: Work productively as successful professionals in diverse career paths.

PEO4: Effectively communicate ideas to promote collaboration in accordance with societal standards & ethical practices.



Department of Computer Science & Engineering

Program Outcomes (POs)

S. No.	Program Outcomes / Program Specific Outcomes
PO1.	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2.	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3.	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4.	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5.	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6.	<b>The engineer and society:</b> apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7.	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8.	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9.	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10.	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11.	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12.	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.



**IMS ENGINEERING COLLEGE, GHAZIABAD  
ACADEMIC CALENDAR (As per AKTU) (ODD SEM; 2022 - 23)**

August-22							September-22							October-22							
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	
1	2	3	4	5	6	7	5	6	7	8	9	10	11	3	4	5	6	7	8	9	
8	9	10	11	12	13	14	12	13	14	15	16	17	18	10	11	12	13	14	15	16	
15	16	17	18	19	20	21	18	19	20	21	22	23	24	25	17	18	19	20	21	22	23
22	23	24	25	26	27	28	25	26	27	28	29	30	31	24	25	26	27	28	29	30	
29	30	31												31							

  

November-22							December-22							January-23						
M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
1	2	3	4	5	6	7	5	6	7	8	9	10	11	2	3	4	5	6	7	8
7	8	9	10	11	12	13	12	13	14	15	16	17	18	9	10	11	12	13	14	15
14	15	16	17	18	19	20	19	20	21	22	23	24	25	16	17	18	19	20	21	22
21	22	23	24	25	26	27	26	27	28	29	30	31	23	24	25	26	27	28	29	
28	29	30											30	31						

  

SPECIAL DATES		HOLIDAYS		EXAMINATION CLASS TESTS	
<input type="checkbox"/>	Starting Date of Registration: 1 <sup>st</sup> Aug 2022 (For VI semester students)	<input type="checkbox"/>	09-Aug (TUE) - MOHARRAM	<input type="checkbox"/>	CT1: 25 <sup>th</sup> , 26 <sup>th</sup> , 28 <sup>th</sup> Sep 2022
<input type="checkbox"/>	Commencement of Classes: 14 <sup>th</sup> Aug 2022 (For VI semester students)	<input type="checkbox"/>	12-Aug (FRI) - RAKSHASABANDHAN	<input type="checkbox"/>	CT2: 31 <sup>st</sup> Oct, 1 <sup>st</sup> , 2 <sup>nd</sup> Nov 2022
<input type="checkbox"/>	Starting Date of Registration: 31 <sup>st</sup> Aug 2022 (For B.E. & V Semester Students)	<input type="checkbox"/>	15-Aug (MON) - INDEPENDENCE DAY	<input type="checkbox"/>	Work Submission: By 05 <sup>th</sup> Nov 2022
<input type="checkbox"/>	Commencement of Class: 29 <sup>th</sup> Aug 2022 (For B.E. & V Semester Students)	<input type="checkbox"/>	18-Aug (THU) - KRISHNA JANMASHTAMI	<input type="checkbox"/>	CT3: 28 <sup>th</sup> , 29 <sup>th</sup> , 30 <sup>th</sup> November 2022
<input type="checkbox"/>	Faculty Classes for A-Unit (B.E. & V Sem) 18 <sup>th</sup> Aug 2022	<input type="checkbox"/>	2-Oct (SUN) - GANSHI JAYANTI	<input type="checkbox"/>	Work Submission: By 03 <sup>rd</sup> Dec 2022
<input type="checkbox"/>	Faculty Classes for A-Unit (B.E. & V Sem) 31 <sup>st</sup> Aug 2022	<input type="checkbox"/>	4-Oct (TUE) - MAHA NAVMI	<input type="checkbox"/>	AKTU End Semester Examination: To be announced
<input type="checkbox"/>	PAC Meeting: 10 <sup>th</sup> Sep 2022	<input type="checkbox"/>	5-Oct (WED) - GURUSHA	<input type="checkbox"/>	Review Easy CT
<input type="checkbox"/>	IBC Meeting: 21 <sup>st</sup> Sep 2022	<input type="checkbox"/>	9-Oct (SUN) - G.D. JAI AD	<input type="checkbox"/>	Student Parent Meeting with HODs: 22 <sup>nd</sup> Oct 2022
<input type="checkbox"/>	Final Mentor Meeting: 10 <sup>th</sup> Sep 2022	<input type="checkbox"/>	24-Oct (WED) - DEEPAVALI	<input type="checkbox"/>	Student Feedback: 19 <sup>th</sup> Sep 2022, 28 <sup>th</sup> Oct 2022, 25 <sup>th</sup> Nov 2022
<input type="checkbox"/>	Second Mentor Meeting: 15 <sup>th</sup> Sep 2022	<input type="checkbox"/>	26-27 Oct (WED, THU) - GOWRIKANNI POOLA BHADROLI	<input type="checkbox"/>	Sending CT Carried Over Assignments to ABC & Deat: Actual within four days after completion of every CT
<input type="checkbox"/>	Zonal Sports Meet (To be to be announced)	<input type="checkbox"/>	18-Nov (TUE) - GURU NANAK BIRTHDAY	<input type="checkbox"/>	Sending short Attendance report to parents: 2 <sup>nd</sup> Nov 2022 & 11 <sup>th</sup> Nov 2022
<input type="checkbox"/>	Starting date of English program for needy students: To be Announced	<input type="checkbox"/>	24-Dec (SUN) - CHRISTMAS	<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	26-Jan (THU) - REPUBLIC DAY	<input type="checkbox"/>	

Faculty members are requested to upload the attendance in ERP on the same day

Prof. (Dr.) Vikram Balli  
Director





# IMS Engineering College

NH-09, Adhyatik Nagar, Near Darna, Distt. Ghaziabad, U.P.  
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## Department of Computer Science & Engineering

### Department Academic Calendar for ODD Semester (2022-23)

S. No	Event	Date	Day	Remarks
1	Course Allocation, Faculty load calculation and projection of requirement of resources	15-Jun-22	Wednesday	By HOD
2	Subject Allotment	22-Jul-22	Friday	By HOD & Time Table Committee
3	Finalisation of LAB Manual	26-Jul-22	Tuesday	By Lab Manual coordinator
4	Registration of Final Year Students	01-Aug-22	Monday	BY Registrar
5	Department Academic Calendar Presentation	04-Aug-22	Thursday	By HOD & PAC Member
6	Department Time Table for IV Year	10-Aug-22	Wednesday	By Time Table Committee
7	Commencement of Classes for IV year of B.Tech	16-Aug-22	Tuesday	By HOD
8	Departmental Meeting - I	18-Aug-22	Thursday	BY HOD
9	Auditing of Lecture Plan / CO-PO-PSO mapping / course file for Final Year	19-Aug-22	Friday	By NBA & Module Coordinator
10	Registration of Second Year & Third Year Students	21-Aug-22	Sunday	BY Registrar
11	Department Time Table for II Year & III Year	22-Aug-22	Monday	By Time Table Committee
12	NBA Meeting (Review of criteria of 1& 2)	24-Aug-22	Wednesday	By HOD & NBA Coordinator & PAC Committee
13	Project Synopsis Submission	25-Aug-22	Thursday	By Project Coordinator
14	NAAC Meeting (Progress Meeting)	26-Aug-22	Friday	By HOD & NACC Coordinator
15	Commencement of Classes for II year & III Year of B.Tech	29-Aug-22	Monday	By HOD
16	Auditing of Lecture Plan / CO-PO-PSO mapping / course file for II Year & III Year	31-Aug-22	Wednesday	By NBA & Module Coordinator
17	Module Coordinator Meeting with HOD	01-Sep-22	Thursday	BY HOD





# IMS Engineering College

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## Department of Computer Science & Engineering

18	Alumni Coordinator meeting with HOD	01-Sep-22	Thursday	By HOD
19	Result Analysis committee meeting with HOD	02-Sep-22	Friday	By HOD
20	Industrial / Mini Project Coordinator meeting with HOD	02-Sep-22	Friday	By HOD
21	Project Coordinator meeting with HOD	05-Sep-22	Monday	By HOD
22	Departmental Meeting - II	05-Sep-22	Monday	By HOD
23	Orientation of Technical Club	07-Sep-22	Wednesday	By Technical Event Coordinator
24	PAC Meeting	10-Sep-22	Saturday	By HOD & PAC Members
25	CSI & IEEE Faculty In charge meeting with HOD	15-Sep-22	Thursday	By HOD
26	First Mentors Meeting	16-Sep-22	Friday	By Mentoring Coordinator
27	Letters of detained students to be send to parents	19-Sep-22	Monday	By Attendance Review Committee
28	First Audit by Module Coordinator	19-Sep-22	Monday	by NBA & Module Coordinator
29	Student Feedback	19-Sep-22	Monday	By NBA Coordinator
30	Attendance and course coverage send to Dean Academic	20-Sep-22	Tuesday	By HOD
31	Detention list of CT-1 Students	21-Sep-22	Wednesday	By Class Coordinator
32	DAC Meeting	24-Sep-22	Saturday	By HOD & DAC Members
33	Sessional - I Test	22-24, Sep-2022	Thu-Sat	By Exam Cell Committee
34	Uploading of Sessional Marks on ERP	27-Sep-22	Tuesday	By all faculty
35	Project Review - I	08-Oct-22	Saturday	By Project Coordinator and Project Module Coordinator
36	Second Mentors Meeting	08-Oct-22	Saturday	By Mentoring Coordinator





# IMS Engineering College

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37	NBA Meeting (Review of criteria of 3& 4)	20-Oct-22	Thursday	By HOD & NBA Coordinator & PAC Committee
38	Departmental Meeting - III	21-Oct-22	Friday	By HOD
39	Students, parents meeting with HOD's	22-Oct-22	Saturday	By Attendance Review Committee
40	Second Audit by module coordinator	28-Oct-22	Friday	By Module Coordinator
41	Letters of detained students to be send to parents	28-Oct-22	Friday	By Attendance Review Committee
42	Student Feedback	28-Oct-22	Friday	By NBA Coordinator
43	Attendance and course coverage send to Dean Academic	29-Oct-22	Saturday	By HOD
44	Detention list of CT-II Students	29-Oct-22	Saturday	By Class Coordinator
45	Sessional - II Test	31-10-2022, 1&2 Nov, 2022	Mon-Wed	By Exam Cell Committee
46	Uploading of Sessional Marks on ERP	05-Nov-22	Saturday	By all faculty
47	Industrial Visit	05-Nov-22	Saturday	By IIC
48	Third Mentor Meeting	10-Nov-22	Thursday	By Mentoring Coordinator
49	Project Review - II	12-Nov-22	Saturday	By Project Coordinator and Project Module Coordinator
50	Departmental Meeting - IV	15-Nov-22	Tuesday	By HOD
51	NBA Meeting (Review of criteria of 5& 6)	17-Nov-22	Thursday	By HOD & NBA Coordinator & PAC Committee
52	Third Audit by module coordinator	24-Nov-22	Thursday	By NBA & Module Coordinator
53	Letters of detained students to be send to parents	25-Nov-22	Friday	By Attendance Review Committee
54	Student Feedback	25-Nov-22	Friday	By NBA Coordinator



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### Department of Computer Science & Engineering

55	Attendance and course coverage send to Dean Academic	26-Nov-22	Saturday	By HOD
56	Detention list of CT-III Students	26-Nov-22	Saturday	By Class Coordinator
57	Sessional - III Test	28-30, Nov 2022	Mon-Wed	By Exam Cell Committee
58	Uploading of Sessional Marks on ERP	03-Dec-22	Saturday	By all faculty
59	Publication of Departmental Newsletter	05-Dec-22	Monday	By
60	Submission of Sessional marks and answers sheet to the exam cell	07-Dec-22	Wednesday	By NBA Coordinator
61	NBA Meeting (Review of criteria of 7)	07-Dec-22	Wednesday	By HOD & NBA Coordinator & PAC Committee
62	Calculation of internal marks	09-Dec-22	Friday	By Respective class Coordinator
63	Project Review - III	10-Dec-22	Saturday	By Project Coordinator and Project Module Coordinator
64	University End semester Examination			As per university announced
65	End semester practical examinations			As per university announced

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IMS ENGINEERING COLLEGE  
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# COMPUTER SCIENCE AND ENGINEERING/CS

## B.TECH

### (COMPUTER SCIENCE & ENGINEERING/CS) CURRICULUM STRUCTURE

SEMESTER- VII													
Sl. No.	Subject	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
	Codes		L	T	P	CT	TA	Total	PS	TE	PE		
1	KHU701/KHU702	HSMC-1/HSMC-2	3	0	0	30	20	50		100		150	3
2	KCS07X	Departmental Elective-IV	3	0	0	30	20	50		100		150	3
3	KCS07X	Departmental Elective-V	3	0	0	30	20	50		100		150	3
4	KOE07X	Open Elective-II	3	0	0	30	20	50		100		150	3
5	KCS751A	The Department may conduct one Lab of either of the two Electives (4 or 5) based on the elective chosen for the curriculum. The Department shall on its own prepare complete list of practical for the Lab and arrange for proper setup and conduct accordingly.	0	0	2				25		25	50	1
6	KCS752	Mini Project or Internship Assessment*	0	0	2				50			50	1
7	KCS753	Project	0	0	8				50		100	150	4
8		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>12</b>	<b>0</b>	<b>12</b>							<b>850</b>	<b>18</b>

\*The Mini Project or internship (4 - 6 weeks) conducted during summer break after VI semester and will be assessed during VII semester

### SEMESTER- VIII

Sl. No.	Subject	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
	Codes		L	T	P	CT	TA	Total	PS	TE	PE		
1	KHU801/KHU802	HSMC-2/HSMC-1	3	0	0	30	20	50		100		150	3
2	KOE08X	Open Elective-III	3	0	0	30	20	50		100		150	3
3	KOE08X	Open Elective-IV	3	0	0	30	20	50		100		150	3
4	KCS851	Project	0	0	18				100		300	400	4
5		MOOCs (Essential for Hons. Degree)											
		<b>Total</b>	<b>9</b>	<b>0</b>	<b>18</b>							<b>850</b>	<b>18</b>

## COMPUTER SCIENCE AND ENGINEERING/CS

### Departmental Elective-IV

1. KCS071 Artificial Intelligence
2. KCS072 Natural language processing
3. KCS073 High Performance Computing
4. KCS074 Cryptography and Network Security
5. KCS075 Design & Development of Applications
6. KCS076 Software Testing
7. KCS077 Distributed Systems

### Departmental Elective-V

1. KCS078 Deep Learning
2. KCS079 Service Oriented Architecture
3. KCS710 Quantum Computing
4. KCS711 Mobile Computing
5. KCS712 Internet of Things
6. KCS713 Cloud Computing
7. KCS714 Blockchain Architecture Design



## COMPUTER SCIENCE AND ENGINEERING/CS

Cloud Computing (KCS713)		
Course Outcome ( CO)		Bloom's Knowledge Level (KL)
At the end of course , the student will be able to understand		
CO 1	Describe architecture and underlying principles of cloud computing.	K <sub>1</sub>
CO 2	Explain need, types and tools of Virtualization for cloud.	K <sub>1</sub> , K <sub>2</sub>
CO 3	Describe Services Oriented Architecture and various types of cloud services.	K <sub>2</sub> , K <sub>3</sub>
CO 4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	K <sub>3</sub> , K <sub>4</sub>
CO 5	Analyze advanced cloud technologies.	K <sub>3</sub> , K <sub>6</sub>
DETAILED SYLLABUS		3-1-0
Unit	Topic	Proposed Lecture
I	<b>Introduction To Cloud Computing:</b> Definition of Cloud – Evolution of Cloud Computing – Underlying Principles of Parallel and Distributed Computing – Cloud Characteristics – Elasticity in Cloud – On-demand Provisioning.	08
II	<b>Cloud Enabling Technologies Service Oriented Architecture:</b> REST and Systems of Systems – Web Services – Publish, Subscribe Model – Basics of Virtualization – Types of Virtualization – Implementation Levels of Virtualization – Virtualization Structures – Tools and Mechanisms – Virtualization of CPU – Memory – I/O Devices –Virtualization Support and Disaster Recovery.	08
III	<b>Cloud Architecture, Services And Storage:</b> Layered Cloud Architecture Design – NIST Cloud Computing Reference Architecture – Public, Private and Hybrid Clouds – IaaS – PaaS – SaaS – Architectural Design Challenges – Cloud Storage – Storage-as-a-Service – Advantages of Cloud Storage – Cloud Storage Providers – S3.	08
IV	<b>Resource Management And Security In Cloud:</b> Inter Cloud Resource Management – Resource Provisioning and Resource Provisioning Methods – Global Exchange of Cloud Resources – Security Overview – Cloud Security Challenges – Software-as-a-Service Security – Security Governance – Virtual Machine Security – IAM – Security Standards.	08
V	<b>Cloud Technologies And Advancements Hadoop:</b> MapReduce – Virtual Box – Google App Engine – Programming Environment for Google App Engine – Open Stack – Federation in the Cloud – Four Levels of Federation – Federated Services and Applications – Future of Federation.	08
<b>Text books:</b>		
1. Kai Hwang, Geoffrey C. Fox, Jack G. Dongarra, "Distributed and Cloud Computing. From Parallel Processing to the Internet of Things", Morgan Kaufmann Publishers, 2012.		
2. Rittinghouse, John W. and James F. Ransome. —Cloud Computing: Implementation, Management and Security, CRC Press, 2017.		
3. Rajkumar Buyya, Christian Vecchiola, S. ThamaraiSelvi, —Mastering Cloud Computing, Tata Mcgraw Hill, 2013.		
4. Toby Veit, Anthony Veit, Robert Eisenpeter, "Cloud Computing – A Practical Approach, Tata Mcgraw Hill, 2009.		
5. George Reese, "Cloud Application Architectures: Building Applications and Infrastructure in the Cloud: Transactional Systems for I-C2 and Beyond (Theory in Practice), O'Reilly, 2009.		



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## Department of Computer Science & Engineering

### Opening Report

(Action Plan 2022-2023, Odd / Even Semester)

Course Name: Cloud Computing Course Code: KCS 713  
 Semester / Year: 7<sup>th</sup>/4<sup>TH</sup> NBA Code: C 403  
 Faculty name(s): Mr. Amit Kumar/ Ms. Ritika Dhyani

#### Course Outcomes:

SLNO	DESCRIPTION	COGNITIVE LEVEL (BLOOMS TAXONOMY)
CO1(C403.1)	Describe architecture and underlying principles of cloud computing.	K3
CO2(C403.2)	Explain need, types and tools of Virtualization for cloud.	K3,K4
CO3(C403.3)	Describe Services Oriented Architecture and various types of cloud services	K2,K3
CO4(C403.4)	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	K2,K4
CO5(C403.5)	Analyze advanced cloud technologies.	K3,K6

#### CO-PO-PSO Mapping:

	P O 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO2
CO1(C403.1)	3	2	2	1	1	1	1	1	1	1	1	2	1	1
CO2(C403.2)	3	3	3	2	3	1	1	1	1	1	1	3	2	2
CO3(C403.3)	3	3	3	2	2	1	1	1	1	1	1	2	2	2
CO4(C403.4)	3	3	3	3	1	1	1	1	1	1	1	3	3	3
CO5(C403.5)	3	3	3	3	2	1	1	1	2	1	3	3	3	3
C 403	3	2.8	2.8	2.2	1.8	1	1	1	1.2	1	1.4	2.6	2.2	2.2



Department of Computer Science & Engineering

Identified Curriculum Gaps: Curriculum gap found in the course when compared to "Marwadi University" for undergraduate degree courses in Engineering and Technology.

1. Cloud Security.
2. Architecture of AWS .

Action Plan for the Identified Curriculum Gaps:

- NPTEL and Coursera Lectures
- Lab Session.

Summary of Result Analysis (Internal + External): 2021-2022

Section	No. of Students <60%	% age	No. of Students >60% & <75%	%age	No. of Students >75%	% age
CSE1	8	12.3	35	53.8	22	33.8
CSE2	14	21.5	27	41.5	24	36.9
CSE3	12	18.5	32	49.2	21	32.3
CSE4	11	17.5	24	38.1	28	44.4
Average	11.3	17.4	29.5	45.7	23.8	36.9

Innovative Learning (if any):

- Presentations
- Group Discussion
- Case Studies

Faculty Name	Section	Sign .
Ms. Ritika Dhyani	CSE1	Ritika Dhyani
Ms. Ritika Dhyani	CSE2	Ritika Dhyani
Mr. Amit Kumar	CSE3	Amit Kumar
Mr. Amit Kumar	CSE4	Amit Kumar

Signature of Module Coordinator



## Department of Computer Science & Engineering

TIME TABLE ACADEMIC SESSION 2022-23 (ODD SEMESTER) w.e.f:-29/08/2022

B.TECH. 4 Yr, SEMESTER-7, SEC-C SE-3, ROOM NO. 309, C-BLOCK

DAY/TIME	Period-1	Period-2	Period-3	Period-4	Period-5	Period-6	Period-7	Period-8	Period-9
		8:50-09:50	09:50-10:40	10:40-11:30	11:30-12:20	12:20-01:10	01:10-02:00	02:00-02:50	02:50-03:40
<b>MON</b>	KCS713(L) AM	KHU701(L) SUG	KCS071(L) NG	KCS 753 B2 (Project Lab)	KCS 753 B2 (Project Lab)		KOE076(L) ASH	Library Technical Events-Mentoring	
<b>TUE</b>	KHU701(L) SUG	KCS713(L) AM	KOE076(L) ASH	Soft skill (MC)	KCS071(L) NG	<b>Break</b>			
<b>WED</b>	KCS071(L) NG	KCS713(L) AM	KHU701(L) SUG	KOE076(L) ASH	Soft skill (MC)				
<b>THU</b>	KOE076(L) ASH	KCS 753 B1 (Project Lab)	KCS 753 B2 (Project Lab)	KCS713(L) AM	KCS071(L) NG				
<b>FRI</b>	<b>Study Day</b>								
							Advance C Programming (AP) Lab2	Advance C Programming (AP)	Soft skill (MC)
							KHU701(L) SUG		Study Day

Slr Code	Subject Name	Faculty Name	L	T	P
KCS713	Cloud Computing	Mr. Amit Kumar (AM)	4	0	0
KCS713	Artificial Intelligence	Mr. Nitin Goyal (NG)	4	0	0
KCS713	Rural Development	Dr. Subhajit Ghosh(SUG)	4	0	0
KCS713	Vision For Humane Society	Mr. Ashish Kumar(ASH)	4	0	0
KCS751A	AI Lab	Mr. Nitin Goyal (NG)/ Ms. Anamika(AN)	0	0	2*2
KCS752	Mini Project/Internship Assessment	Ms. Ritika Dhyani (RD)/ Mr. Nitin Goyal (NG)	0	0	2
KCS752	Project	Project Coordinator	0	0	2*2
	Soft Skill	Dr. Milan (MC)	3	0	0
	Advance C Programming	Ms. Anjali Patel	2		1*2
	Class Coordinator	Mr. Amit Kumar			

Mr. Nitin Goyal  
I.T. Coordinator

Prof. (Dr.) Sonali Mathur  
HOD CSE



**IMS ENGINEERING COLLEGE, GHAZIABAD**

Department : **COMPUTER SCIENCE & ENGINEERING**

Contact No./Email ID: 8463320172/amit.kumar@imsca.ac.in

Faculty Name: **Mr. Amit Kumar**

Designation: **Assistant Professor**

Academic Period: **03RD SEMESTER**

Semester: **7th**

Total Lectures: **40**

Subject with Code: **Cloud Computing (CS 510)**

Section/Branch: **CSE 3**

**L15-L18 PLAN**

Sl. No.	Topic to be Covered	Text Reference Book No.	Date (Substantive)	Date (Final)	Reason for Deviation (Remarks)	Course Outcome
<b>UNIT-1</b>						
1	Introduction to cloud computing	11.R1.R1.R1	22-08-2022			CO number - CO1(CO1.1) statement - Describe architecture and underlying principles of cloud computing (knowledge level - K1)
2	Evolution of cloud computing	11.R1.R1.R1	23-08-2022			
3	Characteristics of cloud computing	11.R1.R1.R1	24-08-2022			
4	Components of cloud computing	11.R1.R1.R1	25-08-2022			
5	Service Model of Cloud Computing	11.R1.R1.R1	26-08-2022			
6	Cloud Computing Threats and Security	11.R1.R1.R1	27-08-2022			
7	Cloud Security and Compliance	11.R1.R1.R1	28-08-2022			
<b>UNIT-2</b>						
1	Virtualization: Need of Virtualization, Virtualization Reference Model	11.R2.R1	06-09-2022			CO number - CO2(CO2.2) statement - Explain need, types and tools of Virtualization for cloud (knowledge level - K2,K4)
2	Virtualization Layer of Virtualization	11.R2.R1	07-09-2022			
3	Types of Virtualization	11.R2.R1	08-09-2022			
4	Virtualization of PC, Memory & I/O devices	11.R2.R1	09-09-2022			
5	SOA Service Oriented Architecture and SOA Reference Model	11.R2.R1	10-09-2022			
6	Web Services & Working of Web Services	11.R2.R1	11-09-2022			
7	SOA Service Oriented Architecture	11.R2.R1	12-09-2022			
<b>UNIT-3</b>						
1	Cloud Architecture: SaaS, Cloud Reference Architecture	11.R1.R2.R1	26-09-2022			CO number - CO3(CO3.3) statement - Describe Service Oriented Architecture and various types of cloud services (knowledge level - K2,K4)
2	SaaS: Software as a Service	11.R1.R2.R1	28-09-2022			
3	PaaS: Platform as a Service	11.R1.R2.R1	29-09-2022			
4	IaaS: Infrastructure as a Service	11.R1.R2.R1	30-09-2022			
5	Cloud Storage & High Availability SaaS	11.R1.R2.R1	01-10-2022			
6	Cloud Storage Benefits	11.R1.R2.R1	02-10-2022			
7	Cloud Storage and Hybrid Cloud	11.R1.R2.R1	03-10-2022			
<b>UNIT-4</b>						
1	Inter-Cloud Resource Management	12.R2.R1	06-10-2022			CO number - CO4(CO4.4) statement - Explain Inter cloud resources management, cloud storage services and their providers, Access security services and standards for cloud computing (knowledge level - K2,K4)
2	Resource Provisioning: methods and Global Exchange of Cloud Services	12.R2.R1	08-10-2022			
3	Cloud Security: Overview, Challenges & Issues	12.R2.R1	09-10-2022			
4	Categories of Cloud Computing Security	12.R2.R1	10-10-2022			
5	Cloud Security Framework	12.R2.R1	11-10-2022			
6	Cloud Machine Security for Cloud Computing	12.R2.R1	12-10-2022			
7	Cloud Security Mechanisms: Components of IAM	12.R2.R1	13-10-2022			
<b>UNIT-5</b>						
1	Introduction	12.R2.R1	16-10-2022			CO number - CO5(CO5.4) statement - Analyze advanced cloud technologies (knowledge level - K3,K4)
2	Cloud Migration	12.R2.R1	17-10-2022			
3	Cloud Migration Strategies	12.R2.R1	18-10-2022			
4	Cloud Migration Challenges	12.R2.R1	19-10-2022			
5	Cloud Migration Tools	12.R2.R1	20-10-2022			
6	Cloud Migration Security	12.R2.R1	21-10-2022			
7	Cloud Migration Best Practices	12.R2.R1	22-10-2022			

**REFERENCE BOOKS:**

1. Cloud Computing: Concepts, Architecture, and Applications, Tata McGraw Hill, 2011

**TEXT BOOKS:**

1. Cloud Computing: Concepts, Architecture, and Applications, Tata McGraw Hill, 2011

2. Cloud Computing: Implementation, Management and Security, CRC Press, 2011

Name and Signature of Faculty: **Mr. Amit Kumar**

Coordinator(BDD)

Director



**Department of Computer Science & Engineering**

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**Course Outcomes**

Course Name: Cloud Computing

Course Code: KCS 713

Semester / Year: 7<sup>TH</sup>/4TH

NBA Code: C 403

Faculty name(s): Mr. Amit Kumar/ Ms. Ritika Dhyani

**Course Outcomes:**

SLNO	DESCRIPTION	COGNITIVE LEVEL (BLOOMS TAXONOMY)
CO1(C403.1)	Describe architecture and underlying principles of cloud computing.	K3
CO2(C403.2)	Explain need, types and tools of Virtualization for cloud.	K3,K4
CO3(C403.3)	Describe Services Oriented Architecture and various types of cloud services	K2,K3
CO4(C403.4)	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	K2,K4
CO5(C403.5)	Analyze advanced cloud technologies.	K3,K6

**CO-PO-PSO Mapping:**

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
CO1(C403.1)	3	2	2	1	1	1	1	1	1	1	1	2	1	1
CO2(C403.2)	3	3	3	2	3	1	1	1	1	1	1	3	2	2
CO3(C403.3)	3	3	3	2	2	1	1	1	1	1	1	2	2	2
CO4(C403.4)	3	3	3	3	1	1	1	1	1	1	1	3	3	3
CO5(C403.5)	3	3	3	3	2	1	1	1	2	1	3	3	3	3
C 403	3	2.8	2.8	2.2	1.8	1	1	1	1.2	1	1.4	2.6	2.2	2.2



**Department of Computer Science & Engineering**

**CO PO JUSTIFICATION**

CO-PO	MAPPING (1/2/3)	JUSTIFICATION
C403.1 - PO1	3	Basic knowledge of cloud computing is required to design architecture of cloud, that's why basic fundamentals of engineering is required. Hence, mapping is high.
C403.1 - PO2	2	Basic knowledge of cloud computing does contribute to problem analysis and formulation. Hence, mapping is moderate.
C403.1 - PO3	2	Basic knowledge of cloud computing contributes to the design and development of solution. Hence, mapping is moderate.
C403.1 - PO4	1	Basic knowledge of cloud computing contributes to the investigation of complex problems. Hence, mapping is low.
C403.1 - PO5	3	Fundamental knowledge of cloud computing is necessary to learn modern technologies. Hence, mapping is high.
C403.1 - PO6	1	Basic knowledge of cloud computing is not assessed by societal issues, health and cultural issues. Hence, mapping is low.
C403.1 - PO7	1	Basic knowledge of cloud computing does not contribute to societal and environmental context. Hence, mapping is low.
C403.1 - PO8	1	Basic knowledge of cloud computing is not contributing to the ethical principles and professional ethics and responsibilities. Hence mapping is low.
C403.1 - PO9	1	Basic knowledge of cloud computing does not contribute to team work. Hence, mapping is low.
C403.1 - PO10	1	Cloud computing is not much required for effective report writing and communication skills. Hence, mapping is low.
C403.1 - PO11	1	Basic knowledge of cloud computing does not contribute to project management. Hence, mapping is low.
C403.1 - PO12	2	Knowledge of all basic concepts is always used and it can be assessed by lifelong learning. Thus, mapping is medium.
C403.1 - PSO1	1	Basic knowledge of cloud computing architecture is not in real-time software project development. Hence, mapping is low.
C403.1 - PSO2	1	Basic knowledge of cloud computing cannot apply latest programming languages in creating innovative career opportunities. Hence, mapping is low.
C403.2 - PO1	3	Virtualization for cloud is necessary to understand the concept of cloud computing. Hence, Mapping is high.
C403.2 - PO2	3	The concepts of virtualization and types of virtualization is assessing by problem analysis that is why mapping is high.
C403.2 - PO3	3	Analysing the concept of virtualization is required to design and development of solution. Hence, mapping is high.
C403.2 - PO4	2	Analysis of types of virtualization and tools for virtualization can be used and can investigate the conclusion of virtualization. Hence, mapping is moderate.
C403.2 - PO5	3	Analysing the concept of Virtualization is necessary to learn and use modern tools and technologies. Hence, Mapping is high.
C403.2 - PO6	1	Types of virtualization is not assessed by societal issues, health and cultural issues. Hence, mapping is low.





Department of Computer Science & Engineering

C403.2 - PO7	1	Types and need of virtualization do not contribute to societal and environmental context. Hence, mapping is low.
C403.2 - PO8	1	Types and need of virtualization is not contributes to the ethical principles and professional ethics and responsibilities. Hence mapping is low.
C403.2 - PO9	1	Types and need of virtualization do not contributes to team work. Hence, mapping is low.
C403.2 - PO10	1	Types and need of virtualization is not much required for effective report writing and communication skills. Hence, mapping is low.
C403.2 - PO11	1	Types and need of virtualization does not contributes to project management. Hence, mapping is low.
C403.2 - PO12	3	Knowledge of all basic concepts of virtualization, tools of virtualization and need of virtualization is always used and it can be assessed by lifelong learning. Thus mapping is high.
C403.2 - PSO1	2	Basic knowledge of virtualization and types of virtualization is in real-time software project development. Hence, mapping is moderate.
C403.2 - PSO2	2	Virtualization can apply latest programming languages in creating innovative career opportunities. Hence, mapping is moderate.
C403.3 - PO1	3	Basic knowledge of types of cloud services is required to design the service-oriented architecture of cloud. Hence, mapping is high.
C403.3 - PO2	3	Basic knowledge of cloud services and service-oriented architecture does contribute to problem analysis and formulation. Hence, mapping is high.
C403.3 - PO3	3	Service oriented architecture of cloud computing contributes to the design and development of solution. Hence, mapping is high.
C403.3 - PO4	2	Service oriented architecture and cloud service contributes to the investigation of complex problems. Hence, mapping is moderate.
C403.3 - PO5	2	Service oriented architecture is necessary to learn modern technologies. Hence, mapping is moderate.
C403.3 - PO6	1	Service oriented architecture and cloud service is not assessed by societal issues, health and cultural issues. Hence, mapping is low.
C403.3 - PO7	1	Service oriented architecture and cloud service does not contribute to societal and environmental context. Hence, mapping is low.
C403.3 - PO8	1	Service oriented architecture and cloud service is not contributing to the ethical principles and professional ethics and responsibilities. Hence mapping is low.
C403.3 - PO9	1	Service oriented architecture and cloud service contribute slightly to an individual as well as a team. Hence, mapping is low.
C403.3 - PO10	1	Service oriented architecture and cloud service is not much required for effective report writing and communication skills. Hence, mapping is low.





## Department of Computer Science & Engineering

C403.3 - PO11	1	Service oriented architecture and cloud service is not contributing to project management, hence it is mapped to 1.
C403.3 - PO12	2	Service oriented architecture and cloud service contribute slightly to life long learning, hence it is mapped to 2.
C403.3 - PSO1	2	Service oriented architecture and cloud service providers is in real-time software project development. Hence, mapping is moderate.
C403.3 - PSO2	2	Service oriented architecture and cloud service can apply latest programming languages in creating innovative career opportunities. Hence, mapping is moderate.
C403.4 - PO1	3	This Course outcome signifies the usage of Inter cloud resources management cloud storage services and their providers Assess security services to solve complex engineering problems to a greater extent, thereby assigned a value of 3.
C403.4 - PO2	3	With the usage of Inter cloud resources management, students will be able to formulate, identify and analyze the management and security in cloud and since analysis of cloud standards is involved thus a significant mapping of 3 is justified.
C403.4 - PO3	3	Students will be able to know global cloud exchange, cloud computing security with governance with IAM standards design and development of solutions thus a significant mapping of 3 is justified.
C403.4 - PO4	3	IAM standards is used to apply research-based knowledge to produce valid conclusions for authentication thus a significant mapping of 3 is justified.
C403.4 - PO5	1	Cloud security slightly contribute to modern tool usage, hence it is mapped to 1.
C403.4 - PO6	1	Resource management is not related at all to engineering and society, hence it is mapped to 1.
C403.4 - PO7	1	Cloud security are not related to environment, hence it is mapped to 1.
C403.4 - PO8	1	Resource management slightly to an individual as well as a team, hence it is mapped to 1.
C403.4 - PO9	1	Security contributes slightly for effective communication, hence it is mapped to 1.
C403.4 - PO10	1	Resource management processing does not contribute much towards effective communication, hence it is mapped to 1.
C403.4 - PO11	1	Cloud Global Exchange slightly contribute to project management, hence it is mapped to 1.
C403.4 - PO12	3	Inter cloud resources management cloud storage services and their providers Assess security services contribute lifelong learning, hence it is mapped to 3.
C403.4 - PSO1	3	Cloud Security is in real-time software project development. Hence, mapping is high.
C403.4 - PSO2	3	Cloud security and cloud provisioning and cloud global exchange can apply latest programming languages in creating innovative career opportunities. Hence, mapping is high.



**Department of Computer Science & Engineering**

C403.5 - PO1	3	This Course outcome signifies the usage of advanced cloud technologies to solve complex engineering problems to a greater extent, thereby assigned a value of 3
C403.5 - PO2	3	With the usage of Mapreduce, students will be able to formulate, identify and analyze the task into small parts and assign them and since analysis of Hadoop is involved thus a significant mapping of 3 is justified.
C403.5 - PO3	3	Students will be able to know Mapreduce, Hadoop, Virtual Box design and development of solutions thus a significant mapping of 3 is justified.
C403.5 - PO4	3	Hadoop and Google app engine is used to apply research-based knowledge to produce valid conclusions for web application thus a significant mapping of 3 is justified.
C403.5 - PO5	2	Hadoop contributes to modern tool usage, hence it is mapped to 2.
C403.5 - PO6	1	Federation is not related at all to engineering and society, hence it is mapped to 1.
C403.5 - PO7	1	Federation is not related to environment, hence it is mapped to 1.
C403.5 - PO8	1	Mapreduce and google app engine is not contributes to the ethical principles and professional ethics and responsibilities. Hence mapping is low.
C403.5 - PO9	2	Google App Engine and virtual box slightly effective for individual and team work as a member, hence it is mapped to 2.
C403.5 - PO10	1	Federation does not contribute much towards effective communication, hence it is mapped to 1.
C403.5 - PO11	3	Mapreduce, Google App Engine contribute to project management, hence it is mapped to 3.
C403.5 - PO12	3	Mapreduce, Hadoop, Google App Engine and federation contribute lifelong learning, hence it is mapped to 3.
C403.5 - PSO1	3	Mapreduce, Hadoop, Google App Engine is in real-time software project development. Hence, mapping is high.
C403.5 - PSO2	3	Mapreduce, Hadoop, Google App Engine can apply latest programming languages in creating innovative career opportunities. Hence, mapping is high.



**IMS Engineering College, Ghaziabad**

**Department of Computer Science Engineering**

**List of Students 4th Year CSE-3 (Odd Semester) 2022-23**

S.No.	Admission ID	Roll No.	Batch	Name	Father Name	PHONE (Students)	Mobile(Parent)
1	A2019CSE6025	1901430100125	B1	MUKUL MAHAR	ANIL MALHI	7451892028	9119662415
2	A2019CSE6026	1901430100126	B1	MUZAYYAN JAHAN	MOHID ADIL	9221918315	9122832483
3	A2019CSE6028	1901430100127	B1	NAMAN GUPTA	PANKAJ GUPTA	9660099149	9711824613
4	A2019CSE6035	1901430100128	B1	NAVJEET KUMAR	VEER SINGH	9119123111	9150987581
5	A2019CSE6091	1901430100129	B1	NEHA SINGH	MUNNA PRASAD	8897162845	9453814152
6	A2019CSE6052	1901430100130	B1	NIDHI KUSHWAHA	ANOOB KUSHAWAHA	9821951939	9968646471
7	A2019CSE6883	1901430100131	B1	NIDHI SHARMA	NARENDRA KUMAR SHARMA	9088329099	7599932828
8	A2019CSE6037	1901430100132	B1	NILAVA DUTTA	SUBRATA DUTTA	9717475126	9717475126
9	A2019CSE6057	1901430100133	B1	MISHIKA SINGH	SANJAY KUMAR	7608992592	7244141932
10	A2019CSE6743	1901430100134	B1	NITIN VERMA	JAWAHAR LAL VERMA	9415058204	9452292728
11	A2019CSE6002	1901430100135	B1	NITISH KUMAR GUPTA	JAG PRASAD GUPTA	7223821283	9596081534
12	A2019CSE6759	1901430100136	B1	PALAK BHATNAGAR	SUNIL BHATNAGAR	7596074112	9319366900
13	A2019CSE6786	1901430100137	B1	PALAK SINGH	BRAJESH SINGH	8003269989	9938837794
14	A2019CSE6671	1901430100138	B1	POORVA JAIN	PRAKASH JAIN	8077881195	9719054908
15	A2019CSE6037	1901430100139	B1	PRATFUL CHAUHAN	PUSHPENDRA KUMAR	9827094442	7830171712
16	A2019CSE6757	1901430100140	B1	PRAGATI DWIVEDI	PRAMOD SHANKAR DWIVEDI	8451870427	9628228802
17	A2019CSE6987	1901430100141	B1	PRAJAWAL TIWARI	ARVIND TIWARI	9944975702	9838602508
18	A2019CSE6750	1901430100142	B1	PRAGHAR SINGH	VIJAI SINGH	9698382477	9536675340
19	A2019CSE6033	1901430100143	B1	PRANAV DWIVEDI	PRABHAT KUMAR DWIVEDI	8317952294	8601222298
20	A2019CSE6691	1901430100144	B1	PRANSHU KAUSHIK	AVINASH KAUSHIK	7505254108	9891565886
21	A2019CSE6788	1901430100145	B1	PRATEEK MOHAN	BRAJESH SINGH	8302046021	9522401796
22	A2019CSE6761	1901430100146	B1	PRATHAM CHAUHAN	SWARAJ SINGH CHAUHAN	9488552468	9718811007
23	A2019CSE6880	1901430100147	B1	PRATHI BHATI	SANJEEV PRATAP SINGH	9457236685	8394065497
24	A2019CSE6661	1901430100148	B1	PRBHAV ATRAY	MANOJ KUMAR ATRAY	9837023246	9837023248
25	A2019CSE6070	1901430100149	B1	PREMLATA YADAV	JAI RAM YADAV	9319172259	8899796812
26	A2019CSE6763	1901430100150	B1	PRENSA KUMARI	PRASHANT KUMAR TAANK	8178232361	8862591158
27	A2019CSE6963	1901430100151	B1	PREMA SAKINA	AJEET KUMAR SAKENA	9773635242	9410584849
28	A2019CSE6795	1901430100152	B1	PRINCE CHAUHAN	SUSHIL KUMAR	8508150111	9827148297
29	A2019CSE6672	1901430100153	B1	PUYA RAI	KOMAKHYA RAI	9069025583	9438112713
30	A2019CSE6942	1901430100154	B1	PUYAM DWIVEDI	PRAMOD KUMAR DWIVEDI	9838344463	9438383489





**IMS Engineering College, Ghaziabad**  
**Department of Computer Science Engineering**  
**List of Students 4th Year CSE3 (Odd Semester) 2022-23**

S.No.	Admission ID	Roll No.	Batch	Name	Father Name	PHONE (Student)	Mobile(Parent)
1	A2019CSE6075	1901430100125	B1	MUKHIL MALIK	ANIL MALIK	7421600095	9119645434
2	A2019CSE6076	1901430100126	B1	MUZAYYAN JALAN	MOHID ADIL	9027030076	9927833287
3	A2019CSE6078	1901430100127	B1	NAMAN GUPTA	PANKAJ GUPTA	9650390343	9711878513
4	A2019CSE6075	1901430100128	B1	NAVNEET KUMAR	VEER SINGH	9149103190	9759687541
5	A2019CSE6091	1901430100129	B1	MEHA SINGH	MUNNA PRASAD	8667189845	9453414152
6	A2019CSE6082	1901430100130	B1	NIDHI KUSHWAHA	ANOOP KUSHAWAHA	8621263932	9958546471
7	A2019CSE6093	1901430100131	B1	NIDHI SHARMA	MARENDRA KUMAR SHARMA	9009320099	7999332826
8	A2019CSE6037	1901430100132	B1	NILAVA DUTTA	SUBRATA DUTTA	9717475126	9717475126
9	A2019CSE6057	1901430100133	B1	NISHIKA SINGH	SANJAY KUMAR	7660992592	7248741532
10	A2019CSE6743	1901430100134	B1	NITIN VERMA	JAWAHAR LAL VERMA	9415098824	9452202728
11	A2019CSE6602	1901430100135	B1	NETISH KUMAR GUPTA	JAG PRASAD GUPTA	7233821383	9698061534
12	A2019CSE6038	1901430100136	B1	PALAK BHATNAGAR	SUNIL BHATNAGAR	7599074312	9319060900
13	A2019CSE6786	1901430100137	B1	PALAK SINGH	BJAJESH SINGH	8303268889	9935881796
14	A2019CSE6071	1901430100138	B1	POORVA JAIN	PRAKASH JAIN	8077896196	9719004906
15	A2019CSE6607	1901430100139	B1	PRAFULL CHAUHAN	PUSHPENDRA KUMAR	9027054342	7830717172
16	A2019CSE6737	1901430100140	B1	PRAGATI DWIVEDI	PRAMOD SHANKAR DWIVEDI	8851870821	9628858892
17	A2019CSE687	1901430100141	B1	PRAJAWAL TIWARI	ARVIND TIWARI	9984975702	9838805506
18	A2019CSE6720	1901430100142	B1	PRABHAR SINGH	VIJAI SINGH	9696382471	9936675340
19	A2019CSE6023	1901430100143	B1	PRANAV DWIVEDI	PRAHAT KUMAR DWIVEDI	8317052294	8601222256
20	A2019CSE6090	1901430100144	B1	PRANSHU KAUSHIK	AVINASH KAUSHIK	7502754332	8897855885
21	A2019CSE6788	1901430100145	B1	PRATEEK MOHAN	BJAJESH SINGH	8303366698	9935881796
22	A2019CSE6761	1901430100146	B1	PRATHAM CHAUHAN	SWARAJ SINGH CHAUHAN	9868552468	9718611007
23	A2019CSE6880	1901430100147	B1	PRATHU BHATI	SANJEEV PRATAP SINGH	9457236685	8394085497
24	A2019CSE6661	1901430100148	B1	PRHNAV ATTRAY	MANOJ KUMAR ATTRAY	9837023248	9837023248
25	A2019CSE6670	1901430100149	B1	PREMLATA YADAV	JAI RAM YADAV	9319172259	8698798812
26	A2019CSE6764	1901430100150	B1	PRENSA KUMAR	PRASHANT KUMAR TAANK	8178232361	9660299158
27	A2019CSE6602	1901430100151	B1	PREEMA SAXENA	AJEET KUMAR SAXENA	9773695240	9910954548
28	A2019CSE6705	1901430100152	B1	PRINCE CHAUHAN	SUSHIL KUMAR	8968150671	9827188297
29	A2019CSE6673	1901430100153	B1	PRIVA RAI	KAMAKHYA RAI	9089025583	9435112713
30	A2019CSE6742	1901430100154	B1	PRIVAM DWIVEDI	PRAMOD KUMAR DWIVEDI	9836344467	9836344489



41	A2019CSE600	1901430100106	B2	POJANNA VAJRAM	ILAKSHI KUMAR	907601869	956505662
42	A2019CSE609	1901430100107	B2	PRYANSHI GHIL	KIRISHI GHIL	7351799334	6273448702
43	A2019CSE610	1901430100108	B2	PURBIT SURI	MANOJ SURI	8330946916	9536447279
44	A2019CSE602	1901430100109	B2	PREKSHI YADAV	NIDRA KUMAR YADAV	9650819336	9511176345
45	A2019CSE611	1901430100110	B2	PUNSHI NUBRA KUMAR	SHIVSHANKAR SINGH	1818044759	8005562177
46	A2019CSE612	1901430100111	B2	RACHIT JOSHI	PRAMOD JOSHI	9019228990	8194627429
47	A2019CSE613	1901430100112	B2	SAHIL SINGH	RANA PRATAP SINGH	9889561261	571722550
48	A2019CSE614	1901430100113	B2	RAJIBALI SINGH	RAM NARESH YADAV	7985469513	9796247890
49	A2019CSE615	1901430100114	B2	RAJ KESARWANI	RAM CHANDRA KESARWANI	8858642490	8786999253
50	A2019CSE616	1901430100165	B2	RAJ MAURYA	ANIL KUMAR MAURYA	9029654917	969595715
51	A2019CSE617	1901430100166	B2	RAJ KUMAR MAURYA	UMA SHANKAR MAURYA	8808959580	9967708702
52	A2019CSE618	1901430100167	B2	RAJLAXMI SINGH	RAJIV KUMAR SINGH	9794177722	9452632436
53	A2019CSE619	1901430100168	B2	RAJNEESH KUMAR	KAHINDRA KUMAR	7703628948	8800548577
54	A2019CSE620	1901430100169	B2	RAJSHREE SINGH	MANOJ KUMAR SINGH	7017307512	0366211791
55	A2019CSE621	1901430100170	B2	RAJVIK SUNDRIYAL	KAMLESHWARANAND SUNDRIYAL	7688584610	9470528043
56	A2019CSE622	1901430100171	B2	RUCHA TIWARI	RAMESHWAR TIWARI	8707037714	8540761967
57	A2019CSE623	1901430100172	B2	RUSHABH JAIN	RAKESH KUMAR JAIN	9151730129	9475777152
58	A2019CSE624	1901430100173	B2	RISHABH KUMAR VISHW	SANJEEV KUMAR VISHWAKARMA	7608994307	7597122767
59	A2019CSE625	1901430100174	B2	RISHABH RAJ	BHOOP SINGH	7905750316	9927542384
60	A2019CSE626	1901430100175	B2	RISHABH SHARMA	DEVENDRA KUMAR SHARMA	8882387909	9873213458
61	A2019CSE627	1901430100176	B2	RITESH KUMAR GAUTAM	MAHESH BABU	7533976903	9762931791
62	A2019CSE628	1901430100177	B2	RITIK MANGAL	LT ANIL MANGAL	0394183977	9451131360
63	A2019CSE629	1901430100178	B2	RIYA MALIK	SUDHIR KUMAR	8130426721	9958496271
64	A2019CSE630	1901430100179	B2	ROBIN SHARMA	PURUSHOTTAM SHARMA	8766042321	9953670544
65	A2019CSE631	1901430100180	B2	RUDRANSHI RASTOGI	MANISH KUMAR RASTOGI	7088025848	9927266039
66	A2019CSE632	1901430100181	B2	RUNIT KUMAR	VIJENDRA SINGH	8449142740	9449654816
67	A2019CSE633	1901430100182	B2	RUPALI SINGH	KAMLESH SINGH	8382024422	9889116689
68	A2019CSE634	1901430100183	B2	SAGAR ARYA	PAWAN KUMAR ARYA	7886897606	8759630325
69	A2019CSE635	1901430100184	B2	SAHIL SRIVASTAVA	RAJEEV BANJAN SRIVASTAVA	6348663732	7081389825
70	A2019CSE636	1901430100185	B2	SAKET PAL	GANGARAM PAL	9072418362	7500064988
71	A2019CSE637	1901430120011	B1	SHRUTI KUMAR	AMBRISH RAJ	9868011405	9868011405
72	A2019CSE638	2001430109005	B2	LUCKY RAM (LE)	THAMMAN SINGH	8057430700	8257430700
73	A2019CSE639	2001430109009	B2	TRIPATI PANDEY (LE)	ANIL KUMAR PANDEY	7817025585	9548430855
74	A2019CSE640	2001430109010	B1	RADHIKA SHARMA (LE)	AVDESH KUMAR SHARMA	9308198878	9368198878



CET

AY 2022-23(Odd Semester)

Course : B.Tech  
 Semester : 7<sup>th</sup>  
 Subject : Cloud Computing  
 Time : 09:30-11:00 (1.5 hours)

Date : 28.09.2022  
 Subject Code : KCS 713  
 Max. Marks : 30

COURSE OUTCOMES (CO)	
CO-1	Describe architecture and underlying principles of cloud computing.
CO-2	Explain need, types and tools of Virtualization for cloud.
CO-3	Describe Services Oriented Architecture and various types of cloud services
CO-4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.
CO-5	Analyze advanced cloud technologies.

Q. No.	Questions	CO
<b>PART- A: Attempt All Questions (5x1 = 5 Marks)</b>		
1. (a)	What is Cloud Computing?	CO 1
1. (b)	Differentiate between public and private cloud.	CO 1
1. (c)	What is VMM?	CO 2
1. (d)	What do you mean by full virtualization?	CO 2
1. (e)	What is Emulator?	CO 2
<b>PART-B: Attempt Any Three Questions (3x5 = 15 Marks)</b>		
2. (a)	Explain Evolution of cloud computing with neat diagram.	CO 1
2. (b)	Differentiate between public, private and hybrid cloud with examples.	CO 1
2. (c)	What do you mean by Service Oriented Architecture (SOA)? How does it support cloud computing?	CO 2
2. (d)	Define virtualization. Demonstrate implementation level of virtualization.	CO 2
<b>PART-C: Attempt Any One Question ( 1x10 = 10 Marks)</b>		
3.	a) Differentiate between distributed computing and parallel computing.	CO 1
	b) Explain Characteristics of cloud computing. What is Amazon EC2?	CO 1
4.	a) Explain types of virtualization.	CO 2
	b) Explain Publisher Subscriber Model with neat diagram.	CO 2

Bhanu Verma

As. (CS)

Arundhar

Module co-ordinator

Arundhar  
 (Dr. Arundhar Verma)  
 HOD, CS

Arundhar  
 28/09/22





# IMS ENGINEERING COLLEGE, GHAZIABAD

## Sessional Examination Attendance Sheet

Session- (1), 2022-2023

Sessional	C72	Branch	CSE 3
Date	28/09/22	Year & Section	1 <sup>st</sup> CSE 3
Subject Code	615 213	Subject Name	Cloud Comp
Room No	C-107	Time	9:30-11

S. No	Roll No	Name of Student	Signature
1	1901430100125	(Detained)	
2			
3			
4			
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11			
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30			

Total Number of student in this Room:

Total Number of Present Student: 01

Total Number of Absent Student: 01 (Detained)

Name & Sign of Invigilator 1: Ashish K. K.

Name & Sign of Invigilator 2: Dr. Rabab Anjum  
(Rabab)



**IMS ENGINEERING COLLEGE, GHAZIABAD**

**Sessional Examination Attendance Sheet**

Session- 2022-2023

Sessional	CT1	Branch	CSE3
Date	28/9/22	Year & Section	4thyr. (3)
Subject Code	KCS 713	Subject Name	cloud comp. i
Room No	C-108	Time	9:30-11:00

S. No	Roll No	Name of Student	Signature
1	1901430100127	Naman Gupta	Naman Gupta
2	1901430100128	Navneet Kumar	Navneet
3	1901430100129	Neha Singh	Neha
4	1901430100130	Nidhi Kushwaha	Nidhi
5	1901430100131	Nidhi Sharma	Nidhi
6	1901430100132	Nilava Dutta	Nilava Dutta
7	1901430100133	Nishika Singh	Nishika
8	1901430100134	Nitin Verma	Nitin
9	1901430100135	Nitish Kumar Gupta	Nitish
10	1901430100136	Palak Bhargava	Palak
11	1901430100137	Palak Singh	Palak
12	1901430100138	Poojya Jain	Poojya
13	1901430100141	Pradipal Tiwari	Pradipal
14	1901430100142	Prakhar Singh	Prakhar
15	1901430100143	Pranav Dwivedi	Pranav
16	1901430100126		DETAINED
17	1901430100139		"
18	1901430100140		"
19			
20			
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22			
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28			
29			
30			

Total Number of student in this Room: 18  
 Total Number of Present Student: 15  
 Total Number of Absent Student: 03

Name & Sign of Invigilator 1 :  
 Name & Sign of Invigilator 2 :

*Spandha*  
28/9/22  
*Vishal*  
29/9/22





# IMS ENGINEERING COLLEGE, GHAZIABAD

## Sessional Examination Attendance Sheet

Session - 2022-23

Sessional	CT1	Branch	CSE
Date	26/09/22	Year & Section	1 <sup>st</sup> year / CSE 3
Subject Name	KCS 713	Subject Name	Cloud Computing
Room No	C-201	Time	9:30 - 11:00 am

S. No	Roll No	Name of Student	Signature
1	1901430100144	Pranishul Koushik	Pranishul
2	1901430100145	Prateek Mohan	Prateek
3	1901430100147	Prathu Bhatti	Prathu
4	1901430100148	PRBHAV ATTRAY	Prabhav
5	1901430100149	Premalata Yadav	Premalata
6	1901430100151	PURVHA SAXENA	PURVHA
7	1901430100150	ABSENT	ABSENT
8	190143010153	Pritya Rai	Pritya
9	1901430100154	Priyanshu Dwivedi	Priyanshu
10	1901430100157	Priyanshu Goel	Priyanshu
11			
12	1901430100159	Pulkit Tyagi	Pulkit Tyagi
13	1901430100160	Rushendra Kumar	Rushendra
14	1901430100161	Rachit Joshi	Rachit
15	1901430100146	Detained	Detained
16	152		
17	156		
18	158		
19	162		
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

Total Number of student in this Room: (13) + (5) Detained

Total Number of Present Student: (12)

Total Number of Absent Student: (01)

Total Number of Detained student: (5)

Name & Sign of Invigilator 1: Dr. Suresh Prasad

Name & Sign of Invigilator 2:

S.No.	Roll No.	Name	PART A ATTEMPTED (A5-S-5)						PART B ATTEMPTED ANY (B10-S-10)						PART C ATTEMPTED ANY (C15-S-15)						TOTAL MARKS (50)	C01 Marks attempted	C02 Marks attempted	C03 Marks attempted									
			1A	1B	1C	1D	1E	1F	2(a)	2(b)	2(c)	2(d)	2(e)	2(f)	3(a)	3(b)	3(c)	3(d)	3(e)	3(f)					3(g)	3(h)	3(i)						
1	1901430100125	MUKUL MAUR																						0	0	0	0	0					
2	1901430100126	MUZAYYAN JAHAN																							0	0	0	0	0				
3	1901430100127	NAMAN GUPTA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	22	21.0	8	7.0	30			
4	1901430100128	NAVNEET KUMAR	1	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	20	22	16.0	8	4.0	30			
5	1901430100129	NEHA SINGH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	22	16.0	8	7.0	30			
6	1901430100130	NIDHI KUSHWAHA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23	17	11.0	13	12.0	30			
7	1901430100131	MIDHI SHARMA	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	22	11.0	8	4.0	30			
8	1901430100132	NILAVA DUTTA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25	17	15.0	13	10.0	30			
9	1901430100133	NISHIKA SINGH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30	7	7.0	23	23.0	30	30		
10	1901430100134	NITIN VERMA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25	12	12.0	18	13.0	30	30		
11	1901430100135	NITISH KUMAR GUPTA	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	22	18.0	8	4.0	30	30		
12	1901430100136	PALAK BHATNAGAR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30	22	22.0	8	8.0	30	30		
13	1901430100137	PALAK SINGH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22	22	21.0	8	7.0	30	30		
14	1901430100138	POORVA JAIN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28	22	21.0	8	7.0	30	30		
15	1901430100139	PRAFULL CHAUHAN																							0	0	0.0	0	0.0	0	0	0	0
16	1901430100140	PRAGATI DWIVEDI																							0	0	0.0	0	0.0	0	0	0	0
17	1901430100141	PRAJAWAL TIWARI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	17	16.0	13	8.0	30	30		
18	1901430100142	PRAKASH SINGH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	17	10.0	13	10.0	30	30		
19	1901430100143	PRANAV DWIVEDI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20	22	17.0	8	11	30	30		
20	1901430100144	PRANSHUL KAUSHIK	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	22	20.0	7	7.0	30	30		
21	1901430100145	PRATEEK MOHAN	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	22	21.0	8	8.0	30	30		
22	1901430100146	PRAHAM CHAUHAN																							0	0	0.0	0	0.0	0	0	0	0
23	1901430100147	PRATHU BHABI	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	22	9.0	8	5.0	30	30		



24	1901430100148	PABHAV ATTRAY	1	1	1	0	0	0	3	4	4	4	5	0	23	12	9.0	18	14.0	30
25	1901430100149	PREMLATA YADAV	0	0	0	0	0	0	5	0	4	4	5	0	14	22	10.0	8	4.0	30
26	1901430100150	PRIYNA KUMARI													0	0	0.0	0	0.0	0
27	1901430100151	PRIYNA SAKENA	1	1	1	0	1	4	5		1	5	0		19	22	16.0	8	3.0	30
28	1901430100152	PRINCE CHAUHAN													0	0	0.0	0	0.0	0
29	1901430100153	PRIYA RAI	1	1	1	0	0	5	5		5	5	5		28	22	22.0	8	6.0	30
30	1901430100154	PRIYAM DAVEDI	0	0	0	0	0	5		4	4	4	0		17	17	9.0	12	8.0	30
31	1901430100156	PRIYANSH VATSAL													0	0	0.0	0	0.0	0
32	1901430100157	PRIYANSHU GOEL	0	0	0	0	0	4		5	5	4	3		21	17	11.0	13	10.0	30
33	1901430100158	PULKIT SURI													0	0	0.0	0	0.0	0
34	1901430100159	PULKIT TYAGI	1	1	1	0	1	5	5	4	4	5			27	22	21.0	8	6.0	30
35	1901430100160	PUSHPENDRA KUMAR	1	1	1	0	0	5	0	0	0	5			13	22	12.0	8	1.0	30
36	1901430100161	RACHIT JOSHI	1	1	0	1	0	5		5	5	5	5		28	17	17.0	13	11.0	30
37	1901430100162	RAHUL SINGH													0	0	0.0	0	0.0	0
38	1901430100163	RAJIBALI SINGH	1	1	0	1	0	0	4	4	4			4	18	12	6.0	18	12.0	30
39	1901430100164	RAJ KESARWANI													0	0	0.0	0	0.0	0
40	1901430100165	RAJ MAURYA	1	1	0	0	0	5		2	3	0	0		12	17	7.0	13	5.0	30
41	1901430100166	RAJ KUMAR MAURYA	1	1	1	0	1	4	5	2				1	18	12	11.0	18	7.0	30
42	1901430100167	RAJLAXMI SINGH	1	1	0	0	1	4	3	4				4	21	12	9.0	18	12.0	30
43	1901430100168	RAJNISH KUMAR													0	0	0.0	0	0.0	0
44	1901430100169	RAJSHREE SINGH													0	0	0.0	0	0.0	0
45	1901430100170	RAJNIVEK SUNDRIYAL	1	1	1	1	1	5	5		5	5	3		28	22	20.0	8	8.0	30
46	1901430100171	RICHA TIWARI	1	0	0	0	0	4		5	5			4	10	7	5.0	23	14.0	30
47	1901430100172	RISHABH JAIN	1	1	0	0	0	5		5	1	5	4		22	17	16.0	13	6.0	30
48	1901430100173	RISHABH KUMAR VISHWAKARNA													0	0	0.0	0	0.0	0
49	1901430100174	RISHABH RAJ	1	1	0	0	0	0	0	3				0	16	12	2.0	18	8.0	30
50	1901430100175	RISHABH SHARMA	1	1	0	0	0	5	4		5	4	2		22	22	17.0	8	5.0	30

51	1901430100176	RITESH KUMAR GAUTAM																0	0.0	0	0.0	0	0.0
52	1901430100177	RITIK MANGAL	1	1	0	0	0	5	3	4				4	3			21	22	17.0	8	4.0	30
53	1901430100178	RIYA MALIK	1	0	0	0	0	1		5	4			5	5			23	17	12.0	13	9.0	30
54	1901430100179	ROBIN SHARMA	1	1	1	0	1	5	0		5	4		3				21	22	14.0	8	7.0	30
55	1901430100180	RUDRANSH RASTOGI																0	0	0.0	0	0.0	0
56	1901430100181	RUNIT KUMAR																0	0	0.0	0	0.0	0
57	1901430100182	RUPALI SINGH	1	1	0	1	0	5		4	2							0	0	0.0	0	0.0	0
58	1901430100183	SAGAR ARYA	1	1	0	0	0	4	4	0				3	3			16	22	16.0	8	0.0	30
59	1901430100184	SAHIL SRIVASTAVA	1	1	0	0	0	2	4	4				3	0			15	22	11.0	9	4.0	30
60	1901430100185	SAKET PAL	1	1	0	0	1	5	3	0				5	0			16	22	15.0	8	1.0	30
61	1901430120011	ARPIT NAI	1	1	1	0	0	5	4	3				4	3			22	22	18.0	8	4.0	30
62	2001430100005	LUCKY RAM	1	1	1	1	1	5	5		5							25	12	12.0	18	13.0	30
63	2001430100009	TRIPTI PANDEY	1	1	0	0	0		5	5	5			5	0			22	17	12.0	13	10.0	30
64	2001430100007	KADHIKA SHARMA	1	1	0	0	0		5	0	4			4	5			24	17	18.0	13	8.0	30



Department of Computer Science & Engineering	
Faculty Name: Mr. Amit Kumar	
Subject Name: C++ OOAD (IMP) (ENG)	Subject Code: KCS-713
Year: 3rd year 2017-2018 (Old Semester)	Section: CSE1

**Red Band Students (CT 1)**

Sl. No.	Roll No.	Student Name	Grade
1	190143010001	ANISH KUMAR	10
2	190143010002	ANISH KUMAR	10
3	190143010003	ANISH KUMAR	10
4	190143010004	ANISH KUMAR	10
5	190143010005	ANISH KUMAR	10
6	190143010006	ANISH KUMAR	10
7	190143010007	ANISH KUMAR	10
8	190143010008	ANISH KUMAR	10
9	190143010009	ANISH KUMAR	10
10	190143010010	ANISH KUMAR	10
11	190143010011	ANISH KUMAR	10
12	190143010012	ANISH KUMAR	10
13	190143010013	ANISH KUMAR	10
14	190143010014	ANISH KUMAR	10
15	190143010015	ANISH KUMAR	10
16	190143010016	ANISH KUMAR	10
17	190143010017	ANISH KUMAR	10
18	190143010018	ANISH KUMAR	10
19	190143010019	ANISH KUMAR	10
20	190143010020	ANISH KUMAR	10
21	190143010021	ANISH KUMAR	10
22	190143010022	ANISH KUMAR	10
23	190143010023	ANISH KUMAR	10
24	190143010024	ANISH KUMAR	10
25	190143010025	ANISH KUMAR	10
26	190143010026	ANISH KUMAR	10
27	190143010027	ANISH KUMAR	10

**Yellow Band Students (CT 1)**

1	190143010028	ANISH KUMAR	10
2	190143010029	ANISH KUMAR	10
3	190143010030	ANISH KUMAR	10
4	190143010031	ANISH KUMAR	10
5	190143010032	ANISH KUMAR	10
6	190143010033	ANISH KUMAR	10
7	190143010034	ANISH KUMAR	10
8	190143010035	ANISH KUMAR	10
9	190143010036	ANISH KUMAR	10
10	190143010037	ANISH KUMAR	10
11	190143010038	ANISH KUMAR	10
12	190143010039	ANISH KUMAR	10
13	190143010040	ANISH KUMAR	10
14	190143010041	ANISH KUMAR	10
15	190143010042	ANISH KUMAR	10
16	190143010043	ANISH KUMAR	10
17	190143010044	ANISH KUMAR	10
18	190143010045	ANISH KUMAR	10
19	190143010046	ANISH KUMAR	10
20	190143010047	ANISH KUMAR	10

**Green Band Students (CT 1)**

1	190143010048	ANISH KUMAR	10
2	190143010049	ANISH KUMAR	10
3	190143010050	ANISH KUMAR	10
4	190143010051	ANISH KUMAR	10
5	190143010052	ANISH KUMAR	10
6	190143010053	ANISH KUMAR	10
7	190143010054	ANISH KUMAR	10
8	190143010055	ANISH KUMAR	10
9	190143010056	ANISH KUMAR	10
10	190143010057	ANISH KUMAR	10
11	190143010058	ANISH KUMAR	10
12	190143010059	ANISH KUMAR	10
13	190143010060	ANISH KUMAR	10
14	190143010061	ANISH KUMAR	10
15	190143010062	ANISH KUMAR	10
16	190143010063	ANISH KUMAR	10
17	190143010064	ANISH KUMAR	10



**IMS Engineering College**  
NH-09, Adhyatmik Nagar, Near Dasna, Distt. Ghaziabad, U.P.  
Tel: (0120) 4940000

**Department of CSE/CS//IT**

**CLOUD COMPUTING -KCS 713 (2022-2023)**

**Special Assignment for Detained Students (CT-1)**

Maximum Marks: 30

Submission Date: 06/10/2022

**COURSE OUTCOMES**

By the end of the course, students will be able to:

CO No.	Description	Bloom's Level
C 403.1	Describe architecture and underlying principles of cloud computing.	K3
C 403.2	Explain need, types and tools of Virtualization for cloud.	K3,K4
C 403.3	Describe Services Oriented Architecture and various types of cloud services	K2,K3
C 403.4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.	K2,K4
C 403.5	Analyze advanced cloud technologies.	K3,K6

**ATTEMPT ALL QUESTIONS each question carries equal marks**

Q. No.	Question	CO
1.	Explain evolution of cloud computing with neat diagram	CO1
2.	Differentiate between public, private and hybrid cloud with examples.	CO1
3.	What do you mean by Service Oriented Architecture (SOA)? How does it support cloud computing?	CO2
4.	Define virtualization. Demonstrate implementation level of virtualization.	CO2
5.	Differentiate between distributed computing and parallel computing.	CO1
6.	Explain Characteristics of cloud computing. What is Amazon EC2.	CO1
7.	Explain types of virtualization with neat diagram.	CO2

8.	Explain Publisher Subscriber Model with neat diagram	CO2
9.	Compare IaaS,PaaS and SaaS in detail.	CO1
10.	Explain Reference model of Virtualization in detail.	CO2
11.	Explain CPU Virtualization, Memory Virtualization and I/O virtualization in detail.	CO2
12.	What is Web services. Expalin it briefly.	CO2
13.	Explain REST with RESTful services.	CO2
14.	What is On Demand Provisioning? Explain with an example.	CO1
15.	What is Elasticity in Cloud?	CO1

*AK*  
30/09/2022





Course : B.Tech  
Semester : 7th  
Subject : Cloud Computing  
Time : 1.5 Hours

Date : 11.11.2022  
Subject Code : KCS 713  
Max. Marks : 30

COURSE OUTCOMES (CO)	
CO-1	Describe architecture and underlying principles of cloud computing.
CO-2	Explain need, types and tools of Virtualization for cloud.
CO-3	Describe Services Oriented Architecture and various types of cloud services
CO-4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.
CO-5	Analyze advanced cloud technologies.

Q. No.	Questions	CO
<b><u>PART- A: Attempt All Questions (5x1 = 5 Marks)</u></b>		
1 (a)	Differentiate between public and private cloud.	CO 3
1 (b)	Explain Hybrid Cloud.	CO 3
1 (c)	What are security services in the cloud?	CO 4
1 (d)	Describe threat Agents. Explain their role in cloud security.	CO 4
1 (e)	Explain inter cloud resource management. Write name of its types.	CO 4
<b><u>PART-B: Attempt Any Three Questions (3x5 = 15 Marks)</u></b>		
2 (a)	What is Cloud Storage Providers? Explain Amazon S3 in detail.	CO 3
2 (b)	Explain IaaS, PaaS and SaaS with neat schematic diagram.	CO 3
2 (c)	Explain global exchange with diagram.	CO 4
2 (d)	Explain the Cloud Computing security architecture using suitable block diagram.	CO 4
<b><u>PART-C: Attempt Any One Question ( 1x10 = 10 Marks)</u></b>		
3	a) Identify NIST cloud computing reference architecture with a neat schematic diagram.	CO 3
	b) What do you mean by cloud storage? Describe its types.	CO 3
4	a) What do you mean by Cloud Security Governance? Explain key objectives and challenges of cloud security governance in details.	CO 4
	b) Explain IAM Standards and its advantages and disadvantages.	CO 4

S.No.	Roll No.	Name	PART A ATTEMPT ALLI (145-8)								PART B ATTEMPT ANY THREE (583-15)								PART C ATTEMPT ANY FOUR (245-10)								TOTAL MARKS (50)	COD attempt	COD Marks out of 50	COD attempt	COD Marks out of 50	Attainment										
			EA		IB		IC		IE		2(a)		2(b)		2(c)		2(d)		3(a)		3(b)		3(c)		3(d)								3(e)		3(f)		3(g)		3(h)			
			CO1	CO2	CO3	CO4	CO5	CO6	CO7	CO8	CO9	CO10	CO11	CO12	CO13	CO14	CO15	CO16	CO17	CO18	CO19	CO20	CO21	CO22	CO23	CO24							CO25	CO26	CO27	CO28	CO29	CO30				
1	2801420100125	MURUL MAJUR																																0	0	0.0	0	0.0	0	0		
2	2801420100126	MUDATTYAM DAHAN	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	23	22	17.0	8	5.0	30			
2	2801420100127	HANMAN GUPTA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	22	22.0	8	8.0	30			
4	2801420100128	NAVNEET KUMAR																																	0	0	0.0	0	0.0	0	0	
5	2801420100129	MEHA SINGH																																	0	0	0.0	0	0.0	0	0	
6	2801420100130	NITHI KUSHWAHA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	20	22	13.0	8	7.0	30			
7	2801420100131	NIDHI SHARMA																																	0	0	0.0	0	0.0	0	0	
8	2801420100132	NELVA GUPTA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	19	22	14.0	8	5.0	30			
9	2801420100133	NEHAKA SINGH																																	0	0	0.0	0	0.0	0	0	
10	2801420100134	NITHI VERMA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	20	22	21.0	8	8.0	30			
11	2801420100135	NITESH KUMAR GUPTA	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	24	22	16.0	8	8.0	30		
12	2801420100136	PALAK BHATTNAGAR	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	30	12	12.0	18	18.0	30		
13	2801420100137	PALAK SINGH																																	0	0	0.0	0	0.0	0	0	
14	2801420100138	POORVA JAIN																																	0	0	0.0	0	0.0	0	0	
15	2801420100139	PRATEEK CHAUHAN																																	0	0	0.0	0	0.0	0	0	
16	2801420100140	PRAGATI DWIVEDI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	22	18.0	8	8.0	30		
17	2801420100141	PRADYUMN TIWARI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26	22	18.0	8	8.0	30		
18	2801420100142	PRANAV SINGH																																	0	0	0.0	0	0.0	0	0	
19	2801420100143	PRANAV DAWDEI																																	0	0	0.0	0	0.0	0	0	
20	2801420100144	PRANSHUL KADHAR	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	29	17	16.0	13	12.0	30		
21	2801420100145	PRATEEK MOHAM	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	22	20.0	8	7.0	30		
22	2801420100146	PRATHAM CHAUHAN																																		0	0	0.0	0	0.0	0	0
23	2801420100147	PRATHU BHATI	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	17	5.0	13	2.0	30		
24	2801420100148	PREHAY ATTARAI																																		0	0	0.0	0	0.0	0	0
25	2801420100149	PRENSITA YADAV																																		0	0	0.0	0	0.0	0	0
26	2801420100150	PRENSA KUMARI	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	21	22	15.0	8	5.0	30		
27	2801420100151	PRENSA SARKAR	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	24	12	16.0	18	14.0	30		
28	2801420100152	PRENSI CHAUHAN																																		0	0	0.0	0	0.0	0	0







**Department of Computer Science & Engineering****Faculty Name: Mr. Amit Kumar****Subject Name: CLOUD COMPUTING****Subject Code:KCS-713****Year:3rd year 2022-2023 Odd Semester****Section: CSE3****Red Band Students (CT 2)**

SN	Roll No.	Student Name	CT2 (30)
1	1901430100125	MUKUL MALIK	D
2	1901430100128	NAVNEET KUMAR	A
3	1901430100129	NEHA SINGH	A
4	1901430100131	NIDHI SHARMA	A
5	1901430100133	NISHIKA SINGH	A
6	1901430100137	PALAK SINGH	A
7	1901430100143	PRANAV DWIVEDI	A
8	1901430100153	PRIYA RAI	A
9	1901430100166	RAJ KUMAR MAURYA	A
10	1901430100167	RAJLAXMI SINGH	A
11	1901430100170	RAJVIVEK SUNDRIYAL	A
12	1901430100171	RICHA TIWAR	A
13	1901430100172	RISHAB JAIN	A
14	1901430100183	SAGAR ARYA	A
15	1901430100184	SAHIL SRI VASTAVA	A
16	2001430109005	LUCKY RAM	A
17	2001430109007	RADHIKA SHARMA	A
18	1901430100138	POORVA JAIN	D
19	1901430100139	RAAFUL CHAUHAN	D
20	1901430100142	RAKSHAR SINGH	D
21	1901430100146	PRATHAM CHAUHAN	D
22	1901430100148	PRBHAV ATTRAY	D
23	1901430100149	BREMLATA YADAV	D
24	1901430100152	PRINCE CHAUHAN	D
25	1901430100156	PRIYANSH VATSAL	D
26	1901430100158	PULKIT TYASI	D
27	1901430100163	BAUBAL SINGH	D
28	1901430100169	RAJSHREE SINGH	D
29	1901430100173	RISHAB KUMAR VISHWAKA	D
30	1901430100175	RISHAB SHARMA	D
31	190143012001	ARPIT RAI	D
32	1901430100167	PRATEEK BHATI	F
33	1901430100179	ROBIN SHARMA	12
34	1901430100181	RUNIT KUMAR	12
35	1901430100165	RAJNISH KUMAR	13
36	1901430100176	RITESH KUMAR GAUTAM	16
37	1901430100182	RUDRANSH RASTOGI	17

Yellow Band Students(CT 2)			
1	1901430100164	RAJ KESARWANI	18
2	1901430100182	RUPALI SINGH	18
3	1901430100132	NILAVA DUTTA	19
4	1901430100160	PUSHPENDRA KUMAR	19
5	1901430100162	RAHUL SINGH	19
6	1901430100130	NIDHI KUSHWAHA	20
7	1901430100154	PRIYAM DWIVEDI	20
8	1901430100150	PRERNA KUMARI	21
9	1901430100185	SAKET PAL	22
10	1901430100126	MUZAYYAN JAHAN	23
11	1901430100157	PRIYANSHU GOEL	23
12	1901430100178	RIYA MALIK	23

Green Band Students(CT 2)			
1	1901430100135	NITISH KUMAR GUPTA	24
2	1901430100151	PRERNA SAXENA	24
3	1901430100161	RACHIT JOSHI	24
4	1901430100165	RAJ MAURYA	24
5	1901430100174	RISHABH RAJ	24
6	2001430109009	TRIPTI PANDEY	25
7	1901430100141	PRAJJAWAL TIWARI	26
8	1901430100177	RITIK MANGAL	26
9	1901430100140	PRAGATI DWIVEDI	27
10	1901430100145	PRATEEK MOHAN	27
11	1901430100144	PRANSHUL KAUSHIK	28
12	1901430100158	PULKIT SURI	28
13	1901430100134	NITIN VERMA	29
14	1901430100127	NAMAN GUPTA	30
15	1901430100136	PALAK BHATNAGAR	30



**IMS Engineering College**  
NH-09, Adhyatmik Nagar, Near Dasna, Distt. Ghaziabad, U.P.  
Tel: (0120) 4940000

**Department of CSE/CS//IT**

**CLOUD COMPUTING -KCS 713 (2022-2023)**

**Special Assignment for Detained/Absent/Weak  
Students (CT-2)**

Maximum Marks: 30

Submission Date: 17/11/2022

**COURSE OUTCOMES**

By the end of the course, students will be able to:

CO No.	Description	Bloom's Level
C 403.1	Describe architecture and underlying principles of cloud computing.	K3
C 403.2	Explain need, types and tools of Virtualization for cloud.	K3,K4
C 403.3	<b>Describe Services Oriented Architecture and various types of cloud services</b>	K2,K3
C 403.4	<b>Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.</b>	K2,K4
C 403.5	Analyze advanced cloud technologies.	K3,K6

**ATTEMPT ALL QUESTIONS each question carries equal marks**

Q. No.	Question	CO
1.	What is Cloud Storage Providers? Explain Amazon S3 in detail.	CO3
2.	Explain IaaS, PaaS and SaaS with neat schematic diagram.	CO3
3.	Explain global exchange with diagram.	CO4
4.	Explain the Cloud Computing security architecture using suitable block diagram	CO4
5.	Identify NIST cloud computing reference architecture with a neat schematic diagram.	CO3



6.	What do you mean by cloud storage? Describe its types.	CO3
7.	What do you mean by Cloud Security Governance? Explain key objectives and challenges of cloud security governance in details.	CO4
8.	Explain IAM Standards and its advantages and disadvantages.	CO4
9.	Differentiate between public and private cloud.	CO3
10.	Explain Hybrid Cloud.	CO3
11.	What are security services in the cloud?	CO4
12.	Describe threat Agents. Explain their role in cloud security.	CO4
13.	Explain inter cloud resource management. Write name of its types.	CO4
14.	Define and explain VMM.	CO3
15.	How is API used in cloud services?	CO4

A/A  
 12/11/22

Department of Computer Science & Engineering						
Faculty Name: Mr. Anil Kumar						
Subject Name: C++ OLD COMPUTING				Subject Code: KCS-711		
Year: 3rd Year 2022-2023 Old Semester				Section: CSE3		
Sl. No.	Roll No.	Student Name	CT-1(01)	CT-2(01)	CT-3(01)	
1	190143000124	ANURAG MALIK	0	0		
2	190143000134	ARJUN ANAND	0	24		
3	190143000137	ANANY GUPTA	28	30		
4	190143000138	ANWIL KUMAR	20	A		
5	190143000139	ANURAG SINGH	28	A		
6	190143000140	ANUSHKA SHARMA	18	20		
7	190143000141	ANUSHKA	19	A		
8	190143000142	ANJALI GUPTA	24	28		
9	190143000143	ANSHIKA SINGH	30	A		
10	190143000144	ANSHU RAM	25	25		
11	190143000145	ANUSHKA GUPTA	22	24		
12	190143000146	ANURAG SINGH	30	30		
13	190143000147	ANURAG SINGH	29	A		
14	190143000148	ANURAG SINGH	28	0		
15	190143000149	ANURAG SINGH	0	0		
16	190143000150	ANURAG SINGH	0	27		
17	190143000151	ANURAG SINGH	24	26		
18	190143000152	ANURAG SINGH	28	0		
19	190143000153	ANURAG SINGH	20	A		
20	190143000154	ANURAG SINGH	27	28		
21	190143000155	ANURAG SINGH	26	27		
22	190143000156	ANURAG SINGH	0	0		
23	190143000157	ANURAG SINGH	11	7		
24	190143000158	ANURAG SINGH	23	0		
25	190143000159	ANURAG SINGH	14	0		
26	190143000160	ANURAG SINGH	A	23		
27	190143000161	ANURAG SINGH	18	24		
28	190143000162	ANURAG SINGH	0	0		
29	190143000163	ANURAG SINGH	28	A		
30	190143000164	ANURAG SINGH	17	20		
31	190143000165	ANURAG SINGH	0	0		
32	190143000166	ANURAG SINGH	21	23		
33	190143000167	ANURAG SINGH	0	28		
34	190143000168	ANURAG SINGH	27	0		
35	190143000169	ANURAG SINGH	13	18		
36	190143000170	ANURAG SINGH	18	24		
37	190143000171	ANURAG SINGH	0	18		
38	190143000172	ANURAG SINGH	18	0		
39	190143000173	ANURAG SINGH	0	28		
40	190143000174	ANURAG SINGH	12	24		
41	190143000175	ANURAG SINGH	18	A		
42	190143000176	ANURAG SINGH	21	A		
43	190143000177	ANURAG SINGH	0	18		
44	190143000178	ANURAG SINGH	0	0		
45	190143000179	ANURAG SINGH	28	A		
46	190143000180	ANURAG SINGH	10	A		
47	190143000181	ANURAG SINGH	22	A		
48	190143000182	ANURAG SINGH	0	0		
49	190143000183	ANURAG SINGH	10	24		
50	190143000184	ANURAG SINGH	22	0		
51	190143000185	ANURAG SINGH	0	18		
52	190143000186	ANURAG SINGH	21	26		
53	190143000187	ANURAG SINGH	21	23		
54	190143000188	ANURAG SINGH	21	12		
55	190143000189	ANURAG SINGH	0	17		
56	190143000190	ANURAG SINGH	0	12		
57	190143000191	ANURAG SINGH	24	18		
58	190143000192	ANURAG SINGH	18	A		
59	190143000193	ANURAG SINGH	13	A		
60	190143000194	ANURAG SINGH	18	21		
61	190143000195	ANURAG SINGH	22	0		
62	200143010005	LUCKY RAM	25	A		
63	200143010008	TRIPATI PANDEY	24	28		
64	200143010007	RADHIKA SHARMA	24	A		

Result Analysis	CT-1	CT-2	CT-3
Number of Students	64	64	64
Number of Students	47	33	0
Total Pass students	46	32	0
Pass % (46%)	97.87%	96.97%	#DIV/0!
Average Marks	21.5744609	21.757576	#DIV/0!
Highest Marks	30	30	0

(Name & Signature of Subject Teacher)

(HOD)



Roll No. \_\_\_\_\_

**IMS ENGINEERING COLLEGE**  
Department of CSE/CS/IT

CT-III

AY 2022-23 (Odd Semester)

Course : B.Tech  
Semester : 7<sup>th</sup>  
Subject : Cloud Computing  
Time : 1.5 HoursDate : 12/12/2022  
Subject Code : KCS 713  
Max. Marks : 30

COURSE OUTCOMES (CO)	
CO-1	Describe architecture and underlying principles of cloud computing.
CO-2	Explain need, types and tools of Virtualization for cloud.
CO-3	Describe Services Oriented Architecture and various types of cloud services
CO-4	Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.
CO-5	Analyze advanced cloud technologies.

Q. No.	Questions	CO
<b><u>PART-A: Attempt All Questions (5x1 = 5 Marks)</u></b>		
1 (a)	Why resource scheduling is needed?	CO 4
1 (b)	Differentiate between Demand driven & Event driven	CO 4
1 (c)	What is Big Data?	CO 5
1 (d)	Define Virtual Box.	CO 5
1 (e)	Define Open Stack.	CO 5
<b><u>PART-B: Attempt Any Three Questions (3x5 = 15 Marks)</u></b>		
2 (a)	Describe various Cloud security challenges in detail.	CO 4
2 (b)	What is Map Reduce? Explain its working and steps involved in Map Reduce.	CO 5
2 (c)	Give a suitable definition of Cloud Federation Stack & explain levels of federation in detail.	CO 5
2 (d)	Explain the major cloud features of Google App Engine.	CO 5
<b><u>PART-C: Attempt Any One Question (1x10 = 10 Marks)</u></b>		
3	a) Explain virtual machine security in cloud computing.	CO 4
	b) Describe elements of cloud governance security in detail with diagram.	CO 4
4	a) What do you mean by Hadoop & its history? Why it is important?	CO 5
	b) Illustrate Hadoop Architecture.	CO 5

D/H/C  
25/11/22

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Department of Computer Science & Engineering	
Faculty Name: Mr. Amit Kumar	
Subject Name: CLOUD COMPUTING	Subject Code: KCS-713
Year: 4th year 2022-2023 Old Semester	Section: CSE3

Red Band Students (C.T. 3)			
SN	Roll No.	Student Name	CT300
1	1901430200103	ANAM KUMAR	A
2	1901430200104	ANJALI	A
3	1901430200105	ANUSHA	A
4	1901430200106	ANUSHA KUMAR	A
5	1901430200107	ANUSHA KUMAR	A
6	1901430200108	ANUSHA KUMAR	A
7	1901430200109	ANUSHA KUMAR	A
8	1901430200110	ANUSHA KUMAR	A
9	1901430200111	ANUSHA KUMAR	A
10	1901430200112	ANUSHA KUMAR	A
11	1901430200113	ANUSHA KUMAR	11
12	1901430200114	ANUSHA KUMAR	11
13	1901430200115	ANUSHA KUMAR	11
14	1901430200116	ANUSHA KUMAR	11
15	1901430200117	ANUSHA KUMAR	11
16	1901430200118	ANUSHA KUMAR	11
17	1901430200119	ANUSHA KUMAR	11
18	1901430200120	ANUSHA KUMAR	11

Yellow Band Students (C.T. 3)			
SN	Roll No.	Student Name	CT300
1	1901430200121	MUKUL MALIK	20
2	1901430200122	NIK MANGAL	20
3	1901430200123	ARPI RAJ	21
4	1901430200124	PRERNA KUMARI	21
5	1901430200125	PUSHPENDRA KUMAR	22

Green Band Students (C.T. 3)			
SN	Roll No.	Student Name	CT300
1	1901430200126	PRANAV SINGH	23
2	1901430200127	PRINCE CHALPHAN	23
3	1901430200128	RAJ KUMAR MAURIA	23
4	1901430200129	RAHUL KUMAR	23
5	1901430200130	RACHA TIKARI	23
6	1901430200131	ROHITH KUMAR VELAM	23
7	1901430200132	ROHITH RAJ	23
8	1901430200133	MUHAMMAD IMRAN	24
9	1901430200134	PRANAV ATTARAY	24
10	1901430200135	PRINCE YADAV	24
11	1901430200136	PRINCE SAHANI	24
12	1901430200137	PRINCE SINGH	25
13	1901430200138	PRANAV DAVEDI	25
14	1901430200139	PRANAV CHAUHAN	25
15	1901430200140	RISHI SHARMA	26
16	1901430200141	PRANAV SINGH	27
17	1901430200142	PULOT THAKUR	27
18	1901430200143	RACHIT JOSHI	27
19	1901430200144	RAHUL SINGH	27
20	1901430200145	RAHUL SINGH	27
21	1901430200146	RAJ PEARMANI	27
22	1901430200147	RASHMI SINGH	27
23	1901430200148	RASHMI SINGH	27
24	1901430200149	SAHIL SRIVASTAVA	27
25	1901430200150	NETAN VERMA	28
26	1901430200151	POORVA JAIN	28
27	1901430200152	RAJN ALKHA	28
28	1901430200153	NAVNEET KUMAR	28
29	1901430200154	PRAGATI DAVEDI	29
30	1901430200155	PRANAV DAVEDI	29
31	1901430200156	PRANAV	29
32	1901430200157	RISHI MALIK	29
33	2001430200158	RADHIKA SHARMA	29
34	1901430200159	RISHI KUMAR	31
35	1901430200160	PALAK BHARTNAGAR	30
36	1901430200161	PALAK SINGH	31
37	1901430200162	PRANAV KUMAR	30
38	1901430200163	POORVA JAIN	30
39	1901430200164	SALAMI SINGH	30
40	1901430200165	RUPAL SINGH	30
41	2001430200166	LUCKY RAN	30



**IMS Engineering College**  
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Tel: (0120) 4940000

**Department of CSE/CS//IT**

**CLOUD COMPUTING -KCS 713 (2022-2023)**

**Special Assignment for Absent/Weak Students (CT-3)**

Maximum Marks: 30

Submission Date: 19/12/2022

**COURSE OUTCOMES**

By the end of the course, students will be able to:

CO No.	Description	Bloom's Level
C 403.1	Describe architecture and underlying principles of cloud computing.	K3
C 403.2	Explain need, types and tools of Virtualization for cloud.	K3,K4
C 403.3	Describe Services Oriented Architecture and various types of cloud services	K2,K3
C 403.4	<b>Explain Inter cloud resources management cloud storage services and their providers Assess security services and standards for cloud computing.</b>	<b>K2,K4</b>
C 403.5	<b>Analyze advanced cloud technologies.</b>	<b>K3,K6</b>

**ATTEMPT ALL QUESTIONS each question carries equal marks**

Q. No.	Question	CO
1.	Why resource scheduling is needed?	CO 4
2.	Differentiate between Demand driven & Event driven	CO 4
3.	What is Big Data?	CO 5
4.	Define Virtual Box.	CO 5
5.	Define Open Stack.	CO 5
6.	Describe various Cloud security challenges in detail.	CO 4
7.	What is Map Reduce? Explain its working and steps involved in Map Reduce.	CO 5

8.	Give a suitable definition of Cloud Federation Stack.	CO 5
9.	Explain the major cloud features of Google App Engine.	CO 5
10.	Explain virtual machine security in cloud computing.	CO 4
11.	Describe elements of cloud governance security in detail with diagram.	CO 4
12.	What do you mean by Hadoop & its history? Why it is important?	CO 5
13.	Illustrate Hadoop Architecture.	CO 5
14.	Give an example of Map Reduce in detail.	CO 5
15.	Explain levels of federation in detail.	CO 5

AKG  
14/12/22





Department of Computer Science & Engineering

List of Bright and Weak Students

Bright & Weak Students of Cloud Computing(KCS 713) Section CSE 3								
Academic Session 2022 23 <sup>1<sup>st</sup></sup> Semester Faculty Name: Amit Kumar								
Bright Students								
CT1			CT2			CT3		
Sr. No.	University Roll No.	Name of Student	Sr. No.	University Roll No.	Name of Student	Sr. No.	University Roll No.	Name of Student
1	1901430100 127	Naman Gupta	1	1901430100 136	Palak Bhattacharjee	1	1901430100 128	Nawneet Kumar
2	1901430100 138	Paolina Jain	2	1901430100 127	Naman Gupta	2	1901430100 140	Pragati Dwivedi
3	1901430100 170	Rajvivek Sundriyal	3	1901430100 134	NITHU Verma	3	1901430100 153	Priya Rati
4	1901430100 137	Palak Singh	4	1901430100 158	Pulleit Suri	4	1901430100 178	Riya Malik
5	1901430100 133	Nishika Singh	5	1901430100 144	Panshul Kaushik	5	1901430100 182	Rupali Singh
Weak Students								
CT1			CT2			CT3		
Sr. No.	University Roll No.	Name of Student	Sr. No.	University Roll No.	Name of Student	Sr. No.	University Roll No.	Name of Student
1	1901430100 174	Rishabh Raj	1	1901430100 147	Prathu Bhati	1	1901430100 183	Sagar Arya
2	1901430100 147	Prathu Bhati	2	1901430100 179	Robin Sharma	2	1901430100 176	Ritesh K. Gautam
3	1901430100 165	Raj Maurya	3	1901430100 181	Runit Kumar	3	1901430100 139	Pranav Chauhan
4	1901430100 160	Pushpendra Kumar	4	1901430100 168	Rajnish Kumar	4	1901430100 168	Rajnish Kumar
5	1901430100 149	Premlata Yadav	5	1901430100 176	Ritesh Kumar	5	1901430100 175	Rishabh Sharma