C- 23 Engineering Mathematics – II

Subject Title : **Engineering Mathematics – II**
Subject Code : **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**
Periods/Week : **04**
Periods/Semester : **60**

BLUE PRINT

S.No.	Chapter/Unit title	No. of Periods	Weightage Allotted	Short type				Essay type				COs mapped
				R	U	Ap	An	R	U	Ap	An	
Unit – I: Integral Calculus												
1	Indefinite integration	17	26	2	0	0	0	0	2	0	0	CO1
2	Definite integrals	5	16	2	0	0	0	0	0	1	0	CO1
	Unit – II: Differential Equations											
3	Introduction to Differential equations	2	3	0	1	0	0	0	0	0	0	CO2
4	Solutions of Differential equations of first order	6	10	0	0	0	0	0	0	1	0	CO2
Unit – III: Graph Theory and Probability												
5	Graph theory	5	6	1	1	0	0	0	0	0	0	CO3
6	Probability	12	26	0	1	1	0	0	0	1	1	CO3
Unit – IV : Statistics												
6	Measures of Central Tendency	1	0	0	0	0	0	0	0	0	0	CO4
7	Measures of Dispersion	3	3	1	0	0	0	0	0	0	0	CO4
8	Correlation	4	10	0	0	0	0	0	0	0	1	CO4
9	Simple linear regression	5	10	0	0	0	0	0	0	0	1	CO4
	Total	60	110	6	3	1	0	0	2	3	3	
			Marks	18	9	3	0	0	20	30	30	

R: Remembering Type : 18 Marks
U: understanding Type : 29 Marks
Ap: Application Type : 33 Marks
An: Analyzing Type : 30 Marks

UNIT TEST MODEL PAPERS C –23, xx-301

Unit Test I

State Board of Technical Education and Training, A. P

III SEM

Subject name: **Engineering Mathematics-II**

Sub Code: **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**

Time: 90 minutes **Max. Marks: 40**

Part-A **16 Marks**

Instructions: (1) Answer **all** questions.
(2) First question carries **four** marks and the remaining questions carry **three** marks each.

1. Answer the following:
   a. $\int x^6 dx =$ _____. **(CO1)**
   b. $\int \frac{1}{16+x^2} dx =$ _____. **(CO1)**
   c. $\int_0^1 x dx =$ _____. **(CO1)**
   d. Degree of $\left(\frac{dy}{dx}\right)^2 + \frac{dy}{dx} = 3$ is _____. **(CO2)**
2. Evaluate $\int \left(\sec^2 x + 2e^x\right) dx.$ **(CO1)**
3. Evaluate $\int \frac{\sin\left(\log x\right)}{x} dx.$ **(CO1)**
4. Evaluate $\int_0^{\frac{\pi}{2}} \cos x dx$ **(CO1)**
5. Find the differential equation to the family of curves $y = mx + 1,$ where m is arbitrary constant. **(CO2)**

Part-B **3×8=24 Marks**

Instructions: (1) Answer **all** questions.
(2) Each question carries **eight** marks
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

1. A) Evaluate $\int \sin^4 x \cos x dx.$ **(CO1)**

   (OR)

   B) Evaluate $\int \frac{1}{(x+1)(x+2)} dx.$ **(CO1)**

2. A) Evaluate $\int_{-1}^{1} \frac{\sin^{-1} x}{\sqrt{1-x^2}} dx$ **(CO1)**

   (OR)

   B) Evaluate $\int_0^{\pi/2} \frac{\sin^8 x}{\sin^8 x + \cos^8 x} dx$ **(CO1)**

3. A) Solve $\frac{dy}{dx} = \sqrt{\frac{1-y^2}{1-x^2}}$ **(CO2)**

   (OR)

   B) Solve $\frac{dy}{dx} + \frac{2y}{x} = \frac{1}{x^2}$ **(CO2)**

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Unit Test II **C –23, xx -301**

State Board of Technical Education and Training, A. P

III Sem

Subject name: **Engineering Mathematics-II**

Sub Code: **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**

Time : 90 minutes Max.marks:40

Part-A **16 Marks**

Instructions: (1) Answer **all** questions.
(2) First question carries **four** marks and the remaining questions carry **three** marks each

1. Answer the following:
   a. A null graph has ____ edges. **(CO3)**

   b. P(at least one) = 1 - P(None): State TRUE/FALSE **(CO3)**

   c. $P(A)+P(B)-P(A\cap B)=$_____ **(CO3)**

   d. Range = Highest value - Lowest value: State TRUE/FALSE (**CO4)**

2. Define a simple graph. **(CO4)**
3. Two cards are drawn at random from a well-shuffled pack of 52 cards. Find the probability that one is a king and the other is a queen. **(CO5)**
4. Let A and B are events with $P(A)=\frac{1}{5}$, $P(B)=\frac{2}{3}$ and $P(A\cap B)=\frac{1}{15}$, find $P(A\cup B)$ **(CO5)**
5. Find the probability of getting at least one head when two coins are tossed. **(CO5)**

Part-B **3×8=24 Marks**

Instructions: (1) Answer **all** questions.
(2) Each question carries **eight** marks
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

6. A) A problem is given to three students, A,B,C whose chances of solving at are 1/2, 1/3, and 1/4 respectively. If they try it independent, what is the probability that the problem will be solved? **(CO3)**

   (OR)

   B) In a class, 2% of boys and 3% of girls passed in the Programming subject. There are 30% girls in the class. If a student is selected who has passed the subject, what is the probability that the student is a girl. **(CO3)**

7. A) Find the mean deviation about mean for the data:85,96,76,108,85,80,100,85,70,95 (**CO4**)

   (OR)

B) The number of runs made by six players in a cricket match is: 12, 18, 21, 26, 17, 20. Find the standard deviation. (**CO4**)

8. A) Calculate the Spearman's rank correlation coefficient for the following data: (**CO4**)

x	5	10	5	11	12	4	3	2	7	1
y	1	6	2	8	5	1	4	6	5	2

(OR)

B) Calculate the regression coefficient of Y on X and obtain the regression equation for the following data: (**CO4**)

X	1	2	3	4	5	6	7
Y	9	8	10	12	11	13	14

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MULTIMEDIA (AMG-302)

Model Blue Print:

S.No	Chapter/Unit title	No. of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage				CO's Mapped
				R	U	Ap	An	R	U	Ap	An	
1	Introduction to Multimedia	6	13	3	10			1	1			CO1
2	Representation of Multimedia Objects	19	29	3	6	10	10	1	2	1	1	CO1,CO2
3	Multimedia Editing and Compression technology	15	29	3	6	10	10	1	2	1	1	CO1,CO2, CO3
4	Multimedia Application Design	8	13		3	10			1	1		CO1,CO2, CO3,CO4
5	Multimedia Authoring and Publishing	12	26	3	3	10	10	1	1	1	1	CO1,CO2, CO3,CO4, CO5
	Total	**60**	**110**	**12**	**28**	**40**	**30**	**4**	**7**	**4**	**3**	

DIPLOMA INANIMATION AND GRAPHICS ENGINEERING

MODEL PAPER

MULTIMEDIA UNIT TEST-1

SCHEME: C-23 :: SUB CODE: AMG-302

MAX MARKS:40 **TIME:90Minutes**

PART-A **16Marks**

Instructions: 1)Answer all questions

2) First question carries 4 marks, and each question of remaining carries 3 marks.

1. a) Hyper text and hyper media both are same(True/False) (CO1)

   b) ……..refers to the color information stored in an image (CO2)

   c) ……..refers to how many pixels are displayed per inch of an image. (CO2)

   d) Which one of the following is audio file format[] (CO2)

   i)BMP ii)GIF iii)MIDI iv)JPEG

2)	State the desirable features for a multimedia system.	(CO1)
3)	List at least four attributes of a font.	(CO2)
4)	List the popular video broad cast standards	(CO2)
5)	List the multimedia Objects.	(CO1)

PART-B **3X8=24Marks**

Instructions : 1)Answer all questions 2) Eachquestioncarries8Marks
3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

6.	a) Explain the applications of multimedia	(CO1)
	Or	
	b) Describe the measurement of font type	(CO2)
7.	a) Describe the use of colors (RGB, CMYK, HSB) in multimedia	(CO2)
	Or	
	b) Explain popular audio fileformatsMP3,WMA,WAV,MIDI.	(CO2)
8.	a) Explain popular video broad cast standards PAL,NTSC,SECAM	(CO2)
	Or	
	b) Explain Analog to digital(A/D)Sampling and quantization	(CO2)

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BOARD DIPLOMA EXAMINATIONS
DIPLOMA IN ANIMATION AND GRAPHICS ENGINEERING
MODEL PAPER – YEAR END EXAMINATION MULTIMEDIA

SCHEME: C-23 **SUBJECT CODE:AMG-302**
MAX MARKS:80 **TIME:3HOURS**

PART-A

Note: Answer all questions. Each question carries 3 marks **10 X 3=30M**

1.Define the terms a)multimedia b)hypermedia c)hypertext	CO1
2.List any three popular image file formats.	CO2
3.Differentiate between typeface and font	CO2
4.List any three popular audio file formats.	CO2
5.List and explain the software tools of Image/Graphics Editing	CO3
6.List the main Steps in JPEG Image Compression	CO3
7.Differentiate between Run-length coding and Variable ·length coding	CO3
8.List and explain various ways for Content design effectively.	CO4
9.Listthe different Metaphors	CO5
10.State the importance of an Authoring System	CO5

PART-B

Note: 1.Answer any five question.
2. Each question carries 10 marks **5 X10=50M**

11. Explain the applications of multimedia	CO1
12. Explain Raster and Vector representations of Graphics	CO2
13. Explain popular video broad casts tandards PAL,NTSC,SECAM	CO2
14. Explain the software tools of Music Sequencing and Notation	CO3
15. Describe the process of MPEG video compression.	CO3
16. Explain various ways for Content design effectively.	CO4
17. Explain Offline Publishing by using Flash with an example.	CO5
18. Explain Online Publishing by using Dreamweaver with an example.	CO5

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GRAPHIC DESIGNING
AMG-303
Model Blue print

S.No	Chapter/ Unit title	No.of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage				CO's Mapped
				R	U	Ap	An	R	U	Ap	An	
1	**Photoshop Workspace and Work Flow**	15	16	3	13			1	2			CO1
2	**Masking and Color Correction**	15	26	3	13	10		1	2	1		CO2
3	**Illustrator user interface & Drawing Tools**	15	26	3	13	10		1	2	1		CO3
4	**Designing Layout & printing process**	15	26	3	13	10		1	2	1		CO4
5	**Designing for Media**	15	16	3	3		10	1	1		1	CO5
	Total	**75**	**110**	**15**	**55**	**30**	**10**	**5**	**9**	**3**	**1**	

DIPLOMA IN 3D ANIMATION AND GRAPHICS ENGINEERING
MODEL PAPER
GRAPHIC DESIGNING
UNIT TEST-1

SCHEME: C-23 **SUBJ CODE: AMG-303**
MAX MARKS: 40 **TIME: 90 Minutes**

PART-A **16Marks**

Instructions: 1) Answer all questions
2) First question carries 4marks, and each question of remaining carries 3marks.

1. a) Photoshop is also called ---------- (CO1)
   b) Background layer present in the Photoshop (True/False) (CO2)
   c) shortcut for Create new layer() (CO2)
      1) Ctrl-Shift-O 2) Ctrl-Shift-N3) Ctrl-Shift-P 4) Ctrl-Shift-M
   d) Show/Hide Brushes panel (CO3)
      1)F5 2)F6 c)F7 4)F9
2) Define the terms Graphics and Photoshop (CO1)
3) Define layer and state the uses (CO2)
4) List Steps to Apply Stroke and Fill colours (CO3)

5) Define filter and list the types of filters (CO2)

PART-B **3X8=24Marks**

Instructions:1) Answer all questions 2) Each question carries 8 Marks
3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

6. a) Explain various panels and Menus (CO1)

Or

b) Explain Creation, Opening and Importing of Images (CO1)

7. a) Explain Layer Effects and Styles (CO2)

Or

b) Explain the scanner type's controls (CO2)

8. a) Explain viewing the document and working in artwork or Preview modes (CO3)

Or

b) Explain usage of pen and pencil tools (CO3)

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BOARD DIPLOMA EXAMINATIONS

DIPLOMA IN 3D ANIMATION AND GRAPHICS ENGINEERING
MODEL PAPER – YEAR END EXAMINATION
GRAPHIC DESIGNING

SCHEME: C-23 **SUBJ CODE: AMG-303**
MAX MARKS:80 **TIME: 3HOURS**

PART-A **10X3=30 Marks**

Note: Answer all questions

1. Define the terms Graphics, Photoshop (CO1)
2. List elements of Photoshop Works pace (CO1)
3. Define layer and state the uses (CO2)
4. List types of Images for print (CO2)
5. List types and state the uses of Paintbrushes (CO3)
6. State use of the Opacity Masks (CO3)
7. Define the term Typography (CO4)
8. Define printing (CO4)
9. List the Limitations of Printing Process (CO5)
10. Define term a) poster b) binding (CO5)

PART-B **5x10=50Marks**

Note: Answer any five questions

11. Explain various panels and Menus (CO1)
12. Explain Layer Effects and Styles (CO2)
13. Explain following operation layers
    a)Linking b) Moving c) Stacking d) Locking (CO2)
14. Explain the Wrapping Paragraph and Character Styles (CO3)
15. Explain a) Creation of path b) Combining paths (CO3)
16. List and Explain the Visual Ingredients of Graphic Design (CO4)
17. Describe the Layout Styles and Layout Components (CO4)
18. Give the Step by step process to Design Polycet campaign banner with at least 3 lines of information with at least two images applying different colours and sizes (CO5)

2-D Digital Animation

AMG-304

BLUE PRINT

S.N	Chapter/Unit title	No.of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage				CO's Mapped
				R	U	Ap	An	R	U	Ap	An	
1	FLASH INTRODUCTION	15	16	6	10			2	1			CO1
2	DIGITAL CONVERSION	9	13	3	10			1	1			CO1,CO2
3	INTRODUCTION TOANIMATION	12	29	3	6	10	10	1	2	1	1	CO1,CO2,CO3
4	FLASH APPLICATIONS	12	26	3	3	10	10	1	1	1	1	CO1,CO2,CO3,CO4
5	CHARACTER ANIMATION	12	26		6	10	10		2	1	1	CO1,CO2,CO3,CO4,CO5
	Total *	75	110	15	35	30	30	4	7	4	1	

DIPLOMA IN 3D ANIMATION AND GRAPHICS ENGINEERING

MODEL PAPER

2D DIGITAL ANIMATION

UNIT TEST-1

SCHEME: C-23 **SUBJ CODE:AMG-304**

MAX MARKS:40 **TIME: 90Minutes**

PART-A **16Marks**

Instructions:1) Answer all questions

2) First question carries 4marks, and each question of remaining carries 3marks

1. CO1

A. **Lasso tool** tool is useful for drawing freeform segments of a **selection** border.

B. JPG stands for

a) Joint Photographic Experts Group b) Joint Photographic Group

c) Joint Photo Graph c) Joint Photo Group

C. This area in Flash is similar to the clipboard in Microsoft Office applications.

a) Dashboard b) Layers Panel

c) Library Panel d) Property Inspector

D. These are frames that are signaficant. It is the basis for tweened animation.

a) Key frames b) Special Frames

c) Master Frame None of the above

2. State the usage of Tools menu CO1
3. Differentiate between GRID and GUIDE CO1
4. List various Drawing modes CO2
5. State the purpose of motion guide layer CO2

PART-B **3X8=24Marks**

Instructions: 1) Answer all questions. 2) Each question carries 8 Marks

3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

1. Explain the process to create pattern in flash C05

Or

Explain the gradient tool with its types CO2

2. Explain purpose of paint bucket with its options(Gap size option, Lock fill option, &Transform Fill option) CO3

Or

What are the benefits of layers in flash? Explain in detail. C04

3. Discuss the difference between shape tweening and motion tweening? CO5

Or

Describe how to do image scaling and squeezing in Flash.

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BOARD DIPLOMA EXAMINATIONS

DIPLOMA IN ANIMATION AND MULTIMEDIA ENGINEERING

MODEL PAPER – YEAR END EXAMINATION

2D DIGITALANIMATION

SCHEME: C-23 **SUBJ CODE:AMG-304**

MAX MARKS:80 **TIME: 3HOURS**

PART-A

Note: Answer all questions. Each question carries 3 marks **10 X 3=30M**

1.	What are the components of flash workspace	3	CO1
2.	List any three functions of library	3	CO1
3.	List any three bitmap images	3	CO2
4.	State the importance of paint bucket	3	CO2
5.	Differentiate between primary and secondary actions	3	CO2
6	Define the term key frame with its importance.	3	CO4
7	List various symbols	3	CO5
8	Write the steps to duplicate symbol	3	CO5
9	Write the steps to reuse character design	3	CO3
10	Differentiate between rigging and animation	3	CO3

PART-B

Note: 1. Answer Any five questions
2. Each question carries 10 marks **5 X 10=50M**

11. Explain any four tools of tools panel with their properties CO1

12. Explain any the steps to create realistic effects CO3

13. Explain the procedure to create tween based animation CO2

14. Explain the differences between Motion tween and shape tween CO2

15. List the effects that can be added to timeline and explain them CO3

16. Explain the procedure to create any two timeline effects CO3

17. Explain the procedure to apply any four character rigging constrains CO5

18. Explain the process of exporting video as sequence of image CO5

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Graphics Programming through Java
AMG-305
MODELBLUEPRINT

S.No.	Chapter/Unit title	No.of periods Allocated	Weightage Allocatd	Marks Wise Distribution of Weightage			Question wise Distribution of Weightage			CO's Mapped
				R	U	Ap	R	U	Ap	
1	Object oriented	12	16	6	10	-	1	1	-	C01

	programming concepts and Basics of java and over loading									
2	Concepts of inheritance, overriding, Interfaces and Packages	12	26	6	10	10	2	1	1	CO2
3	Exception handling and Multi threaded programming	10	16	6	10		2	1		CO3
4	Applets, AWT, Event Handling	13	26	6	10	10	2	1	1	C04
5	Introduction to swings	13	26	6	10	10	3	1	1	CO5
	Total	60	110	30	50	30	10	5	3	

DIPLOMA IN 3D ANIMATION AND GRAPHICS ENGINEERING
MODEL PAPER
GRAPHICS PROGRAMMING THROUGH JAVA
UNITTEST-1

SCHEME:C-23 **SUBJCODE:AMG-305**
MAX MARKS:40 **TIME:90 MINUTES**

PART-A **16Marks**

Instructions:1) Answer all questions
1) First question carries 4 marks and remaining carries 3 marks each.

1. a) is‘this’keywordisreferscurrentlyinvokedobjectproprieties(True/False) (CO1)
b) ----------is fully abstract class. (CO2)
c) Which of the following is nota java access specifier. [] (CO2)

I) Public II) default III) private IV) super

d) Which one of the following are java translator [ ] (CO1)

I) Interpreter II) compiler III) assembler IV) I&II

2. What is the use of constructor and list different types of constructors? (CO1)
3. Write the differences between abstract class and interface. (CO2)
4. List different types of Exceptions. (CO3)
5. What is the use of super keyword? (CO3)

PART-B **3X8=24Marks**

Instructions:1) Answer all questions 2) Each question carries 8 Marks

3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

6. a) Explain method over loading with an example program. (CO1)

Or

b) Explain how to use static members in java with example. (CO1)

7. a) Explain multi level inheritance with example program. (CO2)

Or

b) How java implements multiple in heritance with interface? Explain with example. (CO2)

8. a) Explain how to create and import package. (CO3)

Or

b) Explain exception handling with example program (CO3)

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BOARD DIPLOMA EXAMINATIONS
DIPLOMA IN ANIMATION AND MULTIMEDIA ENGINEERING
MODEL PAPER – YEAR END EXAMINATION
GRAPHICS PROGRAMMING THROUGH JAVA

SCHEME:C-23 **SUBJCODE:AMG-305**
MAX MARKS:80 **TIME:3 HOURS**

Part-A

Answer All Questions each carries three marks **10X3=30**

1.	Define Byte code and JVM	CO1
2.	State the purpose of final keyword.	CO1
3.	Define over riding and give the syntax.	CO2
4.	What is the use of' super' keyword?	CO2
5.	Write the advantages of exceptions.	CO4
6.	List different methods in thread life cycle.	CO4
7.	What is an event? List different event Listeners.	CO5
8.	Write different constructors in Text Field of AWT	CO5
9.	List container classes in Swing	

Part-B

Answer All Questions carries eight marks **5X8=40**

11.	Explain the features of Java programming	CO1
12.	Explain over loading with example program.	CO2
13.	Explain how to implements multi-level in heritance with example.	CO2
14.	Explain how to create multiple threads with an example	
15.	What is applet? Explain Applet life cycle.	CO4
16.	Explain a bout keyboard events with sample program.	CO4
17.	Compare AWT and Swing in Java	CO5
18.	Write a program to using J button, J Label, J Text Field components in Swing.	CO5

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FOURTH SEMESTER

ELEMENTS OF FILM TECHNOLOGY

AMG-401

Model Blue Print:

S.No.	Chapter/Unit title	No.of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage				CO's Mapped
				R	U	Ap	An	R	U	Ap	An	
1	VISUAL COMMUNICATION	15	16	3	13			1	2			CO1
2	PRE SHOOTING	15	26	3	3	10	10	1	1	1	1	CO2
3	PRODUCTION DESGIN	15	16	3	3	10		1	1	1		CO3
4	SHOOTING	15	26	3	13		10	1	2		1	CO4
5	POST SHOOTING	15	26	3	13		10	1	2	1		CO5
	Total	75	110					5	8	3	2	

DIPLOMA IN 3D ANIMATION AND GRAPHICS ENGINEERING
MODEL PAPER
Elements of Film Technology
UNIT TEST-1
SCHEME: C-23 SUBJ CODE:AMG-401

MAX MARKS:40 **TIME: 90Minutes**

PART-A **16Marks**

Instructions: 1) Answer all questions
2) First question carries 4marks, and each question of remaining carries 3marks.

1. a) **Communication** is simply the act of transferring information from one place, person or group to another. (True/False) (CO1)
   b) The person who act as creative lead of the **film is called as _____**. (CO3)
   c) Step by step procedure to solve problem is ---------- (CO2)
   d) Which one of the following is not a Script Element. [ ] (CO2)
   a)Scene heading b) action c) dialogue d) singing
2) List any three types of Communication (CO1)
3) What is script analysis. (CO2)
4) List any three genre of the film.? (CO2)
5) Write about Location Hunting process.. (CO3)

PART-B **3X8=24Marks**

Instructions:1) Answer all questions. 2) Each question carries 8 Marks
3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

6. a) Explain nonverbal Communication. (CO1)
   Or
   b) Explain Mass communication. (CO1)
7. a) Explain the process of assessing the characters based on profession and backgrounds. (CO2)
   Orb) Explain the process of assisting the director to finalize casting. (CO2)
8. a) Describe the Identification of location suitable to provide backdrop on the scenes(CO3)
   Or
   b) Describe the process of surrealistic and dreamy sets for song sequences (CO3)

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C- 23 Engineering Mathematics – II

Subject Title : **Engineering Mathematics – II**
Subject Code : **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**
Periods/Week : **04**
Periods/Semester : **60**

TIME SCHEDULE

S.No.	Chapter/Unit title	No. of Periods	Marks Allotted	Short Type	Essay Type	COs mapped
Unit – I: Integral Calculus						
1	Indefinite integration	17	26	2	2	CO1
2	Definite integrals	5	16	2	1	CO1
Unit – II: Differential Equations						
3	Introduction to Differential equations	2	3	1	0	CO2
4	Solutions of Differential equations of first order	6	10	0	1	CO2
Unit – III: Graph Theory and Probability						
5	Graph theory	5	6	2	0	CO3
6	Probability	12	26	2	2	CO3
Unit – IV : Statistics						
6	Measures of Central Tendency	1	0	0	0	CO4
7	Measures of Dispersion	3	3	1	0	CO4
8	Correlation	4	10	0	1	CO4
9	Simple linear regression	5	10	0	1	CO4
	Total	60	110	10	8	
			Marks	30	80	

C-23 CM-301
Engineering Mathematics – II
(Common to CM/AIML/AMG/AMT/CAI/CCB/CCN/WD)

Unit Test Syllabus

Unit Test	Syllabus
Unit Test-I	From L.O 1.1 to L.O 2.5
Unit Test-II	FromL.O 3.1 to L.O 4.10

UNIT TEST MODEL PAPERS **C –23, xx-301**

Unit Test I

State Board of Technical Education and Training, A. P

III SEM

Subject name: **Engineering Mathematics-II**

Sub Code: **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**

Time: 90 minutes **Max. Marks: 40**

Part-A **16 Marks**

Instructions: (1) Answer **all** questions.
(2) First question carries **four** marks and the remaining questions carry **three** marks each.

1. Answer the following:
   a. $\int x^6 dx =$ _____ . **(CO1)**
   b. $\int \frac{1}{16+x^2} dx =$ _____ . **(CO1)**
   c. $\int_0^1 x dx =$ _____ . **(CO1)**
   d. Degree of $\left(\frac{dy}{dx}\right)^2 + \frac{dy}{dx} = 3$ is _____. **(CO2)**
2. Evaluate $\int \left(\sec^2 x + 2e^x\right) dx.$ **(CO1)**
3. Evaluate $\int \frac{\sin(\log x)}{x} dx.$ **(CO1)**
4. Evaluate $\int_0^{\frac{\pi}{2}} \cos x dx$ **(CO1)**
5. Find the differential equation to the family of curves $y = mx + 1,$ where m is arbitrary constant. **(CO2)**

Part-B **3×8=24 Marks**

Instructions: (1) Answer **all** questions.
(2) Each question carries **eight** marks
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

1. A) Evaluate $\int \sin^4 x \cos x dx.$ **(CO1)**

   (OR)

   B) Evaluate $\int \frac{1}{(x+1)(x+2)} dx.$ **(CO1)**

2. A) Evaluate $\int_{-1}^{1} \frac{\sin^{-1} x}{\sqrt{1-x^2}} dx$ **(CO1)**

   (OR)

B) Evaluate $\int_0^{\pi/2} \frac{\sin^8 x}{\sin^8 x + \cos^8 x} dx$ **(CO1)**

3. A) Solve $\frac{dy}{dx} = \sqrt{\frac{1-y^2}{1-x^2}}$ **(CO2)**

(OR)

B) Solve $\frac{dy}{dx} + \frac{2y}{x} = \frac{1}{x^2}$ **(CO2)**

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Unit Test II **C –23, xx -301**

State Board of Technical Education and Training, A. P

III Sem

Subjectname:**Engineering Mathematics-II**

Sub Code: **CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301**

Time : 90 minutes Max.marks:40

Part-A **16 Marks**

Instructions: (1) Answer **all** questions.
(2) First question carries **four** marks and the remaining questions carry **three** marks each

1. Answer the following:
   a. A null graph has ____ edges. **(CO3)**
   b. P(at least one) = 1-P(None): State TRUE/FALSE **(CO3)**
   c. $P(A) + P(B) - P(A \cap B) =$ _____ **(CO3)**
   d. Range = Highest value - Lowest value: State TRUE/FALSE **(CO4)**
2. Define a simple graph. **(CO4)**
3. Two cards are drawn at random from a well-shuffled pack of 52 cards. Find the probability that one is a king and the other is a queen. **(CO5)**
4. Let A and B are events with $P(A) = \frac{1}{5}$, $P(B) = \frac{2}{3}$ and $P(A \cap B) = \frac{1}{15}$, find $P(A \cup B)$ **(CO5)**
5. Find the probability of getting at least one head when two coins are tossed. **(CO5)**

Part-B **3×8=24 Marks**

Instructions: (1) Answer **all** questions.
(2) Each question carries **eight** marks
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

6. A) A problem is given to three students, A,B,C whose chances of solving at are 1/2, 1/3, and 1/4 respectively. If they try it independent, what is the probability that the problem will be solved? **(CO3)**

(OR)

B) In a class, 2% of boys and 3% of girls passed in the Programming subject. There are 30% girls in the class. If a student is selected who has passed the subject, what is the probability that the student is a girl. **(CO3)**

7. A) Find the mean deviation about mean for the data:85,96,76,108,85,80,100,85,70,95 (**CO4**)

(OR)

B) The number of runs made by six playersin a cricket match is: 12, 18, 21, 26, 17, 20. Find the standard deviation. (**CO4**)

8. A) Calculate the Spearman's rank correlation coefficient for the following data: (**CO4**)

(OR)

B) Calculate the regression coefficient of Y on X and obtain the regression equation for the following data: (**CO4**)

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BOARD DIPLOMA EXAMINATION (C-23)

ENGINEERING MATHEMATICS – II

CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301

MODEL PAPER-1

TIME: 3 HOURS TOTAL MARKS:80

PART – A

Note: (1) Answer all questions. **Marks:10 x 3 = 30**

(2) Each question carries three marks.

1. Evaluate $\int (e^x + 2\cos x + \frac{6}{\sqrt{1-x^2}})\,dx$ (CO1)
2. Evaluate $\int \frac{\tan^{-1} x}{1+x^2}\,dx$ (CO1)
3. Evaluate $\int_1^2 (x-1)(x+2)\,dx$ (CO1)
4. Evaluate $\int_0^{\pi} \sin x\ dx$ (CO1)
5. Find the differential equation of the family of the curves $x^2 - y^2 = a^2$ where 'a' is an arbitrary constant. (CO2)
6. How many edges are there in a graph with 10 vertices each of degree 6? (CO3)
7. Draw the graph with vertices A, B, C whose adjacency matrix is $\begin{bmatrix} 0 & 1 & 1 \\ 1 & 0 & 2 \\ 1 & 2 & 0 \end{bmatrix}$ (CO3)
8. Two cards are drawn from a well-shuffled deck of 52 cards. What is the probability that both are aces? (CO3)
9. A ball is drawn at random from a bag containing 4 red and 3 blue balls. Find the probability that the ball is either red or blue. (CO3)
10. Find the range of the set of integers 14, -12, 7, 0, -5, -8, 17, -11, 19? (CO4)

Part B

Marks: 5 x 10 = 50

Note: Answer any five questions and each question carries 10 marks.

11. a) Evaluate $\int \frac{14x+11}{7x^2+11x+1}\,dx$ (CO1)

    b) Evaluate $\int \frac{x}{(x-2)(x+1)}\,dx$ (CO1)

12. a) Evaluate $\int e^x (\sin x + \cos x)\ dx$ (CO1)

    b) Evaluate $\int x^2 e^{2x}\ dx$ (CO1)

13. Show that $\int_0^{\pi/2} \frac{1}{1+\tan x}\,dx = \frac{\pi}{4}$. (CO1)

14. Solve $\frac{dy}{dx}$ + y cotx = cosec x (CO2)

15. a)Compute $P(A/B)$ and $P(B/A)$ if $P(A)=\frac{3}{8}, P(B)=\frac{5}{8}$ and $P(A\cup B)=\frac{3}{4}$ (CO3)

b) A bag contains 10 black and 5 white balls. Two balls are drawn from the bag one after the other without replacement. What is the probability that both balls drawn are black? (CO3)

16. It is observed that 50% of mails are spam. There is a software that filters spam mail before reaching the inbox. Its accuracy for detecting a spam mail is 99% and chances of tagging a non-spam mail as spam mail is 5%. If a certain mail is tagged as spam, find the probability that it is not a spam mail. (CO3)

17. Calculate Spearman's rank correlation coefficient from the following data: (CO4)

18. Calculate the regression coefficient of Y on X and obtain the regression equation for the following data: (CO4)

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BOARD DIPLOMA EXAMINATION (C-23)
ENGINEERING MATHEMATICS – II
CM/AIML/AMG/AMT/CAI/CCB/CCN/WD-301

MODEL PAPER-2

TIME: 3 HOURS TOTAL MARKS:80

PART – A

Note: (1) Answer all questions. **Marks:10 x 3 = 30**
(2) Each question carries three marks.

1. Evaluate $\int (\frac{1}{x} - e^x + x^4)dx$ (CO1)
2. Evaluate $\int \frac{\sin\sqrt{x}}{\sqrt{x}}dx$ (CO1)
3. Evaluate $\int_0^2 x^4 dx$ (CO1)
4. Evaluate $\int_0^1 \frac{1}{1+x^2}\, dx$ (CO1)
5. Find the differential equation of the family of curves $y = Ae^x + Be^{-x}$ where A and B are arbitrary constants. (CO2)
6. Define a multigraph and draw a multigraph with 4 vertices (CO3)
7. Write the adjacency matrix for a graph with V={x, y, z} and E={xy,xz,zx} (CO3)
8. Two students are selected from a group of two boys and two girls. Find the probability that the selected students both are boys? (CO3)
9. Compute $P(A \cup B)$ when $P(A) = \frac{1}{5}, P(B) = \frac{2}{3}$ and $P(A \cap B) = \frac{1}{15}$ (CO3)
10. Find the range of the observations: 32, 41, 28, 54, 35, 26, 23, 33, 38, 40 (CO4)

Part B

Marks: 5 x 10 = 50

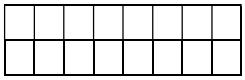
Note: Answer any five questions and each question carries 10 marks.

11. a) Evaluate $\int sec^2(2x+3)dx$ (CO1)
    b) Evaluate $\int \frac{1}{(x-2)(x-3)}dx$ (CO1)
12. a) Evaluate $\int \frac{e^{m\tan^{-1}x}}{1+x^2}dx$ (CO1)
    b) Evaluate $\int x^2 cosx\, dx$ (CO1)
13. Show that $\int_0^{\pi/2} \frac{sin^{20}x}{sin^{20}x+cos^{20}x}dx = \frac{\pi}{4}$. (CO1)
14. Solve $\frac{dy}{dx} + \frac{2y}{x} = \frac{1}{x^2}$ (CO2)
15. a) Let A and B are two events with $P(A) = \frac{1}{2}, P(B) = \frac{1}{3}$ and $P(A \cap B) = \frac{1}{4}$, find $P(A/B)$ and $P(B/A)$ (CO3)

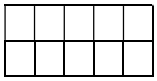
b) A fair die is rolled twice. What is the probability that an odd number will follow an even number? (CO3)

16. Three machines A, B and C produce respectively 50%, 30% and 20% of the total number of items of a factory. The percentages of defective output of these machines are respectively 2%, 3% and 4%. An item is selected at random and is found defective. Find the probability that the item was produced by machine C. (CO3)

17. Calculate Spearman's rank correlation coefficient from the following data: (CO4)



18. Calculate the regression coefficient of X on Y and obtain the regression equation for the following data: (CO4)



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C-23 CBD-302 OOPS THROUGH JAVA

Model Blue Print:

S.No.	Chapter/ Unit title	No.of periods Allocated	Weightage Allocatd	Marks Wise Distribution of Weightage			Question wise Distribution of Weightage			CO's Mapped
				R	U	Ap	R	U	Ap	
1	Object oriented programming concepts and Basics of java and over loading	13	13	3	10	-	1	1	-	C01
2	Concepts of inheritance, over riding,Interfaces and Packages	13	26	6	10	10	2	1	1	CO2
3	I/O Streams and Collections.	15	21	6	10	5	2	1	½	CO3
4	Exception handling and Multi threaded programming	14	21	6	10	5	2	1	½	C04
5	Applets, AWT, Event Handling	20	29	9	10	10	3	1	1	CO5
	Total	75	110	30	50	30	10	5	3	

Table specifying the scope of syllabus to be covered for unit tests

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 3.6
Unit test-2	From 3.7 to 5.14

DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING

MODEL PAPER

OOPS THROUGH JAVA

UNIT TEST-1

SCHEME: C-23 SUBJ CODE: CBD-302

MAX MARKS: 40 TIME: 90Minutes

……

PART-A **16Marks**

Instructions: 1) Answer all questions

2) First question carries 4marks, and each question of remaining carries 3marks

1. a) is 'this' keyword is refers currently invoked object proprieties (True/False) (CO1)

b) ----------is fully abstract class. (CO2)

c) Which of the following is not a java access specifiers [ ] (CO2)

I) public II) default III) private IV) super

d) Which one of the following are java translator [ ] (CO1)

I) interpreter II) compiler III) assembler IV) I &II

2. What is the use of constructor and list different types of constructors? (CO1)

3. Write the differences b/w abstract class and interface (CO2)

4.List different types of I/O streams.

(CO3)

5. What is the use of super keyword?

(CO3)

PART-B 3X8=24Marks

Instructions: 1) Answer all questions

2)Each question carries 8 Marks

3)Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

6. a) Explain method over loading with an example. (CO1)

Or

b) Explain how to use static members in java with example. (CO1)

7. a) Explain multilevel inheritance with example program. (CO2)

Or

b) How java implements multiple inheritance with interface? Explain with example. (CO2)

8. a) Explain how to create and import package. (CO3)

Or

b) Describe how to access primitive data types through keyboard with an example. (CO3)

Board Diploma Examination

Model Question paper-End Exam

DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING

OOPS THROUGH JAVA

SCHEME: C-23 SUBJECT CODE:CBD-302

MAX MARKS:80 TIME: 3 hours

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Part-A

Answer All Questions each carries three marks 10X3=30

1. Define Byte code and JVM (CO1)
2. What is the use of label break?. (CO2)
3. Define overriding and give the syntax. (CO2)
4. What is the use of super keyword? (CO3)
5. List different Access modifiers in java. (CO3)
6. Write any three methods in ArrayList class. (CO3)
7. Write the advantages of exceptions. (CO4)
8. List different methods in thread life cycle. (CO4)
9. What is an event? List different event Listeners. (CO5)
10. Write different constructors in TextField. (CO5)

Part-B

Note: 1. Answer five of the following questions

2. Each question carries 10 marks

3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer 5X10=50

11. Explain the concept of method overloading with an example program. (CO1)
12. Explain how to implements multi-level inheritance with example. (CO2)
13. Explain how create and import a package with example packages. (CO2)
14. Explain HashSet class methods with simple program. (CO3)

15. (a)Write a java program to read data through command line arguments and write it into file and display file contents . (CO3)

(b) Explain Multi catch statements (CO4)

16. Explain how to create multi-threading in java with an example program. (CO4)

17. Design an applet program that implements simple calculator with basic arithmetic operations. (CO5)

18. Explain mouse events with an example program. (CO5)

C-23 CBD-303 Computer Networks

Model Blue print:

S.No.	Chapter/Unit title	No. of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage			CO's Mapped
				R	U	Ap	R	U	Ap	An	
1	Introduction to Networks	15	21	3	3	10	1	1	1½		CO1,CO2
2	LAN components, Devices, tools, and Network Topologies.	12	26	6	10	10	2	1	1		CO3
3	Network Addressing and sub-netting	10	21	6	5		2	½	1		CO3, CO4, CO6
4	Networks protocols and management	14	26	3	3	20	1	1	2	*	CO3, CO5,CO6
5	Basic Network administration	9	16	3	3	10	1	1	1	*	CO6
	Total *	60	**110**	**21**	**24**	**50**	**7**	**4½**	**6½**		

Table specifying the scope of syllabus to be covered for unit tests

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 3.4
Unit test-2	From 3.5 to 5.10

DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING
MODEL PAPER
Computer Networks
UNIT TEST-1

SCHEME: C-20 **SUBJ CODE: CBD-303**
MAX MARKS: 40 **TIME: 90Minutes**

PART-A **16Marks**

Instructions:1) Answer all questions
2) First question carries 4marks, and each question of remaining carries 3marks

1. a) Transport layer is bottom layer of OSI reference model(True/False) (CO2)

b) MAN stands for ……. (CO3)

c) ----------tool is used to affix a connector at the end of cable (CO1)

d) The class of private address range 172.16.0.0 to 172.31.255.255 is (CO4)

i) Class A II) Class B III) Class C IV) Class D

2) State the need of Networking. (CO1)
3) List any six LAN devices (CO3)
4) Give the functions of cable tester (CO3)
5) Describe IP address. (CO4)

PART-B 3X8=24Marks

Instructions:1) Answer all questions
2) Each question carries 8 Marks
3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

6. a) Explain OSI reference model in detail. (CO2)

Or

b)Compare TCP/IP and OSI reference models **(CO2)**

7. a) Explain coaxial and twisted pair cables (CO1)

Or

b) Explain IP address classes in detail. (CO4)

8. a) Explain Star and Mesh Topologies (CO3)

Or

b) Explain Ring and Bus Topologies (CO3)

BOARD DIPLOMA EXAMINATIONS
DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING
MODEL PAPER – YEAR END EXAMINATION
Computer Networks

SCHEME: C-20 **SUBJ CODE: CBD-303**
MAX MARKS:80 **TIME: 3HOURS**

PART-A

Note: Answer all questions. Each question carries 3 marks **10 X 3=30M**

1.	Write the importance of networking	3		CO1	
2.	Write any three differences between LAN and WAN		3		CO1
3.	List any thee network cables	3		CO2	
4.	Write about RJ-45 jack	3		CO2	
5.	What are the components of IP address	3		CO3	
6	What is the importance of sub-netting.	3		CO4	
7	Differentiate between ARP and RARP	3		CO5	
8	Write the importance of protocols in networking		3		CO5
9	List any three responsibilities of network administrator	3		CO6	
10	Write about disk management tools	3		CO6	

PART-B

Note: 1. Answer five of the following questions
2. Each question carries 10 marks
3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

5 X 10=50M

11. Explain about ISO reference model with neat diagram.	10	CO1
12. Explain any four LAN devices.	10	CO2
13. Explain any four network topologies with neat diagrams.	10	CO3
14. a) Explain subnetting with a suitable example	5	CO4
b) Write about wifi technology.	5	CO4
15. Explain IPv4 address classes.	10	CO4
16. Explain any four network protocols.	10	CO5
17. Write different steps for monitoring and troubleshoot the network.	10	CO6
18. Write the steps to create and manage user groups using any network Operating system.	10	CO6

C-23 CBD-304 DATA STRUCTURES THROUGH C

MODEL BLUE PRINT:

S. No.	Chapter Name	Periods allocate	Weightage allotted	Mark wise Distribution of Weightage		Question wise Distribution of Weightage		Cos Mapped
				R	U	R	U	
1.	Introduction to Data structures, Sequential Storage Representation	23	16	6	10	2	1	CO1
2.	Linked Storage Representation -Linked Lists	15	16	6	10	2	1	CO2
3.	Linear Data Structures-Stacks	12	26	6	20	2	2	CO3
4.	Linear Data Structures-Queues	10	26	6	20	2	2	CO4
5.	Non Linear Data Structures-Trees	15	26	6	20	2	2	CO5
	Total	75	110	30	80	10	8	

Table specifying the scope of syllabus to be covered for unit tests

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 2.9
Unit test-2	From 3.1 to 5.15

DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING

MODEL PAPER

Data Structures through C

UNIT TEST-1

SCHEME: C-23 SUBJ CODE:CBD-304

MAX MARKS:40 TIME: 90Minutes

……

PART-A **16Marks**

Instructions:1) Answer all questions

2) First question carries 4marks, and each question of remaining carries 3 marks

1. a) Array is a non-linear Data Structure.(True/False) (CO1)
   b) Re-arranging of adjacent elements followed in _____ type of sorting. (CO1)
   c) Single Linked List node consists of _____ fields. (CO2)
   d) Which one of the following is not a sorting technique [ ] (CO1)
   i) Merge II)Bubble III)Binary IV)Quick
2) Define sorting and searching. (CO1)
3) List any three Linear Data Structures. (CO1)
4) How to represent a node in Singly Linked list. (CO2)
5) Distinguish Singly Linked list and Doubly linked list. (CO2)

PART-B 3X8=24Marks

Instructions:1) Answer all questions

2) Each question carries 8 Marks

3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

6. a) Explain Bubble sort technique. (CO1)

(Or)

   b) Explain Quick Sort technique. (CO1)

7. a) Explain Binary Search technique using Recursion. (CO1)

(Or)

   b) Write a C program to implement Singly Linked list with all operations. (CO2)

8. a) Write a C program to implement Doubly Linked list with all operations. (CO2)

(Or)

   b) Explain Circular Doubly Linked List. (CO2)

BOARD DIPLOMA EXAMINATIONS

DIPLOMA IN CLOUD COMPUTING & BIG DATA ENGINEERING

MODEL PAPER - END EXAMINATION

Data Structures through C

SCHEME: C-23 SUBJ CODE: CBD-304

MAX MARKS: 80 TIME: 3HOURS

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PART - A

Note: Answer all the Questions. Each Question Carries 3 marks

1. What is Linear Data Structure and Non Linear Data Structure?(CO1)
2. List the abstract Data Types. (CO1)
3. List any three operations of Linked List. (CO2)
4. Write the structure code for declaring Doubly circular Linked List. (CO2)
5. Convert the following into postfix expression: a+b*c/d^e. (CO3)
6. Evaluate the following expression:3^2+15/5*6. (CO3)
7. Define Priority Queue. (CO4)
8. List any three applications of Queue. (CO4)
9. Define Binary Tree (CO5)
10. List the applications of Trees. (CO5)

PART-B

Note: 1. Answer five of the following questions

2. Each question carries 10 marks

3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

5X10=50Marks

11. Explain the method of Bubble Sort. (CO1)
12. Write C Program to Implement Single Linked List with all operations. (CO2)
13. Explain Linked list implementation of Stack with all operations. (CO3)
14. Write C program for Evaluation of Post Fix expression using Stacks. (CO3)
15. Explain all the operations of Circular Queues. (CO4)
16. Write C Program for implementation of Queues using linked lists. (CO4)
17. Explain the Linear representation and Linked representation of Binary Tree(CO5)
18. Explain about different Tree Traversals (CO5)

C-23 CBD-305 CLOUD COMPUTING ARCHITECTURE AND DESIGN

Model Blue Print:

S.No.	Chapter/Unit title	No. of periods	Weightage Allocated	Marks Wise Distribution of Weightage				Question wise Distribution of Weightage				CO's Mappe
				R	U	Ap	An	R	U	Ap	An	
1	Basics of Cloud Computing	10	16	6	10			2	1			CO1
2	Understand the concepts of Parallel and Distributed Computing	12	26	3	23			1	3			CO2
3	Understand the concepts of Virtualization	15	26	3	23			1	3			CO3
4	Cloud Computing Architecture and Services	13	26	6	20			2	2			CO4
5	Cloud deployment Models	10	16	3	13			1	2			CO5
	Total	**60**	**110**	**21**	**89**			**7**	**11**			

Table specifying the scope of syllabus to be covered for unit tests

Unit Test	Learning outcomes to be covered
Unit test-1	From 1.1 to 3.3
Unit test-2	From 3.4 to 5.7

DIPLOMA IN CLOUD COMPUTING AND BIGDATA ENGINEERING

MODEL PAPER

CLOUD COMPUTING ARCHITECTURE AND DESIGN

UNIT TEST-1

SCHEME: C-23 **SUBJ CODE: CBD-305**

MAX MARKS:40 **TIME: 90Minutes**

PART-A **16Marks**

Instructions: 1) Answer all questions
2) First question carries 4marks, and each question of remaining carries 3marks

1. a) ---------- is a computing technique in which applications are accessed by common internet protocols and networking standards. (CO1)
   b) Grid computing is also called as "**distributed computing (True/False)** (CO2)
   c) Which one of the following options can be considered as the Cloud? (CO3)
   i) VMWARE ii) Intranet ii) Web Applications iV) All
   d) Full Form of **IPC**----------
2. List the features of Cloud Computing (CO1)
3. Define Parallel Computing (CO2)
4. Define Distributed Computing (CO2)
5. List any 3 Virtualization Techniques (CO3)

PART-B 3X8=24Marks

Instructions: 1) Answer all questions
2) Each question carries 8 Marks
3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer

6. a) Define the following terms related to recent trends in Computing (CO1)
   1) Cluster Computing 2. Grid Computing
   3) Distributed Computing 4 Utility Computing

(Or)

b) Write the advantages and disadvantages of Cloud Computing (CO1)

7. a) Explain the Architectural Styles for Distributed Computing (CO2)

(Or)

b) Differentiate Parallel and Distributed Computing (CO2)

8. a) Explain Hardware Virtualization Techniques (CO3)

(Or)

b). Explain Application Virtualization Techniques (CO3)

Board Diploma Examination

DIPLOMA IN CLOUD COMPUTING AND BIGDATA ENGINEERING

MODEL PAPER

CLOUD COMPUTING ARCHITECTURE AND DESIGN

SCHEME: C-23 **SUBJ CODE:CBD-305**

MAX MARKS:80 **TIME: 3HOURS**

Part-A

Answer All Questions each carries three marks **10X3=30Marks**

1. Define the term 'Cloud Computing'. (CO1)
2. List any three features of Cloud Computing (CO1)
3. Define the term 'Parallel Computing' (CO2)
4. Write the purpose of Distributed Computing (CO2)
5. List any three Virtualization Technologies (CO3)
6. Write any three characteristics of Virtualization. (CO3)
7. List any three Services of Cloud Computing (CO4)
8. Write any three Characteristics of Platform as a Service (CO4)
9. List the Types of Cloud Models (CO5)
10. Give explanation on Economics of Cloud (CO5)

PART-B **5×8=40Marks**

Instructions: 1) Answer ALL questions

2) Each question carries eight marks.

3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Write any five comparisons between Cluster Computing and Grid Computing.(CO1)
12. Explain Hardware architecture for parallel processing. (CO2)
13. List and explain Architectural Styles for Distributed Computing (C02)
14. Explain the Operating System Level Virtualization Technique (CO3)
15. Explain Programming Language Level Virtualization Technique (CO3)
16. Explain the working of Cloud Computing Architecture. (CO4)
17. Write any eight Differences between IaaS, PaaS and SaaS (CO4)
18. Describe Public Cloud model in cloud computing (CO5)