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COMPUTER APPLICATIONS

12th Standard

Based on the New Syllabus and New Textbook for the year 2019-20

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PREFACE

" The woods are lovely, dark and deep. "
But I have promises to keep, and
miles to go before I sleep - Robert Frost

Respected Principals, Correspondents, Head Masters / Head Mistresses, Teachers,

From the bottom of our heart, we at SURA Publications sincerely thank you for the support and patronage that you have extended to us for more than a decade.

It is in our sincerest effort we take the pride of releasing **SURA's Computer Applications Guide** for +2 Standard – Edition 2019. This guide has been authored and edited by qualified teachers having teaching experience for over a decade in their respective subject fields. This Guide has been reviewed by reputed Professors who are currently serving as Head of the Department in esteemed Universities and Colleges.

With due respect to Teachers, I would like to mention that this guide will serve as a teaching companion to qualified teachers. Also, this guide will be an excellent learning companion to students with exhaustive exercises and in-text questions in addition to precise answers for textual questions.

In complete cognizance of the dedicated role of Teachers, I completely believe that our students will learn the subject effectively with this guide and prove their excellence in Board Examinations.

I once again sincerely thank the Teachers, Parents and Students for supporting and valuing our efforts.

God Bless all.

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All the Best

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CHAPTER

1

MULTIMEDIA AND
DESKTOP PUBLISHING

EVALUATION

Chapter 1

PART - I

CHOOSE THE CORRECT ANSWER

1. _____ refers to any type of application that involves more than one type of media such as text, graphics video animation and sound

(a) an executable file

(b) desktop publishing

(c) multimedia   (d) hypertext

[Ans. (c) multimedia]

2. One of the disadvantages of the multimedia is its _____.

(a) cost   (b) adaptability

(c) usability   (d) relativity

[Ans. (a) cost]

3. Expand JPEG

(a) Joint Photo Experts Gross

(b) Joint Photographic Experts Group

(c) Joint Processor Experts Group

(d) Joint Photographic Expression Group

[Ans. (b) Joint Photographic Experts Group]

4. You need hardware, software and _____ to make multimedia

(a) network

(b) compact disk drive

(c) good idea

(d) programming knowledge

[Ans. (c) good idea]

5. Match the following by choosing the right one

1. Text   –   TGA
2. Image –   MIDI
3. Sound –   MPEG
4. Video –   RTF

(a) 1, 2, 3, 4   (b) 2, 3, 4, 1

(c) 4, 1, 2, 3   (d) 3, 4, 1, 2

[Ans. (b) 2, 3, 4, 1]

6. Find the odd one on the following which is not an image format

(a) TIFF   (b) BMP

(c) RTF   (d) JPEG

[Ans. (c) RTF]

7. _____ is the process displaying still images they give continuous movement

(a) Text formats   (b) Sound

(c) MP3   (d) Animation

[Ans. (d) Animation]

8. The live telecasting of real time program through Internet is known as _____

(a) web casting   (b) web hosting

(c) data manipulation   (d) none of the above

[Ans. (a) web casting]

9. GIF use _____ color look up table

(a) 8 bit   (b) 8 KB

(c) 8 MB   (d) 8 GB

* [Ans. 13 bit]

10. RTF file format was introduced by _____

(a) TCS   (b) Microsoft

(c) Apple   (d) IBM

[Ans. (b) Microsoft]

PART - II

SHORT ANSWERS

1. **Define Multimedia and their features.**

Ans. **(i)** The word multimedia consists of two words "multi" and "media" which means that multiple forms of media are combined to gather and provide services like storage, communication, presentation and Input/output interactions of text, video, image, graphics and audio.

(ii) The term multimedia comprises of two words, "multi" and "medium". Multi refers to many i.e. at least two.

(iii) Media is the plural of medium. Therefore multimedia is an integration of many types of media like text, graphics, images, audio, animation, video etc on a single medium in the same information unit.

2. List out Multimedia Components.

Ans. Multimedia has five major components like text, images, sound, video and animation. They are explained in detail below:

Components of Multimedia

3. Classify the TEXT component in multimedia

Ans. (i) Static Text

(ii) Hyper Text

4. Classify the IMAGE component in multimedia.

Ans. (i) Raster or Bitmap Images

(ii) Vector Images

5. Define Animation and their features.

Ans. (i) Animation is the process displaying still images so quickly so that they give the impression of continuous movement. In animation the screen object is a vector image in animation.

(ii) Using numerical transformations the movement of that image along its paths is calculated for their defining coordinates.

(iii) The least frame rate of at least 16 frames per second gives the impression of smoothness and for natural looking it should be atleast 25 frames per second.

(iv) Animations may be in two or three dimensional. The two dimensional animation, bring an image alive, that occur on the flat X and Y axis of the screen.

(v) While in three dimensional animation it occurs along the three axis X, Y and Z. Animation tools are very powerful and effective.

6. List out image file formats.

Ans. (i) TIFF – Tagged Image File Format

(ii) BMP – Bitmap

(iii) DIB – Device Independent Bitmap

(iv) GIF – Graphic Interchange Format

(v) JPEG – Joint Photographic Experts Group

(vi) TGA – Tagra

(vii) PNG – Portable Network Graphics

7. List out audio file formats.

Ans. (i) WAV – Wave form Audiofile Format

(ii) MP3 – MPEG Layer - 3 Format

(iii) OGG

(iv) AIFF – Audio Interchange File Format

(v) WMA – Windows Media Audio

(vi) RA – Real Audio Format

8. List out video file formats.

Ans. (i) AVI – Audio / Video Interleave

(ii) MPEG – Moving Picture Experts Group

9. Define Multimedia Production.

Ans. Multimedia production assures that the multimedia project will be proceed smoothly and certainly ensures that the information reaches the target audience.

10. List out Multimedia Production team members.

Ans. The team comprises of members playing various roles and responsibilities like Script writer, Production manager, Editor, Graphics Architect, Multimedia Architect and Web Master.

| PART - III |

EXPLAIN IN BRIEF ANSWER

1. Briefly explain about Multimedia Components.

Ans. Components of Multimedia:

Text :

(i) Text is the basic components of multimedia and most common ways of communicating information to other person.

(ii) Even though multimedia includes images, video, audio and graphics, Text is the basic components used in multimedia.

Image :

(i) Images acts as an vital component in multimedia.

(ii) These images are generated by the computer in two ways, as bitmap or raster images and as vector images.

Animation :

(i) Animation is the process displaying still images so quickly so that they give the impression of continuous movement.

(ii) In animation the screen object is a vector image in animation.

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Sound :

(i) Sound is a meaningful speech in any language and is the most serious element in multimedia, providing the pleasure of music, special effects and so on.

(ii) Decibels is the measurement of volume, the pressure level of sound.

Video :

(i) Video is defined as the display of recorded event, scene etc.

(ii) The powerful way to convey information in multimedia applications are embedding of video.

(iii) The video can be categorized in two types as Analog video and Digital video.

2. Describe the features and techniques of animation.

Ans. (i) Animation : Animation is the process of displaying still images so quickly so that they give the impression of continuous movement. In animation the screen object is a vector image in animation.

(ii) **Path Animation :** Path animation involves moving an object on a screen that has a constant background e.g. a cartoon character may move across the screen regardless of any change in the background or the character.

(iii) **Frame Animation :** In frame animations, multiple objects are allowed to travel simultaneously and the background or the objects also changes.

3. Write roles and responsibilities of Production team members.

Ans. (i) Production Manager: In a multimedia production, the role of production manager is to define, and coordinate, the production of the multimedia project in time and with full quality.

(ii) **Content Specialist:** Content specialist is responsible for performing all research activities concerned with the proposed application's content.

(iii) **Script Writer:** Video and film scripts represents a linear sequence of events. The script writer visualizes the concepts in three dimensional environments and if needed uses the virtual reality integration into the program.

4. Describe the various file formats in multimedia.

Ans. File Formats for Multimedia: The following is an outline of current file formats used for the production and delivery of multimedia data.

Text Formats:

(i) **RTF :** Rich Text Format is the primary file format introduced in 1987 by Microsoft with the specification of their published products and for cross-platform documents interchange.

(ii) **Plain text :** Plain text files can be opened, read, and edited with most text editors.

Image Formats :

(i) **TIFF (Tagged Image File Format):** This format is common in desktop publishing world (high quality output), and is supported by almost all software packages.

(ii) **BMP (Bitmap):** Initially this format is in use with Windows 3.1.

(iii) **DIB (Device Independent Bitmap) :** This format which is similar to BMP, allows the files to be displayed on a variety of devices.

(iv) **GIF (Graphics Interchange Format) :** GIF is a compressed image format. Most of the computer color images and backgrounds are GIF files.

(v) **JPEG (Joint Photographic Experts Group) :** JPEG was designed to attain maximum image compression.

(vi) **TGA (Tagra) :** It is the first popular format for high-resolution images. TGA is supported by Most of the video-capture boards.

(vii) **PNG (Portable Network Graphics):** An extensible file format for the less loss, portable and well compressed storage of raster images.

5. Explain animation industry and their scopes.

Ans. The Indian animation industry encompasses traditional 2D animation, 3D animation and visual effects for feature films. In 1956, Disney studios animator clair weeks who had worked on Bambi, was invited to Films Division of India in Mumbai to establish and train the country's first animation studio as part of the American technical co-operation mission. He trained a core group of Indian animators, whose first production was a film called "The Banyan Deer".

Chapter 1

Scope:

The animation industry is growing at a very past face. It is now a multi-billion dollar industry generating a great deal of employment for those who have the passion for it. Big international studios and companies like Sony pictures, Turner Entertainment and Walt Disney are off shoring the development of animation content to India and already. Indian animation studies and production houses are jam packed with work be it outsourced from abroad or in-house projects. Therefore, there is a talent crunch inthis industry and people are required to fill up these vacancies.

Work opportunitites for quality animators and related professinals like graphic designers, multimedia, developers, game developers, character designers, key frame animators, 3D modelers, layout artists etc.

PART - IV

EXPLAIN IN DETAIL: (5 MARKS)

1. Explain in detail Process of Multimedia.

Ans. (1) Conceptual Analysis and Planning :

(i) The process of multimedia making begins with a conceptual ignition point.

(ii) Conceptual analysis identifies a appropriate theme, budget and content availability on that selected theme.

(iii) Additional criteria like copyright issues also are considered in this phase.

(2) Project design :

(i) Once the theme is finalized objectives, goals, and activities are drawn for the multimedia project.

(ii) General statements are termed as goals. The specific statements in the project is known as the objectives.

(iii) Activities are series of actions performed to implement an objective. These activities contribute to the Project design phase.

(3) Pre-production :

Based on the planning and design, it is necessary to develop the project.

(4) Budgeting :

Budgeting for each phases like consultants, hardware, software, travel, communication and publishing is estimated for all the multimedia projects.

(5) Multimedia Production Team :

(i) The production team for a high end multimedia project requires a team efforts.

(ii) The team comprises of members playing various roles and responsibilities like Script writer, Production manager, Editor, Graphics Architect, Multimedia Architect and Web Master.

(6) Hardware/Software Selection :

(i) All multimedia Application requires appropriate tools to develop and playback the application.

(ii) Hardware includes the selection of fastest CPU, RAM and huge monitors, sufficient disc for storing the records.

(iii) Selection of the suitable software and file formats depends on the funds available for the project being developed.

2. Explain in detail Techniques of Animation.

Ans. Animation :

(i) Animation is the process of displaying still images so quickly so that they give the impression of continuous movement.

(ii) In animation the screen object is a vector image in animation.

(iii) Using numerical transformations the movement of that image along its paths is calculated for their defining coordinates.

(iv) The least frame rate of at least 16 frames per second gives the impression of smoothness and for natural looking it should be at least 25 frames per second.

(v) Animations may be in two or three dimensional.

Multimedia and Desktop Publishing

(vi) The two dimensional animation, bring an image alive, that occur on the flat X and Y axis of the screen.

(vii) While in three dimensional animation it occurs along the three axis X, Y and Z. Animation tools are very powerful and effective.

(viii) The two basic types of animations are Path animation and Frame animation.

Path Animation :

(i) Path animation involves moving an object on a screen that has a constant background.

(ii) E.g. a cartoon character may move across the screen regardless of any change in the background or the character.

Frame Animation :

In frame animations, multiple objects are allowed to travel simultaneously and the background or the objects also changes.

3. Explore the opportunities Animation field movie industry.

Ans. 3D Modeler, Animator, Art Director, Film and Video Editor, Flash Animator, Graphic Designer, Stop Motion Animator, Video game Designer, Animation Director, Background Painter, Character Animator, Cartoonist, Character Rigger Color Key Artist, Compositing Artist, Concept Artist, Digital Painter, Director, Effects Animator, Forensic Animator, Independent film maker, Key Animator, Lighting Technician, Mathematical Modeler, Render Wrangler Storyboard Artist, Texture Artist, Visual Development Artist.

4. Explain in detail about production team Roles and Responsibilities.

Ans. Production Manager:

(i) In a multimedia production, the role of production manager is to define, and coordinate, the production of the multimedia project in time and with full quality.

(ii) The production manager should be an expertise in the technology expert, good at proposal writing, good communication skills and budget management skills.

(iii) Also must have experience in human resource management and act as an efficient team leader.

Content Specialist :

(i) Content specialist is responsible for performing all research activities concerned with the proposed application's content.

(ii) Program content refers to projects information, graphics, data or facts presented through the multimedia production.

Script Writer :

(i) Video and film scripts represents a linear sequence of events.

(ii) The script writer visualizes the concepts in three dimensional environments and if needed uses the virtual reality integration into the program.

Text Editor :

(i) The content of a multimedia production always must flow logically and the text should always be structured and correct grammatically.

(ii) Text and narration is an integrated part of the application.

Multimedia Architect :

The multimedia architect integrates all the multimedia building blocks like graphics, text, audio, music, video, photos and animation by using an authoring software.

Computer Graphic Artist :

The role of Computer Graphic Artist is to deal with the graphic elements of the programs like backgrounds, bullets, buttons, pictures editing, 3-D objects, animation, and logos etc.

Audio and Video Specialist :

(i) The roles of these specialists are needed for dealing with narration and digitized videos to be added in a multimedia presentation.

(ii) They are responsible for recording, editing sound effects and digitizing.

5. Explain about different file formats in multimedia files.

Ans. File Formats for Multimedia : The following is an outline of current file formats used for the production and delivery of multimedia data.

Chapter 1

(1) Text Formats:

RTF :

Rich Text Format is the primary file format introduced in 1987 by Microsoft with the specification of their published products and for cross-platform documents interchange.

Plain text :

(i) Plain text files can be opened, read, and edited with most text editors.

(ii) Commonly used are Notepad (Windows), Gedit or nano (Unix, Linux), TextEdit (Mac OSX) and so on.

(2) Image Formats :

TIFF (Tagged Image File Format) :

(i) This format is common in desktop publishing world (high quality output), and is supported by almost all software packages.

(ii) Recent versions of TIFF allows image compression, and the format is comfortable for moving large files between computers.

DIB (Device Independent Bitmap) :

This format which is similar to BMP, allows the files to be displayed on a variety of devices.

GIF (Graphics Interchange Format) :

(i) GIF is a compressed image format. Most of the computer color images and backgrounds are GIF files.

(ii) This file format is best suitable for graphics that uses only limited colors, and it is the most popular format used for online color photos.

TGA (Tagra) :

It is the first popular format for high-resolution images. TGA is supported by Most of the video-capture boards.

PNG (Portable Network Graphics) :

(i) An extensible file format for the less loss, portable and well compressed storage of raster images.

(ii) PNG acts as replacement for GIF and also replaces multiple common uses of TIFF.

(iii) PNG works good with online viewing applications like worldwide web. So it is fully streameable with a best display option.

(3) Digital Audio File Formats :

WAV (Waveform Audio File Format)

(i) WAV is the most popular audio file format in windows for storing uncompressed sound files.

(ii) In order to attain the reduced file size it can also be converted to other file formats like MP3.

MP3 (MPEG Layer-3 Format) :

(i) MPEG Layer-3 format is the most popular format for storing and downloading music.

(ii) The MP3 files are roughly compressed to one-tenth the size of an equivalent WAV file.

(4) Digital Video File Formats :

AVI (Audio/Video Interleave) :

AVI is the video file format for Windows. Here sound and picture elements are stored in alternate interleaved chunks in the file.

MPEG (Moving Picture Experts Group) :

(i) MPEG is a standard for generating digital video and audio compression under the International Standards Organization (ISO) by the group of people.

(ii) Simply MPEG is the standards for digital video and audio compression.

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ADDITIONAL QUESTIONS AND ANSWERS

Chapter 1

CHOOSE THE CORRECT ANSWER   1 MARK

1. Which of the following is not a multimedia source?
(a) Text
(b) Pagemaker
(c) Graphics
(d) Video
[Ans. (b) Pagemaker]

2. Which of the following is becoming more popular among the user in the terms of its uses and applications?
(a) Multimedia
(b) Pagemaker
(c) Computer
(d) Images
[Ans. (a) Multimedia]

3. Multiple forms of media are combined together called
(a) Media
(b) Computerized applications
(c) Image media
(d) Multimedia
[Ans. (d) Multimedia]

4. How many major components are there in multimedia?
(a) 4
(b) 3
(c) 5
(d) 2
[Ans. (c) 5]

5. Which of the following is not a major component of multimedia?
(a) Text
(b) Pagemaker
(c) Video
(d) Animation
[Ans. (b) Pagemaker]

6. Which of the following is not a dynamic element of multimedia?
(a) Video
(b) Animation
(c) Audio
(d) Text
[Ans. (d) Text]

7. Which of the following is a static element?
(a) Graphics
(b) Video
(c) Animation
(d) Audio
[Ans. (a) Graphics]

8. How many types of elements are there in multimedia?
(a) 3
(b) 4
(c) 2
(d) 5
[Ans. (c) 2]

9. Which of the following is a basic components of multimedia?
(a) Video
(b) Text
(c) Graphics
(d) Audio
[Ans. (b) Text]

10. The most common ways of communicating information to other person is
(a) Audio
(b) Text
(c) Graphics
(d) Images
[Ans. (b) Text]

11. How many types of text used in multimedia?
(a) 4
(b) 3
(c) 2
(d) 5
[Ans. (c) 2]

12. Which of the following type of text not used in multimedia?
(i) Static Text (ii) Hyper Text
(iii) Multi Text (iv) Interactive Text
(a) i, ii
(b) ii
(c) iii
(d) iii and iv
[Ans. (d) iii and iv]

13. Which of the following text will give information or support an image or an video?
(a) Static
(b) Hyper
(c) Multi
(d) Information
[Ans. (a) Static]

14. Which text defines the paths the user need to follow for the text access in non-sequential ways?
(a) Static
(b) Multi
(c) Hyper
(d) None of these
[Ans. (c) Hyper]

15. Which of the following acts as an vital component in multimedia?
(a) Text
(b) Image
(c) Video
(d) Audio
[Ans. (b) Image]

16. How many ways the images are generated by the computer?
(a) 4
(b) 5
(c) 3
(d) 2
[Ans. (d) 2]

17. Which of the following is a type of image not generated by computer?
(a) Bitmap   (b) Raster
(c) Hyper   (d) Vector
[Ans. (c) Hyper]

18. The common form of storing images in a computer is
(a) Raster   (b) Bitmap
(c) Vector   (d) a or b
[Ans. (d) a or b]

19. The image formed by pixel is
(a) Bitmap   (b) Vector
(c) GIF   (d) JPG
[Ans. (a) Bitmap

20. How many colors are there in each pixel?
(a) 1   (b) 2
(c) 256   (d) more
[Ans. (d) more]

21. Which of the following is used to determine the number of colors in images?
(a) Bits   (b) Bytes
(c) Megabytes   (d) Gigabytes
[Ans. (a) Bits]

22. Which types of image is used to create line, rectangle?
(a) Raster   (b) Vector
(c) Bitmap   (d) GIF
[Ans. (b) Vector]

23. Which types of images is useful for storing large number of images and speeding transmission for network application?
(a) Raster   (b) Bitmap
(c) Animated Gif   (d) Vector
[Ans. (d) Vector]

24. Which of the following is not a compression format image?
(a) GIF   (b) MPEG
(c) TIFF   (d) JPEG
[Ans. (b) MPEG]

25. Which of the following is the process displaying still images in continuous movement?
(a) Images   (b) Graphics
(c) Animation   (d) Video
[Ans. (c) Animation]

26. The least frame rate that gives the impression of animation smoothness is
(a) 16   (b) 25   (c) 9   (d) 20
[Ans. (a) 16]

27. The least frame rate that gives the impression of animation in natural is
(a) 16   (b) 25   (c) 20   (d) 21
[Ans. (b) 25]

28. How many types of animation are there?
(a) 1   (b) 2   (c) 3   (d) 5
[Ans. (b) 2]

29. Which of the following is not a types of animation?
(a) Vector   (b) Path
(c) Frame   (d) All of these
[Ans. (a) Vector]

30. Which tools are very powerful and effective?
(a) Animation   (b) Image
(c) Text   (d) None of these
[Ans. (a) Animation]

31. Which type of animation involves moving an object on a screen that has a constant background?
(a) Frame   (b) Static
(c) Dynamic   (d) Path
[Ans. (d) Path]

32. In which type of animation there is not change in the background?
(a) Frame   (b) Path
(c) Dynamic   (d) Vector
[Ans. (b) Path]

33. In which type of animations, multiple objects are allowed to travel simultaneously?
(a) Vector   (b) Raster
(c) Frame   (d) Path
[Ans. (c) Frame]

34. In which type of animation, the background changes according to the object?
(a) Frame   (b) Vector
(c) Raster   (d) Path
[Ans. (a) Frame]

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Chapter 1

35. Which of the following is the most serious element in multimedia?
(a) Text
(b) Image
(c) Animation
(d) Sound
[Ans. (d) Sound]

36. The pressure level of sound is
(a) Frequency
(b) Decibels
(c) Analog
(d) Digital
[Ans. (b) Decibels]

37. Which of the following is a meaning full speech in any language?
(a) Animation
(b) Sound
(c) Image
(d) Graphics
[Ans. (b) Sound]

38. MIDI expansion is
(a) Musical Instrument Digital Information
(b) Musical Information Digital Instrument
(c) Musical Instrument Digital Interface
(d) Musical Information Digital Interface
[Ans. (c) Musical Instrument Digital Interface]

39. Which of the following is a standard communication tool developed for computers and electronic instruments?
(a) MIDI
(b) MPEG
(c) MPG
(d) MP3
[Ans. (a) MIDI]

40. Which tools is flexible and easy for composing the projects in multimedia?
(a) AIFF
(b) TIFF
(c) AVI
(d) MIDI
[Ans. (d) MIDI]

41. Which of the following is taken and stored every nth fraction of a second as digital information?
(a) Sample of text
(b) Sample of image
(c) Sample of sound
(d) Animation
[Ans. (c) Sample of sound]

42. Which of the following used to represent the value of each sound sample?
(a) bit depth
(b) resolution
(c) Sample size
(d) all of these
[Ans. (d) all of these]

43. Which of the following is a powerful way to convey information in multimedia?
(a) Audio
(b) Image
(c) Video
(d) Animation
[Ans. (c) Video]

44. How many types the video can be categorized?
(a) 2
(b) 3
(c) 4
(d) 5
[Ans. (a) 2]

45. Which of the following is not a type of video?
(i) Sampled video
(ii) Digital video
(iii) Embedded video
(iv) Analog video
(a) i, ii
(b) ii, iii
(c) ii, iv
(d) iii, i
[Ans. (d) iii, i]

46. Video tape, laserdisc, film are the example of
(a) Analog video
(b) Digital video
(c) Embedded video
(d) Sampled video
[Ans. (a) Analog video]

47. How many types of analog video are there?
(a) 3
(b) 4
(c) 2
(d) 5
[Ans. (c) 2]

48. Which of the following is not a type of a Analog video?
(a) Composite
(b) Synchronized
(c) Component
(d) all of these
[Ans. (b) Synchronized]

49. Which of the following video components are combined to form an analog video?
(a) Brightness
(b) Color
(c) Synchronization
(d) All of these
[Ans. (d) All of these]

50. The quality of the composite video resulted in
(a) Color blending
(b) Low clarity
(c) High Generational Loss
(d) All of these
[Ans. (d) All of these]

51. Betmax and VHS video formats are an example of
(a) Component video
(b) Blended Video
(c) Composite Analog Video
(d) Digital Video
[Ans. (c) Composite Analog Video]

52. Expansion of RTF is
(a) Rich Text Format
(b) Raster Text Format
(c) Rich Tele Format
(d) Rich Text Form **[Ans. (a) Rich Text Format]**

53. RTF introduced in the year
(a) 1977   (b) 1987
(c) 1997   (d) 1981
[Ans. (b) 1987]

54. Which text files can be opend in most of the editors?
(a) Ms-word file   (b) RTF
(c) Plain   (d) TIFF
[Ans. (c) Plain]

55. Which of the following is not a text editor?
(a) Credit   (b) nano
(c) Text edit   (d) Pagemaker
[Ans. (d) Pagemaker]

56. The popular way of conveying an email using
(a) Rich text file   (b) Plain text
(c) Composite text   (d) Digital text
[Ans. (b) Plain text]

57. Expansion of TIFF is
(a) Text Image File Format
(b) Text Information Format File
(c) Tagged Image File Format
(d) Tagged Image Format File
[Ans. (c) Tagged Image File Format]

58. Which of the following image format is common is DTP world?
(a) BMP   (b) TIFF
(c) GIF   (d) DIB
[Ans. (b) TIFF]

59. Which image format produces very high quality output?
(a) BMP   (b) GIF
(c) DIB   (d) TIFF
[Ans. (d) TIFF]

60. Which of the following image format is comfortable for moving large files between computers?
(a) TIFF   (b) DIB
(c) JPEG   (d) TGA
[Ans. (a) TIFF]

61. Which of the following image format used in windows 3.1?
(a) TIFF   (b) TGA
(c) BMP   (d) JPEG
[Ans. (c) BMP]

62. Which image format used for the high-resolution or large images?
(a) TIFF   (b) BMP
(c) TGA   (d) DIB
[Ans. (b) BMP]

63. Which of the following image format is similar to BMP?
(a) DIB   (b) TGA
(c) BMP   (d) TIFF
[Ans. (a) DIB]

64. DIB image format is similar to
(a) TGA   (b) JPEG
(c) BMP   (d) PNG
[Ans. (c) BMP]

65. DIB expansion is
(a) Digital Independent Bitmap
(b) Device Information Bitmap
(c) Device Image Bitmap
(d) Device Independent Bitmap
[Ans. (d) Device Independent Bitmap]

66. Which of the following is not a compressed image format?
(a) TIFF   (b) GIF
(c) JPEG   (d) PNG
[Ans. (a) TIFF]

67. GIF expansion is
(a) Graphics Image Format
(b) Graphics Independent Format
(c) Graphics Interchange Format
(d) Graphics Information Format
[Ans. (c) Graphics Interchange Format]

68. The widely supported image format is
(a) GIF   (b) TIFF
(c) PNG   (d) BMP
[Ans. (a) GIF]

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69. Which image format was designed to attain maximum image compression?

(a) GIF   (b) PNG

(c) JPEG   (d) TIFF

[Ans. (c) JPEG]

70. Which of the following image uses lossy compression technique?

(a) JPEG   (b) TIFF

(c) PNG   (d) TGA

[Ans. (a) JPEG]

71. Which image format works good with photographs, naturalistic artwork?

(a) GIF   (b) TIFF

(c) JPEG   (d) TGA

[Ans. (c) JPEG]

72. Which image format is the first popular format for high resolution images?

(a) JPEG   (b) TGA

(c) GIF   (d) PNG

[Ans. (b) TGA]

73. Which of the following first popular image format for high resolution images?

(a) TIFF   (b) PNG

(c) JPEG   (d) TGA

[Ans. (d) TGA]

74. Expand TGA

(a) Tagged Graphics Animation

(b) Tagra

(c) Text Graphics Animation

(d) Tagra Graphics Animation

[Ans. (b) Tagra]

75. Which image format is supported by most of the video capture boards?

(a) TGA   (b) TIFF

(c) PNG   (d) None of these

[Ans. (a) TGA]

76. Expand PNG

(a) Portable Node Graphics

(b) Positioned Network Graphics

(c) Portable Network Graphics

(d) PlainText Network Graphics

[Ans. (c) Portable Network Graphics]

77. A well compressed storage of raster image is

(a) TIFF   (b) JPEG

(c) GIF   (d) PNG

[Ans. (d) PNG]

78. Which image format acts as replacement for GIF?

(a) TIFF   (b) PNG

(c) TGA   (d) JPEG

[Ans. (b) PNG]

79. Which image format replaces multiple common uses of TIFF?

(a) TGA   (b) GIF

(c) PNG   (d) JPEG

[Ans. (b) GIF]

80. Which image format works good with online viewing applications?

(a) TIFF   (b) GIF

(c) JPEG   (d) PNG

[Ans. (d) PNG]

81. Expand WAV

(a) Waveform Audio File Format

(b) Wave

(c) Wave Audio Video

(d) Wave Audio Visual

[Ans. (a) Waveform Audio File Format]

82. Which Audio format is most popular in windows for storing uncompressed sound files?

(a) MP3   (b) OGG

(c) WAV   (d) RA

[Ans. (c) WAV]

83. Find the odd man out

(a) TIFF   (b) WAV

(c) PNG   (d) TGA

[Ans. (b) WAV]

84. Expand MP3

(a) MPEG Layer – 3 format

(b) MP Audio layer – 3 format

(c) MP layer – 3 format

(d) Multiplayer Audio layer – 3 format

[Ans. (a) MPEG Layer – 3 format]

Chapter 1

85. Which of the following file compressed to one-tenth the size of an equivalent WAV file?
(a) RA   (b) WMA
(c) AIFF   (d) None of these
[Ans. (d) None of these]

86. Find the odd man out.
(a) WMA   (b) WAV
(c) OGG   (d) PNG
[Ans. (c) OGG]

87. Which Audio format used by Apple?
(a) WAV   (b) AIFF
(c) MP3   (d) OGG
[Ans. (b) AIFF]

88. Expand AIFF
(a) Audio Information File Format
(b) Audio Interleave File Format
(c) Audible Interchange File Format
(d) Audio Interchange File Format
[Ans. (d) Audio Interchange File Format]

89. Expand WMA
(a) Waveform Media Audio
(b) Windows Media Audio
(c) Windows Multimedia Audio
(d) Waveform Multi Audio
[Ans. (b) Windows Media Audio]

90. Expand RA
(a) Raster Audio
(b) Real Digital Audio
(c) Real Audio Format
(d) Resource Audio
[Ans. (c) Real Audio Format]

91. Find the odd man out
(a) WAV   (b) WMA
(c) RA   (d) MPEG
[Ans. (d) MPEG]

92. Expand AVI
(a) Audio Video Interchange
(b) Audio Video Information
(c) Audio Video Interleave
(d) Audio Video Instrument
[Ans. (c) Audio Video Interleave]

93. Expand MPEG
(a) Moving Picture Experts Group
(b) Motion Picture Experts Group
(c) Multimedia Picture Expansion Group
(d) Moving Picture Expansion Group
[Ans. (a) Moving Picture Experts Group]

94. ISO Group has developed
(a) AVI   (b) MPEG–1
(c) WMA   (d) WAV
[Ans. (b) MPEG – 1]

95. The MPEG standard on which video CD and MP3 are based
(a) MPEG – 1   (b) MPEG – 2
(c) MPEG – 7   (d) MPEG – 4
[Ans. (a) MPEG – 1]

96. Which of the following video standard supports digital setup boxes and DVD?
(a) MPEG – 1   (b) MPEG – 7
(c) MPEG – 2   (d) MPEG – 4
[Ans. (c) MPEG – 2]

97. Which of the following video standard for multimedia and mobile web?
(a) MPEG – 1   (b) MPEG – 4
(c) MPEG – 2   (d) MPEG – 7
[Ans. (b) MPEG – 4]

98. Which of the following identifies appropriate multimedia theme, budget and content availability?
(a) Project Design   (b) Pre-production
(c) Budgeting
(d) Conceptual Analysis
[Ans. (d) Conceptual Analysis]

99. Which of the following phase the copy right issues are considered?
(a) Project Design
(b) Conceptual Analysis
(c) Budgeting
(d) Multimedia Production Team
[Ans. (b) Conceptual Analysis]

100. The specific statements in the multimedia project design is known as
(a) Objectives   (b) goals
(c) activities   (d) design
[Ans. (a) objectives]

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101. The General Statements in the multimedia project design is called
(a) objectives
(b) goals
(c) production
(d) activites

[Ans. (b) goals]

102. Find the odd man out
(a) Script writer
(b) Webmaster
(c) System analyst
(d) Editor

[Ans. (c) System analyst]

103. Who prepares the narration, bullets, charts and tables for multimedia application content?
(a) Application developer
(b) Project designer
(c) Web Master
(d) Content Specialist

[Ans. (d) Content Specialist]

104. In multimedia application, text is incorporated using the software.
(a) BCR
(b) OCR
(c) MICR
(d) OMR

[Ans. (b) OCR]

105. The more effective way of delivering multimedia application is
(a) CD
(b) DVD
(c) Internet
(d) All of these

[Ans. (d) All of these]

106. Who is responsible to get maximum outcome with high degree of efficiency in multimedia production?
(a) Application Developer
(b) System Engineer
(c) Multimedia production team
(d) Content director

[Ans. (c) Multimedia Production team]

107. Who act as an efficient Team leader?
(a) Content Specialist
(b) Production Manager
(c) Text Editor
(d) Computer Programmer

[Ans. (b) Production Manager]

108. Multimedia program content refers to
(a) Projects information
(b) graphics
(c) data
(d) all of these

[Ans. (d) all of these]

109. Who visualizes the multimedia concepts in 3D environments?
(a) Script Writer
(b) Graphic Artist
(c) Web Master
(d) Multimedia Architect

[Ans. (a) Script Writer]

110. The multimedia text correct grammatically and structured by
(a) Script Writer
(b) Text Editor
(c) Text Writer
(d) Computer Programmer

[Ans. (b) Text Editor]

111. Who integrates all the multimedia elements using an authoring software?
(a) Computer Programmer
(b) Web master
(c) Multimedia Architect
(d) Computer Graphic Artist

[Ans. (c) Multimedia Architect]

112. Who writes the scripts for developing the software to give the size and shape of video windows?
(a) Computer Programmer
(b) Text Writer
(c) Scriptwriter
(d) Audio and Video specialist

[Ans. (a) Computer Programmer]

113. Which of the following is the most widely used multimedia resource on internet?
(a) Video
(b) Audio
(c) Image
(d) Animation

[Ans. (c) Image]

114. Which of the following is launched in India for serving the educational sector of the country?
(a) Modulo
(b) GMU
(c) Edusat
(d) all of these

[Ans. (c) Edusat]

115. Which of the following is a free standing furnished equipped multimedia computer that allows users to receive information via touch screen?
(a) ATM
(b) Kiosk
(c) Library
(d) all of these

[Ans. (b) Kiosk]

Chapter 1

116. The live telecast of real time programs through internet is known as
(a) Web mastering
(b) Web browsing
(c) Web Surfing
(d) Webcasting

[Ans. (d) Webcasting]

117. Which of the following is a digital format information?
(a) Digital books
(b) Scanned Images
(c) Graphics and digitized audio-visual clips
(d) All of these

[Ans. (d) All of these]

CHOOSE AND FILL IN THE BLANKS

1. _____ has become the latest enriching experience in the field of information sector.
(a) Video
(b) Graphics
(c) Multimedia
(d) Presentation

[Ans. (c) Multimedia]

2. 8 colors = _____ bits.
(a) 2
(b) 4
(c) 3
(d) 1

[Ans. (c) 3]

3. In animation the screen object is a _____ image.
(a) Raster
(b) Bitmap
(c) Vector
(d) Static

[Ans. (c) Vector]

4. _____ may be in two or three dimensional.
(a) Text
(b) Image
(c) Audio
(d) Animation

[Ans. (d) Animation]

5. Tools for synthesizing the sound and software for sequencing are necessary for _____.
(a) RTF
(b) TIFF
(c) AVI
(d) MIDI

[Ans. (d) MIDI]

6. Sampled sound is a _____ sound.
(a) Analog
(b) Digitized
(c) Path
(d) Dolby

[Ans. (b) Digitized]

7. The quality of sound recording depend on the _____.
(a) Sampling rate
(b) Digital rate
(c) Sampling sound
(d) Digital sound

[Ans. (a) Sampling rate]

8. _____ is defined as the display of recorded event.
(a) Animation
(b) Video
(c) Graphics
(d) Sampling

[Ans. (b) Video]

9. Most of the computer color images and backgrounds are _____ image format.
(a) TIFF
(b) GIF
(c) BMP
(d) TGA

[Ans. (b) GIF]

10. MP3 files are compressed to 1/10 the size of an equivalent _____ file.
(a) WAV
(b) PNG
(c) RA
(d) WMA

[Ans. (a) WAV]

11. The process of multimedia making begins with a _____ point.
(a) Conceptual ignition
(b) Pre-production
(c) Project design
(d) Production Team

[Ans. (a) Conceptual ignition]

12. _____ are the fields where multimedia is used in majority.
(a) Entertainment
(b) Education
(c) E-Commerce
(d) Engineering

[Ans. (b) Education]

VERY SHORT ANSWERS   **2 MARKS**

1. **Define static text used in multimedia.**

Ans. Static text, the text or the words will remain static as a heading or in a line, or in a paragraph. The words are given along with the images to explain about the images. In static text the words will either give information or support an image or an video.

2. **Describe the text which consists of nodes (or) Define Hyper text.**

Ans. A hypertext is a system which consists of nodes, the text and the links between the nodes, which defines the paths the user need to follow for the text access in non-sequential ways.

3. **What is Raster or Bitmap Images?**

Ans. The common and comprehensive form of storing images in a computer is raster or bitmap image.

4. **What is Bitmap?**

Ans. Bitmap is a simple matrix of the tiny dots called pixel that forms a raster or bitmap image.

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5. What does pixel consists? Explain.

Ans. Pixel consists of two or more colors. Based on how much data, in bits is used to determine the number of colors, the color depth is determined.

6. What is vector images?

Ans. Vector images is relatively small amount of data is required to represent the image and thereby only less memory is needed to store.

7. What is the use of compression technique to store the images?

Ans. Compression techniques are used to reduce the file size of images that is useful for storing large number of images and speeding transmission for networked application. Various Compression formats used for this purpose are GIF, TIFF and JPEG.

8. What type of images created based on vector images?

Ans. Drawing elements or objects such as lines, rectangles, circles are the images created based on Vector images.

9. Name the two basic types of animation.

Ans. The two basic types of animations are Path animation and Frame animation.

10. Write a note on path animation.

Ans. Path animation involves moving an object on a screen that has a constant background e.g. a cartoon character may move across the screen regardless of any change in the background or the character.

11. What is sampled sound?

Ans. Sampled sound is a Digitized sound. A sample of sound is taken and stored every n^{th} fraction of a second as digital information in bits and bytes.

12. Define sampling rate.

Ans. The quality of this recording depends on the sampling rate. Sampling rate is defined as how often the samples are taken and how many numbers are used to represent the value of each sample (bit depth, resolution and sample size).

13. Write the current file formats used for the production and delivery of multimedia data.

Ans. (i) Text formats
(ii) Image formats
(iii) Digital Audio and Video file formats

14. Write a note on RTF.

Ans. Rich Text Format is the primary file format introduced in 1987 by Microsoft with the specification of their published products and for cross-platform documents interchange.

15. What are the text editors used to read /write plain text?

Ans. Plain text files can be opened, read, and edited with most text editors commonly used are Notepad (Windows), Gedit or nano (Unix, Linux), TextEdit (Mac OS X).

16. Expand the following.
(i) RTF   (ii) BMP
(iii) DIB   (iv) GIF

Ans. (i) RTF – Rich Text Format
(ii) BMP – Bitmap
(iii) DIB – Device Independent Bitmap
(iv) GIF – Graphics Interchange Format

17. Expand (i) JPEG (ii) TGA (iii) PNG

Ans. (i) JPEG – Joint Photographic Experts Group
(ii) TGA – Tagra
(iii) PNG – Portable Network Graphics

18. Read the following statement and write the correct image file formats.
(i) Commonly used in desktop publishing world.
(ii) Quite large and uncompressed image format.
(iii) Similar to BMP.
(iv) Most of the computer color images and backgrounds.

Ans. (i) TIFF
(ii) BMP
(iii) DIB
(iv) GIF

19. Expand (i) WAV (ii) MP3
(iii) AIFF (iv) WMA (v) RA

Ans. (i) WAV – Waveform Audiofile Format
(ii) MP3 – MPEG layer – 3 format
(iii) AIFF – Audio Interchange File format
(iv) WMA – Windows Media Audio
(v) RA – Real Audio Format

20. Expand (i) AVI (ii) MPEG.

Ans. (i) AVI – Audio/Video Interleave
(ii) MPEG – Moving Picture Experts Group

21. List the various fields where the multimedia used in majority.

Ans. (i) Education

(ii) Entertainment

(iii) Business Systems

(iv) Medical Services

(v) Public Places

(vi) Multimedia Conferencing

22. List the multimedia technology application in libraries.

Ans. (i) Multimedia Kiosk

(ii) Webcasting and Video Conferencing

(iii) User orientation Program

(iv) In-house production of multimedia resources and E-publishing

(v) Digital Multimedia Libraries

23. What is Webcasting?

Ans. The live telecast of real time programs through internet is known as Webcasting.

24. Define Video conferencing.

Ans. Video conferencing is the process of conducting conference between more than two participants at different sites by using computer networks to transmit audio and video data.

25. List few digital multimedia libraries.

Ans. Digital books, scanned images, graphics and digitized audio-visual clips

26. Name the two types of video.

Ans. Video can be categorized in two types as Analog video and Digital video.

SHORT ANSWERS 3 MARKS

1. Write a note on MIDI.

Ans. (i) Musical Instrument Digital Identifier (MIDI) is a standard communication tool developed for computers and electronic instruments.

(ii) This tool is flexible and easy for composing the projects in multimedia.

(iii) Tools for synthesizing the sound and software for sequencing are necessary for MIDI.

2. What are the two types of Analog video? and explain it.

Ans. (i) In Analog video, the video data's are stored in any non-computer media like video tape, laserdisc, film etc.

(ii) It is divided further in two types as Composite and Component Analogue Video.

(iii) Composite Analog Video has all the video components like brightness, color, and synchronization combined into one signal.

(iv) Due to the combining of the video components, the quality of the composite video resulted in color blending, low clarity and high generational loss.

(v) This recording format was used for customer analog video recording tape formats such as Betamax and VHS.

3. Write a note on GIF.

Ans. (i) GIF is a compressed image format. Most of the computer color images and backgrounds are GIF files.

(ii) This file format is best suitable for graphics that uses only limited colors, and it is the most popular format used for online color photos.

(iii) 13-bit Color look up table is used by the GIF format to identify its color values. This format is supported widely.

4. Write a note on JPEG.

Ans. (i) JPEG was designed to attain maximum image compression.

(ii) It uses lossy compression technique, where a compression method is referred that loses some of the data required for the image reconstruction.

(iii) It works good with photographs, naturalistic artwork, and similar material but functions less on lettering, live drawings or simple cartoons.

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5. Read the following statement and write the correct image format files.
- **(i) Used lossy compression technique.**
- **(ii) Supports most of the video captured boards.**
- **(iii) Acts as replacement to GIF**
- **(iv) Replaces common uses of TIFF**
- **(v) Comfortable for moving large image files between computer.**
- **(vi) 13 bit color look up table used in**

Ans. (i) JPEG
- **(ii)** TGA
- **(iii)** PNG
- **(iv)** PNG
- **(v)** TIFF
- **(vi)** GIF

6. Write a note on image files format which is well compressed storage of raster images. (or) Write a note on PNG.

Ans. (i) An extensible file format for the less loss, portable and well compressed storage of raster images.
- **(ii)** PNG acts as replacement for GIF and also replaces multiple common uses of TIFF.
- **(iii)** PNG works good with online viewing applications like worldwide web.
- **(iv)** So it is fully streameable with a best display option.

7. Write a note on MPEG.

Ans. (i) MPEG is a standard for generating digital video and audio compression under the International Standards Organization (ISO) by the group of people.
- **(ii)** The group has developed MPEG-1, the standard on which Video CD and MP3 are based, MPEG-2, the standard that supports products as Digital Television set top boxes and DVD, MPEG-4, the standard for multimedia and mobile web.
- **(iii)** MPEG- 7, the standard for search of audio and visual content. Research on MPEG-21 "Multimedia Framework" has started in 2000.
- **(iv)** Simply MPEG is the standards for digital video and audio compression.

8. Write the steps in multimedia production.

Ans. (i) Conceptual Analysis and Planning
- **(ii)** Project Design
- **(iii)** Pre-production
- **(iv)** Budgeting
- **(v)** Multimedia Production Team
- **(vi)** Hardware/Software Selection
- **(vii)** Defining the content
- **(viii)** Preparing the Structure
- **(ix)** Production
- **(x)** Testing
- **(xi)** Documentation
- **(xii)** Delivering the multimedia Product

9. List the multimedia production team members.

Ans. (i) Production Manager
- **(ii)** Content specialist
- **(iii)** Script writer
- **(iv)** Text Editor
- **(v)** Multimedia Architect
- **(vi)** Computer graphic artist
- **(vii)** Audio and video specialist
- **(viii)** Computer Programmer
- **(ix)** Web Master

10. What is multimedia Kiosk?

Ans. (i) Kiosk is a free-standing furnished equipped multimedia computer that allow users to retrieve information via a touch screen.
- **(ii)** It is commonly used in airports and other public locations to provide directions and few mandatory information's.
- **(iii)** In an library, Kiosk is usually located near the entrance of the library, used for displaying announcements, reading lists, comments and suggestions from library users and other information's about operations and programs of the library.

LONG ANSWERS   5 MARKS

1. Explain the following image file formats. (i) TIFF (ii) GIF (iii) JPEG (iv) TGA (v) PNG.

Ans. (i) TIFF (Tagged Image File Format) :
- This format is common in desktop publishing world (high quality output), and is supported by almost all software packages.

- Recent versions of TIFF allows image compression, and the format is comfortable for moving large files between computers.

(ii) GIF (Graphics Interchange Format) :

- GIF is a compressed image format. Most of the computer color images and backgrounds are GIF files.
- This file format is best suitable for graphics that uses only limited colors, and it is the most popular format used for online color photos.
- 13-bit Color look up table is used by the GIF format to identify its color values. This format is supported widely.

(iii) JPEG (Joint Photographic Experts Group) :

- JPEG was designed to attain maximum image compression.
- It uses lossy compression technique, where a compression method is referred that loses some of the data required for the image reconstruction.
- It works good with photographs, naturalistic artwork, and similar material but functions less on lettering, live drawings or simple cartoons.

(iv) TGA (Tagra) :

It is the first popular format for high-resolution images. TGA is supported by Most of the video-capture boards.

(v) PNG (Portable Network Graphics) :

- An extensible file format for the less loss, portable and well compressed storage of raster images.
- PNG acts as replacement for GIF and also replaces multiple common uses of TIFF.
- PNG works good with online viewing applications like worldwide web.
- So it is fully streameable with a best display option.

2. Explain any five Digital Audio File Formats.

Ans. WAV (Waveform Audio File Format) :

(i) It is the most popular audio file format in windows for storing uncompressed sound files.

(ii) In order to attain the reduced file size it can also be converted to other file formats like MP3.

MP3 (MPEG Layer-3 Format) :

(i) MPEG Layer-3 format is the most popular format for storing and downloading music.

(ii) The MP3 files are roughly compressed to one-tenth the size of an equivalent WAV file.

OGG :

(i) A free, open source container format that is designed for obtaining better streaming and evolving at high end quality digital multimedia.

(ii) It can be compared to MP3 files in terms of quality.

AIFF (Audio Interchange File Format) :

A standard audio file format used by Apple which is like a WAV file for the Mac.

WMA (Windows Media Audio) :

It is a popular windows media audio format owned by Microsoft and designed with Digital Right Management (DRM) abilities for copyright protection.

3. Explain the following steps in multimedia production. (i) Production (ii) Testing (iii) Documentation (iv) Delivering the multimedia product.

Ans. Production :

(i) In the multimedia application, after the pre-production activities, the production phase starts.

(ii) This phase includes the activities like background music selection, sound recording and so on.

(iii) Text is incorporated using OCR software, Pictures shot by digital camera, Video clips are shot, edited and compressed.

(iv) A pilot project is ready by this time.

Testing :

(i) The complete testing of the pilot product is done before the mass production to ensure that everything is in place, thereby avoiding the failure after launch.

(ii) If it's an web based product, its functioning is tested with different browsers like Internet Explorer, Chrome, Mozilla and Netscape Navigator.

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(iii) If it's an local multimedia application on a LAN it must be deployed in the server for testing purpose.

Documentation :

(i) User documentation is a mandatory feature of all multimedia projects.

(ii) The documentation has all the valuable information's starting from the system requirement till the completion of testing.

(iii) Contact details, e-mail address and phone numbers are provided for technical support and sending suggestions and comments.

Delivering the Multimedia Product :

(i) Multimedia applications are best delivered on CD/DVD or in the website .

(ii) In reality various challenges are faced while delivering through internet, like bandwidth problems, huge number of plugins required to play audio and video and long downloading time.

(iii) Finally, a multimedia application is delivered in a more effective way by the integration of two mediums CD-ROM/DVD and Internet.

4. Explain the applications of multimedia.

Ans. Education :

(i) Multimedia plays an vital role in offering an excellent alternative method to traditional teaching by allowing the students to explore and learn various concepts through animation.

(ii) Students, teachers and the parents enjoy this multimedia mode of learning and multimedia learning materials.

(iii) Many educators accepts multimedia introduces new ways of thinking in the classroom.

(iv) EDUSAT (Education Satellite) is launched in India for serving the educational sector of the country for emulating virtual classroom in an effective manner.

Entertainment

(i) The remarkable advancement in the entertainment industry is due to the Multimedia Technology mainly.

(ii) This technology is needed in all mode of entertainment like radio, TV, online gaming, video on demand etc.

(iii) Video on demand or movies on demand is a service that provides movies to television sets on an individual basis at homes.

(iv) A set-top box connected to the communication network converts the digital information to analog signals and inputs it to the television set.

Business Systems :

(i) Business applications for multimedia include presentations, training, internet protocols and so on.

(ii) The marketing and advertising agencies are using animation techniques for sales promotion.

(iii) Multimedia is used very commonly for building employee ID.

(iv) Cell phones and personal digital assistants with Bluetooth and Wi-Fi communication technology makes multimedia communication for business more efficiently.

Medical Services :

(i) Medical services are grown drastically with the development of multimedia.

(ii) Medical Students practices surgery methods via simulation prior to actual surgery.

(iii) Tiny digital cameras are inserted in human body and it displays the inner scene of the body.

Public Places :

(i) Multimedia is available in many public places like trade shows, libraries, railway stations, museums, malls, airports, banks, hotels and exhibitions in the form of kiosks.

(ii) It provides information to the customers and helps them.

(iii) The information presented in kiosk are enriched with animation, video, still pictures, graphics, diagrams, maps, audio and text.

(iv) Banks uses kiosks in the form of ATM machines.

Multimedia Conferencing :

Multimedia conferencing or video conferencing is a system that performs face-to-face interactions among participating users, located far from each other, as if they were sitting and discussing in a single room.

✩✩✩

CHAPTER
2

AN INTRODUCTION TO
ADOBE PAGEMAKER

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER

1. DTP stands for _____
   (a) Desktop Publishing
   (b) Desktop Publication
   (c) Doctor To Patient
   (d) Desktop Printer

   [Ans. (a) Desktop Publishing]

2. _____ is a DTP software.
   (a) Lotus 1-2-3   (b) PageMaker
   (c) Maya   (d) Flash

   [Ans. (b) Pagemaker]

3. Which menu contains the New option?
   (a) File menu   (b) Edit menu
   (c) Layout menu   (d) Type menu

   [Ans. (a) File menu]

4. In PageMaker Window, the area outside of the dark border is referred to as _____.
   (a) page   (b) pasteboard
   (c) blackboard   (d) dashboard

   [Ans. (b) pasteboard]

5. Shortcut to close a document in PageMaker is _____
   (a) Ctrl + A   (b) Ctrl + B
   (c) Ctrl + C   (d) Ctrl + W

   [Ans. (d) Ctrl + W]

6. A _____ tool is used for magnifying the particular portion of the area.
   (a) Text tool   (b) Line tool
   (c) Zoom tool   (d) Hand tool

   [Ans. (c) Zoom tool]

7. _____ tool is used for drawing boxes.
   (a) Line   (b) Ellipse
   (c) Rectangle   (d) Text

   [Ans. (c) Rectangle]

8. Place option is present in _____ menu.
   (a) File   (b) Edit
   (c) Layout   (d) Window

   [Ans. (a) File]

9. To select an entire document using the keyboard, press _____
   (a) Ctrl + A   (b) Ctrl + B
   (c) Ctrl + C   (d) Ctrl + D

   [Ans. (a) Ctrl + A]

10. Character formatting consists of which of the following text properties?
   (a) Bold   (b) Italic
   (c) Underline   (d) All of these

   [Ans. (d) All of these]

11. Which tool lets you edit text?
   (a) Text tool   (b) Type tool
   (c) Crop tool   (d) Hand tool

   [Ans. (a) Text tool]

12. Shortcut to print a document in Pagemaker is _____
   (a) Ctrl + A   (b) Ctrl + P
   (c) Ctrl + C   (d) Ctrl + V

   [Ans. (b) Ctrl + P]

13. Adobe PageMaker is a _____ software.
   [Ans. DTP]

14. _____ Bar is the topmost part of the PageMaker window.   **[Ans. Title bar]**

15. _____ is the process of moving up and down or left and right through the document window.   **[Ans. Scrolling]**

16. _____ tool is used to draw a circle.
   [Ans. Ellipse]

17. The Insert pages option is available on clicking the _____ menu.   **[Ans. Layout]**

18. Match the following.
   Cut   - (i) Ctrl + Z
   Copy   - (ii) Ctrl + V
   Paste   - (iii) Ctrl + X
   Undo   - (iv) Ctrl + C

   [Ans. (iii), (iv), (ii), (i)]

19. Choose the odd man out.
   i. Adobe PageMaker, QuarkXPress, Adobe InDesign, Audacity
   ii. File, Edit, Layout, Type, Zip
   iii. Pointer Tool, Line tool, Hide Tool, Hand Tool
   iv. Bold, Italic, Portrait, Underline

   [Ans. (i) - Audacity , (ii) - Zip, (iii) - Hide Tool, (iv) - Portrait]

20. Choose the correct statement.
   i. (a) Text can be selected using mouse only.
     (b) Text can be selected using mouse or the keyboard.
   ii. (a) DTP is an abbreviation for Desktop publishing.
     (b) DTP is an abbreviation for Desktop publication. **[Ans. i - b, ii - a]**

21. Choose the correct pair
   (a) Edit and Cut   (b) Edit and New
   (c) Undo and Copy   (d) Undo and Redo
           [Ans. (a) Edit and Cut]

PART - II

SHORT ANSWERS

1. What is desktop publishing?
Ans. Desktop publishing (abbreviated DTP) is the creation of page layouts for documents using DTP software.

2. Give some examples of DTP software.
Ans. The popular DTP software are **Adobe PageMaker, Adobe InDesign, Quark XPress**, etc.

3. Write the steps to open PageMaker.
Ans. In the Windows 7 operating system, we can open Adobe PageMaker using the command sequence **Start→All Programs → Adobe → Pagemaker 7.0 → Adobe PageMaker 7.0**.

4. How do you create a New document in PageMaker?
Ans. To create a new document,
   (i) Choose **File → New** in the menu bar. (or) Press Ctrl + N in the keyboard. Now **Document Setup dialog box** appears.
   (ii) Enter the appropriate settings for your new document in the Document Setup dialog box.
   (iii) Click on **OK**.

5. What is a Pasteboard in PageMaker?
Ans. (i) A document page is displayed within a dark border.
   (ii) The area outside of the dark border is referred to as the pasteboard.
   (iii) Anything that is placed completely in the pasteboard is not visible when the document is printed.
   (iv) The use of pasteboard is to temporarily hold elements while designing document.

6. Write about the Menu bar of PageMaker.
Ans. Menu bar contains the following menus **File, Edit, Layout, Type, Element, Utilities, View, Window, Help**. When you click on a menu item, a pull down menu appears. There may be sub-menus under certain options in the pull-down menus.

7. Differentiate Ellipse tool from Ellipse frame tool.
Ans.

Ellipse tool	⃝	+	Used to draw circles and ellipses.
Ellipse frame tool	⊗	+	Used to create elliptical placeholders for text and graphics.

8. What is text editing?
Ans. Editing means making changes to the text. Editing encompasses many tasks, such as inserting and deleting words and phrases, correcting errors, and moving and copying text to different places in the document.

9. What is text block?
Ans. A text block contains text typed, paste, or import. The borders of a text block cannot be seen until it select with the pointer tool.

10. What is threading text blocks?
Ans. A Text block can be connected to other text block so that the text in one text block can flow into another text block. Text blocks that are connected in this way are **threaded**.

11. What is threading text?
Ans. The process of connecting text among Text blocks is called **threading text**.

12. How do you insert a page in PageMaker?
Ans. To insert pages
   (i) Go to the page immediately before the page to be inserted.
   (ii) Choose **Layout →Insert Pages** in the menu bar. The **Insert Pages** dialog box appears.
   (iii) Type the number of pages want to be insert.
   (iv) To insert pages after the current page, choose 'after' from the pop-up menu.
   (v) Click on Insert.
   (vi) The new pages are inserted in publication.

An Introduction to Adobe Pagemaker

PART - III

EXPLAIN IN BRIEF ANSWER

1. What is PageMaker? Explain its uses.

Ans. (i) Adobe PageMaker is a page layout software.

(ii) It is used to design and produce documents that can be printed.

(iii) A simple business card to a large book can be created.

(iv) Page layout software includes tools that allows to easily position text and graphics on document pages.

For example, using PageMaker, create a newsletter that includes articles and pictures on each page.

(v) Pictures and text next to each other, on top o f each other, or beside each other can be placed.

2. Mention three tools in PageMaker and write their keyboard shortcuts.

Ans.

S.No.	Tools	Keyboard Short Cut
1.	Pointer Tool	F9
2.	Rotating Tool	Shift + F2
3.	Line Tool	Shift + F3

3. Write the use of any three tools in PageMaker along with symbols.

Ans. (i) Line Tool – Used to create a straight line.

(ii) Ellipse Tool – Used to draw an Ellipse a circle shape.

(iii) Polygon Tool – Used to draw polygon shape.

4. How do you rejoin split blocks?

Ans. To rejoin the two text blocks

(i) Place the cursor on the bottom handle of the second text block, click and drag the bottom handle up to the top.

(ii) Then place the cursor on the bottom handle of the first text block, and click and drag the bottom handle down if necessary.

5. How do you link frames containing text?

Ans. To link Frames containing text

(i) Draw a **second frame** with the Frame tool of your choice.

(ii) Click the **first frame** to select it.

(iii) Click on the **red triangle** to load the text icon.

(iv) Click the **second frame**. PageMaker flows the text into the second frame.

6. What is the use of Master Page?

Ans. (i) Any text or object that you place on the master page will appear on the entire document pages to which the master is applied.

(ii) It shortens the amount of time because don't have to create the same objects repeatedly on subsequent pages.

7. How to you insert page numbers in Master pages?

Ans. (i) Click on Master Pages icon.

(ii) Then click on Text Tool. Now the cursor changes to I - beam.

(iii) Then Click on the left Master page to put the page number.

(iv) Press Ctrl + Alt + P.

(v) The page number displays as 'LM' on the left master page.

(vi) Similarly click on the right Master page to put the page number.

(vii) Press Ctrl + Alt + P.

(viii) The page number displays as 'RM' on the right master page, but will appear correctly on the actual pages.

PART - IV

EXPLAIN IN DETAIL

1. Explain the tools in PageMaker toolbox.

Ans. Drawing :

(i) There are so many drawing tools in PageMaker.

(ii) **Line tool, Rectangle tool, Ellipse tool** and **Polygon tool** are four main drawing tools.

Drawing Lines :

PageMaker has two Line tools. The first one creates a straight line at any orientation. The second is a constrained Line tool that draws only at increments of 45 degrees.

To draw a line :

(i) Select the Line tool from the toolbox. The cursor changes to a crosshair.

(ii) Click and drag on the screen to draw your line. As you drag, a line appears.

(iii) Release the mouse button and the line will be drawn and selected, with sizing handles on either end.

Resize the line by clicking and dragging the handles, if necessary.

Drawing Rectangles or Ellipses :

(i) **To draw a rectangle or ellipse :** Click on the **Rectangle** or **Ellipse tool** from the toolbox. The cursor changes to a **crosshair**.

(ii) Click and drag anywhere on the screen. As you drag, a rectangle or ellipse appears.

(iii) Release the mouse button when the rectangle or ellipse is of the desired size.

Press the **Shift key** while you're drawing to constrain the shape to a square or circle.

To draw a Polygon :

(i) Click on the **Polygon tool** from the toolbox. The cursor changes to a **crosshair.**

(ii) Click and drag anywhere on the screen. As you drag, a Polygon appears.

(iii) Release the mouse button when the Polygon is of the desired size.

2. **Write the steps to place the text in a frame.**

Ans. **To place text in a Frame**

(i) Click on one of a Frame tool from the Toolbox.

(ii) Draw a frame with one of PageMaker's Frame tools (Rectangle frame tool or Ellipse Frame Tool or Polygon frame Tool). Make sure the object remains selected.

(iii) Click on **File**. The File menu will appear.

(iv) Click on **Place**. The Place dialog box will appear.

(v) Locate the document that contains the text you want to place, select it.

(vi) Click on **Open**.

(vii) Click in the frame to place the text in it. The text will be placed in the frame.

3. **How can you convert text in a text block to a frame?**

Ans. **Converting text in a text block to a frame:**

After creating a text in the text block, to convert it to a frame. It can be done by using these steps.

(i) Draw the **frame** of your choice using one of the PageMaker's Frame tool.

(ii) Select the text block you want to insert in the frame.

(iii) Click the frame while pressing the Shift key. Now both elements will be selected.

(iv) Choose **Element → Frame → Attach Content** on the Menu bar.

(v) Now the text appears in the frame.

4. **Write the steps to draw a star using polygon tool?**

Ans. **Drawing a star using polygon tool:**
To draw a Star

(i) Click on the **Polygon tool** from the toolbox. The cursor changes to a **crosshair**.

(ii) Click and drag anywhere on the screen. As you drag, a Polygon appears.

(iii) Release the mouse button when the Polygon is of the desired size.

(iv) Choose Element → Polygon Settings in the menu bar. Now Polygon Settings dialogue box appears.

(v) Type 5 in the Number of sides text box.

(vi) Type 50% in Star inset textbox.

(vii) Click OK. Now the required star appears on the screen.

An Introduction to Adobe Pagemaker

ADDITIONAL QUESTIONS AND ANSWERS

Chapter 2

CHOOSE THE CORRECT ANSWER   1 MARK

1. **Which of the following is not a DTP software?**
   (a) Adobe PageMaker
   (b) Computer Aided Design
   (c) Adobe Indesign
   (d) QuarkXpress
   [Ans. (b) Computer Aided Design]

2. **Which of the following software includes tools that allow you to position text and graphics on document pages?**
   (a) Adobe PageMaker   (b) Adobe Reader
   (c) Portable Document file
   (d) CAD   **[Ans. (a) Adobe Pagemaker]**

3. **The shortcult key used to create a new document in Adobe PageMaker is**
   (a) Ctrl + D   (b) Ctrl + O
   (c) Ctrl + N   (d) Alt + N
   [Ans. (c) Ctrl + N]

4. **The default name of the new document is**
   (a) Untitled – 1   (b) document – 1
   (c) Page – 1   (d) Untitled page – 1
   [Ans. (a) Untitled – 1]

5. **Which of the following is used to temporarily hold elements while designing document in Adobe PageMaker?**
   (a) Clibboard   (b) Clipbook
   (c) Pastebook   (d) Pasteboard
   [Ans. (d) Pasteboard]

6. **The default top and bottom margin is**
   (a) 0.25"   (b) 0.75"
   (c) 0.50"   (d) 1"
   [Ans. (b) 0.75"]

7. **The default page orientation is**
   (a) Tall   (b) Wide
   (c) Landscape   (d) Letter
   [Ans. (a) Tall]

8. **The default page dimension is**
   (a) 8.5" × 10"   (b) 8.5" × 11"
   (c) 11" × 8.5"   (d) 8.5" × 11.5"
   [Ans. (b) 8.5" × 11"]

9. **The topmost part of the window is**
   (a) Tool bar   (b) Tool box
   (c) Menu bar   (d) Tittle bar
   [Ans. (d) Tittle bar]

10. **Which of the following is not a control button in a Title bar?**
    (a) Open   (b) Close
    (c) Minimize   (d) Maximize
    [Ans. (a) Open]

11. **Which of the following is not a menu in the menu bar?**
    (a) Layout   (b) Type
    (c) Margin   (d) Element
    [Ans. (c) Margin]

12. **Tool tip will appear on the**
    (a) Menu bar   (b) Tool bar
    (c) Title bar   (d) All of these
    [Ans. (b) Tool bar]

13. **How many tools are there in Tool box?**
    (a) 9   (b) 11
    (c) 10   (d) 14
    [Ans. (d) 14]

14. **Which menu is used show or Hide tool box in PageMaker?**
    (a) Tools   (b) Window
    (c) Edit   (d) View
    [Ans. (b) Window]

15. **The shortcut key is used select printer tool in the PageMaker tool box is**
    (a) F5   (b) F8
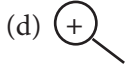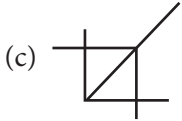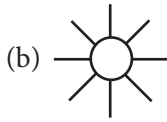   (c) F9   (d) Shift + F9
    [Ans. (c) F9]

16. **Which of the following tool is used to trim imported graphic objects?**
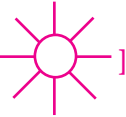   (a) Pointer tool   (b) Hand tool
    (c) Cropping tool   (d) None of these
    [Ans. (c) Cropping tool]

17. The cursor used to select and rotate objects.

(a) [figure]   (b) [figure]

(c) [figure]   (d) [figure]

[Ans. (b) [figure]]

18. The use of the cursor [figure] is

(a) used to draw vertical lines
(b) used to type the text
(c) used to trim imported graphics
(d) used to rotate objects

[Ans. (c) used to trim imported graphics]

19. How many scroll bars are there in PageMaker Window?

(a) 2   (b) 3
(c) 4   (d) only 1

[Ans. (a) 2]

20. How many ruler bars are there in PageMaker Window?

(a) 4   (b) 3
(c) 2   (d) only 1

[Ans. (c) 2]

21. Which of the following appears along the top and left sides of the document window?

(a) Scroll bars   (b) Status bar
(c) Ruler bars   (d) Tool box

[Ans. (c) Ruler bars]

22. Which menu is used to show Rulers?

(a) File   (b) Edit
(c) Type   (d) View

[Ans. (d) View]

23. The key is used to insert a blank line in a document is

(a) Shift key   (b) Alt key
(c) Enter key   (d) Esc key

[Ans. (c) Enter key]

24. The flashing vertical bar called

(a) cursor   (b) insertion point
(c) marker   (d) pointer

[Ans. (b) insertion point]

25. Text can be selected using

(a) Only mouse   (b) Only keyboard
(c) Mouse or keyboard (d) Tools

[Ans. (c) Mouse or keyboard]

26. The key used to select the text is

(a) Shift   (b) Alt
(c) Ctrl   (d) Esc

[Ans. (a) Shift]

27. The command used to delete the text is

(a) File → clear   (b) Edit → clear
(c) Type → clear   (d) View → clear

[Ans. (b) Edit → clear]

28. Which of the following key combination to select text to the end of the current line?

(a) Ctrl + End   (b) Shift + Ctrl + End
(c) Alt + End   (d) Shift + End

[Ans. (d) Shift + End]

29. Which key is used to delete the character towards left of the insertion point?

(a) Delete   (b) Backspace
(c) Shift + Delete   (d) Alt + Delete

[Ans. (b) Backspace]

30. Which key is used to delete the character towards right of the insertion point?

(a) Delete   (b) Backspace
(c) Shift + Backspace (d) Alt + Delete

[Ans. (b) Backspace]

31. Under which menu clear command appears.

(a) file   (b) view
(c) edit   (d) window

[Ans. (c) edit]

32. The shortcut key is used to reverse the action of the last command.

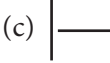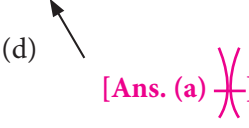(a) Ctrl + U   (b) Ctrl + N
(c) Ctrl + D   (d) Ctrl + Z

[Ans. (d) Ctrl +Z]

33. A text block contains

(a) typed text   (b) pasted text
(c) imported text   (d) all of these

[Ans. (d) all of these]

An Introduction to Adobe Pagemaker

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34. Which of the following symbol denotes I-beam?

(a) ⨡

(b) (figure with triangle/arrow)

(c) ⊢

(d) ↙

[**Ans. (a) ⨡**]

35. How many handles are seen while resizing the text block?

(a) 4   (b) 3   (c) 2   (d) 1

[**Ans. (c) 2**]

36. The command to insert text from other software in PageMake is

(a) File → Place   (b) Edit → Place

(c) Edit → import   (d) File → import

[**Ans. (a) File → Place**]

37. Which of the following menu is used to generate a new page?

(a) Edit   (b) Type

(c) Layout   (d) Window

[**Ans. (c) Layout**]

38. The command to generate a new page is

(a) Type → Insert Pages

(b) Layout → Insert Pages

(c) Window → Insert → Page

(d) Layout → Insert → Pages

[**Ans. (b) Layout → Insert Pages**]

39. All text in PageMaker resides inside containers called

(a) text blocks   (b) text area

(c) page blocks   (d) text thread

[**Ans. (a) text blocks**]

40. A threaded text block can be identified by

(a) ⊟   (b) ⊞

(c) ⊠   (d) ⊡

[**Ans. (b) ⊞**]

41. Which of the following tools is used to on thread the block?

(a) Text tool   (b) Crop tool

(c) Pointer tool   (d) Hand tool

[**Ans. (c) Pointer tool**]

42. In PageMaker the imported text and graphs are called

(a) objects   (b) blocks

(c) functions   (d) frames

[**Ans. (a) objects**]

43. Which of the following can be on a page or on the pasteboard?

(a) Block   (b) Frame

(c) Text   (d) Object

[**Ans. (d) Object**]

44. Which can be contained either in text blocks or text frames?

(a) Frame   (b) Text

(c) Object   (d) Block

[**Ans. (b) Text**]

45. The command that convert text in a text block to a frame is

(a) Element → Frame → Attach Text

(b) Element → Attach Text → Frame

(c) Element → Frame → Attach Content

(d) Element → Attach Content → Frame

[**Ans. (c) Element → Frame → Attach Content**]

46. The shortcut key is used to save the file is

(a) Ctrl + S   (b) Alt + S

(c) Shift + S   (d) Ctrl + Save

[**Ans. (a) Ctrl + S**]

47. The dialogbox appears after pressing Ctrl + S is

(a) Save As   (b) Save

(c) Save Publication

(d) Save As Publication

[**Ans. (c) Save Publication**]

48. The document can be closed using

(a) Ctrl + C   (b) Ctrl + D

(c) Ctrl + S   (d) Ctrl + W

[**Ans. (d) Ctrl + W**]

49. The shortcut key to zoom in is

(a) Ctrl + Alt + Space bar

(b) Ctrl + Space bar

(c) Shift + Ctrl + Space bar

(d) Alt + Space bar   [**Ans. (b) Ctrl + Space bar**]

50. Which of the following command is used to apply character formatting to text?
(a) Layout → Character
(b) View → Character
(c) Format → Character
(d) Type → Character
[Ans. (d) Type → Character]

51. The shortcut key is used to apply character formatting to text is
(a) Ctrl + T
(b) Ctrl + X
(c) Ctrl + C
(d) Ctrl + F
[Ans. (a) Ctrl + T]

52. To open character control palette, the command used is
(a) Layout → Show control palette
(b) Window → Show control palette
(c) Window → Control Palette
(d) Window → Character palette
[Ans. (b) Window → Show control palette]

53. Which of the following is used to open character control palette?
(a) Ctrl + '
(b) Ctrl + ,
(c) Ctrl + "
(d) Ctrl + ;
[Ans. (a) Ctrl + ']

54. The command to change the text color is
(a) Window → View Colors
(b) Window → Color Palette
(c) Window → Show Colors
(d) Window → Colors
[Ans. (c) Window → Show Colors]

55. How many main tools are there for drawing in PageMaker?
(a) 3
(b) 4
(c) 2
(d) 5
[Ans. (b) 4]

56. Which of the following tool is not a main drawing tool?
(a) Hand Tool
(b) Line Tool
(c) Rectangle Tool
(d) Polygon Tool
[Ans. (a) Hand Tool]

57. How many line tools are there in PageMaker?
(a) 2
(b) 3
(c) 4
(d) 5
[Ans. (a) 2]

58. Which key is used to draw square using rectangle tool?
(a) Alt
(b) Ctrl
(c) Shift
(d) Space bar
[Ans. (c) Shift]

59. Which of the following tool is used to draw a star?
(a) Line tool
(b) Constrained line tool
(c) Polygon tool
(d) Rectangle tool
[Ans. (c) Polygon tool]

60. Which of the following command is used to set the number of sides in a star pattern in PageMaker?
(a) Type → Polygon Settings
(b) Element → Polygon settings
(c) Layout → Polygon settings
(d) View → Polygon settings
[Ans. (b) Element → Polygon settings]

61. Which of the following menu is used to got to a specific page in a document?
(a) Layout
(b) Window
(c) Element
(d) View
[Ans. (a) Layout]

62. Which of the following shortens the time while creating the same objects repeatedly on subsequent pages?
(a) Text Page
(b) Master Page
(c) Layout Page
(d) Last Page
[Ans. (b) Master Page]

63. An object will appear on the entire document pages by using
(a) Master page
(b) Layout page
(c) Text page
(d) Text blocks
[Ans. (a) Master page]

64. Master page commonly contain.
(a) Logos
(b) Page numbers
(c) headers and footers
(d) all of these
[Ans. (d) all of these]

65. The non printing layout guides are exists in
(a) first page
(b) text page
(c) master page
(d) last page
[Ans. (c) master page]

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66. Which of the following letters mark the master page icon for facing pages?

(a) L, R (b) A, B
(c) P, Q (d) X, Y

[Ans. (a) L, R]

67. A single-sided publication icon is marked by only

(a) A (b) X (c) L (d) R

[Ans. (d) R]

68. The shortcut key is used to put page numbers on master page is

(a) Ctrl + Shift + P (b) Ctrl + Alt + P
(c) Ctrl + Alt + N (d) Ctrl + Shift + N

[Ans. (c) Ctrl + Alt + N]

69. The Display master option available under the menu is

(a) Type (b) View
(c) Layout (d) Element

[Ans. (b) View]

70. The command to display master pages palette is

(a) Windows → Show Master Pages
(b) Element → Show Master Pages
(c) Type → Show Master Pages
(d) Layout → Show Master Pages

[Ans. (a) Windows → Show Master Pages]

71. How many copies are printed if collate option is not selected?

(a) 3 (b) 2 (c) 4 (d) 6

[Ans. (c) 4]

CHOOSE AND FILL IN THE BLANKS

1. _____ is the creation of page layouts for documents using DTP software.

(a) Desktop publishing (b) E-publishing
(c) Desktop printer (d) None of these

[Ans. (a) Desktop publishing]

2. Using _____, you could create a newsletter that includes articles and pictures on each page.

(a) Lotus 1-2-3
(b) Adobe PageMaker
(c) Excel (d) Word document

[Ans. (b) Adobe PageMaker]

3. The command to open Document Setup dialog box is _____.

(a) Edit → View (b) File → View
(c) File → New (d) Edit → Save

[Ans. (c) File → New]

4. The keyboard shortcut used to scroll the page is _____.

(a) Shift + Alt + Drag left-mouse button
(b) Shift + Alt + Drag right mouse button
(c) Alt + Drag left mouse button
(d) Alt + Drag right mouse button

[Ans. (a) Shift + Alt + Drag left-mouse button]

5. The tool used to trim imported graphics is _____.

(a) Text tool
(b) Cropping tool
(c) Hand tool (d) Zoom tool

[Ans. (b) Cropping tool]

6. The command to hide ruler bars is _____.

(a) View → Hide Rulers
(b) View → Show Rulers
(c) Both (a) and (b)
(d) None of these

[Ans. (a) View → Hide Rulers]

7. The command to show ruler bars is _____ .

(a) View → Hide Rulers
(b) View → Show Rulers
(c) Both (a) and (b)
(d) None of these

[Ans. (b) View → Show Rulers]

8. The _____ is used to create text blocks.

(a) Crop tool (b) Pointer tool
(c) Hand Tool (d) Text tool

[Ans. (d) Text Tool]

9. _____ means making changes to the text blocks.

(a) Viewing (b) Editing
(c) Cropping (d) None of these

[Ans. (b) Editing]

10. A ward can be selected using mouse by _____.

(a) One click with I beam
(b) Double click with I beam
(c) Triple click with I beam
(d) None of these

[Ans. (b) Double click with I beam]

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11. A paragraph can be selected using mouse by_____.
- (a) One click with I beam
- (b) Double click with I beam
- (c) Triple click with I beam
- (d) None of these

[**Ans. (c) Triple click with I beam**]

12. Undo option is under the menu _____.
- (a) File
- (b) Edit
- (c) View
- (d) Save

[**Ans. (b) Edit**]

13. The two handles which are seen while resizing the text box is called _____.
- (a) Window shades
- (b) Window color
- (c) Window cropping
- (d) None of these

[**Ans. (a) Window Shades**]

14. The place option is under the menu _____.
- (a) Edit
- (b) View
- (c) Save
- (d) File

[**Ans. (d) File**]

15. A _____ is similar to a newspaper article.
- (a) Unthreaded text
- (b) PageMaker story
- (c) Text block
- (d) Threaded text

[**Ans. (b) PageMaker story**]

16. The connected text blocks are called _____.
- (a) threaded
- (b) unthreaded
- (c) text block
- (d) none of these

[**Ans. (a) threaded**]

17. The process of connecting text among text blocks is called _____.
- (a) placing text
- (b) converting text
- (c) threading text
- (d) unthreading text

[**Ans. (c) threading text**]

18. Text that flows through one or more threaded blocks are called _____.
- (a) objects
- (b) pages
- (c) window
- (d) story

[**Ans. (d) Story**]

19. The command that separates text from the frame is _____.
- (a) Element → Frame → Delete content
- (b) Element → Tools → Backspace
- (c) Element → Frame → Backspace
- (d) None of these

[**Ans. (a) Element → Frame → Delete Content**]

20. The shortcut key to zoom out is _____.
- (a) Ctrl + Alt + View bar
- (b) Ctrl + Alt + Space bar
- (c) Alt + Ctrl + View bar
- (d) Alt + Ctrl + Backspace bar

[**Ans. (b) Ctrl + Alt + Space bar**]

21. The show colors option is under the menu _____.
- (a) Layout
- (b) Element
- (c) View
- (d) Window

[**Ans. (d) Window**]

22. The shortcut key is used to go to a specific page in a document is _____.
- (a) Ctrl + Alt + A
- (b) Ctrl + Alt + X
- (c) Ctrl + Alt + G
- (d) Ctrl + Alt + V

[**Ans. (c) Ctrl + Alt + G**]

23. The unused pages from the document can be removed by using the command _____.
- (a) Type → Remove pages
- (b) Element → Remove pages
- (c) Layout → Remove pages
- (d) Layout → Master pages

[**Ans. (c) Layout → Remove Pages**]

24. The command to hide master items in master page is _____.
- (a) Layout → Display Master
- (b) View → Display Master
- (c) Element → Display Master
- (d) None of these

[**Ans. (b) View → Display Master**]

25. The four copies of all pages are printed if _____ option not selected in print dialog box.
- (a) Collate
- (b) Reverse
- (c) Proof
- (d) All

[**Ans. (a) Collate**]

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MATCH THE FOLLOWING

1.

A	Text tool	(i)	Shift + F2
B	Polygon tool	(ii)	Shift + Alt + F4
C	Rotating tool	(iii)	Shift + Alt + F1
D	Rectangle frame tool	(iv)	Shift + F6

	A	B	C	D
(a)	iii	iv	i	ii
(b)	iii	i	iv	ii
(c)	iv	iii	i	ii
(d)	iii	iv	ii	i

[Ans. (a) A – iii; B – iv; C – i; D – ii]

2.

A	Cut	(i)	Ctrl + P
B	Copy	(ii)	Ctrl + Z
C	Paste	(iii)	Ctrl + X
D	Undo	(iv)	Ctrl + C

	A	B	C	D
(a)	iii	i	iv	ii
(b)	iv	iii	i	ii
(c)	iii	iv	i	ii
(d)	iii	iv	ii	i

[Ans. (c) A – iii; B – iv; C – i; D – ii]

CHOOSE THE INCORRECT PAIR:

1. (i) Line tool → Shift + F4
(ii) Ellipse tool → Shift + F5
(iii) Cropping tool → Shift + Alt + F2
(iv) Rectangle tool → Shift + F6
(a) i and ii   (b) ii and iii
(c) i and iv   (d) i only

[Ans. (c) i and iv]

2. (a) Undo → Ctrl + Z
(b) Cut → Ctrl + X
(c) Copy → Ctrl + C
(d) Paste → Ctrl + P

[Ans. (d) Paste → Ctrl + P]

3. (a) To close the document → Ctrl + W
(b) To open publication → Ctrl + O
(c) To save the file → Ctrl + S
(d) To Paste → Ctrl + P

[Ans. (d) To Paste → Ctrl + P]

CHOOSE THE CORRECT PAIR

1. (i) Rectangle tool → Shift + Alt + F4
(ii) Polygon tool → Shift + F6
(iii) Text tool → Shift + Alt + F1
(iv) Constrained line tool → Shift + Alt + F2
(a) i and ii   (b) ii and iii
(c) i and iv   (d) ii and iv

[Ans. (b) ii and iii]

2. (a) To Select the Entire document → Ctrl + A
(b) To Select the Entire document → Ctrl + E
(c) To Select the Entire document → Ctrl + D
(d) To Select the Entire document → Shift + A

**[Ans. (a) To Select the
Entire document → Ctrl + A]**

CHOOSE THE WRONG STATEMENT

1. (i) An objects on master page will appear on the entire document pages.
(ii) Master page can not contain logos.
(iii) Master page object can not deleted.
(iv) A master item can not be selected on a document page.
(a) i and ii   (b) ii and iii
(c) iii and iv   (d) i, iii and iv

[Ans. (b) ii and iii]

VERY SHORT ANSWERS   2 MARKS

1. How will you hide / show the tool bar is pagemager?

Ans. **(i)** Click on **Window**. The Window menu will appear.

(ii) Click on **Show tools**. The toolbox appears in front of your document window. If you want to hide the toolbar, you can perform these steps to hide the toolbox.
Click on **Window**. The Window menu will appear.
Click on **Hide tools** to hide the toolbox.

2. Write the key board shortcut for the following tools.
(i) Text Tool   **(ii) Cropping tool**
(iii) Ellipse tool   **(iv) Rectangle tool**

Ans. **(i)** Text Tool   – Shift + Alt + F1
(ii) Cropping Tool– Shift + Alt + F2
(iii) Ellipse Tool   – Shift + F5
(iv) Rectangle Tool– Shift + F4

Chapter **2**

3. Differentiate polygon and polygon frame tool.

Tool	Tool box	Cursor	Use
Polygon tool	⬡	+	Used to draw polygons
Polygon frame tool	⊗	+	Used to create polygonal placeholders for text and graphics.

4. Write the tools which can be used for following purpose.
(i) Use to select and edit text
(ii) Used to scroll the page
(iii) Used to draw Horizontal lines
(iv) Use to magnify an area of the page

Ans. (i) Text Tool
(ii) Hand Tool
(iii) Constrained line Tool
(iv) Zoom Tool

5. What is the purpose of using the following keyboard shortcut?
(i) Ctrl + A **(ii) Ctrl + Z**

Ans. (i) To select the entire document
(ii) To reverse the last command

6. Differentiate Shit + End and Shift + Home.

Ans.

Shit + End	Shift + Home
To the end of the current line – Shift + End	To the beginning of the current line – Shift + Home

7. How will you delete a character in pagemaker?
Ans. To delete a character, do the following :
(i) Position the insertion point to the **left of the character** to be deleted.
(ii) Press **Delete key** on the keyboard.
(or)
(iii) Position the insertion point to the **right of the character** to be deleted.
(iv) Press **Backspace key** on the keyboard.

8. How will you a block of text?
Ans. To delete a block of text, do the following :
(i) Select the text to be deleted.
(ii) Press **Delete or Backspace** in the keyboard (or) **Edit → Clear** command.

9. What are the ways you can create a text block?
Ans. Creating text blocks in two ways :
(i) Click or drag the text tool on the page or pasteboard, and then type.
(ii) Click a loaded text icon in an empty column or page.

10. What is called window shades?
Ans. When a text block is selected with the Pointer tool, the block's boundaries become visible. Two handles are seen above and below the text block. These handles are called **Windowshades**.

11. How will resize a text block?
Ans. When a text block is selected with the Pointer too, the block's boundaries become visible. Two handles are seen above and below the text block. These handles are called **Windowshades**. There is a dark square on both ends of the handle. These are used to change the size of the text block.

12. Write the steps to split a text block in to two.
Ans. (i) To split a text block into two:
(ii) Place the cursor on the bottom handle, click and drag upwards. When you release the bottom handle will contain a red triangle.
(iii) Click once on this and the cursor changes to a loaded text icon.
(iv) Position this where the second part of the text is to be, and click.

13. What do you understand from pagemaker story?
Ans. A PageMaker story is similar to a newspaper article. The front page of a newspaper may contain several independent articles, some of which continue on other pages. In PageMaker, several stories may appear on the same publication page and continue elsewhere in the publication.

14. What is meant by unthreaded text?
Ans. Unthreaded text is where a text block stands alone, without being connected to any other block. These blocks have nothing in their top and bottom handles.

15. What are called objects in pagemaker?
Ans. (i) In PageMaker, text and graphics that you draw or import are called objects.
(ii) An object can be on a page or on the pasteboard.

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16. Write the steps that separate text from the frame.

Ans. To separate text from a frame

(i) Click the frame with the **Pointer** tool.

(ii) Choose **Element → Frame → Delete Content** in the menu bar. The text will not appear in the frame.

17. How the pagemaker's scroll bars work differently from word processor?

Ans. PageMaker's scroll bars work differently than those in a word processor. Note that they are set to the center of each bar. Also, they scroll only the page you are currently on. Use the scroll bar on the right side to move up and down. Use the scroll bar at the bottom to move left and right.

18. What is meant by formatting a document?

Ans. Formatting is the process of changing the general arrangement of text, i.e., improving the appearance of the text by using various fonts, font colors, and font styles. A font is a set of letters, numbers or symbols in a certain style. Each font looks different from other fonts.

19. What is meant by character formatting?

Ans. Character formatting means displaying text in a certain way. Character formatting consists of text properties - bold, italic, underline, font type, font size and font colour.

20. How will you magnify part of a page?

Ans. To magnify part of a page by dragging :

(i) Select the zoom tool.

(ii) Drag to draw a marquee around the area you want to magnify. **To zoom in or out** while **using another tool** : Press **Ctrl + Spacebar** to zoom in. Press **Ctrl + Alt + Spacebar** to zoom out.

21. How will you change text color in pagemaker?

Ans. To colour characters

(i) Select the text you want to colour.

(ii) Choose **Window → Show Colors** in Menu bar. The **Colors palette** appears. Click the color you want to apply to the selected text. The characters change to the colour you selected in the palette.

22. What is main purpose of using pagemaker?

Ans. The main purpose of PageMaker is composing pages. You can insert new pages into a document, remove existing pages, move between pages, and sort pages in a large document.

23. Write the steps to remove unused pages in a pagemaker document.

Ans. To remove the unused pages form your document with a Remove Pages dialog box.

(i) Choose **Layout → Remove Pages** in the menu bar. The **Remove Pages** dialog box appears.

(ii) Type the page range you want to remove.

(iii) Click on OK button.

24. What does the master page contains?

Ans. Master Pages commonly contain repeating logos, page numbers, headers, and footers. They also contain nonprinting layout guides, such as column guides, ruler guides, and margin guides.

25. How will you show the master page palette?

Ans. To show Master Page Palette. Choose Windows → Show Master Pages in the menu bar. The Master Pages Palette appears.

26. How will you hide master items in a particular page?

Ans. To make the master items invisible on a particular page, switch to the appropriate page, then choose View → Display Master items

SHORT ANSWERS 　　　　3 MARKS

1. How will you show / Hide the rulers in pagemaker?

Ans. To show the ruler

(i) Click on **View**. The View menu will appear.

(ii) Click on **Show Rulers**. Rulers appear along the top and left sides of the document window.

To hide the ruler

(i) Click on **View**. The View menu will appear.

(ii) Click on **Hide Rulers** to hide the rulers.

2. Differentiate moving and copying a text in pagemaker.

Ans. (i) The **Copy** and **Paste** commands of PageMaker can be used to copy text from one location in a document and paste it at another location.

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(ii) The **Copy** command creates a duplicate of the selected text, leaving the original text unchanged.

(iii) The **Paste** command pastes the copied text at the position where the insertion point is placed.

(iv) The **Cut** and **Paste** commands can be used to move text from one position in a document to the other.

(v) The Cut command deletes the selected text from its original position.

(vi) The Paste command then places this text at the position where the insertion point is placed.

3. **Write the steps to create a text block with text tool.**

Ans. **To create a text block with the text tool :**

(i) Select the text tool (T) from the toolbox. The pointer turns into an I-beam.

(ii) On an empty area of the page or pasteboard, do one of the following : Click the I-beam where you want to insert text. This creates a text block the width of the column or page. By default, the insertion point jumps to the left side of the text block.

(iii) Type the text you want. Unlike with a text frame, you do not see the borders of a text block until you click the text with the pointer tool.

4. **Write the steps to resize a text block using pointer tool.**

Ans. (i) Click on **the Pointer tool**.

(ii) Click either the left or right corner handle on the bottom of the text block and drag. When you release the mouse button, the text in the text block will reflow to fit the new size of the text block.

(iii) A red triangle in the bottom windowshade means there is more text in the text block than is visible on the page. Drag the window shade handle down to show more text.

5. **How will you insert text from other software program?**

Ans. Insert text form other software program like MS-Word in the PageMaker documents.

(i) Choose **File → Place**. The **Place dialog box** will appear.

(ii) Locate the document that contains the text you want to place and select it.

(iii) Click on **Open** in the Place dialog box. The pointer changes to the loaded text icon (⊞).

(iv) Make a text block to place the text. (Or) Click in the page to place the text. The text will be placed in the page.

6. **What is threading text and story?**

Ans. (i) All text in PageMaker resides inside containers called text blocks.

(ii) A Text block can be connected to other text block so that the text in one text block can flow into another text block.

(iii) Text blocks that are connected in this way are threaded.

(iv) The process of connecting text among Text blocks is called threading text.

(v) Text that flows through one or more threaded blocks is called a story.

7. **Write the methods used to unthread a threaded block.**

Ans. To unthread a threaded block :

Method – 1 :

(i) Select the block that you wish to unthread with the pointer tool. Click on Edit → Cut in the menu bar.(the block disappear).

(iii) Now click on the Edit → Paste in the menu bar. The block will reappear in the same position, but it is now an unthreaded block.

Method – 2 :

(i) Select the block that you wish to unthread with the pointer tool. Then choose the Text tool and select all the text in the block.

(ii) Then click on Edit → Cut in the menu bar.(the block disappear). Now click the insertion point within an existing threaded block.

(iii) Then click on Edit → Paste in the menu bar. The text will be added in this block.

8. **Write the steps that open an existing document.**

Ans. To open a document that has been saved and closed the following steps are used :

(i) (a) Choose **File → Open** in the menu bar (or) Click on the **Open icon** (📂) in the Tool bar (or) Press **Ctrl + O** in the Keyboard. A **Open Publication** dialog box as shown in appears on the screen.

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(ii) The file name is given in the **File name** list box. The name of the file to be opened can be chosen from the list, which is displayed.

(iii) Then click on the **Open** button. Now the required file is opened.

9. **Write the steps to apply character formatting to text.**

Ans. The steps to apply character formatting to text are as follows :

(i) Select the text to be formatted.

(ii) Choose **Type → Character** in menu bar (or) Press **Ctrl + T** on the keyboard. The **Character Specifications** dialog box appears.

(iii) Make the appropriate changes in the dialog box.

Click the drop-down menu arrow of the **Font** box and select the desired font.

Click the drop-down menu arrow of the Font **Size** box and select the font size.

Click the drop-down menu arrow of the Font **Color** box and select the desired colour.

Click the Bold, Italic, or Underline buttons to make the text bold, italic, or underlined respectively.

(iv) Click on OK.

10. **How will you magnify a page in pagemaker?**

Ans. To magnify or reduce with the zoom tool :

(i) Select the zoom tool. The pointer becomes a magnifying glass with a plus sign in its center, indicating that the zoom tool will magnify your view of the image. (The magnifying glass shows a minus sign in its center when in reduction mode.) To toggle between magnification and reduction, press the Ctrl key.

(ii) Position the magnifying glass at the center of the area you want to magnify or reduce, and then click to zoom in or out. Continue clicking until the publication is at the magnification level you want. When the publication has reached its maximum magnification or reduction level, the center of the magnifying glass appears blank.

11. **Write the steps to draw of rounded corner rectangle.**

Ans. To draw a rounded - corner rectangle :

(i) **Double-click** the **Rectangle tool** in the toolbox. The **Rounded Corners** dialog box appears.

(ii) Choose a corner setting from the preset shapes.

(iii) Click on OK. The cursor changes to a **crosshair**.

(iv) Click and drag anywhere on the screen.

(v) Release the mouse button when the rectangle is the desired size. Press the Shift key as you draw to constrain the shape to a rounded - corner square.

12. **Write the steps that filling shapes with colors and patterns.**

Ans. Filling Rectangle with colour

(i) Draw a rectangle using Rectangle tool.

(ii) Select the rectangle.

(iii) Choose **Window → Show colors** in the menu bar. (or) Press Ctrl + J Now **Colors palette** appears.

(iv) Click on the required colour from the Colors Palette.

(v) The rectangle has been filled with the colour.

13. **Write the steps to create a new Master Page.**

Ans. To create a new Master Page :

(i) Click the **New Master Page icon** in the Master Pages palette. The New **Master Page dialog** box appears.

(ii) Enter the name of the new master page in the **Name** field.

(iii) Make the appropriate changes in the Margins and Column Guides fields.

(iv) Click on OK. A new Master Page appears in the Master Pages palette.

LONG ANSWERS `5 MARKS`

1. Explain how will you select text using mouse and keyboard?

Ans. Text can be selected using the **mouse** or the **keyboard**.

Selecting Text using the mouse

To select text using a mouse, follow these steps:

(i) Place the Insertion point to the left of the first character to be selected.

(ii) Press the left mouse button and drag the mouse to a position where you want to stop selecting.

(iii) Release the mouse button.

(iv) The selected text gets highlighted.

To Select	Press
A Word	Double - click with I - beam
A Paragraph	Triple - click with I - beam

Selecting Text using the Keyboard

To select text using a keyboard, follow these steps :

(i) Place the Insertion point to the left of the first character you wish to select.

(ii) The **Shift** key is pressed down and the movement keys are used to highlight the required text.

(iii) When the **Shift** key is released, the text is selected.

2. Explain how will you copying and moving text in pagemaker?

Ans. Moving the Text : The selected text can be easily cut and pasted in the required location.

To cut and paste text.

(i) Select the text to be moved.

(ii) Choose **Edit → Cut** in the menu bar. (or) Press **Ctrl + X** in the keyboard (or) Click the right mouse button and choose **cut** from the pop-up menu.

(iii) Insertion point is moved to the place where the text is to be pasted.

(iv) Choose **Edit → Paste** in the menu bar. (or) **Press Ctrl + V** in the keyboard. (or) Click the right mouse button and choose **Paste** from the pop-up menu.

The text can also be pasted in this way to another or another type of document.

The following keyboard shortcuts can be used to move text
Ctrl + X → to Cut
Ctrl + V → to Paste

Copying the Text :

The selected text can be easily copied and pasted in the required location.

To copy and paste text.

(i) Select the text to be copied.

(ii) Choose **Edit → Copy** in the menu bar (or) Press **Ctrl + C** in the keyboard (or) Click the right mouse button and choose **Copy** from the pop-up menu.

(iii) Insertion point is moved to the place where the text is to be pasted.

(iv) Choose **Edit → Paste** in the menu bar (or) **Press Ctrl + V** in the keyboard (or) Click the right mouse button and choose **Paste** from the pop-up menu.

The text can also be pasted in this way to another location.

Keyboard shortcuts for copy and paste :
Ctrl + C → to Copy
Ctrl + V → to Paste

3. Explain manual text flow and automatic text flow.

Ans. Manual text flow:

(ii) Position the loaded text icon at a corner of the area where you want to place text, hold down the mouse button, and drag to define the text block. Release the mouse button.

(ii) Text flows into the defined area. If there is more text than fits in the text block you defined, a red triangle appears in the bottom windowshade handle.

(iii) Click once on this and the loaded text icon reappears. Now generate a new text block and click. Repeat this process until there is no more text to place.

(iv) Similarly if you want to place the text in a page, position the loaded text icon at the top of the page and click. Text flows into the page. If there is more text than fits in the page, a red triangle appears in the bottom windowshade handle.

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(v) Click once on this and the loaded text icon reappears. Now generate a new page (or pages) by selecting **Layout → Insert Pages** in the menu bar. Place the loaded text icon at the top of the next page and click. Repeat this process until there is no more text to place.

Automatic text flow

(i) Before importing the text, first select **Layout → Autoflow** in the menu bar. Then you should import the text. Now the loaded text icon looks different - it contains a squiggly arrow (📝).

(ii) Place the loaded text icon at the top of the page and click. But now the text will automatically flow on to the succeeding pages, creating new ones, if necessary.

4. **Explain the steps that saves the pagemaker document?**

Ans. **To save a document for a first time following steps are used :**

(i) (a) Choose **File → Save** in the menu bar. (or) Click on the **Save icon**(💾) in the Tool bar. (or) Press **Ctrl + S** in the Keyboard. A **Save Publication** dialog box as shown on the screen.
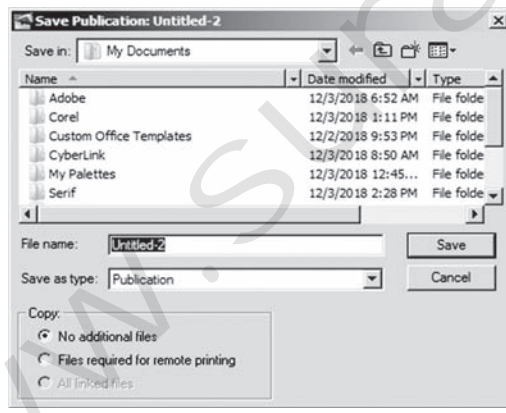
Saving a Document

(ii) The file name is given in the **File name** list box.

(iii) Then click on the **Save** button to save the document. The document is now saved and a file name appears in the title bar.

Once a file is saved under a name, to save it again the name need not be entered again.

The file can be saved simply by selecting the **File → Save** command or by clicking the **Save** button (or) clicking **Ctrl + S** in the keyboard.

5. **Write the keyboard movement keys used to move around the pagamaker document.**

Ans. **Keyboard movement Keys**

Move	Press
One character to the left	Left Arrow
One character to the right	Right Arrow
One word to the left	Ctrl + Left Arrow
One word to the right	Ctrl + Right Arrow
Up one line	Up Arrow
Down one line	Down Arrow
To the end of a line	End
To the beginning of a line	Home
Up one paragraph	Ctrl + Up Arrow
Down one paragraph	Ctrl + Down Arrow

6. **Explain the different methods used to move to a specific page.**

Ans. **Going to a specific page:** Pagemaker provides several methods for navigating the pages in your publication.

Method 1 :

You can move from one page to another by using the **Page up** and **Page down** keys on your keyboard. This is probably the navigation methods you will use most often.

Method 2 :

You can move from one page to another by using the page icons at the left bottom of the screen. Click on the page icon that corresponds to the page that you want to view. The page is displayed.
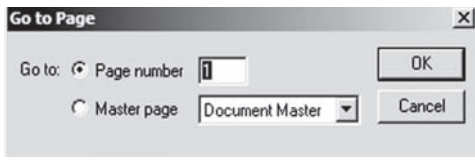
Method 3 :

Using the Go to Page dialog box. To go to a specific page in a document

(i) Choose **Layout → Go to Page** in the menu bar (or) Press **Alt + Ctrl + G** in the keyboard. Now the **Go to Page** dialog box appears.

Chapter 2
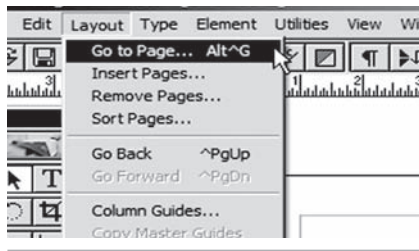
Go to Page

(ii) In the dialogue box, type the page number that you want to view.

Type page number

(iii) Then click on OK. The required page is displayed on the screen.

7. Explain how will you print a page maker document in detail?

Ans. **Print a document**

(i) Choose **File → Print** in the menu bar (or) Press **Ctrl + P** in the keyboard. The **Print Document dialog box** appears.

(ii) Choose the settings in the Print Document dialog box as

• Select the printer from the **Printer** drop-down list box.

• Choose the pages to be printed in the **Pages** group box by selecting one of the following available options :

All :

This option prints the whole document.

Ranges:

This option prints individual pages by the page number or a range of pages.

You can use commas to separate the page numbers (e.g., 5,7,19).

Use a hyphen to print page ranges(e.g., 10-17; this will print all pages from page numbers 10 to 17). To print from a particular page to the end of the document, enter the starting page number followed by a hyphen (e.g., 5 -).

You may also combine individual page numbers and a range of pages (e.g., 5, 9, 15-26).

Print :

You can also print only odd numbered or even-numbered pages. Select the Odd pages or Even pages option from the Print drop-down list box.

Type the number of copies you want in the **Copies** text box.

You can choose whether to **collate** the pages or not. Suppose you want to print 4 copies of a 5 pages document.

(i) If the **Collate** option is not selected. PageMaker will first print 4 copies of page 1, then 4 copies of page 2, and so on.

(ii) If the **Collate** option is selected, PageMaker will print a complete set of pages 1 to 5, then a second set, and so on.

(iii) After choosing from the options in the **Print Document** dialog box, click Print button to print the document. Make sure the printer is switched on.

An Introduction to Adobe Pagemaker

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CHAPTER

3

INTRODUCTION TO
DATABASE MANAGEMENT SYSTEM

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER

1. Which language is used to request information from a Database?
(a) Relational   (b) Structural
(c) Query   (d) Compiler
[Ans. (c) Query]

2. The _____ diagram gives a logical structure of the database graphically.
(a) Entity-Relationship   (b) Entity
(c) Architectural Representation
(d) Database   **[Ans. (b) Entity]**

3. An entity set that does not have enough attributes to form primary key is known as
(a) Strong entity set   (b) Weak entity set
(c) Identity set   (d) Owner set
[Ans. (b) Weak entity set]

4. _____ Command is used to delete a database.
(a) Delete database database_name
(b) Delete database_name
(c) drop database database_name
(d) drop database_name
[Ans. (d) drop database_name]

5. Which type of below DBMS is MySQL?
(a) Object Oriented   (b) Hierarchical
(c) Relational   (d) Network
[Ans. (c) Relational]

6. MySQL is freely available and is open source.
(a) True   (b) False
[Ans. (a) True]

7. _____ represents a "tuple" in a relational database?
(a) Table   (b) Row
(c) Column   (d) Object
[Ans. (b) Row]

8. Communication is established with MySQL using
(a) SQL   (b) Network calls
(c) Java   (c) API's
[Ans. (a) SQL]

9. Which is the MySQL instance responsible for data processing?
(a) MySQL Client   (b) MySQL Server
(c) SQL
(d) Server Daemon Program
[Ans. (b) MySQL Server]

10. The structure representing the organizational view of entire database is known as _____ in MySQL database.
(a) Schema   (b) View
(c) Instance   (d) Table
[Ans. (d) Table]

PART – II

SHORT ANSWERS

1. Define Data Model and list the types of data model used.

Ans. A data model shows the logical structure of a database, including the relationships and constraints that determine how data can be stored and accessed.

Types of Data Model :
(i) Hierarchical database model
(ii) Relational model
(iii) Network model
(iv) Entity – relationship model
(v) Object – oriented database model

2. List few disadvantages of file processing system.

Ans. The file processing system has the following major disadvantages:
(i) Data redundancy and inconsistency
(ii) Integrity Problems
(iii) Security Problems
(iv) Difficulty in a accessing data
(v) Data isolation

3. Define Single and multi valued attributes.

Ans. **Single valued attributes:**
A single valued attribute contains only one value for the attribute and they don't have multiple numbers of values.

Single Valued Attributes	
Attributes	**Values**
Age	3
Roll no	85

Introduction to Database Management System

Multi valued attributes:

A multi values attribute has more than one value for that particular attribute.

Attributes and Values	
Attributes	**Values**
Degree	B.Tech, MBA
Bank_Account	SBI, HDFC

4. **List any two DDL and DML commands with its Syntax.**

Ans. **DDL Commands :**

(i) CREATE

Syntax : CREATE database databasename;

(ii) DROP

Syntax : DROP database databasename;

DML Commands :

(i) INSERT

Syntax : INSERT INTO tablename (column1, column2, column 3)

VALUES: (Value 1, value 2, value3);

(ii) UPDATE

Syntax : UPDATE tablename

SET column 1 = "new value"

Where column2="value2";

5. **What are the ACID properties?**

Ans. **ACID Properties :**

(i) The acronym stands for Atomicity, Consistency, Isolation and Durability.

(ii) Atomicity follows the thumb rule "All or Nothing", while updating the data in database for the user performing the update operation.

(iii) Consistency ensures that the changes in data value to be constant at any given instance. Isolation property is needed during concurrent transaction.

(iv) To prevent the conflict in database update, the transactions are isolated from other user and serialized. This is also known as Degree of Consistency.

(v) Durability is defined as the system's ability to recover all committed transactions during the failure of storage or the system.

6. **Which command is used to make permanent changes done by a transaction?**

Ans. COMMIT Command is used to make permanent changes done by a transaction.

7. **What is view in SQL?**

Ans. In a database, a view is the result set of a stored query on the data, which the database users can query just as they would in a persistent database collection object.

8. **Write the difference between SQL and MySQL.**

Ans.

Sl. No.	SQL	MySQL
1.	It is used in the accessing, updating and manipulation of data in a database.	It is an RDBMS that allows keeping the data that exists in a database organized.
2.	SQL is a structured query language.	MySQL is a database software.
3.	SQL does not provide connectors.	MySQL offers an integrated tool called 'MySQL Workbench' to design and develop databases.

9. **What is Relationship and List its types.**

Ans. There exists a relationship between two tables when the foreign key of one table references primary key of other table.

Types :

(i) One – to – One

(ii) One – to – Many

(iii) Many – to – Many

10. **State few advantages of Relational databases.**

Ans. **Advantages :**

(i) Data is not repeated and therefore does not waste valuable resources.

(ii) Separate tables connected by a key fields are used

(iii) Data retrieval is quicker

(iv) Database can be extended with more data and tables.

Chapter 3

PART - III

EXPLAIN IN BRIEF ANSWER

1. Explain on Evolution of DBMS.

Ans. Evolution of DBMS:

(i) The concept of storing the data started before 40 years in various formats.

(ii) In earlier days they have used punched card technology to store the data. Then files were used.

(iii) The file systems were known as predecessor of database system.

(iv) Various access methods in file system were indexed, random and sequential access. The file system had more limitations like

Data Duplication : Same data is used by multiple resources for processing, thus created multiple copies of same data wasting the spaces.

High Maintenance : Access control and verifying data consistency needs high maintenance cost.

Security : Less security provided to the data.

(v) So database systems became popular to overcome the above limitations of file system.

2. What is relationship in databases? List its types.

Ans. In ER Model, relationship exists between two entities. Three types of relationships are available and the Entity-Relationship(ER) diagram is based on the three types listed below.

(i) One-to-One relationship: One-to-one (1:1) relationship is said to exist in a relational database design, if 0 or 1 instance of entity A is associated with 0 or 1 instance of entity B, and 0 or 1 instance of entity B is associated with 0 or 1 instance of entity A.

(ii) One-to-Many relationship: One-to-many (1:N) relationship is said to exist in a relational database design, for 1 instance of entity A there exists 0 or 1 or many instances of entity B, but for 1 instance of entity B there exists 0 or 1 instance of entity A.

(iii) Many-to-Many relationship: Consider two entities A and B. many-to-many (M:N) relationship is said to exist in a relational database design, for 1 instance of entity A there exists 0 or 1 or many instances of entity B, and for 1 instance of entity B there exists 0 or 1 or many instance of entity A.

3. Discuss on Cardinality in DBMS.

Ans. It is defined as the number of items that must be included in a relationship (i.e) number of entities in one set mapped with the number of entities of another set via the relationship. Three classifications in Cardinality are one-to-one, one-to-many and Many-to-Many.

Cardinality

If we consider the current vehicle, the driver is operating, then we have one-to-one relationship between Person and Vehicle.

Cardinality Relation 1 to n

In the above example, Customer places the Order is a one-to-many relationship. Here the customer can place multiple orders and the order is related to only one customer.

Cardinality Relation n to n

The example of many-to-many relationship is Students registering the Courses. A student can register more than one courses and A course can be registered by many students. Hence it is many-to-many.

Introduction to Database Management System

4. List any 5 privileges available in MySQL for the User.

Ans. List of privileges available in MySQL :

Privileges	Action Performed (If Granted)
Select_priv	User can select rows from database tables.
Insert_priv	User can insert rows into database tables.
Update_priv	User can update rows of database tables.
Delete_priv	User an delete rows of database tables.
Create_priv	User can create new tables in database
Alter_priv	User can make changes to the database structure.

5. Write few commands used by DBA to control the entire database.

Ans. DBA to Control the entire database :
- **(i)** Use Database ;
- **(ii)** Show Database ;
- **(iii)** Show tables ;
- **(iv)** Show columns from tablename ;
- **(v)** Show index from tablename ;
- **(vi)** Show table status like tablename\G :

PART - IV

EXPLAIN IN DETAIL

1. Discuss on various database models available in DBMS.

Ans. The database technology came into existence in terms of models with relational and object-relational behavior. The major database models are listed below:

1. Hierarchical Database Model :
- **(i)** The famous Hierarchical database model was IMS (Information Management System), IBM's first DBMS.
- **(ii)** In this model each record has information in parent/ child relationship like a tree structure.
- **(iii)** The collection of records was called as record types, which are equivalent to tables in relational model. The individual records are equal to rows.
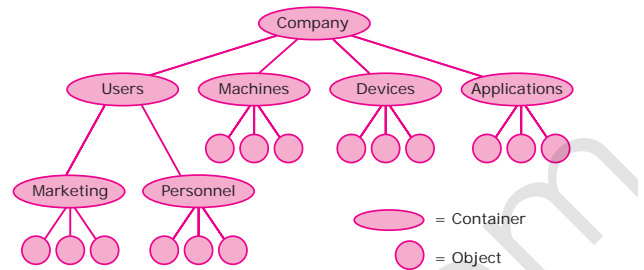
Hierarchical Database Model

2. Network model :
- **(i)** The first developed network data model was IDS (Integrated Data Store) at Honeywell.
- **(ii)** Network model is similar to Hierarchical model except that in this model each member can have more than one owner.
- **(iii)** The many to many relationships are handled in a better way.
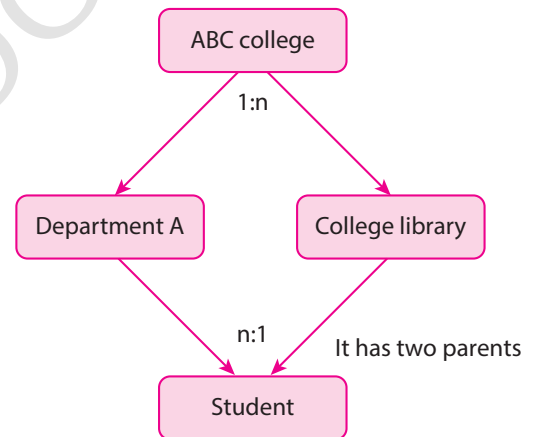
Network Model

Network Schema: Schema defines all about the structure of the database.

Sub Schema : Controls on views of the database for the user.

Language : Basic procedure for assessing the database. The major advantage of this model is the ability to handle more relationship types, easy data access, data integrity and independence. The limitation of network model is difficulty in design and maintenance.

3. Relational model :

Oracle and DB2 are few commercial relational models in use Relational model is defined with two terminologies Instance and Schema.

Chapter 3

Relational Database

Member	Member group	Group
id:int	member_id:int	id:int
firstname:string	group_id:int	...
surname:string	...	
email:string		
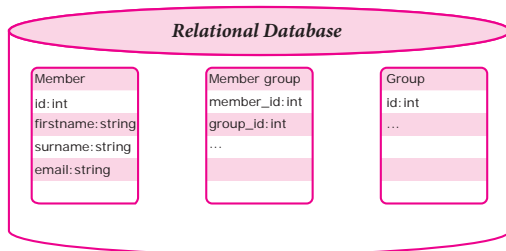
Relational Database Model

4. Object - oriented database model :

(i) This model incorporates the combination of Object Oriented Programming (OOP's) concepts and database technologies.

(ii) Practically, this model serves as the base of Relational model. Object oriented model uses small, reusable software known as Objects.

(iii) These are stored in object oriented database. This model efficiently manages large number of different data types.

(iv) Moreover complex behaviors are handled efficiently using OOP's concepts.
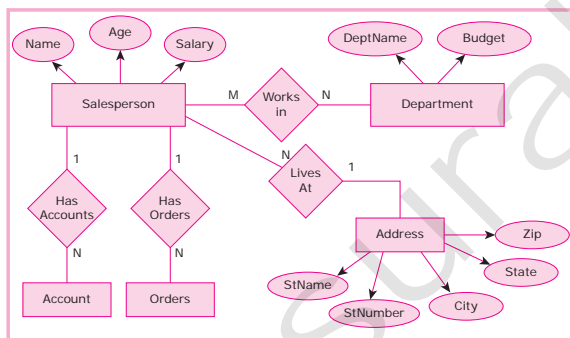
Object-oriented Database Model

2. List the basic concepts of ER Model with suitable example.

Ans. ER Modeling basic concepts: The basic concepts of ER model consists of
1. Entity or Entity type
2. Attributes
3. Relationship

These are the general concepts which help to create an ER diagram and produce an ER model. With the help of these any database design can be created and viewed to know the concept in that database design.

Entity or Entity type :

(i) An Entity can be anything a real-world object or animation which is easily identifiable by anyone even by a common man.

(ii) Eg: In a company's database Employee, HR, Manager are considered as entities, where each of these entity will be having their own attributes. An entity is represented by a rectangular box.

Employee	Manager

Attributes:

An attribute is the information about that entity and it will describe, quantify, qualify, classify, and specify and entity. An attribute will always have a single value, that value can be a number or character or string.

Types of attributes :

(i) Key Attribute
(ii) Simple Attributes
(iii) Composite Attributes
(iv) Single Valued Attribute
(v) Multi Valued Attribute

Relationship Type:

In ER Model, relationship exists between two entities. Three types of relationships are available and the Entity- Relationship(ER) diagram is based on the three types listed below.

(i) One-to-One relationship: Consider two entities A and B. one-to-one (1:1) relationship is said to exist in a relational database design, if 0 or 1 instance of entity A is associated with 0 or 1 instance of entity B, and 0 or 1 instance of entity B is associated with 0 or 1 instance of entity A.

(ii) One-to-Many relationship: Consider two entities A and B. one-to-many (1:N) relationship is said to exist in a relational database design, for 1 instance of entity A there exists 0 or 1 or many instances of entity B, but for 1 instance of entity B there exists 0 or 1 instance of entity A.

(iii) Many-to-Many relationship: Consider two entities A and B. many-to-many (M:N) relationship is said to exist in a relational database design, for 1 instance of entity A there exists 0 or 1 or many instances of entity B, and for 1 instance of entity B there exists 0 or 1 or many instance of entity A.

In reality one-to-one are in less usage, where as one-to-many and many-to-many are commonly used. However in relational databases, many-to-many are converted into one-to-many relationships.

Introduction to Database Management System

3. **Discuss in detail on various types of attributes in DBMS.**

Ans. Types of attributes :
1. Key Attribute
2. Simple Attributes
3. Composite Attributes
4. Single Valued Attribute
5. Multi Valued Attribute

1. Key Attribute : Generally a key attribute describes a unique characteristic of an entity.

2. Simple Attribute :

(i) The simple attributes cannot be separated it will be having a single value for their entity.

(ii) **Ex:** Let us consider the name as the attribute for the entity employee and here the value for that attribute is a single value.
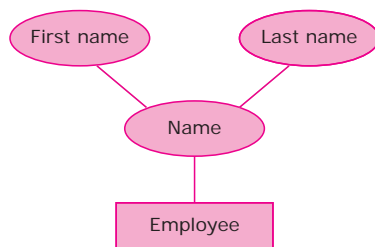
Simple Attribute

3. Composite Attributes :

(i) The composite attributes can be subdivided into simple attributes without change in the meaning of that attribute.

(ii) **Ex:** In the above diagram the employee is the entity with the composite attribute Name which are sub-divided into two simple attributes first and last name.

4. Single Valued Attributes :

(i) A single valued attribute contains only one value for the attribute and they don't have multiple numbers of values.

(ii) **Ex:** Age- It is a single value for a person as we cannot give n number of ages for a single person,therefore it is a single valued attribute.

Single Valued Attributes	
Attribute	**Values**
Age	3
Roll no	85

In the above table are the some examples for single valued attributes.
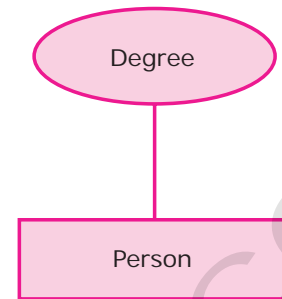
Single Valued Attributes

5. Multi Valued Attributes :

(i) A multi valued attribute has more than one value for that particular attribute.

(ii) **Ex:** Degree - A person can hold n number of degrees so it is a multi-valued attribute.

Attributes and Values	
Attribute	**Values**
Degree	B.Tech, MBA
Bank_Account	SBI, HDFC

4. **Write a note on open source software tools available in MySQL Administration.**

Ans. MYSQL Administration open source software tools :

Types of software tools :

(i) Many open source tools are available in the market to design the database in a better and efficient manner.

(ii) PhpMyAdmin is most popular for Web Administration.

(iii) The popular Desktop Application tools are MySQL Workbench and HeidiSQL.

1. PHPMYADMIN (Web Admin) :

(i) This administrative tool of MySQL is a web application written in PHP.

(ii) They are used predominantly in web hosting.

(iii) The main feature is providing web interface, importing data from CSV and exporting data to various formats.

(iv) It generates live charts for monitoring MySQL server activities like connections, processes and memory usage.

(v) It also helps in making the complex queries easier.

2. MySQL Workbench (Desktop Application):

(i) It is a database tool used by developers and DBA's mainly for visualization.

(ii) This tool helps in data modeling, development of SQL, server configuration and backup for MySQL in a better way.

(iii) Its basic release version is 5.0 and is now in 8.0 supporting all Operating Systems.

(iv) The SQL editor of this tool is very flexible and comfortable in dealing multiple results set.

3. HeidiSQL (Desktop Application) :

(i) This open source tools helps in the administration of better database systems.

(ii) It supports GUI (Graphical User Interface) features for monitoring server host, server connection, Databases, Tables, Views, Triggers and Events.

5. Explain in detail on Sub Queries with suitable examples.

Ans. Sub queries : Here the SQL query is written within a main Query. This is called as Nested Inner/ SubQuery. The sub query is executed first and the results of sub query are used as the condition for main query. The sub query must follow the below rules:

(i) Subqueries are always written within the parentheses.

(ii) Always place the Subquery on the right side of the comparison operator.

(iii) ORDER BY clause is not used in sub query, since Subqueries cannot manipulate the results internally.

Consider the **Employee** table with the fields EmpID, Name, Age and Salary. The sample data is given below:

Select order by class Record List			
EmpID	**Name**	**Age**	**Salary**
101	Ram	35	15000
102	Gopal	41	30000
103	Priya	32	13000
104	Hari	37	20000

In the below Query, we use sub query in on SELECT statement.

SELECT * from Employee
where EmpID IN (SELECT EmpID from Employee WHERE Salary < 20000);

First, the inner query is executed. As a result EmpID 101 and 103 are retrieved. Now the external or outer query is executed. Internally the query is SELECT * from Employee where EmpID IN (101,103) and the output is drawn below in table

Select Record List			
EmpID	**Name**	**Age**	**Salary**
101	Ram	35	15000
103	Priya	32	13000

Similarly the subqueries are used with INSERT, UPDATE and DELETE.

ADDITIONAL QUESTIONS AND ANSWERS

CHOOSE THE CORRECT ANSWER **1 MARK**

1. Expand DBMS
(a) Data Base Management Software
(b) Data Base Memory Software
(c) Data Base Management System
(d) Data Base Management Solution
[Ans. (c) Data Base Management system]

2. Which of the following is system software for creating and managing databases?
(a) Database
(b) DBMS
(c) SQL
(d) MySQL
[Ans. (b) DBMS]

3. Which of the following the DBMS provides to the users?
(a) create data
(b) retrieve data
(c) update data
(d) manage data
(e) all of these
[Ans. (e) all of these]

4. Grouping only related data together and storing them under one group name called
(a) tuple
(b) table
(c) list
(d) database
[Ans. (b) table]

5. Which of the following is not a type of dbms?
(a) DBMS
(b) RDBMS
(c) ODBMS
(d) EDBMS
[Ans. (d) EDBMS]

Chapter 3

6. **How many basic concepts all DBMS adheres?**
   (a) 2   (b) 3   (c) 4   (d) 6

   [Ans. (a) 2]

7. **In ACID properties, I stands for**
   (a) Information   (b) Integration
   (c) Isolation   (d) Instance

   [Ans. (c) Isolation]

8. **In ACID properties, C stands for**
   (a) Concurrency   (b) Consistency
   (c) Conflict   (d) Collection

   [Ans. (b) Consistency]

9. **Which of the following is the DBMSs mechanism used for data sharing?**
   (a) ACID
   (b) Concurrency control
   (c) Locking   (d) Consistency

   [Ans. (b) Concurrency control]

10. **The famous Hierarchical database model was**
    (a) IBM   (b) INS
    (c) IMS   (d) MIS

    [Ans. (c) IMS]

11. **Which of the following is not a database model?**
    (a) Hierarchical   (b) Relational
    (c) Network   (d) Consistency

    [Ans. (d) Consistency]

12. **IMS expansion is**
    (a) Information Memory System
    (b) Information Management System
    (c) Information Model System
    (d) Information Management Solution

    [Ans. (b) Information Management System]

13. **IBM's first DBMS is**
    (a) IMS   (b) RDBMS
    (c) ODBMS   (d) none of these

    [Ans. (a) IMS]

14. **Which of the following database model has information in parent/child relationship?**
    (a) Network   (b) Object
    (c) Hierarchical   (d) Relational

    [Ans. (c) Hierarchical]

15. **The first developed network data model is**
    (a) IMS   (b) IDS
    (c) DB2   (d) Oracle

    [Ans. (b) IDS]

16. **IDS expansion is**
    (a) Integrated Data Store
    (b) Integrated Data Source
    (c) Integrated Data System
    (d) Integrated Digital Source

    [Ans. (a) Integrated Data Store]

17. **Which of the following model is defined with terminologies?**
    (a) Hierarchical   (b) Relational
    (c) Network   (d) Object

    [Ans. (b) Relational]

18. **Which of the following model is similar to Hierarchical model?**
    (a) Relational   (b) ER
    (c) Object oriented   (d) None of these

    [Ans. (d) None of these]

19. **Which database components not identified by Network model?**
    (a) Network Schema   (b) Subschema
    (c) Instance   (d) Language

    [Ans. (c) Instance]

20. **How many terminology are there to define relational model?**
    (a) 2   (b) 3   (c) 4   (d) 6

    [Ans. (a) 2]

21. **Which of the following is a commercial relational model?**
    i. **Oracle**   ii. **IDS**
    iii. **IMS**   iv. **DB2**
    (a) i, ii   (b) ii, iv
    (c) i, iv   (d) only iii

    [Ans. (c) i, iv]

22. **In Relational model, which terminology specifies the table structure including name and type of each column?**
    (a) Network schema   (b) Schema
    (c) Sub Schema   (d) Instance

    [Ans. (b) Schema]

23. **Which model incorporates the OOP's concept?**
    (a) Relational   (b) Network
    (c) Object oriented   (d) ER

    [Ans. (c) Object oriented]

24. Which model serves as the base of relational model?
(a) Hierarchical   (b) Network
(c) ER   (d) Object oriented
[Ans. (d) Object oriented]

25. Which model efficiently manages large number of different datatypes?
(a) Object oriented
(b) Hierarchical
(c) Relational
(d) Network and ER **[Ans. (a) Object oriented]**

26. Which one of the following is not a modern database systems?
(a) SQL   (b) MySQL
(c) Oracle   (d) Ms–Access
[Ans. (a) SQL]

27. Which of the following is not a RDBMS Jargons?
(a) Key   (b) List
(c) Tuple   (d) Schema
[Ans. (b) List]

28. Which of the following is a basis for SQL?
(a) DBMS   (b) ODBMS
(c) Network model (d) RDBMS
[Ans. (d) RDBMS]

29. Which of the following relational database supports different operating system platforms?
(a) Oracle   (b) DB2
(c) MySQL   (d) Ms–Access
[Ans. (c) MySQL]

30. Which of the following is the simple representation of relations?
(a) Key   (b) tuple
(c) Schema   (d) Table
[Ans. (d) Table]

31. Each column is a table is known as
(a) Tuple   (b) Attribute
(c) Key   (d) Schema
[Ans. (b) Attribute]

32. Which one defined in a table to hold values of same type?
(a) tuple   (b) row
(c) attribute   (d) key
[Ans. (c) attribute]

33. The horizontal entity in a table is known as
(a) column   (b) tuple
(c) attribute   (d) domain
[Ans. (b) tuple]

34. A single entry in a table is called
(a) row   (b) record
(c) tuple   (d) all of these
[Ans. (d) all of these]

35. The key that is chosen to perform the identification task in a table is called
(a) Primary key   (b) Primary schema
(c) Primary Instance (d) Primary tuple
[Ans. (a) Primary key]

36. Which of the following trust have a unique value for its Primary key?
(a) Attribute   (b) Domain
(c) tuple   (d) column
[Ans. (c) tuple]

37. Which of the following key is a copy of primary key?
(a) super   (b) composite
(c) foreign   (d) all of these
[Ans. (c) foreign]

38. Each super key is called a
(a) Composite key   (b) Foreign key
(c) Candidate key   (d) Attribute key
[Ans. (c) Candidate key]

39. Which key is selected from the set of super key?
(a) Candidate   (b) Foreign
(c) Primary   (d) Composite
[Ans. (a) Candidate]

40. A key with more than one attribute to identify rows originally in a table is called
(a) Candidate key   (b) Foreign key
(c) Primary key   (d) Compound key
[Ans. (d) Compound key]

41. A composite key is also called a
(a) Candidate key   (b) Foreign key
(c) Compound key   (d) Primary key
[Ans. (c) Compound key]

42. Which model is generally used to know the concept of database design?
(a) Network   (b) ER
(c) Relational (d) Hierarchical
[Ans. (b) ER]

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43. Which of the following model consists of a collection of entities?
  (a) ER
  (b) Hierarchical
  (c) Network
  (d) Relational
  [Ans. (a) ER]

44. ER diagram can be created with an help of
  (a) Entity
  (b) Attributes
  (c) Relationship
  (d) All of these
  [Ans. (d) All of these]

45. The basic concepts of ER model does not consists
  (a) Entity
  (b) Attributes
  (c) Schema
  (d) Relationship
  [Ans. (c) Schema]

46. Which of the following can be easily identified in ER model?
  (a) Schema
  (b) Entity
  (c) Attribute
  (d) Relationship
  [Ans. (b) Entity]

47. Which of the following is represented by a rectangular box?
  (a) Entity
  (b) Schema
  (c) Relationship
  (d) Attribute
  [Ans. (a) Entity]

48. Which can be represented in only one rectangle?
  (a) Strong entity
  (b) Weak entity
  (c) Entity relationship
  (d) Entity instance
  [Ans. (a) Strong entity]

49. Which entity have primary key?
  (a) Strong
  (b) Schema
  (c) Instance
  (d) Weak
  [Ans. (d) Weak]

50. Which of the following entity is represented by double rectangle?
  (a) Strong
  (b) Instance
  (c) Weak
  (d) none of these
  [Ans. (c) Weak]

51. Which of the following represents the values of the entity?
  (a) Schema
  (b) Key
  (c) Attribute
  (d) Instances
  [Ans. (d) Instances]

52. Which of the following can describe an entity?
  (a) Strong entity
  (b) Weak entity
  (c) Attribute
  (d) Schema
  [Ans. (c) Attribute]

53. How many types of entities are there?
  (a) 3
  (b) 4
  (c) 2
  (d) 5
  [Ans. (a) 3]

54. How many types of attributes are there?
  (a) 3
  (b) 4
  (c) 2
  (d) 5
  [Ans. (d) 5]

55. Which attribute describes a unique characteristic of an entity?
  (a) Simple
  (b) Key
  (c) Composite
  (d) Single valued
  [Ans. (b) Key]

56. Which attributes can be sub-divided into simple attributes without change in the meaning of that attribute?
  (a) Compound
  (b) Single valued
  (c) Multi valued
  (d) Composite
  [Ans. (d) Composite]

57. In which model, relationship exists between two entities?
  (a) Network
  (b) Hierarchical
  (c) ER
  (d) Relational
  [Ans. (c) ER]

58. How many types of relationships are available in ER model?
  (a) 4
  (b) 5
  (c) 2
  (d) 3
  [Ans. (d) 3]

59. In ER model, which relationship type are in less usage in reality?
  (a) one to one
  (b) one to many
  (c) many to one
  (d) many to many
  [Ans. (a) one to one]

60. The number of classifications in cardinality is
  (a) 2
  (b) 4
  (c) 3
  (d) 1
  [Ans. (c) 3]

61. Which diagram presents data visually on how they are related to each other?
  (a) Network
  (b) ER
  (c) Entity
  (d) Schema
  [Ans. (b) ER]

62. Which of the following are not the form(s) of ER Diagram?
  (a) Entities
  (b) Attributes
  (c) Schema
  (d) Relationship
  [Ans. (c) Schema]

63. Which symbol represents ER component relationship?

(a) ◇

(b) ◈

(c) ▭

(d) ▭

[Ans. (a) ◇]

64. MySQL is founded by
(a) Monty Widenius (b) Jon Postel
(c) Paul V Mockapetris (d) Bill gates
[Ans. (a) Monty Widenius]

65. Which of the following is not a database?
(a) MySQL (b) Oracle
(c) SQL (d) Ms-Access
[Ans. (c) SQL]

66. SQL current version is
(a) 2007 (b) 2010
(c) 2004 (d) 2003
[Ans. (d) 2003]

67. Which of the following is not a database?
(a) DB2 (b) SQL
(c) PostgreSQL (d) Sybase
[Ans. (b) SQL]

68. Who posses the skills as database design end database queries?
(a) End user (b) developer
(c) DBA (d) programmer
[Ans. (c) DBA]

69. Which of the following is a database?
(a) SQLite (b) Sybase
(c) DBZ (d) All of these
[Ans. (d) All of these]

70. Which databases did not meet out network issues efficiently?
(a) Heavy (b) Light
(c) Medium (d) Slow
[Ans. (a) Heavy]

71. Which of the databases supports the web applications?
(a) Heavy (b) Medium
(c) Slow (d) Light
[Ans. (d) Light]

72. The primary task of DBA's
(a) Creation of new user
(b) Providing access rights
(c) Security and databackup
(d) All of these
[Ans. (d) All of these]

73. The user account is activated with the access rights
(a) Insert (b) Select
(c) Update (d) All of these
[Ans. (d) All of these]

74. All the query will terminate with
(a) : (b) ; (c) , (d) ::
[Ans. (b) ;]

75. A new user account can be added with values to the user table using
(a) Insert (b) Update
(c) Select (d) flush
[Ans. (a) Insert]

76. Manual server rebooting is avoided using the command
(a) update (b) select
(c) flush privileges (d) alter
[Ans. (c) flush privileges]

77. Which command is used for retrieving the inserted record?
(a) Update (b) Alter
(c) Create (d) Select
[Ans. (d) Select]

78. Which functions is there in MySQL to encrypt the password?
(a) Password () (b) Pwd ()
(c) Passwd () (d) Pass ()
[Ans. (a) Password ()]

79. Which MySQL command is used to select the database for working?
(a) Select (b) Use
(c) Show (d) Insert
[Ans. (b) Use]

80. Which command is used to list all the databases available?
(a) List (b) Use
(c) Show (d) Select
[Ans. (c) Show]

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81. Which command used to list all the table in database?
    - (a) List
    - (b) Show
    - (c) Use
    - (d) Select

    [Ans. (b) Show]

82. The administrative tool of MySQL is a web application writtern in
    - (a) Html
    - (b) ASP
    - (c) Vbsript
    - (d) PHP

    [Ans. (d) PHP]

83. Which of the following database tool, the DBA's mainly used for visualization?
    - (a) PHPMyadmin
    - (b) MySQL workbench
    - (c) HeidiSQL
    - (d) SQLEditor

    [Ans. (b) MySQL workbench]

84. How many major parts that forms a database?
    - (a) 4
    - (b) 3
    - (c) 2
    - (d) 1

    [Ans. (b) 3]

85. Which of the following is not there to form a database?
    - (a) Tables
    - (b) Queries
    - (c) Instances
    - (d) Views

    [Ans. (c) Instances]

86. A set of stored queries are
    - (a) Tables
    - (b) Instances
    - (c) Views
    - (d) Schemas

    [Ans. (c) Views]

87. Which of the following is similar to excel sheet?
    - (a) Tables
    - (b) Queries
    - (c) Views
    - (d) None of these

    [Ans. (a) Tables]

88. A question with multiple conditions posted to the database is known as
    - (a) Tables
    - (b) Queries
    - (c) Views
    - (d) Schema

    [Ans. (b) Queries]

89. The efficiency and performance of the table purely depends on
    - (a) Query
    - (b) View
    - (c) datatypes
    - (d) data

    [Ans. (c) datatypes]

90. Which of the following is not a category of SQL command?
    - (a) DQL
    - (b) TCL
    - (c) DCL
    - (d) DAL

    [Ans. (d) DAL]

91. Which commands are used to define database schema?
    - (a) DDL
    - (b) DML
    - (c) DCL
    - (d) TCL

    [Ans. (a) DDL]

92. DDL expansion is
    - (a) Definition Data Language
    - (b) Data Definition Language
    - (c) Database Definition Language
    - (d) Desktop Data Language

    [Ans. (b) Data Definition Language]

93. Which of the following command is belongs to DDL?
    - (a) Create
    - (b) Insert
    - (c) Update
    - (d) Delete

    [Ans. (a) Create]

94. Which command modifies the existing structure of database or table?
    - (a) Modify
    - (b) Change
    - (c) Alter
    - (d) Edit

    [Ans. (c) Alter]

95. Which DDL command used to delete all table records?
    - (a) DROP
    - (b) TRUNCATE
    - (c) DELETE
    - (d) DELETE ALL

    [Ans. (b) TRUNCATE]

96. DML stands for
    - (a) Data Memory Language
    - (b) Data Management Language
    - (c) Data Manipulation Language
    - (d) Desktop Manipulation Language

    [Ans. (c) Data Manipulation Language]

97. Which of the following DML command deletes the records form the table?
    - (a) DELETE
    - (b) DROP
    - (c) TRUNCATE
    - (d) DELETE RECORD

    [Ans. (a) DELETE]

98. Which DML commands modifies existing data with in a table?

(a) MODIFY (b) RENAME
(c) SELECT (d) UPDATE

[Ans. (d) UPDATE]

99. Which of the following is a DQL command?

(a) UPDATE (b) RENAME
(c) SELECT (d) INSERT

[Ans. (c) SELECT]

100. Expand DQL

(a) Data Query Language
(b) Definition Query Language
(c) Desktop Query Language
(d) Database Query Language

[Ans. (a) Data Query Language]

101. Which SQL used to fetch or retrieve the data from database?

(a) Fetch (b) Select
(c) Retrieve (d) Extract

[Ans. (b) Select]

102. TCL stands for

(a) Transfer Control Language
(b) Transmission Control Language
(c) Transaction Control Language
(d) Transaction Cardinality Language

[Ans. (c) Transaction Control Language]

103. Which of the following is not a TCL command?

(a) COMMIT (b) ROLL BACK
(c) SAVE POINT (d) ALTER

[Ans. (d) ALTER]

104. Which TCL command permanently save into database?

(a) SAVE (b) COMMIT
(c) SAVE AS (d) SAVE POINT

[Ans. (b) COMMIT]

105. SAVE POINT belong to

(a) DDL (b) DML
(c) DQL (d) TCL

[Ans. (d) TCL]

106. DCL stands for

(a) Data Control Language
(b) Digital Control Language
(c) Data Consistency Language
(d) Durability Control Language

[Ans. (a) Data Control Language]

107. Which of the following is not a logical operator?

(a) Between (b) Exists
(c) Unique (d) Where

[Ans. (d) Where]

108. Which clause of SQL command is used to specify the selection criteria as per the query?

(a) Where (b) Order
(c) Having (d) Join

[Ans. (a) Where]

109. Which operator can not be used in where clause?

(a) Arithmetic (b) Comparison
(c) Logical (d) Unary

[Ans. (d) Unary]

110. Identical data in a table are grouped by using

(a) Where (b) Group by
(c) Order by (d) Join by

[Ans. (b) Group by]

111. Sub Queries are always enclosed with

(a) ( ) (b) < >
(c) [ ] (d) { }

[Ans. (a) ( )]

112. Sub queries are used with

(a) Insert (b) Update
(c) Delete (d) All of these

[Ans. (d) All of these]

CHOOSE AND FILL IN THE BLANKS

1. A _____ is a place where data can be stored, retrieved and managed.

(a) database (b) information
(c) function (d) management

[Ans. (a) database]

2. _____ database model finding difficulty in handling many to many relationships.

(a) Optional (b) Hierarchical
(c) Relational (d) None of these

[Ans. (b) Hierarchical]

3. _____ model identified the Network Schema, Sub Schema and language.

(a) Database (b) Relational
(c) Network
(d) Object - oriented database

[Ans. (c) Network]

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4. The most popular relational database is _____.
(a) Database   (b) DBMS
(c) SQL   (d) MySQL

[Ans. (d) MySQL]

5. A primary key which is a combination of more than one attribute is called a _____.
(a) composite primary key
(b) superkey
(c) foreign key
(d) minimal superkey

[Ans. (a) composite primary key]

6. The candidate key is also known as _____.
(a) composite primary key
(b) minimal superkey
(c) foreign key
(d) superkey   [Ans. (b) minimal super keys]

7. The number of entity types involved is known as _____.
(a) Relationship instance
(b) Degree of relationship
(c) Cardinality
(d) None of these

[Ans. (b) Degree of relationship]

8. SQL expansion is _____.
(a) Structured Query Language
(b) Stock Query Language
(c) Stored Query Language
(d) None of these   [Ans. (a) Structured Query Language]

9. DBA frequently uses few commands to control the database and those commands are known as _____.
(a) Administration Responsibilities
(b) Administrative MySQL command
(c) MySQL Installation
(d) MySQL Workbench

[Ans. (b) Administrative MySQL command]

10. SQL commands are classified into _____ major categories.
(a) 2   (b) 3
(c) 3   (d) 5   [Ans. (d) 5]

11. The Query results are listed in ascending or descending order using the command _____.
(a) where   (b) having
(c) orderby   (d) join

[Ans. (c) orderby]

MATCH THE FOLLOWING

1.

A	DROP	(i)	Restore database to original form
B	TRUNCATE	(ii)	Used to delete all table records
C	GRANT	(iii)	Deletes a table
D	ROLL BACK	(iv)	Used to give permission to specific users

	A	B	C	D
(a)	iii	iv	ii	i
(b)	ii	iii	iv	i
(c)	iii	ii	iv	i
(d)	iii	ii	i	iv

[Ans.(c) A – iii; B – ii; C – iv; D – i]

CHOOSE THE INCORRECT PAIR

1. (i) Entity - Strong   – ▭
(ii) Entity - Weak   – ▭
(iii) Relationships   – ◇
(iv) Multivalued Attribute for Entity   – ⬭

[Ans. (iii) Relationships – ◇]

CHOOSE THE WRONG STATEMENT

1. (i) The famous Hierarchical database model was IMS, IBM's first DBMS.
(ii) Network model is finding difficulty in handling many to many relationships.
(iii) Relational model is defined with instance and schema terminologies.
(iv) Object oriented model server as the base of Hierarchical model.
(a) i and ii   (b) ii and iv
(c) iii and iv   (d) i, iii and iv

[Ans. (b) ii and iv]

SHORT ANSWERS   2 MARKS

1. What is DBMS?

Ans. "A database management system (DBMS) is system software for creating and managing databases. The DBMS provides users and programmers with a systematic way to create, retrieve, update and manage data".

2. How will you identify the data stored in a database?

Ans. In a database, we would be grouping only related data together and storing them under one group name called table. This helps in identifying which data is stored where and under what name.

3. What is concurrency control and locking concept in DBMS?

Ans. Concurrency control is the DBMSs mechanism used for data sharing. When the same data is shared among multiple users, proper access control is needed and privilege of changing the applications data item is controlled through Locking.

4. Write the advantages and limitations of Hierarchical model.

Ans. Advantages like less redundant data, efficient search, data integrity and security. This model also has few limitations like complex to implement and difficulty in handling many to many relationships.

5. Write the advantages and limitations of Network model.

Ans. The major advantage of this model is the ability to handle more relationship types, easy data access, data integrity and independence. The limitation of network model is difficulty in design and maintenance.

6. Write about the two terminologies defined in relational model.

Ans. Relational model is defined with two terminologies Instance and Schema.

Instance : A table consisting of rows and columns.

Schema : Specifies the structure including name and type of each column.

7. What does the basic RDBMS concept includes?

Ans. The basic RDBMS concept includes Database, Tables, Tuple, Attribute, Schema and Key which are discussed in RDBMS Jargons.

8. What is meant by table in relational database model?

Ans. In relational database model, table is defined as the collection of data organized in terms of rows and columns. Table is the simple representation of relations. The true relations cannot have duplicate rows where as the table can have.

9. What is meant by attribute and attribute domain?

Ans. The table consists of several rows and columns. Table can be divided into smaller parts, in terms of columns. Each column is known as attributes. The attribute is defined in a table to hold values of same type. This is known as Attribute Domain.

10. What is meant by Tuple?

Ans. A single entry in a table is called as Row or Record or Tuple. Set of related data's are represented in a row or tuple. The horizontal entity in a table is known as Record or row.

11. What is super key?

Ans. An attribute or group of attributes, which is sufficient to distinguish every tuple in the relation form every other one is known as Super Key.

12. What is compound key?

Ans. A key with more than one attribute to identify rows uniquely in a table is called Composite key. This is also known as Compound key.

13. What does ER model consist?

Ans. The basic concepts of ER model consists of
  (i) Entity or Entity type
  (ii) Attributes
  (iii) Relationship

14. Write the different type of entity.

Ans. Types of Entity :
  (i) Strong Entity
  (ii) Weak Entity
  (iii) Entity Instance

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15. Write the types of attributes.

Ans. Types of attributes :

    (i) Key Attribute

    (ii) Simple Attributes

    (iii) Composite Attributes

    (iv) Single Valued Attribute

    (v) Multi Valued Attribute

16. Differentiate simple and composite attributes.

Ans.

Simple attributes	Composite attributes
The simple attributes cannot be separated it will be having a single value for their entity	The composite attributes can be sub-divided into simple attributes without change in the meaning of that attribute.

17. What is relationship instance?

Ans. Each instance of the relationship between members of these entity types is called a relationship instance.

18. What is degree of a relationship?

Ans. The number of entity types involved is known as Degree of relationship. ONe-Unary, Two-Binary, Three-Ternary.

19. What does the ER diagram represents?

Ans. ER Diagram presents data visually on how they are related to each other. This model follows separate notations for representing data into entities, attributes and relationship between the entities.

20. Differentiate Heavy and light databases.

Ans. Heavy databases support all the desktop applications whereas the web applications are supported by Light database. Heavy databases did not meet out the network issues efficiently. Light databases were able to handle all the issues raised by the network. So all the light databases that supports the web applications are also known as Web Databases.

21. Write the advantage of MySQL.

Ans. **(i)** MySQL is open source software that allows managing relational databases.

    (ii) It also provides the flexibility of changing the source code as per the needs.

    (iii) It runs on multiple platforms like Windows, Linux and is scalable, reliable and fast.

22. Write a note on role of Database Administrators.

Ans. Database Administrators (DBA's) who takes care of configuration, installation, performance, security and data backup. DBA's posses the skills on database design, database queries, RDMS, SQL and networking. The primary task is the creation of new user and providing them with access rights.

23. What is the advantage of flush privileges command.

Ans. mysql>FLUSH PRIVILEGES; The command is executed after every new account creation. This command is similar to rebooting the server so that newly created account and the access privilege are updated in the server. Manual server rebooting is avoided by this command.

24. What is administrative MySQL commands?

Ans. The Database Administrator (DBA) frequently uses few commands to control the entire database. These commands are known as Administrative MySQL Commands.

25. Write the tools that is used to design the database.

Ans. **(i)** PhyMyadmin

    (ii) MySQL Workbench

    (iii) HeidiSQL

26. What is known as designing of databases?

Ans. The process of creating, implementing and maintaining the enterprise data in a system is known as Designing of databases.

27. What are the three major parts that forms a database?

Ans. The three major parts that forms a database are Tables, Queries and Views.

28. What is SQL?

Ans. SQL- Structured Query Language is a standard language used for accessing and manipulating databases. It is declared as standard by American National Standards Institute (ANSI) and International Organization for Standardization (ISO) in 1986 and 1987 respectively.

29. What is backup?

Ans. Backup is a program or process of copying table contents into a file for future reference. It's a challenging task for DBA's.

Chapter 3

30. What is primary key?

Ans. This key of relational table identifies each record in the table in a unique way.

EXPLAIN IN BRIEF ANSWERS   3 MARKS

1. Write the database components of Network model.

Ans. The three database components are Network schema, Sub schema and Language for data management.

Network Schema : schema defines all about the structure of the database.

Sub Schema : controls on views of the database for the user

Language : basic procedure for assessing the database.

2. Write a short note on Object - oriented database model.

Ans. Object - oriented database model :

(i) This model incorporates the combination of Object Oriented Programming (OOp's) concepts and database technologies.

(ii) Practically, this model serves as the base of Relational model. Object oriented model uses small, reusable software known as Objects.

(iii) These are stored in object oriented database. This model efficiently manages large number of different data types.

(iv) Moreover complex behaviors are handled efficiently using OOP's concepts.

3. Write the features of RDBMS.

Ans. The features of RDBMS are

(i) High Availability

(ii) High Performance

(iii) Robust Transactions and support

(iv) Ease of management

(v) Less cost

4. Write a note on 'copy' of a primary key.

Ans. (i) A foreign key is a "copy" of a primary key that has been exported from one relation into another to represent the existence of a relationship between them.

(ii) A foreign key is a copy of the whole of its parent primary key i.e if the primary key is composite, then so is the foreign key.

(iii) Foreign key values do not (usually) have to be unique. Foreign keys can also be null. A composite foreign key cannot have some attribute(s) null and others non-null.

5. List the commonly used databases.

Ans. The lists of commonly used databases

(i) DB2

(ii) MySQL

(iii) Oracle

(iv) PostgreSQL

(v) SQLite

(vi) SQLServer

(vii) Sybase

6. How will you add a new user account to the user table?

Ans. A new user account is added with values to the user table using the following INSERT query in MySQL database. The Syntax for inserting record is INSERT INTO table name (Parameter1,Parameter2, Parameter3..) VALUES (Value1, Value2, Value3..); All the query will terminate with semicolon(;).

mysql> INSERT INTO user (host, name, password, select_priv, insert_ priv, update_priv)
VALUES ('localhost', 'guest', PASSWORD('guest123'), 'Y', 'Y', 'Y');

7. Write few administrative MySQL commands?

Ans. A few administrative MySQL commands are

(i) Use database ;

(ii) Show database ;

(iii) Show tables ;

(iv) Show index from tablename ;

(v) Show columns from tablename

(vi) Show table status like tablename \G.

8. Write a note on the major parts that forms a database.

Ans. The three major parts that forms a database are Tables, Queries and Views.

(i) **Tables :** similar to an excel sheet, containing multiple rows and columns. Where each row is a record and each column is an attribute.

(ii) **Queries :** It is a question with multiple conditions posted to the database. The records in the database that satisfies the passed conditions are retrieved.

(iii) **Views :** A set of stored queries.

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9. Write few functions performed using SQL.

Ans. Few major functions performed using SQL are listed below:

- (i) Executes queries against a database.
- (ii) Retrieves data from database.
- (iii) Inserts and updates records in a database
- (iv) Delete records from database.
- (v) Creates new databases and new tables in a database.

10. Write the five major classifications of SQL commands.

Ans. Major classifications of SQL commands :

- (i) DDL – Data Definition Language
- (ii) DML– Data Manipulation Language
- (iii) DQL – Data Query Language
- (iv) TCL – Transaction Control Language
- (v) DCL – Data Control Language

11. How will you delete record with an example.

Ans. The existing record in a table is removed from the table using DELETE command. Entire record or specified columns in the table can be deleted. If we want to perform delete operation on specific columns, then that condition is given in the WHERE condition. If the condition is not specified, then the entire data will be deleted.

Syntax1: DELETE from tablename WHERE columnname="value";

Example: mysql>DELETE from Biodata WHERE firstname="Mani";

SQL Delete Record List		
firstname	**lastname**	**Age**
Krishna	S	10
Sugal	S	14
Arun	J	15

Syntax2 : DELETE from tablename;
Example: mysql>DELETE from Biodata ;

SQL Delete Record List		
firstname	**lastname**	**Age**

12. Define (i) Record (ii) Query (iii) Join.

Ans. (i) Record : Record is referred in a table, which are composed of fields.

(ii) Query : In SQL, all commands are named as query. The query statement is executed against the databases.

(iii) Join : Retrieves data from two or more tables, by referencing columns in the tables that hold identical values

EXPLAIN IN DETAIL 5 MARKS

1. Explain the following
- (i) Foreign key
- (ii) Super key
- (iii) Composite key
- (iv) Primary key

Ans. Foreign key :

- (i) A foreign key is a "copy" of a primary key that has been exported from one relation into another to represent the existence of a relationship between them.
- (ii) A foreign key is a copy of the whole of its parent primary key i.e if the primary key is composite, then so is the foreign key.
- (iii) Foreign key values do not (usually) have to be unique. Foreign keys can also be null. A composite foreign key cannot have some attribute(s) null and others non-null.

Super key :

- (i) An attribute or group of attributes, which is sufficient to distinguish every tuple in the relation from every other one is known as Super Key.
- (ii) Each super key is called a candidate key. A candidate key is selected from the set of Super Key.
- (iii) While selecting candidate key, redundant attributes should not be taken. The candidate key is also known as minimal super keys.

Composite Key :

A key with more than one attribute to identify rows uniquely in a table is called Composite key. This is also known as Compound Key.
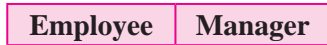
Primary key :

- (i) The candidate key that is chosen to perform the identification task is called the primary key and any others are Alternate keys.
- (ii) Every tuple must have, by definition, a unique value for its primary key. A primary key which is a combination of more than one attribute is called a composite primary key.

3

Chapter

2. Explain the entity and its types with an example.

Ans. An Entity can be anything a real-world object or animation which is easily identifiable by anyone even by a common man.

Eg: In a company's database Employee, HR, Manager are considered as entities, where each of these entity will be having their own attributes. An entity is represented by a rectangular box.

Employee	Manager

Entity

Types of Entity :
1. Strong
2. Weak Entity
3. Entity Instance

1. Strong Entity :

(i) A Strong entity is the one which doesn't depend on any other entity on the schema or database and a strong entity will have a primary key with it (i.e. a unique id which other entities will not have in their attributes). It is represented by one rectangle.

(ii) In the above example it is a strong entity because it has a primary key (a unique id) as the roll no because for every one roll no varies and it will not be same.

2. Weak Entity :

(i) A weak entity is dependent on other entities and it doesn't have any primary key like the Strong entity. It is represented by double rectangle.

(ii) **Ex:** Here the marks is the weak entity and there are no unique id or primary key for that entity. So they are dependent on the existence of the other entity.

Weak Entity
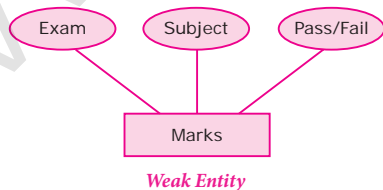
3. Entity Instance :

Instances are the values for the entity if we consider animals as the entity their instances will be dog, cat, cow… Etc. So an Entity Instance denotes the category values for the given entity.

3. Explain ER diagram notations.

Ans. ER diagram Notations :

ER Component	Description (How it is represented)	Notation
Entity – Strong	Simple rectangular box	Student
Entity – Weak	Double rectangular boxes	
Relationships	Rhombus symbol – Strong	
Between Entities	Rhombus within rhombus – Weak	
Attributes	Ellipse Symbol connected to the entity	Age, Student
Key Attribute for Entity	Underline the attribute name inside Ellipse	Key Attribute
Derived Attributed for Entity	Dotted ellipse inside main ellipse	
Multivalued Attribute for Entity	Double Ellipse	

4. List and describe the SQL DDL commands.

Ans. SQL DDL Commands List

Commands	Description
CREATE	Used to create database or tables
ALTER	Modifies the existing structure of database or table
DROP	Deletes a database or table
RENAME	used to rename an existing object in the database
TRUNCATE	Used to delete all table records

5. Explain the five major classifications of SQL commands.

Ans. Types of SQL Commands: Different SQL commands are available to perform various functions. SQL commands are classified into five major categories depending on their functionality.

Introduction to Database Management System

(i) Data Definition Language (DDL) : The DDL commands are used to define database schema (Structure). Also to create and modify the structure of the database object in the database. CREATE, ALTER, DROP, RENAME and TRUNCATE commands belongs to this category.

(ii) Data Manipulation Language (DML): These SQL commands deals with the manipulation of data present in the database. Most of SQL commands come under DML. INSERT, UPDATE, and DELETE commands belongs to this category.

(iii) Data Query Language (DQL) : SELECT is the only SQL command used to fetch or retrieve the data from database tables that come under DQL.

(iv) Transaction Control Language (TCL): These SQL commands manage the transactions in SQL databases. It also helps to save the change into database permanently. COMMIT, ROLLBACK, SET TRANSACTION and SAVEPOINT commands belongs to this category.

(v) Data Control Language (DCL) : The SQL commands that implement security on database objects like table, view, stored procedure etc. GRANT and REVOKE commands belongs to this category.

6. Explain How will you create/Drop/Selecting database with an example?

Ans. Create Database:
Used to create new SQL Database. The Syntax and example to create student DB is given below.
    Syntax: CREATE database databasename;
    Example: mysql>create database
        student DB;
The database created now can be viewed using the following Syntax,

    mysql>Show databases;

As a result, the newly created student DB will be listed.

Drop Database :
Used to remove any of the existing SQL Database. The Syntax and example to delete student DB is given below.

    Syntax: DROP database databasename;
    Example: mysql>DROP database
        student DB;
The deleted database will not be viewed,when we list all databases using the Syntax, Show databases;

Select Database :
Many databasesareavailable in the repository, from which the suitable database is selected using the below command.
    Syntax: USE databasename;
    Example: mysql>USE studentDB;
Once the database is selected, multiple operations are performed as per the needs of the application.

7. How will you insert and select record in the database table. Explain with an example.

Ans. Insert Record : Database will have multiple tables. Tables are created using the create command with various fields added to it as per their need. Any table is complete only with the record available in it. So new row are added to the table using the Insert command. The Syntax and example for inserting new record into the table is given below:

    Syntax 1:
    INSERT INTO tablename (column1, column2, column3)
    VALUES (value1, value2, value3);

    Syntax 2:
    INSERT INTO tablename VALUES (value1, value2, value3);

Consider we have a table named Biodata, which has three columns namely firstname, lastname and age. Now the new record is added to the table using either Syntax1 or Syntax2 as shown below.

    mysql>INSERT INTO Biodata
    (firstname, lastname, age)
    VALUES (Krishna, Sam, 10);

        (or)

    mysql>INSERT INTO Biodata
    VALUES (Krishna, Sam, 10);

Select Record: From the multiple records available in the table, the enquired data are retrieved from the table-using the SELECT command with some conditions specified in it.

3 (Chapter 3)

We can retrieve all the fields of a record or specify the necessary fields in a table. The records of any table are retrieved using the SELECT Syntax given below in Table

Syntax1: SELECT * from tablename;
Example: **mysql**>SELECT * from Biodata;

SQL Select Record List		
Firstname	**Lastname**	**Age**
Krishna	S	10
Sugal	S	14
Arun	J	15
Mani	K	18

Syntax2: SELECT column1, column2 from tablename;
Example: **mysql**>SELECT firstname, age from Biodata;

SQL Select Record List	
Firstname	**Age**
Krishna	10
Sugal	14
Arun	15
Mani	18

8. **Explain how will you modify and sort records in database table. Give an example.**

Ans. Modifying Record : SQL provides us with modifying and updating the existing records in a table using UPDATE command. The age of Krishna in Biodata table is changed using the below Syntax.

Syntax1: UPDATE tablename
SET column1="new value"
Where column2="value2";

Example: mysql>UPDATE Biodata SET age=13 WHERE firstname="Krishna";

WHERE Clause :
(i) In SQL command WHERE clause is used to specify the selection criteria Based on that data's are retrieved or modified as per the query.

(ii) In the WHERE conditions, operations like =, !=, >, >=, < , <= are used to frame the query statement. WHERE clause is used in SELECT and UPDATE query statement for the condition.

(iii) The number of records updated in a table depends on the WHERE condition.

Using Operators :
(i) While forming the SQL query we use major operators like Arithmetic, Comparison and Logical in the WHERE clause.

(ii) The purpose of each operator is listed below in Table

MySQL Operators	
Operator Type	**Operator**
Arithmetic Operator	+, –, *, /, %
Comparison Operator	=, !=, <, >, <>, >=, <=,
Logical Operator	AND, ANY, BETWEEN, EXISTS, IN, LIKE, NOT, OR, UNIQUE

Sorting Records :
The Query results are listed in Ascending or Descending order using the command ORDER BY. In some databases the results are sorted by default in Ascending order and is given in Syntax1. The results are displayed in descending order as per Syntax2.

Syntax1: select * from tablename ORDER BY columnname;

Example: select * from Biodata ORDER BY firstname;

Select Record List		
firstname	**lastname**	**Age**
Arun	J	15
Krishna	S	13
Sugal	S	14

Introduction to Database Management System

★★★

4

INTRODUCTION TO
HYPERTEXT PRE–PROCESSOR

CHAPTER SNAPSHOT

EVALUATION

PART - I

CHOOSE THE CORRECT ANSWER

1. What does PHP stand for?
(a) Personal Home Page
(b) Hypertext Preprocessor
(c) Pretext Hypertext Processor
(d) Pre-processor Home Page
[Ans. (b) Hypertext Preprocessor]

2. What does PHP files have a default file extension?
(a) .html   (b) .xml
(c) .php   (d) .ph
[Ans. (c) .php]

3. A PHP script should start with _____ and end with _____:
(a) <php>   (b) < ? php ?>
(c) < ? ? >   (d) < ?php ? >
[Ans. (c) < ? ? >]

4. Which of the following must be installed on your computer so as to run PHP script?
(a) Adobe   (b) windows
(c) Apache   (d) IIS
*[Ans. (c & d) Apache & IIS]

5. We can use ___ to comment a single line?
i) /?   ii) //   iii) #   iv) /* */
(a) Only (ii)
(b) (i), (iii) and (iv)
(c) (ii), (iii) and (iv)
(d) Both (ii) and (iv)
[Ans. (c) (ii), (iii) and (iv)]

6. Which of the following PHP statement/statements will store 41 in variable num?
i) int$num = 41;   ii) intnum = 41;
iii) $num = 41;   iv) 41 = $num;
(a) Both (i) and (ii)
(b) All of the mentioned
(c) Only (iii)   (d) Only (i)
[Ans. (c) Only (iii)]

7. What will be the output of the following PHP code?
```php
< ?php
$num = 1;
$num1 = 2;
print $num . "+". $num1 ;
?>
```
(a) 3   (b) 1+2
(c) 1.+.2   (d) Error
[Ans. (b) 1+2]

8. Which of the following PHP statements will output Hello World on the screen?
(a) echo ("Hello World");
(b) print ("Hello World");
(c) printf ("Hello World");
(d) sprintf ("Hello World");   **[Ans. (a,b,c)]**

9. Which statement will output $x on the screen?
(a) echo "\$x";   (b) echo "$$x";
(c) echo "/$x";   (d) echo "$x;
[Ans. (a) echo "\$x";]

10. Which of the below symbols is a newline character?
(a) \r   (b) \n
(c) /n   (d) /r   **[Ans. (b) \n]**

PART - II

SHORT ANSWERS

1. What are the common usages of PHP?
Ans. (i) It is very simple and lightweight open source server side scripting language.
(ii) It can easily embed with HTML and other client side scripting languages like CSS (Cascading Style Sheets) and Java script.
(iii) It also creates dynamic and interactive Webpages in the real time Web development projects.
(iv) It is a competitor and alternative for other server side scripting languages like Microsoft ASP (Active Server Page) and JSP (Java Server page).

Introduction to Hypertext Pre-Processor

Chapter 4

2. **What is Webserver?**
Ans. A Web server is a Software that uses HTTP (Hypertext Transfer Protocol) to serve the files that form Web pages to users.

3. **What are the types scripting language?**
Ans. (i) PHP
(ii) Microsoft ASP (Active Server Page)
(iii) Java Server Page

4. **Difference between Client and Server.**
Ans.

Client	Server
A client machine is a small computer with a basic hardware configuration.	A server machine is a high-end computer with an advanced hardware configuration.
A client is a simple and less powerful machine.	A server is a powerful expensive machine.
A client is used for simple tasks.	A server is used for storing huge data files and applications.

5. **Give few examples of Web Browser.**
Ans. (i) UC Browser
(ii) Opera
(iii) Google chrome
(iv) Internet Explorer
(v) Firefox
(vi) Safari

6. **What is URL?**
Ans. A uniform resource locator (URL) is the address of a resource on the internet. A URL indicates the location of a resource as well as the protocol used to access it.

7. **Is PHP a case sensitive language?**
Ans. In PHP, variable names are case-sensitive but function names are not case sensitive.

8. **How to declare variables in PHP?**
Ans. The variable in PHP begins with a dollar ($) symbol and the assignment activity implemented using "=" operator, finally the statement ends with semi colon ";" The semicolon indicates the end of statement.

9. **Define Client Server Architecture.**
Ans. (i) In the evolution of network architecture, various critical networks related problems are getting resolved by client server architecture model.
(ii) The client server architecture introduces application sharing mechanism between two different hardware systems over the network (Internet/intranet).

10. **Define Webserver.**
Ans. Web server software that runs on server hardware, governs the server side scripting compilation into an intermediate byte-code that is then interpreted by the runtime engine.

PART - III

EXPLAIN IN BRIEF ANSWER

1. **Write the features of server side scripting language.**
Ans. (i) Server side scripting prevents increasing of the load as it does not require plugins or browser scripting technology-overloading leads to problems like slow loading, high CPU usage and even freezing.
(ii) Server side scripting is necessary to run dynamic pages on browsers that do not fully support Java script.
(iii) Server side scripting doest not depend on browser processing as all the processing is performed on the server side.

2. **Write is the purpose of Web server.**
Ans. (i) A web server's main purpose is to store web files and broadcast them over the internet for you site visitor's to see.
(ii) In-essence, a web server is simply a powerful computer that stores and transmits data via the internet.
(iii) When someone visits a web page on your site their browser communicates with your web server, sending and receiving information that ultimately dictates what appears on the visitor's computer screen. Thus, the main purpose of a web server is to store and transfer web site data upon the request of a visitor's browser.

3. Differentiate Server side and Client Side Scripting language.

Ans. (i) Web scripting languages are classified into two types, client side and server side scripting language.

(ii) PHP is completely different from Client side scripting language like Java script.

(iii) The PHP code entirely executes on Webserver which is installed in the remote machine and it is generating HTML code which is sent to the user.

(iv) The user receives the HTML code and sees the Website contents via Internet browser in their computer or laptop.

(v) PHP also supports OOPs (Object Oriented Programing) concepts.

(vi) It is applicable to implement all OOPs features such as class, object and inheritance etc.

4. In how many ways you can embed PHP code in an HTML page?

Ans. The PHP code embed in a HTML page in only one way.

5. Write short notes on PHP operator.

Ans. Operator is a symbol which is used to perform mathematical and logical operations in the programing languages. Different types of operator in PHP are:

(i) Arithmetic operators,

(ii) Assignment operators,

(iii) Comparison operators,

(iv) Increment/Decrement operators,

(v) Logical operators, and

(vi) String operators.

PART - IV

EXPLAIN IN DETAIL

1. Explain client side and server side scripting language.

Ans. (i) Web scripting languages are classified into two types, client side and server side scripting language.

(ii) PHP is completely different from Client side scripting language like Java script.

(iii) The PHP code entirely executes on Webserver which is installed in the remote machine and it is generating HTML code which is sent to the user.
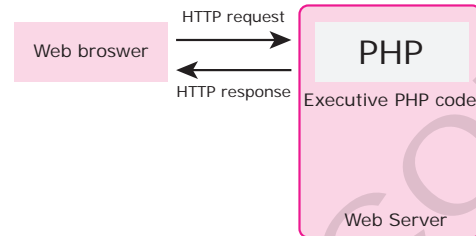
Website Request and Response from Web server to Browser

(iv) The user receives the HTML code and sees the Website contents via Internet browser in their computer or laptop.

(v) PHP also supports OOPs (Object Oriented Programing) concepts.

(vi) It is applicable to implement all OOPs features such as class, object and inheritance etc.
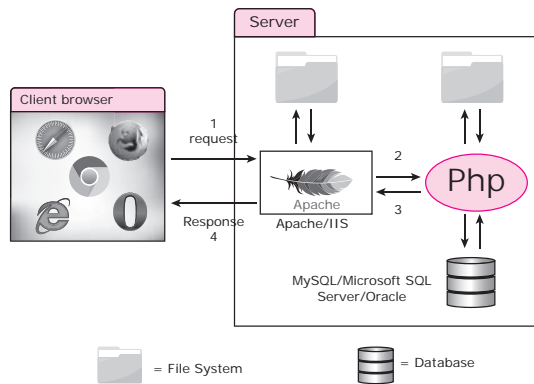
2. Discuss in detail about Website development activities.

Ans. Web development concept describes in detail about Website development and hosting through network (Internet/Intranet). The process of development also includes Web content generation, Web page designing, Website security and so on.

1. PHP Script Work :

(i) Website or Web page is developed by the programmer using PHP script. Finally the entire Website codes are moved to Web server path in a remote server machine.

(ii) From client side, the end user opens a browser, types the URL of the Website or Webpage and initiates the request to remote server machine over the network.

(iii) After receiving the request from client machine the Web server tries to compile and interpret the PHP code which is available in remote machine.

(iv) Next a response will be generated and sent back to the client machine over the network from Webserver.

(v) Finally the browser which is installed in the client machine receives the response and displays the output to user.
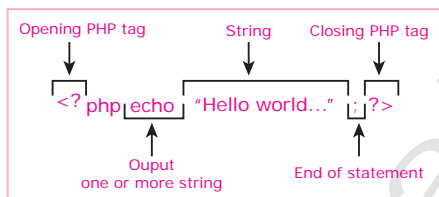
Introduction to Hypertext Pre-Processor

Client to server Request

= File System   = Database

2. PHP Syntax :

Three types of PHP Syntax are available. They are as follows

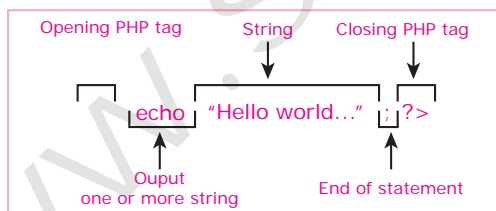1. Default Syntax
2. Short open Tags
3. HTML Script embed Tags

Default Syntax : The default Syntax begins with "<?php" and closes with "?>".

PHP Syntax

Short open Tags : The Short open Tags begins with "<?" and closes with "?>". But admin user has to enable Short style tags settings in php.ini file on the server.

PHP Short Syntax

HTML Script embed Tags: HTML Script embed Tags looks just like HTML scripts tags.

```
<script language="php">
echo "This is HTML script tags.";
</script>
```

HTML Syntax

The above syntax is created and saved in a file with extension of .php. This .php file is ready to

execute from Webserver and generate response to client machine.

3. Embed PHP in HTML :

(i) PHP script can be written in side of HTML code and save the file with extension of .php.

(ii) The embedded PHP file get executed in the Webserver, the browser receives only the HTML and other client side files.

(iii) None of the raw PHP code is visible in browser which means that PHP interpreter produces raw HTML files to browsers in the client machine.

3. Explain the process of Webserver installation.

Ans. The following are the steps to install and configure Apache Httpd Webserver and PHP module in windows server machine.

(i) Step 1: Go to Apache foundation Website and download the Httpd Webserver Software.

https://httpd.apache.org/download.cgi

(ii) Step 2: After downloading .MSI file from Apache foundation Website, user launches the .MSI file and clicks next and next button to finish the installation on server machine. The software takes default port number 130 or 130130. Once the user finished, the Web server software is installed and configured on server hardware machine as a service.

(iii) Step 3: To test the installation of Apache Httpd Webserver, enter the following URL from your Web browser which is installed in your client machine.

https://localhost:130/ or
https://localhost:130130

The output page that says "Its works"

(iv) Step 4: Administrator user can start, stop and restart the Web server service at any time via windows Control panel. Once the services stops, the client machine will not receive the response message from server machine.

(v) Step 5: Webserver's configuration setting file "httpd.conf" is located in the **conf** directory under the apache installation directory. Edit this file and enable the PHP module to run PHP scripting language.

4. Discuss in detail about PHP data types.

Ans. PHP scripting language supports 13 primitive data types. Data Types plays important role in all programing languages to classify the data according to the logics. PHP supports the following data types.

- **(i)** String
- **(ii)** Integer
- **(iii)** Float
- **(iv)** Boolean
- **(v)** Array
- **(vi)** Object
- **(vii)** NULL
- **(viii)** Resource

String : String is a collection of characters within the double or single quotes like "Computer Application" or 'Computer Application'. Space is also considered as a character.

Example:
```php
<?php
$x = "Computer Application!";
$y = 'Computer Application';
echo $x;
echo "<br>";
echo $y;
?>
```

Integer: Integer is a data type which contains non decimal numbers.

Example:
```php
<?php
$x = 59135;
var_dump($x);
?>
```

The var_dump() system define function, returns structured information (type and value) about variables in PHP.

Float: Float is a data type which contains decimal numbers.

Example:
```php
<?php
$x = 19.15;
var_dump($x);
?>
```

Boolean: Boolean is a data type which denotes the possible two states, TRUE or FALSE

Example:
```php
<?php
$x = true;
$y = false;
echo $x;
echo $y;
?>
```

Array: Array is a data type which has multiple values in single variable.

Example:
```php
<?php
$cars=array("Computer","Laptop","Mobile");
var_dump($cars);
?>
```

OUTPUT:
array(3) { [0]=> string(5) "Computer" [1]=> string(3) "Laptop" [2]=> string(6) "Mobile"}

Var_dump: The var_dump() function is used to dump information about a variable. This function displays structured information such as type and value of the given variable. Arrays and objects are explored recursively with values indented to show structure.

Object: PHP object is a data type which contains information about data and function inside the class.

```php
<?php
class School {
    function marks() {
        $this->sec = "A";
    }
}
// create an object
$school_obj = new School ();
// show object properties
echo $school_obj ->sec;
?>
```

NULL: Null is a special data type which contains a single value: NULL

```php
<?php
$x = "COMPUTER APPLICATION!";
$x = null;
var_dump($x);
?>
```

OUTPUT:
NULL

Resources : Resource is a specific variable, it has a reference to an external resource. These variables hold specific handlers to handle files and database connections in respective PHP program.

```php
<?php
// Open a file for reading
$handle = fopen("note.txt", "r");
var_dump($handle);
echo "<br>";
```

Introduction to Hypertext Pre-Processor

```
// Connect to MySQL database server with
default setting
$link = mysql_connect("localhost", "root",
"");
var_dump($link);
?>
```

5. Explain operators in PHP with example.

Ans. Operator is a symbol which is used to perform mathematical and logical operations in the programing languages. Different types of operator in PHP are:

(i) Arithmetic operators,
(ii) Assignment operators,
(iii) Comparison operators,
(iv) Increment/Decrement operators,
(v) Logical operators, and
(vi) String operators.

Arithmetic operators : The arithmetic operators in PHP perform general arithmetical operations, such as addition, subtraction, multiplication and division etc.

PHP Arithmetic operators		
Symbol	**Operator Name**	**Purpose**
+	Addition	This operator performs the process of adding numbers
–	Subtraction	This operator performs the process of subtracting numbers
*	Multiplication	This operator performs the process of multiplying numbers
/	Division	This operator performs the process of dividing numbers
%	Modulus	This operator performs the process of finding remainder in division operation of two numbers

Assignment Operators: Assignment operators are performed with numeric values to store a value to a variable. The default assignment operator is "=". This operator sets the left side operant value of expression to right side variable.

PHP Assignment operators		
Assignment	**Similar to**	**Description**
x = y	x = y	This operator sets the left side operant value of expression to right side variable
x + = y	x = x + y	Addition
x - = y	x = x – y	Subtraction
x * = y	x = x * y	Multiplication
x / = y	x = x / y	Division
x % = y	x = x % y	Modulus

Comparison Operators: Comparison operators perform an action to compare two values. These values may contain integer or string data types (Number or Strings).

PHP Comparison operators			
Symbol	**Operator Name**	**Symbol**	**Operator Name**
= =	Equal	>	Greater than
= = =	Identical	<	Less than
!=	Not equal	>=	Greater than or equal to
<>	Not equal	<=	Less than or equal to
!= =	Not identical		

Increment and Decrement Operators: Increment and decrement operators are used to perform the task of increasing or decreasing variable's value. This operator is mostly used during iterations in the program logics.

PHP Increment and Decrement operators

Operator	Name	Description
++$x	Pre-increment	Increments $x value by one, then returns $x
$x++	Post-increment	Returns $x, then increments $x by one
--$x	Pre-decrement	Decrements $x by one, then returns $x
$x--	Post-decrement	Returns $x, then decrements $x by one

Logical Operators: Logical Operators are used to combine conditional statements.

PHP Logical operators

Symbol	Operator Name	Example	Result
&&	And	$x && $y	True if both $x and $y are true
||	Or	$x || $y	True if either $x or $y is true
!	Not	!$x	True if $x is not true
xor	Xor	$x xor $y	True if either $x or $y is true, but not both

String Operators : Two operators are used to perform string related operations such as Concatenation and Concatenation assignment (Appends).

PHP String operators

Operator	Name	Example	Result
.	Concatenation	$text1 .$ text 2	Concatenation of $txt1 and $txt2
.=	Concatenation assignment	$text1 .=$ text2	Appends $txt2 to $txt1

ADDITIONAL QUESTIONS AND ANSWERS

CHOOSE THE CORRECT ANSWER   1 MARK

1. **Who introduced the concept of Internet and world wide web?**
   (a) Bill gates   (b) Tim Berners Lee
   (c) Jame Gonsling   (d) Dennis Ritchie
   [Ans. (b) Tim Berners Lee]

2. **WWW expansion is**
   (a) World Wide Web
   (b) World Web Wide
   (c) Wide World Web
   (d) Web World Wide
   [Ans. (a) World Wide Web]

3. **Which is one of the most widely used and recognizable technologies in use on the internet?**
   (a) MySQL   (b) SQL
   (c) PHP   (d) HTML
   [Ans. (c) PHP]

4. **Which of the following is a fundamental part of any dynamic webpage?**
   (a) SQL   (b) HTML
   (c) Pagemaker   (d) PHP
   [Ans. (d) PHP]

5. **Which one of the following is the important server side web and general purpose scripting language?**
   (a) Javascript   (b) PHP
   (c) VB script   (d) SQL
   [Ans. (b) PHP]

6. **PHP invented by**
   (a) Tim Berner's Lee   (b) Dennis Ritchie
   (c) Rasmus Lerdorf   (d) Ken Thomson
   [Ans. (c) Rasmus Lerdorf]

Introduction to **Hypertext Pre-Processor**

7. PHP invented in the year
(a) 1991 (b) 1992
(c) 1993 (d) 1994

[Ans. (d) 1994]

8. CSS expansion is
(a) Cascading Style Sheets
(b) Cascading Side Sheets
(c) Consolidated Style Sheets
(d) Compiled Style Sheets

[Ans. (a) Cascading Style Sheets]

9. Which of the following is a server side scripting language?
(a) CSS (b) Javascript
(c) PHP (d) Python

[Ans. (c) PHP]

10. Which of the following is a client side scripting language?
(a) PHP (b) CSS
(c) ASP (d) JSP

[Ans. (b) CSS]

11. JSP stands for
(a) Java Script Page (b) Java Server Page
(c) Java Sheet Page
(d) Java Server Processor

[Ans. (b) Java Server Page]

12. CGI stands for
(a) Common Gateway Interface
(b) Consistency Gateway Interface
(c) Common Gateway Information
(d) Common Gateway Intelligent

[Ans. (a) Common Gateway Interface]

13. In Microsoft IIS, IIS stands for
(a) Internet Information Server
(b) Information Internet Server
(c) Internet Information System
(d) Internet Information Script

[Ans. (a) Internet Information Server]

14. Which of the following is not a webserver?
(i) Apache Tomct (ii) PHP
(iii) Microsoft ISS
(iv) Active Server Pages
(a) i and ii (b) ii and iii
(c) i and iii (d) ii and iv

[Ans. (d) ii and iv]

15. The current version of php is
(a) 3.7 (b) 7.3
(c) 8.7 (d) 7.4

[Ans. (b) 7.3]

16. Which of the following is a high performance hardware machine it could run more than one application concurrently?
(a) Client (b) Server
(c) CGI (d) JSP

[Ans. (b) Server]

17. Which is a hardware machine which connected with server in the network?
(a) IIS (b) Apache Tomcat
(c) Client (d) None of these

[Ans. (d) None of these]

18. How many classifications are their in client-server Architecture?
(a) 2 (b) 4 (c) 5 (d) 3

[Ans. (d) 3]

19. How many classifications are there in web scripting language?
(a) 2 (b) 3
(c) 4 (d) many

[Ans. (a) 2]

20. How many percentage of websites are running under the open source web servers?
(a) 100% (b) 110%
(c) 120% (d) 130%

[Ans. (d) 130%]

21. Which of the following is not a open source web servers?
(a) Apache Tomcat (b) Microsoft IIS
(c) Nginx (d) all of these

[Ans. (b) Microsoft IIS]

22. The process of web development includes
(a) Web content generation
(b) Web page designing
(c) Web site security (d) all of these

[Ans. (d) all of these]

23. How many types of PHP Syntax are available?
(a) 2 (b) 4 (c) 3 (d) 6

[Ans. (c) 3]

Chapter 4

24. Which of the following is not a type of PHP Syntax?
(a) Default Syntax   (b) Short open tags
(c) HTML script embed tags
(d) Script open Tags

[Ans. (d) Script open Tags]

25. The short open Tags begins with
(a) <?....?>   (b) <?php?>
(c) ?<....<?   (d) <!...!>

[Ans. (a) <?....?>]

26. The variable in PHP beging with
(a) @   (b) =   (c) !   (d) $

[Ans. (d) $]

27. The PHP statement always ends with
(a) :   (b) ;   (c) ,   (d) .

[Ans. (b) ;]

28. How many datatypes supported by PHP scripting language?
(a) 11   (b) 12   (c) 10   (d) 13

[Ans. (d) 13]

29. Which of the following datatype enclosed with in single or double quotes?
(a) Resource   (b) String
(c) Boolean   (d) NULL

[Ans. (b) String]

30. Non decimal numbers are called
(a) Float   (b) NULL
(c) Array   (d) Integer

[Ans. (d) Integer]

31. Which of the following is not a datatype?
(a) String   (b) Var-dump( )
(c) Array   (d) Resource

[Ans. (b) Var-dump( )]

32. Which of the following function returns structured information about variables in PHP?
(a) String ( )   (b) Variable ( )
(c) Var-dump( )   (d) dump-var( )

[Ans. (c) Var-dump ( )]

33. Which datatype contains decimal numbers?
(a) Float   (b) Integer
(c) NULL   (d) Array

[Ans. (a) Float]

34. Which datatype returns true or false?
(a) Boolean   (b) NULL
(c) Resource   (d) None of these

[Ans. (a) Boolean]

35. Which datatype have multiple values in single variable?
(a) NULL   (b) Resource
(c) Boolean   (d) Array

[Ans. (d) Array]

36. Which datatype contains information about data and function inside the class?
(a) Var-dump( )   (b) String
(c) Object   (d) NULL

[Ans. (c) Object]

37. Which of the following is a special datatype?
(a) Var-dump( )   (b) NULL
(c) Object   (d) String

[Ans. (b) NULL]

38. Which of the following variables handles files and database connections in respective PHP program?
(a) Var-dump( )   (b) Object
(c) NULL   (d) Resources

[Ans. (d) Resources]

39. Which operator finds remainder of two interger numbers?
(a) /   (b) ==   (c) %   (d) //

[Ans. (c) %]

40. Which operator denotes identical?
(a) ==   (b) =
(c) =+   (d) ===

[Ans. (d) ===]

41. Which of the following is not a logical operator?
(a) !   (b) XOR
(c) ¦¦   (d) .=

[Ans. (d) .=]

42. Which operator used for string concatenation?
(a) .   (b) :   (c) +   (d) :+

[Ans. (a) .]

43. Which operator appends string1 with string2?
(a) .   (b) .+   (c) .=   (d) ..

[Ans. (c) . =]

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Chapter 4

CHOOSE AND FILL IN THE BLANKS

1. _____ and _____ online applications are performing very important role in business and entertainment industry.
   (a) Internet, web based
   (b) Web based, scripting languages
   (c) HTML, PHP
   (d) None of these
   [Ans. (a) Internet, Web based]

2. PHP can easily embed with _____ and _____.
   (a) HTML, PHP   (b) HTML, CSS
   (c) ASP, PHP   (d) CSS, PHP
   [Ans. (b) HTML, CSS]

3. HTML stands for _____.
   (a) Hyper Text Marking Language
   (b) Hyper Text Marketing Language
   (c) Hyper Text Markup Language
   (d) Hyper Tags Markup Language
   [Ans. (c) Hyper Text Markup Language]

4. PHP interpreter module supported by _____ and _____ web servers.
   (a) Apache Tomcate, Microsoft IIS
   (b) Adobe, Windows
   (c) CGI, Windows
   (d) None of these
   [Ans. (a) Apache Tomcate, Microsoft IIS]

5. _____ introduces application sharing mechanism between two different hardware systems over the network.
   (a) Web server Architecture
   (b) Client-server Architecture
   (c) Both 'a' and 'b'
   (d) None of these
   [Ans. (b) Client-server Architecture]

6. Client side and server side are the classification of _____ .
   (a) Web scripting languages
   (b) PH scripting languages
   (c) SQL scripting languages
   (d) None of these
   [Ans. (a) Web scripting languages]

7. _____ are the storage location, which can store the values for the later manipulations in the program.
   (a) Constant   (b) Variable
   (c) Operator   (d) Literals
   [Ans. (b) Variable]

MATCH THE FOLLOWING

1.

A	%	(i)	Assignment operator
B	+=	(ii)	Increment operator
C	===	(iii)	Logical operator
D	++$x	(iv)	Arithmetic operator
E	Xor	(iv)	Comparison operator

	A	B	C	D	E
(a)	iv	i	v	ii	iii
(b)	iv	v	i	ii	iii
(c)	iv	i	v	iii	ii
(d)	i	iv	v	ii	iii

[Ans.(a) A – iv; B – i; C – v; D – ii, E – iii]

CHOOSE THE INCORRECT PAIR

1. (a) ==   – Equal
   (b) ===   – Identical
   (c) < >   – Not identical
   (d) !=   – Not equal
   [Ans. (c) < > – Not identical]

CHOOSE THE WRONG STATEMENT

1. (i) Variable name always begin with a = symbol
   (ii) Variable name can always starts with an alphabet
   (iii) Variable name are case sensitive
   (iv) Variable declaration requires datatype keyword separately
   (a) i, ii   (b) ii, iii, iv
   (c) ii, iv   (d) iii, iv
   [Ans. (c) ii, iv]

2. (i) PHP is an open source
   (ii) PHP is not a case sensitive
   (iii) PHP is a efficient programming language
   (iv) PHP is not a flexible programming language
   (a) i and ii   (b) ii and iv
   (c) ii and iii   (d) i and iv
   [Ans. (b) ii and iv]

SHORT ANSWERS   2 MARKS

1.   Write a note on PHP.

Ans. PHP is one of the most widely used and recognizable technologies in use on the internet. Originally PHP stood for "Personal Home Page", though more recently it has been changed to stand for "PHP: Hypertext Preprocessor". PHP is a fundamental part of any dynamic web page.

2.   How the PHP scripting language is executed?

Ans. PHP scripting language can be executed via an interpreter which is installed in the Webservers or CGI (Common Gateway Interface). The most of the Webservers such as Apache Tomcat, Microsoft IIS (Internet Information server) supports the PHP interpreter module.

3.   Name the web servers that supports PHP interpreter module.

Ans. (i)   Apache Tomcat
(ii)   Microsoft ISS

4.   Write the advantage of the PHP variable declaration.

Ans. The main advantage of the PHP variable declaration is, it does not requires to specify the data type keyword separately such as int, char, float, double or string etc.

5.   What is HTTP?

Ans. HTTP means HyperText Transfer Protocol. HTTP is the underlying protocol used by the World Wide Web and this protocol defines how messages are formatted and transmitted, and what actions Web servers and browsers should take in response to various commands.

6.   What is server?

Ans. A server is a computer or a device that provides functionality for other programs or devices, called "clients". This architecture is called the client server model, and a single overall computation is distributed across multiple processes or devices.

EXPLAIN IN BRIEF ANSWERS.   3 MARKS

1.   What is web scripting language? Write its advantage.

Ans. (i)   Internet and World Wide Web (WWW). Concepts required a new set of programming languages over the network communication.

(ii)   These programming languages are recently called as Web scripting languages.

(iii)   The Web scripting languages has many policies which is easy to handle and solve the critical business problems around the world.

2.   Write the classification of client server Architecture model.

Ans. Client server architecture classified into three types, as follows

(i)   Single Tier Architecture
(ii)   Two Tier Architecture
(iii)   N/Multi/Three tire architecture

3.   How PHP script works?

Ans. PHP Script works :

(i)   Website or Web page is developed by the programmer using PHP script. Finally the entire Website codes are moved to Web server path in a remote server machine.

(ii)   From client side, the end user opens a browser, types the URL of the Website or Webpage and initiates the request to remote server machine over the network.

(iii)   After receiving the request from client machine the Web server tries to compile and interpret the PHP code which is available in remote machine.

(iv)   Next a response will be generated and sent back to the client machine over the network from Webserver.

(v)   Finally the browser which is installed in the client machine receives the response and displays the output to user.

4.   Write the types of PHP syntax.

Ans. Three types of PHP Syntax are available. They are as follows

(i)   Default Syntax
(ii)   Short open Tags
(iii)   HTML Script embed Tags

5.   Write the basic rules for variable declaration.

Ans. Basic Rules for Variable Declaration :

(i)   Variable name must always begin with a $ symbol.
(ii)   Variable name can never start with a number.
(iii)   Variable names are case-sensitive.

Introduction to Hypertext Pre-Processor

## EXPLAIN IN DETAIL   5 MARKS

1. Explain types of client server Architecture model.

Ans. Client server architecture classified into three types, as follows
1. Single Tier Architecture
2. Two Tier Architecture
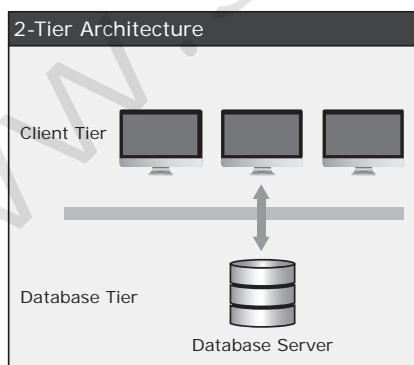3. N/Multi/Three tire architecture

Single Tier Architecture :

(i) This architecture is used for the server, accessed by client.

(ii) The client application runs inside the server machine itself.

(iii) This acts as a single layer interaction.
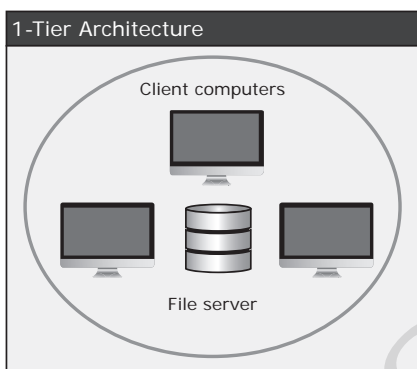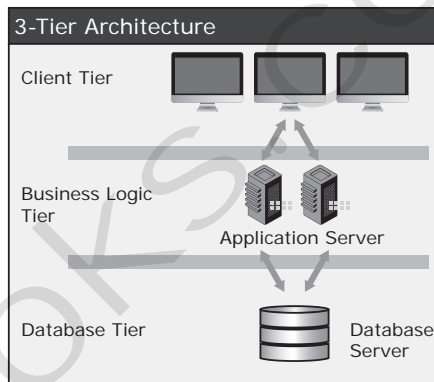

Single Tier Architecture

Two Tier Architecture :

(i) This architecture is used for the server, accessed by client as two layer interactions.

(ii) Such as Client layer in tire one and server layer in tire Two.

Two- Tier Architecture

N/Multi/Three tire architecture :

(i) This architecture is used for the server, accessed by client through more than one layer interaction.

(ii) The programmer could decide the count of business logic layers according to the software requirement that is the reason this model is also known as Multi Three Tire Architecture.

Multi/Three- Tier Architecture

(iii) Most of the server side scripting languages are working on any one the client server architecture model.

(iv) Webserver is software which is running in server hardware.

(v) It takes the responsibilities for compilation and execution of server side scripting languages.

2. Write the characteristics of PHP.

Ans. Characteristics of PHP :

(i) PHP is an Open Source

(ii) PHP is a Case Sensitive

(iii) PHP is a Simplicity Program language

(iv) PHP is a Efficiency Program language

(v) PHP is a Platform Independent Program language

(vi) PHP is a Security Program language

(vii) PHP is a Flexibility Program language

(viii) PHP is a Real-Time Access Monitoring Program language

☆☆☆

Chapter 4

CHAPTER

5

PHP FUNCTION
AND ARRAY

CHAPTER SNAPSHOT