

QB365 Question Bank Software Study Materials

Multimedia and Desktop Publishing Important 2,3 & 5 Marks Questions With Answers (Book Back and Creative)

12th Standard

Computer Technology

Total Marks : 75

2 Marks

10 x 2 = 20

1) Define Multimedia and their features.

Answer : (i) Multimedia allows the users to combine and change data from various sources like image, text, graphics, video, audio and video to a single platform.

(ii) The fast growing of multimedia technology over the last decade has brought a lot of changes to computing, entertainment and education.

2) Classify the TEXT component in multimedia.

Answer : (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.

3) Classify the IMAGE component in multimedia.

Answer : (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.

4) Define Animation and their features.

Answer : (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.

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

5) List out image file formats.

Answer : Compression formats used for this purpose are GIF, TIFF and JPEG.

6) List out audio file formats.

Answer : (i) AIFF (Audio Interchange File Format),

(ii) WMA (Windows Media Audio),

(iii) RA (Real Audio Format),

(iv) WAV (Waveform Audio File Format),

(v) MP3 (MPEG Layer-S Format)

7) List out video file formats.

Answer : (i) AVI (Audio Video Interleave),

(ii) MPEG (Moving Picture Experts Group)

8) Define Multimedia Production.

Answer : Adequate time and efficient planning is required for multimedia production, which assures that the project will be proceed smoothly and certainly ensures that the information reaches the target audience.

9) What Are Multimedia Software's?

Answer : The software used to create multimedia experiences can be placed into 3 distinct categories:

- (i) Audio Software
- (ii) Graphics Software
- (iii) Video Software

10) What Is The Arc In Animation?

Answer : The arc is known as a curve which determine the poses of the character, it is the most important concept for animation.

3 Marks

10 x 3 = 30

11) Briefly explain about Multimedia Components.

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

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.

Static Text:

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

Hypertext:

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

12) Describe the features and techniques of animation.

Answer : Animation is the process displaying still images so quickly so that they give the impression of continuous movement.

- (i) 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 at least 25 frames per second.
- (iv) Animations may be in two or three dimensional.
- (v) The two dimensional animation, bring an image alive, that occur on the flat X and Y axis of the screen.
- (vi) While in three dimensional animation it occurs along the three axis X, Y and Z. Animation tools are very powerful and effective.
- (vii) The two basic types of animations are Path animation and Frame animation.

13) Write roles and responsibilities of Production team members.

Answer : 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.

14) Describe the various file formats in multimedia.

Answer : 1. WAV (Waveform Audio File Format)

2. MP3 (MPEG Layer-3 Format)

3. AVI (Audio/Video Interleave)

4. MPEG (Moving Picture Experts Group)

5. AIFF (Audio Interchange File Format)

6. Rich Text Format

15) Explain animation industry and their scope.

Answer : Animation is the process displaying still images so quickly so that they give the impression of continuous movement.

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

(ii) Animation tools are very powerful and effective.

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

16) What Are Wmv Files?

Answer : WMV (Windows Media video) is a generic name for video encoding solutions developed by Microsoft.

(i) The format is a part of the Windows Media framework that also includes formats like Windows Media Audio (WMA), Advanced Systems Format (ASF) and High Definition Photo (HDP).

(ii) WMV files use the Microsoft container format and represent Microsoft's own version of MPEG-4 (Part 2) video encoding technology.

17) How Are Projector lumens Measured?

Answer : Lumens are, extremely important when choosing a projector because you will want a bright, sharp image to be displayed.

(i) The brighter the image, usually the sharper the contrast will be.

(ii) Lumens are extremely important due to the fact that projectors with lower Lumens require ambient lighting to be low.

(iii) In addition, less lumens generally means the projector will need to be closer to the screen.

(iv) These two factors have obvious consequences for many conference rooms, classrooms, lecture halls and home theatre set ups.

18) What Is An Hdmi Optical Switch?

Answer : (i) HDMI stands for High Definition Multimedia Interface.

(ii) HDMI is an audio video interface that is used to transmit both digital audio and video streams of data which are uncompressed and encrypted.

19) Explain What Is Graphics?

Answer : (i) The combination of picture, images, text & colors that gives us any type of information is called graphics.

(ii) It is printable. Exp. Hording, banner, logo.

20) What Is Phishing?

Answer : (i) Phishing is a form of fraud.

(ii) Phishers pose as legitimate organizations in an email, over the phone, in person, on a website, or in a pop-up window to get you to disclose personal information, such as your credit and debit card numbers, account passwords, or Social Security number.

5 Marks

5 x 5 = 25

21) Explain in detail Process of Multimedia.

Answer : 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.
- (iii) The specific statements in the project is known as the objectives.
- (iv) Activities are series of actions performed to implement an objective.
- (v) These activities contribute to the Project design phase.

3. Pre-production:

- (i) Based on the planning and design, it is necessary to develop the project.
- (ii) The following are the steps involved in pre-production:

4. Budgeting:

- (i) 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 highend multimedia project requires a team efforts,
- (ii) The team comprises of members playing various roles and responsibilities like Scriptwriter, Production manager, Editor, Graphics Architect, Multimedia Architect and Web Master.

22) Explain in detail Techniques of Animation.

- Answer :**
- (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. 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 at least 25 frames per second.
 - (iv) Animations may be in two or three dimensional.
 - (v) The two dimensional animation, bring an image alive, that occur on the flat X and Y axis of the screen.
 - (vi) While in three dimensional animation it occurs along the three axis X, Y and Z. Animation tools are very powerful and effective.
 - (vii) 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:

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

23) Explore the opportunities Animation filed movie industry.

- Answer :**
- (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) Movies are stored in a central server and transmitted through a communication network.
 - (v) A set-top box connected to the communication network converts the digital information to analog signals and inputs it to the television set.

24) Explain in detail about production team Roles and Responsibilities.

Answer : (i) Managing team members in a way to get maximum outcome with high degree of efficiency is mandatory in multimedia production.

(ii) The fine quality high-end multimedia production application requires a specialize team comprises of the following members:

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:

(i) 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:

(i) 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.

Computer Programmer:

(i) The computer programmer writes the lines of code or scripts in the appropriate language.

(ii) These scripts usually develops special- functions like developing the software to give the size and shape of video windows, controlling peripherals and so on.

Web Master:

(i) The responsibility of the web master is to create and maintain an Internet web page.

(ii) They converts a multimedia presentation into a web page.

(iii) Final multimedia product is ready for consultation is a joint effort of the entire team.

(iv) Initially, the production manager identifies the project content, while the web master provides access to a wide range of community through web-services.

25) Explain about different file formats in multimedia files.

Answer : The following is an outline of current file formats used for the production and delivery of multimedia data.

Text Formats:

RTF

(i) 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. Commonly used are Notepad (Windows), Gedit or nano (Unix, Linux), TextEdit (Mac as X) and so on.

(ii) Other computer programs are also capable of reading and importing plain text. Plain text is the original and popular way of conveying an e-mail.

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.

BMP (Bitmap)

(i) Initially this format is in use with Windows 3.1. It is quite large and uncompressed and hence BMP is used for the high-resolution or large images.

DIB (Device Independent Bitmap)

(i) 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.

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

JPEG (Joint Photographic Experts Group)

(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.

TGA (Targa)

(i) 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 streamable with a best display option.

Digital Audio File Formats:

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)

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

WMA (Windows Media Audio)

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

RA (Real Audio Format)

(i) Real Audio format is designed for streaming audio over the Internet.

(ii) The digital audio resources are usually stored as a computer file in computer's hard drive or CD/DVD.

Besides the variety of audio file formats available, the most common formats are wave files (.WAV) and MPEG Layer-3 files (.MP3), WMA and RA.

Digital Video File Formats

AVI (Audio/Video Interleave)

- (i) AVI is the video file format for Windows.
- (ii) 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) 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. Simply MPEG is the standards for digital video and audio compression.