Ch animation

Q1: What is animation?
- ✓ It is defined as the business that brings static presentations to life. It is a visual change over time and can add significant strength to multimedia projects and web pages.

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Q2: What are you interested in animation?
- ✓ The visual or aesthetic side of the project.

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Q3: What is animation?
- ✓ An object that moves across, in, or out of the screen

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Q4: Why is animation possible?
- ✓ Because of a biological phenomenon known as persistent vision and a psychological phenomenon called phi.

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Q5: What is done in the animation?
- ✓ A series of images are quickly changed to create the illusion of motion.

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Q6: When images are gradually and rapidly changed, it is seen that?
- ✓ The compass arrow on it rotates.

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Q7: How do you make an object move across the screen while changing its shape?
1. Simply change the shape and move, or translate, a few pixels per frame.
2. Then, when you play back the frames more quickly, the changes blend together and you get movement and animation.

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Q8: what is Principles of Animation?
1. Television video creates 30 frames per second
2. Movies are shot at a rate of 24 frames per second and replayed at 48 frames per second
3. Both are used to create motion and animation
4. Persistence of Vision-biological phenomenon-an object seen by the human eye remains mapped on the retina for a brief time after viewing.
5. Causes the visual illusion of movement, when images change slightly and rapidly

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Q9: how Animation can be rendered?
1. 2-D space - 2-D animations are very simple and static.
2. 2½-D space - An illusion of depth is created through shadowing, highlighting, and forced perspective, though in reality, the image rests in two dimensions.
3. 3-D space - Complicated and realistic animations are done in 3-D space.

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Q10: What happens in 2-D space?
1. The visual changes that make the image come alive occur on the flat Cartesian x and y axes of the screen.
2. Simple and static, it doesn't change its position on the screen: a blinking word, a color-rotating logo (where the image colors quickly change according to the formula), a cel animation, a button or tab that changes state on mouseover to let the user know it's active, they're all 2D Animation Examples.
3. Trajectory animation in two-dimensional space increases the complexity of the animation and provides movement, changing the location of the image along a predetermined path (position) within a specified period of time (velocity).
4. Authoring and presentation software such as Flash or PowerPoint provide user-friendly tools to compute position changes and redraw an image in a new location, allowing you to generate a bouncing ball or slide a corporate mascot onto the screen.
5. Combining changes in an image with changes in its position allows you to "walk" your corporate mascot onto the stage. Changing its size from small to large as it walks onstage will give you a 3-D perception of distance.

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Q11: What is added in 2½-D animation?
✓ The illusion of depth (the z-axis) is added to the image through shading and highlighting, but the image itself remains flat on the x and y axes in two dimensions. Embossing, shading, tilting, and highlighting provide a sense of depth by lifting or cropping an image in the background.

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Q12: What does he create in 3D animation?
✓ The software creates a virtual world in 3D (motion) changes computed along all three axes (x, y, and z), allowing the self-generated image or object with a front, back, sides, top, and bottom to move toward or away from the viewer, or in This virtual space of light sources and viewpoints, allowing the viewer to walk around and look at all parts of the object from all angles.

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Q13: How are these animations usually rendered frame by frame?
✓ With high-end 3D animation software such as NewTek's Lightwave or Autodesk's Maya.

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Ch animation

Q14:   What are the steps to follow in creating an animation?
1. Organize execution into a series of logical steps.
2. Choose the animation tool best suited for the job.
3. Build and modify sequences.
4. After the completed animation processing.

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Q15:   what is Animation Techniques?
1. Cel animation
2. Tweening

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Q16:   what is Cel animation?
✓ is a technique in which a series of progressively different graphics are used on each frame of movie film.

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Q17:   What was used to paint the tires?
1. Transparent celluloid sheets were used to paint each frame
2. (24 frames/sec x 60 sec/min) = 1440 separate frames are required to produce 1 minute of movie
3. The term "cel" derives from the transparent celluloid sheets that were used to line each frame. Cel animations start with keyframes (the first and last frame of the action).

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Q18:   What is the process by which the chain of frames between keyframes is drawn?
✓ Interstitial movement

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Q19:   what is Tweening?
✓ is an action that requires calculating the number of frames between keyframes and the path the action takes. Then, actually sketching with pencil the series of progressively different outlines. As Tweening progresses, the action sequence is checked by flipping through the frames. The penciled frames are assembled and then actually filmed as a pencil test to check smoothness, continuity, and timing.

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Q20: what is Principles of Computer Animation?
1. Based on the same model as Cel animation
2. Uses layers, keyframes, and tweening techniques
3. Inks special methods for computing RGB pixel values, providing edge detection and layering so that images can blend or produce transparencies, inversions and effects
4. Speed of the animation depends on computer;
5. If it is display is greater than 1/15 sec, animation may seem slow and jerky
6. Computer animation is very similar to Cel animation. The primary difference is in how much must be drawn by the animator and how much is automatically generated by the software.

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Q21: what is Kinematics?
✓ is the study of motion of jointed structures (such as a walking man).

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Q22: Animating a walking step is tricky and Complex-:
✓ you need to calculate the position, rotation, velocity, and acceleration of all the joints and articulated parts involved: knees bend, hips flex, shoulders swing, and the head bobs.

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Q23: what is provides a 3-D modeling program ?
✓ that provides preassembled adjustable human models (male, female, infant, teenage, and superhero) in many poses, you can pose figures in 3-D and then scale and manipulate individual body parts. Surface textures can then be applied to create muscle-bound hulks or smooth chrome androids

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Q24: what is Inverse kinematics?
✓ is the process of linking objects together and defining their relationships and limits and then dragging the parts and letting the computer calculate the result (for example, connecting hands and arms and bending the elbow in various directions)

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Q25: what examble a 3-D modeling program?
✓ Fractal Design's Poser

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Q26: what is Inverse kinematics available in high-end 3-D programs such as Lightwave and Maya?
✓ is the process by which you link objects such as hands to arms and define their relationships and limits (for example, elbows cannot bend backward). Once those relationships and parameters have been set, you can then drag these parts around and let the computer calculate the result.

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Q27:   what is Morphing?
- ✓ is the process of transitioning from one image to another. Transition not only between still images but often between moving images as well. Process involves connecting a series of key points, which are mapped from the start image to the end image to make a smooth transition

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Q28:   what is File Formats used in Animation?
1. AnimatorPro files. -.fli and .flc
2. 3D Studio Max files. - .max
3. SuperCard and Director files. - .pics
4. Flash files - .fla and .swf
5. Windows Media – .AVI, .ASF, or .WMV
6. Apple Macintosh QuickTime – .QT or .MOV
7. Motion Video – .MPG or .MPEG
8. Shockwave – .DCR
9. Animated GIF – .GIF
10. Director (dir) compressed into a Shockwave animation file (dcr) for the web
11. Compression for Director is 75%+ turning a 100k file into a 25k file

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Q29:   what is GIF89a file format?
- ✓ It is a version of the GIF image format.

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Q30:   what does allow GIF89a?
- ✓ allows multiple images to be put into a single file and then be displayed as an animation in the Web browser.

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Q31:   why Applications like BoxTop Software's GIFmation or ULead's GIF Animator are needed?
- ✓ to create GIF89a animation.

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Q32:   how to Making Successful Animations?
1. Use animation carefully and sparingly.
2. High quality animations require superior display platforms and hardware, as well as raw computing horsepower.
3. File compression is very important when preparing animation files for the Web.

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Q33:   what are Animation tools?
1. Director
2. Adobe GOLive
3. GIF animators

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Q34:   What does Bouncing Ball require?
1. Requires a series of rotations
2. A knowledge of physics (s= 1/2gt2)
3. Ball will uniformly accelerate and decelerate by squares 1,4,9,16,….

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Q35:   what does Software helps create objects?
1. A rolling ball
2. A bouncing ball
3. An animated scene

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Q36:   how to Creating an Animated Scene?
1. A background is chosen
2. "actor" is video taped running against a blue or green screen
3. A few frames of the running man are captured by a video capture board and the blue background is removed
4. Finally, the action is placed on the background…. And King Kong, or Jurassic Park is born

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