

Vidya Vikas Mandal's  
Shree Damodar College of Commerce & Economics, Margao-Goa  
SY B.Voc.(ST) Semester-III, Supplementary Examination June 2023  
Audio & Visual Media (STG302)

Duration: 2 Hours

Max Marks: 60

*Instructions: 1) Start each question on a fresh page.  
2) Figures to the right indicate Full Marks.  
3) All Questions are compulsory, however there are internal choices.*

**Q1) Answer any 5 of the following**

**(5 x 2 =10)**

- a) List the fundamental characteristics of sound
- b) Define the terms: Component video and Composite video.
- c) How would you describe sample rate and bit rate?
- d) What is audio coding? Why is it used?
- e) Which are the video broadcast standards?
- f) Define Frame rate and Resolution of a video
- g) What is the full form of DPCM and ADPCM?

**Q2) Answer any 5 of the following**

**(5 x 2 =10)**

- a) What is Path Animation?
- b) Define the terms: Persistence of vision and Breakdowns.
- c) Write the syntax to create an object instance in Action Script.
- d) Recall the different loops in Action Script
- e) What is timing and spacing in animation?
- f) What are the two benefits of solid modelling?
- g) Define Meshes and Splines.

**Q3) Answer the following**

**(2 x 5 = 10)**

- a) Calculate the bit rate and file sizes of the following audio files:
  - i. A 5 minute audio file 1, sampled at a frequency of 30.1 kHz and bit depth of 16 bit
  - ii. A 5 minute audio file 2 sampled at a frequency of 200 kHz and bit depth of 24 bit.(Assumption: 2-channel stereo audio)

**OR**

**(5)**

- b) Calculate the sampling frequency and bandwidth of the band-limiting filter if an analog signal containing components with the frequency values ranging from 20 hz to 7.5khz is to be sampled.

**(5)**

c) Compare and Contrast the difference between analog sound and digital sound. (5)

**Q4) Answer the following** (2 x 5 = 10)

a) Explain the guidelines for creating good titles in a video

**OR**

(5)

b) Discuss the concept of Blue Screen with examples.

c) Explain the working of analog video with a neat diagram (5)

**Q5) Answer the following** (2 x 5 = 10)

a) Explain the Squash and Stretch and Exaggeration principles with examples

**OR**

(5)

b) Discuss any two types of animation techniques

c) Explain how body language of a characters plays an important role in animation (5)

**Q6) Answer the following** (2 x 5 = 10)

a) Explain any two types of 3D Modelling

**OR**

(5)

b) Explain principles of 3D Modelling

c) Illustrate the concept of timeline navigation in Action Script using functions (5)

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