

# Roll No: -----UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

#### **End Semester Examination – December 2017**

Program/course: B.Tech CSE-Graphics and Gaming
Semester – III

Subject: Introduction to graphics and animation tools using OSS. Max. Marks : 100
Code : CSIB-285 Duration : 3 Hrs

No. of page/s: 2

**Note: All sections are compulsory.** 

Part-A (Attempt All)

Q1. Mention five application areas of digital image processing.

[5 Marks]

Q2. What is the difference between object mode and edit mode in Blender?

[5 Marks]

- Q3. Define the following terms:
  - **a.** Histogram
  - b. Monochrome [2.5+2.5=5 Marks]
- Q4. Differentiate between bitmap and vector images.

[5 Marks]

## Part-B (Attempt all)

Q5.

- **a.** In page layout technique, grids and templates play important role, discuss which one is more popular and suitable.
- **b.** Differentiate between Blender and Maya.

[5+5= Marks]

Q6. Describe the architecture of Raster scan display technique.

[10 Marks]

Q7. What are the various features available in the Blender? Mention various mesh options available under the MESH category.

[10 Marks]

Q8.

- a. Mention all the features and capabilities in GIMP, discuss the concept of Layers as well
- **b.** Write short note on Morphing, how it can be achieved in GIMP.

[5+5=10 Marks]

## Part-C (Attempt All)

# Q9. Write short note on:

- **a.** Movie sandbox
- **b.** Additive color theory
- c. Frame Buffer
- d. Extruding and Lathing

[4\*5=20 Marks]

## Q10.

- a. There are three objects available in the scene when Blender is open, mention all three of them. Discuss in detail the characteristics of all three. Differentiate between cycle render and blender render.
- b. Discuss the need for typefaces and type fonts, Differentiate between Times New Roman and Helvetica.

[12+8=20 Marks]





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Part-A (Attempt All)

Q1. Differentiate between the additive and subtractive color theory. [10 Marks]

Q2. Differentiate between calligraphy and penmanship. [5 Marks]

Q3. Define the following terms:

a. Wireframe

b. Typesetting [2.5+2.5=5 Marks]

#### Part-B (Attempt all)

- Q4. Mention all the features and capabilities in GIMP, discuss the concept of Layers as well. [10 Marks]
- Q5. Among all the interaction styles, which one is most suited for gaming industry? [10 Marks]
- Q6. Differentiate between lossless and lossy compression technique in images. [10 Marks]
- Q7. Draw the architecture of random scan, discuss how vector images are created in random scan and why they are superior to raster scan. [10 Marks]

## Part-C (Attempt All)

Q8.

- a. In order to have realistic effects and real imagery, number of polygons used in rendering should be very high. Justify the above statement with valid reasons.
- b. Differentiate between sans and Serif, mention which is used in recent designs. [10\*2=20 Marks]

Q9.

a. Discuss WIMP properties for user centric design.

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