Seat No: _____ **Enrollment No: _____**

PARUL UNIVERSITY

FACULTY OF ENGINEERING & TECHNOLOGY

B.Tech. Summer 2018 - 19 Examination

Semester: 8 **Date: 01/05/2019**
Subject Code: 03105483 **Time: 10:30am to 01:00pm**
Subject Name: Computer Vision **Total Marks: 60**

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 **Objective Type Questions** - (Fill in the blanks, one word answer, MCQ-not more than Five in case of MCQ) (All are compulsory) (Each of one mark) **(15)**

1. Full form of DCT.
2. RGB image cannot converted into Gray scale image . TRUE/FALSE.
3. Noise is Low frequency Component. TRUE/FALSE
4. Which is not image file format
   a).jpg (b) .jpeg (c) .tif (d) .mov
5. Full form of ANN.
6. Salt and Pepper noise cannot remove by low pass filter. TRUE/FALSE.
7. Histogram of the image use lesser number of bit to represent the image. TRUE/FALSE.
8. What is First order Derivative of Image
9. Difference between Image and Signal ?
10. Edges are _____ component of the Image.
11. Gaussian Filter is also known as _____.
12. Histogram of two different image can be same . TRUE/FALSE.
13. What is Binary Image.
14. Second Order Derivative is known as _____.
15. Video have _____ frame per second.

Q.2 Answer the following questions. (Attempt any three) **(15)**

A) What is noise ? Explain types of noise

B) What is Fourier Transform ? Which information Fourier Transform give and which information fourier transform not provide.

C) What is LOG? Explain with example.

D) What is DOG? Draw example of DOG

Q.3 A) Explain Background Subtraction Techniques. **(07)**

B) Short note on Adaptive Mean Background technique **(08)**

OR

B) Write a procedure to covert Non –recursive Background subtraction technique to Recursive Background Subtraction technique wiuth example. **(08)**

Q.4 A) Explain applications of Computer Vision. **(07)**

OR

A) What is the role of Neural Network in Computer Vision application. **(07)**

B) How many hidden layers allow in the Artificial Neural Network ? Justify with example. **(08)**