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GIET UNIVERSITY, GUNUPUR – 765022
M. Sc (Third Semester) Examinations, December' 2020
P-733 / PSPC303 – METABOLISM
(Plant Science)

Time: 2 hrs

Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)

- Q.1. Answer **ALL** the questions (2 x 10 = 20)
- a. What is the role of biotin in fatty acid synthesis?
 - b. What happens in excessive fatty acid oxidation?
 - c. What is the significance of Glutathione in plants?
 - d. Name few sulphur based secondary metabolites formed in plants.
 - e. Why are phosphate fertilisers inevitable for crops?
 - f. What is leghaemoglobin?
 - g. What are the end products of aerobic respiration?
 - h. What is the RQ of Glucose?
 - i. How are fatty acids in cytosol transported to mitochondria for catabolism?
 - j. What is omega oxidation?

PART – B (6 x 5 = 30 Marks)

Answer ANY FIVE questions

Marks

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| 2. Explain the steps involved in the conversion of acetyl coA to palmitic acid. | (6) |
| 3. Compare Beta oxidations that take place in mitochondria and peroxisomes | (6) |
| 4. Explain the process of sulphur uptake and transportation into plants. | (6) |
| 5. Explain the assimilation of sulphur in plants? | (6) |
| 6. Compare symbiotic and Free living Nitrogen fixation. | (6) |
| 7. Explain the process of Electron transport in plants. | (6) |
| 8. Explain Cyanide resistant. | (6) |
| 9. What is HMP Shunt? Explain the steps in detail. | (6) |

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