18BT34

Third Semester B.E. Degree Examination, Aug./Sept.2020 Introduction to Biomolecules

BATime: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

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|--|---|------------|---|--------------|
| completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. revealing of identification, appeal to evaluator and /or equations written eg, $42+8=50$, will be treated as malpractice. | | | Module-1 | |
| lpra | 1 | a. | What are Carbohydrates? Discuss about classification of Carbohydrates. | (10 Marks) |
| ma | 1 | b. | Write a note on Isomerism of Carbohydrates. | (10 Marks) |
| d as | | 0. | | |
| eate | | | OR | |
| es. Se tr | 2 | a. | What are Lipids? Write about properties and functions of Lipids. | (10 Marks) |
| pag vill l | | b. | What are Steroids? Explain biological role of cholesterol. | (10 Marks) |
| ank 0, w | | | | |
| g bl | | | What are Proteins? Write a note on i) Zwitton ions ii) P ^I . | (10 Marks) |
| inin 2+8 | 3 | a. | What are I lotellist write a note on 1) | (10 Marks) |
| g, 4 | | b. | Write an account on Ramachandran plot. | (20 112112) |
| ne re | | | OR | |
| on the | 4 | | Give detailed account on secondary proteins. | (10 Marks) |
| nes ns v | 4 | a. | Explain the structures of fibrous proteins: i) Collagen ii) Keratin. | (10 Marks) |
| ss lii atio | | b. | Explain the structures of horous proteins 1 37 | |
| cros | | | Module-3 | |
| i /or | 5 | a. | Write in detail about structure of DNA and functions. | (10 Marks) |
| iago ano | 5 | b. | Write an account on Hyperchromicity of DNA. | (10 Marks) |
| completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Trevealing of identification, appeal to evaluator and /or equations written eg, $42+8=50$, will be to | | | | |
| dra valu | | | OR | (10 Marks) |
| orily to e | 6 | a. | Write a note on: i) Types of RNA and ii) Ribose puckering. | (10 Marks) |
| ouls | | b. | Give an account on Clover leaf model of t - RNA. | (10 1111113) |
| oml | | | Madulo 4 | |
| rs, c ion, | | | Module-4 Francy flow evelo in Ricenergetics | (10 Marks) |
| swe | 7 | | Write an account on Energy flow cycle in Bioenergetics. | (10 Marks) |
| r an entil | | b. | Explain the structure and properties of ATP. | |
| you f id | | | OR | |
| ing ogu | 0 | 0 | What is Photographesis? Explain in detail about light reaction. | (10 Marks) |
| plet eali | 8 | a. b | . a 1 1 . O Discover sto importance in the HOW OI FIREIV | (10 Marks) |
| | | U | . What is coupled removed | |
| On (| | | Module-5 | 440 N.F N. |
| 1. 2. | 9 |) a | Write an account on structure and functions of Plasma membrane. | (10 Marks) |
| ote : | | b | Write a note on: | (10 Mayles) |
| Important Note: 1. | | | i) Active transport ii) Passive transport iii) Facilitated transport. | (10 Marks) |
| rtar | | | | |
| mpc | | | OR | mechanisms. |
| I | 1 | 0 a | . What is Signal transduction? Explain different modes of signal transduction | (10 Marks) |
| | | Te Control | Write an account on Action potential in the cell. | (10 Marks) |
| | | t | b. Write an account on Action potential in the cen. | |

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