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B.Sc./4th Sem (H)/NUTR/24(CBCS)

2024

4th Semester Examination

NUTRITION (Honours)

Paper : SEC 2-T

[CBCS]

Full Marks : 40

Time : Two Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

[Basic Molecular Biology]

Group - A

Answer any *five* questions : $2 \times 5 = 10$

1. Differentiate between purine and pyrimidine.
2. Define transcription.
3. Write any two features of genetic code.
4. Define anti-codon.
5. Define genomics and genetics.
6. What is metabolome?
7. What is post translation modification?
8. Write any two examples of restriction endonuclease.

P.T.O.

(2)

Group - B

Answer any **four** questions.

5×4=20

9. 'DNA is a genetic material.' — Justify the statement.
10. Write in brief the DNA double helical structure as per Watson and Crick model.
11. What is reverse transcription? Why metabolomic study is more reliable over genomic and proteomic study?
2+3
12. Briefly describe the process of replication in prokaryotes.
13. Write down the rho-dependent and rho-independent termination process of transcription. 2½+2½
14. Briefly write on different types of RNA and their function. 2+3

Group - C

Answer any **one** question.

10×1=10

15. Briefly describe the process of initiation and elongation of protein synthesis in prokaryotes.
16. 'RNA act as genetic material' — Justify the statement. What is proteomics? What are the applications of proteomic study?
5+2+3

(3)

OR

[Nutrition and Fitness]

Group - A

Answer any *five* questions.

2×5=10

1. Define fitness.
2. What do you mean by infection?
3. What is a physical activity pyramid?
4. What is $\dot{V}O_2$ max?
5. What is meant by fitness assessment?
6. What is the definition of endurance?
7. What is agility and why is it important?
8. What is a dietary supplement?

Group - B

Answer any *four* questions.

5×4=20

9. What types of food should a person eat before, during and after regular exercise?
10. What are the importance and benefits of physical activity?
11. What is the importance and benefits of the FITT (frequency, intensity, time and type) in doing exercise?

P.T.O.

(4)

12. What are the key guidelines for physical activity in India?
13. Why is proper nutrient balance important for fitness?
14. What is the role of nutritional supplements in health?

Group - C

Answer any *one* question.

10×1=10

15. What types of physical activity do older adults need to stay healthy? How would you apply the FITT Principle into a physically active lifestyle? What is the difference between moderate- and vigorous-intensity physical activities? 2+4+4
 16. What diet should be followed by a middle aged physically active person? What is the importance of diet and exercise for weight loss? 5+5
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(5)

OR

[Entrepreneurship Development]

Group - A

Answer any *five* questions.

2×5=10

1. Define entrepreneurship.
2. What is MSME?
3. What do you understand by project feasibility?
4. Define finance and revenue.
5. What is inventory management?
6. Differentiate market and marketing.
7. What is stock management?
8. What is international business?

Group - B

Answer any *four* questions.

5×4=20

9. What are the characteristics of a successful entrepreneur?
10. How will you promote entrepreneurship and SSI in India?
11. Describe the importance of finance for successful running of an enterprise.

P.T.O.

(6)

12. Write in short about 4P's of marketing.
13. How will you develop an international business?
14. How do market research and market survey help in managing marketing?

Group - C

Answer any *one* question. $10 \times 1 = 10$

15. Briefly describe the process of developing a food enterprise from the view point of improving the economic status of the community.
16. What is fixed capital management? How does institutional support help in international business? Briefly write the steps of applying a loan for financial support in an enterprise. $2+3+5$

(7)

OR

[Women Health and Nutrition]

Group - A

Answer any *five* questions.

2×5=10

1. What is antenatal care?
2. Write the normal weight gain noted during pregnancy.
3. How many extra calories does a woman need during pregnancy?
4. What are the dietary modifications required during pregnancy?
5. Write the main cause of pregnancy-induced hypertension.
6. How long should mother's breastfeed?
7. How to take care of nipples while breastfeeding?
8. What is galactagogues? Give one example.

1+1

Group - B

Answer any *four* questions.

5×4=20

9. Write the ideal antenatal visits schedule as per ICMR protocol.
10. Discuss the dietary guidelines for Indian pregnant woman.

P.T.O.

11. Write the recommended nutrients to be supplemented during pregnancy.
12. Describe the most common nutrient deficiency in pregnancy.
13. State the process for maintaining a healthy weight during pregnancy.
14. Discuss the nutritional problems related to iodine deficiency.

Group - C

Answer any *one* question.

10×1=10

15. What are the risks of adolescent pregnancy? What are some common complications of pregnancy? How to manage common problems during pregnancy? 3+3+4
 16. What are the infant and maternal benefits of breastfeeding? What is pica disorder and how will it affect pregnancy? 4+6
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