

(Abstract)

B.Sc. Food Technology Programme under Choice Based Credit and Semester System in OBE (Outcome Based Education) - Model Question Paper of Third semester- Approved w .e.f 2022 Admission - Orders issued.

ACADEMIC C SECTION

Acad/C2/16588/FT/2022

Dated: 14.10.2023

- Read:-1. U.O No.Acad/C2/16588/FT/2022 dated 31.12.2022.
2. U.O No. Acad/C2/16588/FT/2022 (I) dated 18.03.2023.
3. U.O No. Acad/C2/16588/FT/2022 dated 18.03.2023
4. U.O No. Acad/C2/16588/FT/2022 (II) dated 18.03.2023.
5. U.O No. Acad/C2/16588/FT/2022 dated 18.06.2023.
6. Letter dtd 23.09.2023, from the Principal , WMO Imam Gazzali Arts and Science College, Wayanad.

ORDER

1. As per paper read (1) above, the Scheme, Syllabus and pattern of Question Paper of Core, General awareness and Generic Elective Courses of B.Sc. Food Technology (LRP) Programme (CBCSS-OBE) was implemented w.e.f 2022 admission.
2. As per the paper read (2) above, certain modifications (Course Code correction and shifting of courses) were effected to the same.
3. Eligibility Criteria and Index mark calculation for admission to the aforesaid programme was implemented, as per the paper read (3) above.
4. The Scheme, Syllabus and the Pattern of Question Papers of the Complementary Elective Course (Chemistry) for the B.Sc Food Technology (LRP) programme under CBCSS-OBE w.e.f 2022 admissions was implemented, as per the paper read (4) above.
5. The Model Question Paper of IInd Semester was implemented vide the paper referred 5 above.
- 5.. As per the paper read (6) above, the Principal, WMO Imam Gazzali Arts and Science College submitted Model Question Paper for Third semester B.Sc. Food Technology Programme, for implementation w.e.f 2022 admission.
6. The Vice Chancellor after considering the matter in detail and in exercise of the powers of the Academic Council conferred Under section 11(1), Chapter III of Kannur University Act 1996, **accorded sanction to approve the Model Question Paper of Third semester Core Course of B.Sc. Food Technology Programme under CBCSS - OBE and to implement w.e.f 2022 admission.**
7. Orders are issued accordingly.

Sd/-

Narayanadas K
DEPUTY REGISTRAR (ACAD)
For REGISTRAR

To: The Principal
WMO Imam Gazzali Arts & Science College, Koolivayal, Wayanad

Copy To: 1. The Examination Branch (through PA to CE)

2. PS to VC/PA to PVC/PA to Registrar
3. DR/ARI Academic, EXCI/AR I/EG1 (Exam)
4. The Computer Programmer
5. Web manager (For uploading on the website)
6. SF/DF/FC

Forwarded/ By Order

Mahesh
SECTION OFFICER

A



III SEMESTER B.Sc. FOOD TECHNOLOGY EXAMINATION

GENERAL AWARENESS COURSE

3A01FT: ENTREPRENEURIAL DEVELOPMENT

Time: 3Hours

Mark : 80

PART A

Answer all questions. Each question carries 1 mark

1. SIDCO was established in the year
(a) 1996 (b) 1996
© 1975 (d) 1976
2. An individual who initiates, creates and manages a new business can be called as
(a) leader (b) Manager
© Entrepreneur (d) Professional
3. SIDBI was set up as a subsidiary of
(a) IFCI (b) ICICI
© IDBI (d) SFC
4. PERT stands for
(a) Programme Evaluation and Research Techniques
(b) Programme Evaluation and Review Techniques
© Project Evaluation and Research Techniques
(d) Project Evaluation and Review Techniques
5. Entrepreneurs are motivated by
(a) Money (b) Personal values
© Pull influences (d) All of the above
6. Write the full form of SIDBI
7. What do you mean by subsidy?
8. Expand KVIC
9. What is meant by feasibility analysis?
10. Give the full form of NIESBUD

(10 * 1 = 10)

PART B

Answer any 5 questions from the following. Each question carries 2 marks

11. Write any 4 features of entrepreneurship?
12. What are the major functions of SIDBI?
13. What do you mean by techno parks?
14. What do you mean by project management?
15. What do you mean by plant layout?
16. List out the functions of NSIC. (5 * 2 = 10)

PART C

Answer any 6 questions from the following. Each question carries 5 marks

17. What are the steps involved in project formulation, explain.
18. Explain the characteristics Of small scale industries
19. Explain the steps in establishing entrepreneurial system
20. Write a note on network techniques
21. What do you mean by subsidies? Explain its various types.
22. What are the main functions of DIC?
23. Explain the importance of entrepreneurship? (6 * 5 = 30)

PART D

Answer any 3 questions from the following. Each question carries 10 marks

24. What do you mean by entrepreneurship .Explain the various classifications of entrepreneurs.
25. Explain in detail the concept NIESBUD and its functions
26. Evaluate the basic problems faced by small scaie sector in India. Also suggest suitable remedies to solve such problems.
27. Discuss briefly about the institutions providing finance to small entrepreneurs.

(3 * 10 = 30)

THIRD SEMESTER B.Sc. FOOD TECHNOLOGY
CORE COURSE IN FOOD TECHNOLOGY
3B06FT : Food Chemistry and Nutrition
MODEL QUESTION PAPER

TIME: 3 Hours

Maximum :80 marks

PART - A

Answer every question. Each question carries one mark.

1. Expand PER.
 - a. Protein efficiency Ratio
 - b. Protein efficacy Ratio
 - c. Product efficiency Ratio
 - d. Product efficiency Rate
2. Expand PUFA.
 - a. Polysaturated fatty acids
 - b. Polyhydroxy fatty acids
 - c. Polyunsaturated fatty acids
 - d. Polyunsaturated fatty alcohols
3. Flavonoids are _____
 - a. Pigments
 - b. Stabilizers
 - c. Curing agents
 - d. Preservatives
4. NPR means:
 - a. Net Protein Ratio
 - b. Net Protein Rate
 - c. Null Protein Ratio
 - d. Null Protein Rate
5. RDA means:
 - a. Required daily allowance
 - b. Recommended Daily Allowance
 - c. Recommended dietary allowance
 - d. Required dietary Allowance
6. What are essential fatty acids?
7. Define Inversion.
8. What are pectic substances?
9. _____ are the properties of sucrose.
10. Define dietary fiber.

(10X1=10)

PART-B

Each question carries 2 marks. Answer any 5 questions.

11. What are emulsifiers ? Give an example.
12. Differentiate aldose and ketose sugar.
13. What is syneresis ?
14. What is a Balanced diet formulation?

15. Why are vitamins essential to maintain good health ?
16. Define gelatinization.

(5X2=10)

PART-C

Each question carries 5 marks. Answer any 6 questions.

17. Write the structure and functions of myoglobin.
18. State the physicochemical properties of protein.
19. Explain in detail the structure and physical properties of water.
20. What is Food fortification?
21. What are antioxidants?
22. Write a short note on the chemical properties of lipids.
23. Classify polysaccharides with suitable examples.

(6X5=30)

PART-D

Each question carries 10 marks. Answer any 3 questions.

24. Discuss the classification of carbohydrates with suitable examples.
25. What are enzymes ? Explain classification and action of enzymes.
26. What are the methods of moisture determination in foods?
27. What are food additives?

(3X10=30)

THIRD SEMESTER B.Sc. FOOD TECHNOLOGY EXAMINATION
GENERAL AWARENESS COURSE IN FOOD TECHNOLOGY
3A02FT PACKAGING

Time: 3hrs
Mark: 80

Answer every question. Each question carries one mark

- 1) Polysterene is used for.....
 - a) Acidic foods c) neutral food
 - b) Basic food d) All of the above
- 2) Which of the following metallic ions has a potential for antimicrobial effect and is used in active packaging?
 - a) Fe c) Ag
 - b) Na d) Mg
- 3) The packaging material used in flexible packaging are.....
 - a) Glass c) Metal
 - b) Aluminium foil d) folding carton
- 4) Packaging of food is a method of.....
 - a) Adulteration c) Preservation
 - b) Irradiation d) None of the above
- 5) Which of the following is used for primary packaging of butter?
 - a) Oiled Paper b) Kraft Paper
 - c) Wax Paper d) Parchment Paper
- 6) What is made by heating a mixture of silica, sodium carbonate and limestone at high temperature?
- 7) _____ is the most widely used inert gases in MAP.
- 8) The term plastic is derived from the term _____
- 9) What does the term plastikos mean?
- 10) Who is called the "father of canning"?

(1*10 = 10)

Answer any FIVE question. Each question carries TWO mark

- 11) Write about functions of packaging.
- 12) What are Retortable pouches? Where it is used.
- 13) Differentiate CAP and MAP.
- 14) State whether the following statements are true or false
 - a. Traditional packaging is more sustainable than edible packaging.
 - b. In MAP, the atmosphere inside the package is same as that of air.
 - c. MAP and CAP are the same packaging techniques.
 - d. In CAP, the internal atmosphere can be changed after final packaging of the product.
- 15) Explain levels of packaging.
- 16) Write about aseptic packaging.

(5*2 = 10)

Answer any SIX question. Each question carries FIVE mark

- 17) Write a note on packaging symbols and nutritional labelling
- 18) Expand the following
 - a. CAP
 - b. LDPE
 - c. PVC
 - d. CFB
 - e. PET
- 19) What is MAP
- 20) Explain about smart and active packaging.
- 21) Explain CFB.
- 22) Explain rigid, semi rigid and flexible packaging materials.
- 23) Differentiate shrink and stretch packaging

(6*5 = 30)

Answer any THREE question. Each question carries TEN mark

- 24) Why are plastic preferred for packaging material? Give 5 examples of plastic packaging and its applications
- 25) Explain paper manufacturing with different machines used.
- 26) Explain types and uses of glass and metal as packaging material.
- 27) What is packaging? Explain functions and properties of packaging.

(3*10 = 30)

THIRD SEMESTER B.Sc. FOOD TECHNOLOGY EXAMINATION

CORE COURSE IN FOOD TECHNOLOGY

3B04FT FOOD MICROBIOLOGY

Time: 3hrs

Mark: 80

Answer every question. Each question carries one mark

- 1) Organisms using chemicals as energy source.....
a) Chemotrophs c) Heterotrophs
b) Autotrophs d) Phototrophs
- 2) How are rod shaped bacteria called
a) Cocci c) spirochetes
b) Bacilli d) vibrio
- 3) The asexual method of reproduction
a) Budding c) Transformation
b) Conjugation d) Transduction
- 4) The method of reduction of microbial population is
a) Pour plate c) Streak plate
b) Stabbing d) serial dilution
- 5) The refractive index of oil is
a) 1.3 c) 2.3
b) 1.0 d) 0.9
- 6) The viral organism that affects bacteria is called.....
- 7) Isolation of organism from mixed culture is called.....
- 8) Bacteria that grows below 15⁰C are known as.....
- 9) Complete matured virus particle is termed as.....
- 10) Study of viruses is know as.....

(1*10 = 10)

Answer any FIVE question. Each question carries TWO mark

- 11) Dark field microscopy.
- 12) Streak plate technique.
- 13) What is gram staining?
- 14) What is resolution means?
- 15) State Koch's postulate.
- 16) How will you classify the microorganism based on their oxygen requirement?

(5*2 = 10)

Answer any SIX question. Each question carries FIVE mark

17) Match the following

- | | |
|------------------------|----------------|
| a. Mycotoxin | Virus |
| b. Primary stain | Blood agar |
| c. Counter stain | Crystal violet |
| d. Differential media | Methyl Green |
| e. Electron microscope | Fungi |

18) Explain transduction.

19) Explain structure of bacteria.

20) Write a short note on bacteriological media.

21) Write a short note on fungi.

22) Explain different types of reproduction methods of Bacteria?

23) Explain staining techniques

(6*5 = 30)

Answer any THREE question. Each question carries TEN mark

24) Explain Conjugation and transformation.

25) Explain any 3 types of microscope.

26) Write about contributions of 4 scientists in microbiology field.

27) Write about culture methods of isolating pure culture.

(3*10 = 30)

THIRD SEMESTER B.Sc. FOOD TECHNOLOGY EXAMINATION

CORE COURSE IN FOOD TECHNOLOGY

3B05FT FOOD SAFETY AND FOOD LAWS

Time: 3hrs

Mark: 80

Answer every question. Each question carries one mark

- 1) CODEX is a
 - a) mandatory standard
 - b) International Organization
 - c) Certification authority
 - d) National regulatory authority
- 2) certification is mandatory for packaged drinking water
 - a) FSSA
 - b) AGMARK
 - c) FDA
 - d) BIS
- 3) FDA is a regulatory agency of.....
 - a) India
 - b) UK
 - c) USA
 - d) China
- 4) FSSA constituted in the year.....
 - a) 2011
 - b) 2010
 - c) 2012
 - d) 2013
- 5) Example of high risk food.....
 - a) Rice
 - b) Jam
 - c) Cooked rice
 - d) Bread.

Expand the following

- 6) GMP
- 7) SOP
- 8) HACCP
- 9) AGMARK
- 10) FSSAI

(1*10 = 10)

Answer any FIVE question. Each question carries TWO mark

- 11) What is BIS? Name any two food products where its certification is mandatory.
- 12) Write about cost of poor hygiene.
- 13) Importance of food safety
- 14) What is High risk food and low risk food?
- 15) Define adulterant and contaminant as per FSSAI?
- 16) What is CIP?

(5*2 = 10)

Answer any SIX question. Each question carries FIVE mark

- 17) Explain ISO22000 and ISO 9001
- 18) What is GHP? Explain in brief.
- 19) How AGMARK is different from BIS.
- 20) What is HACCP? Explain steps in HACCP.
- 21) What is FPO?
- 22) Write a note on CAC & FAO
- 23) Write a note on prohibition orders in FSSAI

(6*5 = 30)

Answer any THREE question. Each question carries TEN mark

- 24) Write a note in hygiene and sanitation in food industry
- 25) What is FSSA? Explain function of FSSA in detail.
- 26) Explain in detail transformation of PFA act, to FSSA and it's advantageous.
- 27) Write about importance of personal hygiene in food industry.

(3*10 = 30)