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UG/5th Sem/Nut(H)/T/19

2019

B.Sc. (Honours)

5th Semester Examination

NUTRITION

Paper - DSE-2T

Full Marks : 60

Time : 3 Hours

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

[Quality Assurance in Food Sectors]

Group - A

1. Answer any *ten* questions from the following.

10×2=20

(a) What is ISO ? State its significance.

(b) What do you mean by food safety ?

[Turn Over]

(2)

- (c) What is food adulteration ?
- (d) Write any two applications of gas chromatography.
- (e) What is HPTLC ?
- (f) What is the difference between quality control and quality assurance ?
- (g) What is HACCP ?
- (h) Define antinutrient with example.
- (i) State the role of food inspector ?
- (j) What is good manufacturing practice ?
- (k) What do you mean by analysis in food industry ?
- (l) What is TQM ?
- (m) Write the name of any two methods for the determination of vitamin in food.
- (n) What are the methods of analysing protein and lipid in a food sample ?

(3)

(o) What is Primer dimer in PCR technique ?

Group - B

1. Answer any *four* questions from the following.

4×5=20

- (a) State the method and applications of GLP.
- (b) What are the physical parameter of food quality assessment ? Which aspects they are differed from sensory parameters ? 2+3
- (c) Write down the hierarchy of food safety authority.
- (d) Write a note on food additives.
- (e) What are the natural toxic compounds of food? State their effect. 2+3
- (f) Write the principle of ELISA test. State the difference between C-ELISA and S-ELISA. 2+3

[Turn Over]

(4)

Group - C

3. Answer any *two* questions from the following.

2×10=20

(a) State about the accreditation of food laboratory.
Why food analysis is needed ? 7+3

(b) What is food contamination ? Write in brief
about intentional and non-intentional
contamination of food. 2+(4+4)

(c) Write the working principle and applications of
the following : 5+5

(i) GC

(ii) PCR

(d) Write the role of report preparation in food
quality assessment. Mention the method by
which mineral and trace elements present in food
sample. Write in brief about FSSAI. 2+2+6

(5)

[Quality Control and Food Standards]

Group - A

1. Answer any *ten* questions from the following.

10×2=20

- (a) Write the principle of food sampling for quality analysis.
- (b) Write the major difference between routine and investigational sampling of food.
- (c) Mention the full form of SOP and GLP.
- (d) What do you mean by documentation of food sampling ?
- (e) What is the major objective of ISO ?
- (f) Write the full forms of GHP and GVP.
- (g) Mention the full forms of FSSAI and FSQ.
- (h) What do you mean by 'CODEX India' ?

[Turn Over]

(6)

- (i) What do you mean by SQF : 2000 ?
- (j) Write the full forms of HACCP and GAP.
- (k) What do you mean by ISO-9001 : 2000 ?
- (l) Write any two criteria of GMP.
- (m) What is 'CODEX standard' ?
- (n) Write the principle of HACCP.
- (o) Mention any one importance of sanitation in food service.

Group - B

2. Answer any *four* questions from the following.

4×5=20

- (a) Write in brief the sample collection technique for microbiological analysis of food.
- (b) State major functions of 'National Codex Committee of India'.

(7)

- (c) Describe in short 'HACCP based SOPs'.
- (d) Discuss the storage and distribution of food from the view point of GHP and GAP.
- (e) Write briefly the quality management of food as per ruler of ISO-2200.
- (f) Describe the guidelines and recommendations of CODEX commission.

Group - C

3. Answer any *two* questions from the following.

2×10=20

- (a) Write the principles adopted in GMP. Discuss the safety in food services covering 'Food Safety Regulation and Food Safety Management'. 4+6
- (b) What are the differences between hazard and risk ? Write the precautions to be followed while setting up the food processing unit. 5+5

[Turn Over]

(8)

- (c) Write the commodity specific food sampling procedure covering quantity of sample to be connected, packaging and sealing of sample.

5+2+2+1

- (d) Discuss the structure of HACCP, Pre-requisites and Principles for food quality maintenance.

4+3+3

[Food Quality and Sensory Evaluation]

Full Marks : 40

Time : 2 Hours

Group - A

1. Answer any *five* questions from the following.

5×2=10

- (a) What do you mean by 'Umami test' ?
- (b) What is 'e-tongue' ?
- (c) Write the names of any two colour abnormalities.
- (d) Define 'Reaction time' of taste stimuli.
- (e) What do you mean by texture ?
- (f) Write the names of any two taste abnormalities.
- (g) State the location of 'Salt' and 'Sour' taste sensation perception zone on tongue.
- (h) Write the basic difference between odour and flavour.

[Turn Over]

(10)

Group - B

2. Answer any *four* questions from the following.

4×5=20

- (a) Briefly describe the classification of texture. State the applied value of texture measurement of foods. 2+3
- (b) Describe in short the quality attributes of food.
- (c) Give a short account about the mechanism of taste perception.
- (d) Write the classification of odour in short. What is olfactory bulb ? 3+2
- (e) Describe the colour perception in brief.
- (f) Discuss the impact of colour of food on digestion and absorption. 3+2

(11)

Group - C

3. Answer any *one* question from the following.

1×10=10

- (a) State the role of receptor on perception of texture. Write the importance of texture on nutrient availability to cell. Write the phases of oral processing in connection to texture.
- (b) Describe the odour measurement technique by e-nose. State the merits and demerits of that method. Write in short about the olfactory abnormalities.

3+4+3
