

अन्न व प्रशासकीय सेवा मुख्य परीक्षा-2023 पेपर-II

दि. 10/02/2024
2023

V18



BOOKLET NO.

802276

Food and Drugs Administrative Services Paper – II

Time Allowed : Three Hours

Maximum Marks : 200

Medium : English

Type of Paper : Conventional

Question Paper Specific Instructions

Please read each of the following instructions carefully before attempting questions :

1. There are **EIGHT** questions divided in two Sections, out of which **FIVE** are to be attempted.
2. Questions no. 1 and 5 are compulsory. Out of the remaining questions, **THREE** are to be attempted choosing at least **ONE** question from each Sections.
3. The number of marks carried by a question/sub question is indicated against it.
4. Keep in mind the word limit indicated in the question if any.
5. Wherever option has been given, only the required number of responses in the serial order attempted shall be assessed. Unless struck off, attempt of a question shall be counted even if attempted partly. Excess responses shall not be assessed and shall be ignored.
6. Candidates are expected to answer all the sub-questions of a question together. If sub-question of a question is attempted elsewhere (after leaving a few page or after attempting another question) the later sub-question shall be overlooked.
7. Any page or portion of the page left blank in the Answer Booklet must be clearly struck off.
8. Unless otherwise mentioned, symbol and notation have their usual standard meanings. Assume suitable data, if necessary and indicate the same clearly.
9. Neat sketches may be drawn, wherever required.
10. The medium of answer should be mentioned on the answer book as claimed in the application and printed on admission card. The answers written in medium other than the authorized medium will not be assessed and no marks will be assigned to them.

Note – 1. Candidates will be allowed to use Scientific (Non-programmable type) calculators.

P.T.O.

SEAL



SECTION – A

Q1. Answer any five of the following.

- (a) Define the term food preservation and explain the principles involved in preservation of foods by pasteurization and freezing. 8
 - (b) What are the various steps involved in canning of mango pulp? 8
 - (c) Write down the classification of spices with examples. 8
 - (d) State the importance of meat tenderization and write the detail note on processing of fish. 8
 - (e) What do you understand by wheat milling? Explain the steps involved in milling of wheat. 8
 - (f) Enlist the anti-nutritional compounds present in legumes and oil seeds and describe in short the methods used for their removal. 8
 - (g) Define the term market milk and explain the various tests used for assessment of quality of raw milk. 8
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- Q2. (a) How will you classify the confectionary? Describe the processing steps involved in manufacturing of snacks by extrusion technology. 15
- (b) Enumerate various unit operations in food processing and explain the different equipments used in size reduction of food raw materials. 15
- (c) What are the mandatory and voluntary standards used for food products? Explain any two in detail. 10
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- Q3. (a) What do you mean by HPP? Describe the principles involved in preservation of foods by HPP with its advantages over the other preservation methods. 15
- (b) Define the term Post Harvest Technology and explain the various Post Harvest Technologies used for extension of shelf life of fruits and vegetables with suitable examples. 15
- (c) What are plantation crops? Highlight on the processing of turmeric into various value added products. 10
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- Q4. (a) What is NCCP? State the objectives of NCCP and explain the functions of National Codex Committee. 15
- (b) Justify the importance of soaking and sprouting of legumes with respect to nutritional quality. Write a note on refining of oils. 15
- (c) Define the butter and ghee and describe the pre-stratification method of ghee manufacturing. 10
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SECTION – B

Q5. Answer any five of the following.

- (a) State salient features of National Program for Organic Production. 8
 - (b) What do you understand by Genetically Modified Food (GM) ? State the merits and demerits of GM Foods. 8
 - (c) Define the term food irradiation and explain the potential uses of irradiation in food industry. 8
 - (d) What are the nutraceuticals ? State its packaging and labelling regulation as per FSSAI. 8
 - (e) What is food fortification ? State the importance of fortification with suitable examples. 8
 - (f) Enumerate the emerging processing techniques and describe any one with its principle. 8
 - (g) State the principle and applications of GC in food analysis. 8
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- Q6. (a) What is BIS ? State the objectives of BIS and explain the types of BIS certifications. 15
- (b) State the importance of CrPC and elaborate the provisions related to adulteration of food in Indian Penal Code (IPC). 15
- (c) Discuss on Essential Commodities Act. 10
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- Q7. (a) What are the rights of the consumer ? State the significance of Consumer Protection Act. 15
- (b) Define the term functional foods and explain the health benefits of plant and animal based functional foods with suitable examples. 15
- (c) Describe the various strategies used in food fortification with examples. 10
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- Q8. (a) What do you mean by cold plasma and microwave processing technology ? State their applications in food processing. 15
- (b) Discuss the structure and various activities of BIS. 15
- (c) What are the various spectroscopic techniques used in food analysis ? State the application of any one technique. 10
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