

ANNEXURE-III**TELANGANA STATE PUBLIC SERVICE COMMISSION: HYDERABAD****SCHEME AND SYLLABUS FOR THE POST OF FOOD SAFETY OFFICER IN
INSTITUTE OF PREVENTIVE MEDICINE AND GHMC****Scheme of Examination**

Written Examination (Objective Type)	No.of Questions	Duration (Minutes)	Maximum Marks
Paper-I: General Studies and General Abilities	150	150	150
Paper-II: Concerned Subject (Degree Level) Common for all	150	150	150
Total			300

Name of the Papers	Language of Examination
Paper-I: General Studies and General Abilities	Bilingual i.e., English and Telugu
Paper-II: Concerned Subject (Degree Level) : Common for all	English

SYLLABUS**Paper-I: General Studies and General Abilities**

1. Current Affairs – Regional, National and International
2. International Relations and Events.
3. General Science; India's achievements in Science and Technology
4. Environmental issues and Disaster Management
5. Economy of India and Telangana
6. Geography of India with a focus on Telangana
7. Indian Constitution and Polity with a focus on local self Government
8. Society, Culture, Heritage, Arts and Literature of Telangana
9. Policies of Telangana State
10. History of Modern India with a focus on Indian National Movement
11. History of Telangana with special emphasis on Movement for Telangana Statehood
12. Logical Reasoning, Analytical Ability and Data Interpretation
13. Basic English.

Paper-2: Concerned Subject (Common for All)

1. Food Chemistry

Carbohydrates -Structure and functional properties of mono, di & oligo-polysaccharides including starch, cellulose, pectic substances and dietary fiber; Proteins - Classification and structure of proteins in food. Lipids-Classification and structure of lipids, Rancidity of fats, Polymerization and polymorphism; Pigments-Carotenoids, chlorophylls, anthocyanins, tannins and myoglobin; Food flavours-Terpenes, esters, ketones and quinones; Enzymes-Enzymatic and non-enzymatic browning in different foods.

2. Food Microbiology, Hygiene & Sanitation

Characteristics of microorganisms-Morphology, structure and detection of bacteria, yeast and mold in food, Spores and vegetative cells; Microbial growth in food- Intrinsic and extrinsic factors, Growth and death kinetics, serial dilution method for quantification; Food spoilage- Contributing factors, Spoilage bacteria, Microbial spoilage of milk and milk products, meat and meat products; Food borne disease-Toxins produced by *Staphylococcus*, *Clostridium* and *Aspergillus*; Bacterial pathogens- *Salmonella*, *Bacillus*, *Listeria*, *Pseudomonas*, *Candida*, *Escherichia coli*, *Shigella*, *Campylobacter*; Food Hazards of natural origin - sea food toxins, biogenic amines, alkaloids, phenolic compounds, protease inhibitors and phytates.

Types of hazards, biological, chemical, physical hazards, importance of safe foods.

Principles and methods of food preservation.

Hygiene and sanitation in food sector - pest control measures, Garbage and Sewage disposal, Water - Sources, purification, Hazards Analysis & Critical Control Point (HACCP), Good Manufacturing Practices (GMP), Good Hygienic Practices (GHP), Good laboratory Practices (GLP).

3. Food Processing technology

Food processing- structure, composition, nutritional significance and types of processing methods for various categories of foods: Cereals (Rice-milling, parboiling, Barley- Pearling, malting, brewing, Corn- wet and dry milling, Wheat-milling, pulses (milling, germination, cooking, roasting, frying, canning and fermentation), and oil seeds (extraction and refining), Fruits & vegetables (canning, drying and dehydration, concentration, freezing, IQF, thawing and fermentation); plantation crops (primary and secondary processing of Tea, Coffee and Cocoa), Spices (Oleoresin and essential oil extraction), Meat, fish and poultry (ante mortem inspection, slaughtering and dressing, post mortem examination, canning, curing, smoking, freezing, dehydration and fermentation), eggs (quality inspection and dehydration) milk (receiving, separation, clarification, pasteurization, standardization, homogenization, sterilization, UHT and fermentation).

Unit operations of food processing - grading, sorting, peeling and size reduction.

Product development - Consumer trends and their impact on new product development; stages- to conceive ideas, evaluation of ideas, developing ideas into products, test marketing and commercialization; criteria for selection of raw materials, sensory evaluation, objective evaluation, standardization.

Types & functions of packaging materials including smart packaging and biodegradable materials used in foods. Packaging material as a threat, impact on health and controlling measures.

Surveys – types, sampling procedures for conducting surveys and for quality control.

4. Food Laws and Organizations

Laws and Regulations- Brief review of regulatory status in India before the advent of FSSAI: FPO, MMPO, MFPO, Prevention of Food Adulteration Act, Paradigm shift from PFA to FSSAI; Overview of Food Safety Standards Act 2006, Food Safety Standards Rules & Regulations, 2011 (Licensing and registration of food businesses, Food product standards & Additives, Packaging & labelling, Contaminants, toxins and residues, Laboratory and sample analysis, Prohibition and restriction on sales), Organizational hierarchy, Powers and duties of Food business Operator, Food Safety Officer, Designated Officer, Food Analyst; Food recall and Traceability, Other Acts: Essential commodities Act, Legal Metrology Act, AGMARK Codex Alimentarius - development and issue of standards, Committees under Codex, role in maintaining harmony in food standards.

National Organizations - Bureau of Indian Standards, ICMR, ICAR, NABL, Council for social welfare, Ministry of Health & Family Welfare - delivery Health Services in India.

Export and Quality Control through Export Inspection Council (EIC), APEDA and MPEDA. International Organizations FAO (Food & Agriculture Organization), WHO (World Health Organization), ISO, WTO, APLAC, ILAC.

5. Public & Occupational health and Nutrition

Public Health: Definition of Public Health and Associated Terms, Current Concerns in Public Health : Global and Local, Core functions and scope of public health, History of public health and evolution of Public Health, Concept of health and disease, Natural history of disease, Levels of prevention, Concept of health and disease, Natural history of disease, Determinants of health, Infectious Disease and Germ Theory, Introduction to public health ethics, Globalization and Health, Governance in Health, International Health Regulations, Indian Health Systems.

Occupational Health - health of workers in industries safety measures, occupational diseases. Nutrition- Assessment of nutritional status, Balanced diet, food sources of nutrients, essential vitamins, amino acids and fatty acids, their deficiency diseases and toxicity, PER, Recommended dietary allowances for various nutrients, Antinutrients, clinical and diet surveys.

Programmes on Nutrition in India (mid-day meals at schools, anganwadi systems, ICDS, NIDDCP, NNAPP, WIFS, National Food Security Mission, SABLA, FSSAI initiatives on food fortification, FFRC, FFWP, NPPNB due to VAD, NGCP).

ANNEXURE - IV

INSTRUCTIONS TO CANDIDATES:

A) GENERAL INSTRUCTIONS TO CANDIDATES

- 1) Candidates are directed to follow the Commission's Website (www.tspsc.gov.in) regularly to Know the latest developments regarding the Recruitment, dates of Examination, calling of candidates for verification of Certificates/ Interviews/ Results etc.
- 2) The candidates must note that his/her admission to the examination is strictly provisional. The mere fact that an Admission to the examination does not imply that his/her candidature has been finally cleared by the Commission or that the entries made by the candidate in his/her application have been accepted by the Commission as true and correct. The candidates have to be found suitable after verification of original certificates; and other eligibility criteria. The Applicants have to upload his/her scanned recent colour passport photo and signature to the Application Form. Failure to produce the same photograph, if required, at the time of interview/ verification, may lead to disqualification. Hence the candidates are advised not to change their appearance till the recruitment process is complete.
- 3) **The candidates are not allowed to bring any Electronic devices such as mobile / cellphones, Calculators, tablets, iPad, Bluetooth, pagers, watches to examination centre.** Loaning and interchanging of articles among the candidates is not permitted in the examination hall and any form of malpractice will not be permitted in the exam hall.
- 4) The candidates are expected to behave in orderly and disciplined manner while writing the examination. If any candidate takes away Answer Sheet of OMR based examination, the candidature will be rejected and in case of impersonation/ disorder/ rowdy behaviour during Examination, necessary F.I.R. for this incident will be lodged with concerned Police Station, apart from disqualifying his / her candidature.
- 5) Candidates trying to use unfair means shall be disqualified from the selection. No correspondence whatsoever will be entertained from the candidates.
- 6) The Penal Provisions of Act 25/97 published in the A.P. Gazette No. 35, Part-IV.B Extraordinary dated: 21/08/1997 shall be invoked if malpractice and unfair means are noticed at any stage of the Examination.

7) EDIT OPTION TO THE CANDIDATES (FOR 3 DAYS)

Candidates are directed to take note that, after last date of receipt of Applications, Edit option to the candidates will be allowed for three (3) days to make any corrections regarding their Biodata particulars/Data corrections/Omissions etc., in the Online application already submitted to the Commission. After the due date, Data corrections through Online/Paper representations/Corrections on the Nominal Rolls will not be accepted under any circumstances.

B) INSTRUCTIONS REGARDING OFFLINE OMR BASED EXAMINATION FOR CANDIDATES

- 1) The candidates have to report 30 minutes before to the examination venue to record their thumb impression on Biometric system.
- 2) The candidates should go through the instructions given on the cover page of test booklet and carefully write his/her Register Number, Subject / Subject Code, Booklet Series, Name of the Examination Centre etc., in the Answer Sheet, which will be provided to him/her in the examination hall.
- 3) Since the answer sheets are to be scanned (valued) with Optical Mark Scanner system, the candidates have to USE BALL POINT PEN (BLUE/BLACK) ONLY FOR MARKING THE ANSWERS. The candidates will be supplied OMR Sheet consists of two copies i.e., the Original Copy (Top Sheet) and Duplicate Copy (Bottom Sheet). The candidate is required to use Ball Point Pen (Blue or Black) for filling the relevant blocks in the OMR Sheet including bubbling the answers. **After writing the examination the candidate has to handover the original OMR sheet (Top Sheet) to the invigilator in the examination hall, if any candidate takes away the original OMR Sheet (Top Sheet) his/her candidature will be rejected. However the candidate is permitted to take away the duplicate (Bottom Sheet) OMR Sheet for his/her record.** The candidates should bring Ball Point Pen (Blue/Black and smooth writing pad) to fill up relevant columns on the Answer Sheet. The candidate must ensure encoding the Register Number, Subject/Subject Code, Booklet Series, Name of the Examination Centre, Signature of the Candidate and Invigilator, etc., on the O.M.R. Answer sheet correctly, failing which the Answer sheet will be rejected and will not be valued. **Use of whitener on OMR Sheet will lead to disqualification.**
- 4) The OMR Sheet is to bubble only by Ball Point Pen (Blue/Black). Bubbling by Pencil / Ink Pen / Gel Pen is not permitted in this examination.
- 5) The candidates should satisfy the Invigilator of his identity with reference to the signature and photographs available on the Nominal Rolls and Hall Ticket.
- 6) No candidate should leave the examination hall till expiry of fulltime.
- 7) The Commission would be analyzing the responses of a candidate with other appeared candidates to detect patterns of similarity. If it is suspected that the responses have been shared and the scores obtained are not genuine/ valid, the Commission reserves the right to cancel his/ her candidature and to invalidate the Answer Sheet.

- 8) (i) Wherever Written Examination is held, only those candidates who are totally blind are allowed to write the examination with the help of scribe and 10 minutes extra time is permitted to them per hour.
- (ii) An extra time of 20 minutes per hour is also permitted for the candidates with locomotor disability and CEREBRAL PALSY where dominant (writing) extremity is affected for the extent slowing the performance of function (Minimum of 40% impairment). No scribe is allowed to such candidates.
- (iii) Scribe will be provided to those candidates who do not have both the upper limbs for Orthopedically Handicapped. However, no extra time will be granted to them.
- (a) The scribe should be from an academic discipline other than that of the candidate and the academic qualification of the scribe should be one grade lower than the stipulated eligibility criteria.
- (b) The candidate as well as the scribe will have to give a suitable undertaking confirming the rules applicable

C) INSTRUCTIONS REGARDING ONLINE EXAMINATION FOR CANDIDATES

- 1) Candidates shall report at the venue one and half hour (90 minutes) before the Commencement of Examination as the candidates have to undergo certain procedural formalities required for online examination.
- 2) Date and Time of the Examination as per Hall-Ticket
- 3) The examination link with the login screen will already be available on your system. Please inform the invigilator if this is not the case.
- 4) 10 minutes prior to the exam, you'll be prompted to login. Please type the Login ID (Roll No) and the Password (Password for Candidate will be given on exam day) to proceed further.
- 5) Invigilator will announce the password at 09.50 AM and 02.20 PM.
- 6) Copying or noting down questions and/or options is not allowed. Severe action will be taken if any candidate is found noting down the questions and/or options.
- 7) After logging in, your screen will display:
 - *Profile Information - Check the details & click on "I Confirm" or "I Deny".*
 - *Detailed exam instructions - Please read and understand thoroughly.*
 - *Please click on the "I am ready to Begin" button, after reading the instructions.*
- 7) You have to use the mouse to answer the multiple choice type questions with FOUR alternative answers.
- 8) To answer any numerical answer type question, you need to use the virtual numeric key pad and the mouse.
- 9) On the online exam question screen, the timer will display the balance time remaining for the completion of exam.
- 10) The question numbers are color coordinated and of different shapes based on the process of recording your response:
 - *White (Square) - For un-attempted questions.*
 - *Red (Inverted Pentagon) - For unanswered questions.*
 - *Green (Pentagon) - For attempted questions.*
 - *Violet (Circle) - Question marked by candidate for review, to be answered later.*
 - *Violet (Circle with a Tick mark) - Question answered and marked by candidate for review.*
- 11) After answering a question, click the SAVE & NEXT button to save your response and move onto the next question.
- 12) Click on Mark for Review & NEXT to mark your question for review, and then go to the next question.
- 13) To clear any answer chosen for a particular question, please click on the CLEAR RESPONSE button.
- 14) A summary of each section, (i.e. questions answered, not answered, marked for review) is available for each section. You have to place the cursor over the section name for this summary.
- 15) In case you wish to view a larger font size, please inform the Invigilator. On the Invigilator's confirmation, click on the font size you wish to select. The font size will be visible on the top.
- 16) You may view INSTRUCTIONS at any point of time during exam, by clicking on the INSTRUCTIONS button on your screen.
- 17) The SUBMIT button will be activated after 150 Minutes. It will continue for an additional 50 Minutes for PWD candidate eligible for compensatory time. Please keep checking the timer on your screen.
- 18) In case of automatic or manual log out, all your attempted responses will be saved. Also, the exam will start from the time where it had stopped.
- 19) You will be provided a blank sheet for rough work. Do write your Login ID and Password on it. Please ensure that you return it to the invigilator at the end of the exam after tearing ONLY the password from it.
- 20) Please don't touch the key board as your exam ID will get locked. If your ID gets locked, please inform a nearby invigilator who will help in unlocking your ID and then you can continue with the exam.
- 21) Please inform the invigilator in case of any technical issues.
- 22) Please do not talk to or disturb other candidates.
- 23) In case you are carrying articles other than the admit card, photo identity proof and pen, please leave them outside the exam room.
- 24) You cannot leave exam room before submitting the paper. Please inform the invigilator if you want to use the wash room.