

ET-NO-4 (D)

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Government of India  
Department of Atomic Energy  
**Centralised Cadre Section**

Anushakti Bhavan,  
C.S.M. Marg,  
Mumbai- 400 001

No.19/2/2019-CCS/7568

June 19, 2019

**OFFICER MEMORANDUM**

Subject : Revision of syllabus for the written examination for post of  
Security Officer (Level 8 of Pay Matrix)..

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The syllabus and pattern of examination for the post of Security Officer was prescribed vide O.M. No. 26/3/2/95-CCS/256 dated 26.04.1996.

2. In the ever-changing security scenario, it was felt necessary to have revision in the syllabus to keep pace with major changes in the concept and philosophy of nuclear security and the related changes in other topics included in the old syllabus. In order to ensure selection of officers who will be fully competent to render effective support towards implementing the rules and policies of the Department, the existing syllabus for the Limited Departmental Examination for the post of Security Officer has been revised.

3. It was further felt that certain soft skills need to be developed for better professionalism in the contemporary areas of security functioning. Therefore, a few relevant topics of behavioural management are included in the revised syllabus of Paper-III. Study materials of these two topics (viz. Communication Skill and Conflict & Negotiation Management) are attached as **Annexure-A and B**. Units may arrange to distribute these study materials amongst the candidates appearing for the examination of Security Officer for their preparation. However, these study materials will not be allowed while writing examination.

4. The revised syllabus approved by the Competent Authority for various subjects for the Limited Departmental Examination for the post of Security Officer have been prescribed as per **Annexure-I to IV**.

**Encl : as above**

*Jayashree S.*  
(Jayashree S.)  
Under Secretary

**All Heads of Units of DAE**

Copy to : Inspector General(Security), DAE



Sr. No.	Main Topic	Sub-Topic	
1.	<b>Physical Protection Systems (PPS)</b>		
	<p>1.1</p> <p><b>PPS Objectives</b></p> <p><b>PPS Conventions &amp; Concepts</b></p> <p><b>Risk based PPS measures</b></p> <p><b>Graded approach</b></p> <p><b>PPS Functions:</b></p> <p><b>Sustainability of PPS regime</b></p>	<p>Protection against unauthorized removal/theft Locating &amp; recovering of missing nuclear/radioactive material. Protection against sabotage Mitigation or minimization of effects of sabotage</p> <p>Competent Authority, Responsibilities of the facility owners</p> <p>Threats definitions- Outsider, Insider, Capability of Adversary, Adversary Tactics</p> <p>Insider Threats- Personnel reliability program, Nu. Security Culture,</p> <p>Threats from sub-conventional platforms Threat from Water front</p> <p>Design Basis Threat (DBT),</p> <p>- risk reduction by</p> <ul style="list-style-type: none"> <li>• implementation of PPS</li> <li>• Increasing Effectiveness of PPS e.g. defense in depth, security culture</li> <li>• Reducing potential consequences of malicious acts</li> </ul> <ul style="list-style-type: none"> <li>• Theft of Nu. Material, Sabotage, Espionage, subversion,</li> <li>• Facility characterization</li> <li>• Security survey – Types &amp; Procedure,</li> <li>• Targets/Vital Area Identification,</li> <li>• Radiation Considerations and PPS</li> <li>• Interaction between PPS and radiation safety,</li> <li>• Unacceptable Radiological Consequences.</li> <li>• Security of Nuclear Material during transportation</li> </ul> <p>Overview of Design, Evaluation Process Outline (DEPO)</p> <p>Deterrence, Detection, Delay, Response, Interruption &amp; Neutralization.</p> <p>Major Aspects of effective PPS</p> <ol style="list-style-type: none"> <li>a. Balance Protection</li> <li>b. Protection in Depth</li> <li>c. Graded Approach</li> <li>d. Central Alarm System (CAS)/ Auxiliary Control Room (ACR)</li> <li>e. Security Culture</li> </ol> <ul style="list-style-type: none"> <li>• Quality Assurance</li> <li>• Confidentiality</li> </ul>	

			<ul style="list-style-type: none"> <li>• Standing Operating Procedure (SOP)</li> <li>• Security Audit</li> <li>• Vulnerability Test</li> </ul>	
	1.2	<b>PPS Measures</b>		
		<b>Intrusion Detection</b>	<p>Watch towers, Perimeter/outdoor &amp; Interior intrusion detection elements. False &amp; Nuisance Alarms, Importance of Probability of Detection</p> <p><b>Detection sensors-</b> Electric-fence, Vibration, RF-leaky cable, Optical fiber, Capacitive, Microwave &amp; passive &amp; active IR Sensors. Including defeating measures.</p>	
		<b>Assessment, Monitoring &amp; communication</b>	<p>Manual assessment verses CCTV camera. General area CCTV surveillance systems, Alarm assessment &amp; recording</p> <p><b>Security Lighting.</b></p> <p><b>Communication methods &amp; systems-</b> wireless, Telephone, flags etc., Distress/Duress Alarm systems, Security patrolling</p>	
		<b>Personnel Access Control</b>	<p>Personnel Access Control- Credential based, Bio-metric Access Control systems</p> <p>Key &amp; Lock Control/management systems- Manual &amp; Automated systems.</p>	
		<b>Material Access Control</b>	<p>Movement of Material, Special Items/ Computer/ Media Storage Device, Gate Pass, use of X-ray baggage scanners, DFMD&amp; HHMDs, Explosive detectors, use of Dog, SNM Monitors</p>	
		<b>Vehicle Access Control</b>	<p>Manual checking as per the security manual, Under Vehicle Scanners</p>	
	1.2.2	<b>Access Delay Elements</b>	<p>Concept of Delay, Delay in Depth</p> <p>Construction &amp; material used for Security Wall/fences, Gates, Doors.</p> <p>Applications of Delay Elements- Boom Barriers, Road Blockers, Tyre killers, Active / Passive Bollard, turnstile, Tube stile Gates, door locks, dispensable barriers.</p>	
	1.2.3	<b>Response Force Measures &amp; Devices</b>	<ul style="list-style-type: none"> <li>• Contingency Plan (objective, Type of Contingencies)</li> <li>• On –site and off-site Response Force</li> <li>• Interruption &amp; Neutralization probabilities</li> <li>• Bomb Incident Plan</li> </ul> <p>Day Vision &amp; Night Vision Devices, Security Communication devices methods, Security Morcha, self protecting devices, explosion suppression wells &amp; blankets Armored vehicle, Weapons etc.</p>	
	1.2.4	<b>Emergencies &amp; Their Management</b>	<p>Crisis to which DAE units are venerable, Key features of Crisis &amp; its impact, Crisis Management Group of DAE, Important Features of Crisis planning. Purpose &amp; modes of testing the plans, Review &amp; updating of Emergency plan, Emergency during transpiration of SNM, Dealing with Bomb threat &amp; Bomb Incident plan.</p>	
	1.2.5	<b>Security of DAE Residential Township</b>	<p>General concepts &amp; need, security survey, security measures for various facilities &amp; buildings, role of Private security agencies, screening of population around DAE residential township.</p>	

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PAPER - II *Syllabus for Security Officers Written Examination* 3 Hrs.

Sr. No.	Main Topic	Sub-Topic	Marks
1	<b>Bare Acts - Indian Penal Code (IPC)</b>		<b>100</b>
	<p>1.1 <b>General explanations</b></p> <p>1.2 <b>Offences against public tranquility</b></p> <p>1.3 <b>Offences relating to public servants</b></p> <p>1.4 <b>Public nuisance</b></p> <p>1.5 <b>Rash driving</b></p> <p>1.6 <b>Offences against human body</b></p> <p>1.7 <b>Offences against property</b></p>	<p>1. Section 6 to 52</p> <ul style="list-style-type: none"> <li>- Unlawful assembly Sec 141, 142, 145</li> <li>- Riot 146 to 148</li> <li>- Affray 159 160</li> </ul> <p>Sec. 161, 162, 163</p> <p>Sec 268</p> <p>Sec 279</p> <ul style="list-style-type: none"> <li>- Offences affecting life Sec 300, 302, 304A, 306 and 307</li> <li>- Hurt and grievous hurt Sec 319, 320, 323, 324, 325, 327, 328, 332, 333, 337, 338</li> <li>- Wrongful restraint Sec 339, 341</li> <li>- Wrongful confinement Sec 340, 342</li> <li>- Criminal force Sec 350</li> <li>- Assault Sec 351,</li> <li>- Assault or Criminal Force to deter public servant from discharge of his duty 353</li> <li>- Assault or Criminal Force to woman with intent to outrage her modesty Sec 354</li> <li>- Rape, Unnatural offence sec 375 to 377</li> <li>- Husband or relative of husband of a woman subjecting her to cruelty 498A</li> <li>- Word, gesture or act intended to insult the modesty of a woman 509</li> </ul> <ul style="list-style-type: none"> <li>- Theft 378 to 381</li> <li>- Extortion 383, 384</li> <li>- Robbery 390, 392</li> <li>- Dacoity 391</li> <li>- Criminal misappropriation of property 403</li> <li>- Criminal breach of trust : 405, 406, 408, 409</li> <li>- Criminal trespass: 441, 447</li> <li>- House Breaking 445</li> <li>- Forgery 463 to 476</li> </ul>	
2	<b>Cr.P.C.</b>		
		<ol style="list-style-type: none"> <li>1. Bailable and non-bailable offences</li> <li>2. Cognizable and non-cognizable offences</li> <li>3. Compoundable and Non-compoundable offences</li> <li>4. Complaint</li> <li>5. The requisites of complaint</li> <li>6. Investigation, Inquiry and trial</li> <li>7. FIR</li> <li>8. Police custody and jail custody</li> <li>9. Arrest by private person and procedure on such arrest</li> </ol>	

3	<b>Act of Laws &amp; Instructions</b>			
	3.1	Explosive Act	An overview	
	3.2	Foreigners Act	An overview	
	3.3	Information Technology Act	An overview	
	3.4	Right to Information Act	An overview	
	3.5	Atomic Energy Act	An overview	
	3.6	Official Secrets Act	An overview	
	3.7	Official Language Act	An overview ✓	
	3.8	Private Security Agency Regulation Act	An overview	
	3.9	Departmental Security Instructions	Introduction	
			Security of Information	
			Classification of documents	
			Preventive measures	
			Security of classified documents	
			Dispatch of documents	
			Movement within the building	
			Movement of document outside the premises of custody	
	3.10	Industrial Dispute Act	An overview	
	3.11	Factories Act	An overview	

Paper-III

*Syllabus for security officers - Written Examination*

[Marks : 100

Duration : 3 hours]

- (1) Knowledge of Organization & activities of various Units under DAE  
[Reference: Annual Report & Website of DAE].
- (2) Noting and drafting (includes précis writing, comprehension, letter writing and various other forms of communications used in Government).
- (3) Constitution of India (with reference to Articles 19 to 24, 32, 51A, 52 to 147, 214, 225 to 228, 230, 231, 245 to 255, 309 to 311).
- (4) General Financial Rules, 2017.  
[With reference to Rules 7 to 21, 142 to 176 and 197 to 206]
- (5) CCS (Conduct) Rules, 1964.
- (6) CCS(CCA), Rules, 1965.
- (7) Communication Skill (Topics: Functions of Communication, Communication Process, Direction of Communication, Interpersonal Communication, Organizational Communication, Electronic Communication, Choice of Communication Channel, Barriers of Effective Communication, Global implications, etc.)
- (8) Conflict & Negotiation Management (Topics: Definition of Conflict, Transitions in Conflict Thought, Conflict Process, Definition of Negotiation, Bargaining Strategies, Negotiation Process, Individual Differences in Negotiation Effectiveness, Third-party Negotiation, Global implications, etc.)  
[Reference for Sl. No.(7) & (8): "Organizational Behavior" by Stephen P. Robbins et.al. published by Pearson Prentice Hall]

**Note:** Questions may be designed in mix-n-match pattern (for better assessment of candidates) containing descriptive & objective types, fill-in-the-blanks, one-liner answer and also multiple choice types.

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Encl: Annexure 'A' & 'B'

PAPER - IV *Syllabus for Security Officer Written Examination*

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Sr. No.	Main Topic	Sub-Topic	Marks 100
1	<b>Intelligence &amp; Surveillance</b>	Definition, Aim, Scope and basic principle, types and process of intelligence at various stages, type of sources, selection	
		Role of intelligence in industrial establishment in connection with trade unions, labour unrest prevention and detection of crime, scope and limitations.	
		Selection and training of intelligence staff and their duties.	
		Documents to be maintained, reports and returns to be submitted, daily situation report.	
		Cultivation, Planting & Handling of Sources	
		<b>Surveillance - Introduction</b>	
		Need and importance of surveillance methods	
		Shadowing, Planning & precaution, Quality of a shadow, observation.	
2	<b>Enquires &amp; Reports</b>	Occasions when enquires must be conducted	
		Process of Enquiry	
		Place of occurrences	
		Road Accidents	
		Incidents to be reported to police	
		Examining Witnesses	
		Interrogating an offender	
		Legal Limitation	
		Writing an enquiry report	
		Submission of enquiry report	
Practice of Report Writing			
4	<b>Plant Protection Scheme and handling of strikes/ Lock out</b>	Introduction	
		Object of the scheme	
		Potential Dangers	
		Implementation of the scheme	
		Principle and general aspects of security	
		Various phases of emergency	
		Mobilisation of force/ manpower	
		External security arrangements	
		Internal security arrangements	
		Operation of the scheme	
		Intelligence duties	
		Conveyance	
Role of Security Officer			
5	<b>Investigation &amp; Panchanama</b>	Introduction	
		Methods of investigation	
		Basic features	
		Panchanama	

		Drafting Investigation report & Panchanama	
		Legal aspects	
6	<b>Radiation Detection, equipment &amp; Nuclear/ Radiological Emergency.</b>	Atom, Element	
		Stable & Unstable nuclides, Radioactivity	
		Detection & Measurement	
		Natural & man made radiation sources	
		Introduction to exposure, dose & dosimetry	
		Radiation Protection	
		Internal radiation exposure & personnel protective clothing	
		Illicit trafficking of radioactive materials	
		Nuclear weapons, Radiological Dispersal Device (RDD), Improvised Nuclear Devices (INDs) & Terrorism.	
9	<b>Sabotage</b>	Introduction	
		Definition	
		Saboteur	
		Targets of saboteur	
		Methods of sabotage	
		Preventive measures	
		Plan to minimize sabotage damage	
10	<b>Espionage</b>	An Overview	
11	<b>Security Procedures</b>	As per DAE Security Manual 2016	
13	<b>Civil Defence</b>	Civil Defence Organisation	
		Aims and Object	
		Functions of Civil Defence Services	
		U.X.B and Reporting	
14	<b>Fire</b>	Fire Triangle	
		Classification of Fire	
		First Aid Fire Equipments	

**Reference Study Material for Paper II & IV:** DAE Security Manual – 2016, Bare Acts, OL Rules, Dept. Security Instructions, Radiation Safety Training Material- issued by RSSD, Civil Defence and BARC etc.