



भारत सरकार टकसाल, नोएडा (उत्तर प्रदेश)
INDIA GOVERNMENT MINT, NOIDA (UTTAR PRADESH)
सिक्क्योरिटी प्रिंटिंग एंड मिंगिंग कॉर्पोरेशन ऑफ इंडिया लिमिटेड की एक इकाई
A Unit of Security Printing and Minting Corporation of India Limited
भारत सरकार के पूर्ण स्वामित्वाधीन/ Wholly owned by Govt. of India
मिनिरत्न श्रेणी -I, सीपीएसई / A Miniratna Category-I, CPSE
डी-2, सेक्टर 1/D-2, Sector-1, NOIDA
जिला गौतमबुद्ध नगर / Distt.: GautamBuddh Nagar (UP)
पिन-201301/ PIN: 201 301
वेबसाइट/ Website : <http://igmnoida.spmcil.com>

[F. No. IGMN-13013/4/2025-HR,

Dated 28th March, 2026]

भर्ती विज्ञापन सं. 01/2026

RECRUITMENT ADVERTISEMENT NO: 01/2026

भारत सरकार टकसाल, नोएडा, सिक्क्योरिटी प्रिंटिंग और मिंगिंग कॉर्पोरेशन ऑफ इंडिया लिमिटेड (एसपीएमसीआईएल) की नौ इकाइयों में से एक है, जो एक अनुसूची "ए" मिनी-रत्न श्रेणी-I केंद्रीय सार्वजनिक क्षेत्र उद्यम (CPSE) है और यह पूरी तरह से भारत सरकार के स्वामित्वाधीन है। एसपीएमसीआईएल ने 13 जनवरी, 2006 से कंपनी अधिनियम, 1956 के तहत एक निगम के रूप में कार्य करना शुरू किया। कंपनी का उद्देश्य और व्यवसाय प्रतिभूति कागज का डिज़ाइन और निर्माण, मुद्रा और बैंक नोट, पासपोर्ट, नॉन-जुडीसियल स्टाम्प पेपर, डाक टिकट की प्रिंटिंग तथा सिक्कों की मिंगिंग करना है। एसपीएमसीआईएल, वित्त मंत्रालय, आर्थिक मामलों का विभाग के प्रशासनिक नियंत्रण में है, और इसका पंजीकृत एवं निगम कार्यालय तीसरी मंजिल, टॉवर जी, वर्ल्ड ट्रेड सेंटर, नौरोजी नगर, नई दिल्ली - 110 029 पर स्थित है। कंपनी की प्रचालन इकाइयाँ देश भर में रणनीतिक रूप से स्थित हैं, जिनमें मुंबई, कोलकाता, हैदराबाद और नोएडा में चार टकसालें, नासिक, देवास और हैदराबाद में चार करेंसी/सिक्क्योरिटी प्रेस और नर्मदापुरम में एक उच्च गुणवत्ता वाला कागज निर्माता मिल शामिल है/ India Government Mint, Noida is one of the nine units of Security Printing and Minting Corporation of India Limited (SPMCIL), a Schedule "A" Mini-Ratna Category- I Central Public Sector Enterprise (CPSE) wholly owned by Government of India. SPMCIL started functioning as a Corporatized entity with effect from 13th January, 2006 under the Companies Act, 1956. The objective and the business of the Company is designing, manufacturing security papers, Printing Currency & Bank Notes, Passports, Non-Judicial Stamp Papers, Postage Stamps and Minting of the Coins. SPMCIL is under the administrative control of Department of Economic Affairs, Ministry of Finance with its registered and corporate office at 3rd floor, Tower G, world Trade Center, Nauroji Nagar, New Delhi - 110 029. The operational Units of the Company are strategically located across the country having its four Mints at Mumbai, Kolkata, Hyderabad and Noida, four Currency/Security presses at Nasik, Dewas and Hyderabad, and a high-quality Paper Manufacturing Mill at Narmadapuram.

2. भारत सरकार का मिंट, नोएडा, नोडल एजेंसी के रूप में मुंबई, कोलकाता, हैदराबाद और नोएडा में स्थित भारत सरकार की टकसालों (IGMs) में विभिन्न निम्नलिखित पदों के लिए भर्ती हेतु पात्र उम्मीदवारों से ऑनलाइन आवेदन आमंत्रित करता है / INDIA GOVERNMENT MINT, NOIDA, being nodal agency invites online applications from eligible candidates for recruitment of various below mentioned posts in India Government Mints (IGMs) situated at Mumbai, Kolkata, Hyderabad & Noida: -

Sr. No.	Name of the Post, Level & IDA pay scale (₹)	Name of Mint	No. of Posts	Break up of vacancies					Horizontal Reservations		Age Limit
				UR	EWS	SC	ST	OBC	PwBD Category*	Ex-SM	
1.	SUPERVISOR (ASSAY) L-S1 27600-95910	IGMM	02	0	0	1 (Backlog)	0	1 (Backlog)	0	0	18 to 30
2.	SUPERVISOR (T.O.-MECH.) L-S1 27600-95910	IGMM	01	0	0	1 (Backlog)	0	0	0	0	18 to 30
		IGMN	02	1	0	0	0	1	0	0	18 to 30
3.	SUPERVISOR (T.O.-ELEC.) L-S1 27600-95910	IGMN	02	1	0	1	0	0	0	0	18 to 30



4.	SUPERVISOR (T.O.-METALLURGY) L-S1 27600-95910	IGMM	01	0	0	1 (Backlog)	0	0	0	0	18 to 30
5.	ENGRAVER (SCULPTURE / METAL WORKS) L-B4 23910-85570	IGMH	01	0	0	0	0	1 (Backlog)	0	0	18 to 28
6.	JUNIOR OFFICE ASSISTANT L-B3 21540-77160	IGMM	03	1	0	1 (Backlog)	0	1	1 (A,B,C,D,E)	1	18 to 28
		IGMH	06	3	0	1	1	1	0	0	
		IGMN	04	1	0	1 (Backlog)	1 (Backlog)	1	1 (C-Backlog)	1	
7.	JUNIOR BULLION ASSISTANT L-B3 21540-77160	IGMH	03	3	0	0	0	0	0	0	18 to 28
		IGMN	02	1	0	1 (Backlog)	0	0	1 (C-Backlog)	1	
8.	JR. HINDI TYPIST L-B3 21540-77160	IGMK	01	1	0	0	0	0	0	0	18 to 28
9.	LABORATORY ASSISTANT L-B3 21540-77160	IGMH	01	1	0	0	0	0	0	0	18 to 28
10.	JR. TECHNICIAN (FITTER) L-W1 18780-67390	IGMM	18	10	1	2	1	4	1 (B,D,E)	3 (2 Backlog 1 Fresh)	18 to 25
		IGMK	13	8	1	1	0	3	0	0	
		IGMH	13	6	1	2	1	3	0	0	
		IGMN	03	2	0	0	0	1	1 (B-Backlog)	0	
11.	JR. TECHNICIAN (ATTENDANT OPERATOR - CHEMICAL PLANT) L-W1 18780-67390	IGMM	03	3	0	0	0	0	0	0	18 to 25
12.	JR. TECHNICIAN (TURNER) L-W1 18780-67390	IGMM	02	1	0	1 (Backlog)	0	0	0	0	18 to 25
		IGMK	05	4	0	0	0	1	0	0	
		IGMN	02	2	0	0	0	0	0	1	
13.	JR. TECHNICIAN (CARPENTRY) L-W1 18780-67390	IGMM	01	0	0	0	0	1 (Backlog)	0	0	18 to 25
14.	JR. TECHNICIAN (ELECTRICIAN) L-W1 18780-67390	IGMM	02	0	0	1 (Backlog)	0	1 (Backlog)	0	0	18 to 25
15.	JR. TECHNICIAN (GOLDSMITH) L-W1 18780-67390	IGMH	01	1	0	0	0	0	0	0	18 to 25
16.	JR. TECHNICIAN (MELTER) L-W1 18780-67390	IGMK	02	2	0	0	0	0	0	0	18 to 25
TOTAL			94	52	03	15	04	20	05	07	

* FOR SUITABLE SUB-CATEGORY IDENTIFIED FOR THE POST (SEE PARA-3 BELOW)



POST NOTE:

- (i) The number of vacancies mentioned above is provisional and may increase / decrease according to the actual requirement of the Company.
- (ii) As per OM No.36035/02/2017-Estt (Res) dated January 15, 2018 issued by Department of Personnel & Training (DoPT), Government of India regarding 'Reservation for the Persons with Benchmark Disabilities (PwBD)', the four categories of disabilities are as under:

(A) Blindness and low vision	(B) Deaf and Hard of hearing
(C) Locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy;	(D&E) Autism, intellectual disability, specific learning disability and mental illness & Multiple disabilities from amongst persons under clauses (a) to (d) including deaf-Blindness

(iii) FULL FORM OF ABBREVIATIONS (LEGENDS):

UR – Un-Reserved	SC – Scheduled Caste	ST – Scheduled Tribe
OBC – NCL -Other Backward Class-Non-Creamy Layer	PwBD – Persons with Benchmark Disabilities	Ex-SM – Ex-Serviceman
EWS- Economically Weaker Sections		

3. POSTS IDENTIFIED SUITABLE FOR PERSONS WITH BENCHMARK DISABILITIES (PwBD):

- (i) Details of post(s) identified suitable by the respective Mints for each category of PwBD along with their Physical & Functional Requirements are given below. Only following categories of PwBD candidates are, therefore, eligible to apply for the notified post(s).

Name of Post	Name of unit	Suitable category & sub-category of Benchmark Disabilities	Functional Requirement	Visual Acuity
Supervisor (Technical-Mechanical/Electrical)	IGMN	B) HH C) OL/AAV/LC	MF, PP, L, BN, S, ST, W, SE, H, RW	--
Supervisor (T.O.-Mechanical)	IGMM	B) D, HH C) OA, BA, OL, CP, LC, Dw, AAV D) ASD (M), SLD, MI E) MD involving (B) to (D) above	ST, BN, RW, SE	--
Supervisor (TO)-Metallurgy	IGMM	B) D, HH C) OA, OL, BL, CP, LC, Dw, AAV D) ASD (M, MoD), SLD, MI E) MD involving (B) to (D) above	S, ST, W, RW, SE, H, C	--
Supervisor Assay	IGMM	B) HH C) OA, OL, CP, Dw, AAV D) SLD, MI E) MD involving (B) to (D) above	S, ST, BN, RW, SE, C	--
Engraver (Sculpture/Metal Works)	IGMH	B) D, HH C) OL, Dw, AAV D) ASD (M, MoD), ID, SLD, MI E) MD involving (B) to (D) above	S, ST, W, L, KC, PP, MF, SE	Distance Vision: 6/9, 6/12 with or without glasses (power of lenses not to exceed 4D). Near Vision: Sn:0.6, 0.6 with or without glasses when reading or close work is required. Candidate should not have colour blindness, colour vision deficiency. Must pass test for binocular vision.
Jr. Office Assistant	IGMM	A) B, LV B) D, HH C) OA, BA, OL, BL, OAL,	S, ST, W, BN, RW, SE, H, C, MF	--

		CP, LC, Dw, AAV D) ASD, SLD, MI E) MD involving (A) to (D) above		
	IGMN & IGMH	A) LV B) HH C) BL/OL/OA/AAV/LC D) SLD	MF, S, SE, W, H, RW	
Jr. Bullion Assistant	IGMH & IGMN	A) LV B) HH C) BL/OL/OA/AAV/LC D) SLD	MF, S, SE, W, H, RW	--
Jr. Hindi Typist	IGMK	A) B, LV B) HH C) OL	S, ST, W, L, MF, SE, RW, H, C	--
Laboratory Assistant	IGMH	B) D, HH C) OA, OL, BL, Dw, AAV D) ASD (M), SLD, MI E) MD involving (B) to (D) above	S, ST, W, BN, MF, SE, H, C	Candidate should not have colour blindness, colour vision deficiency. Must pass test for binocular vision.
Jr. Technician (Turner)	IGMM	A) B, LV B) D, HH C) OL, LC, Dw, AAV D) ASD (M), SLD, MI E) MD involving (A) to (D) above	S, ST, BN, MF, SE	--
	IGMK	B) HH C) OL	S, ST, BN, SE, RW, H	
	IGMN	B) HH	MF, PP, L, BN, S, ST, W, SE, H, RW	
Jr. Technician (Fitter)	IGMM	A) B, LV B) D, HH C) OA, OL, OAL, CP, LC, Dw, AAV D) ASD (M), ID, SLD, MI E) MD involving (A) to (D) above	S, ST, W, BN, RW, SE, H, C	--
	IGMK	B) HH C) OL	S, ST, BN, SE, RW, H	
	IGMH	A) B, LV B) D, HH C) OA, OL, OAL, CP, LC, Dw, AAV D) ASD (M), ID, SLD, MI E) MD involving (A) to (D) above	S, ST, W, BN, RW, SE, H, C	
	IGMN	B) HH	MF, PP, L, BN, S, ST, W, SE, H, RW	
Jr. Technician (Melter)	IGMK	B) HH C) OL	S, ST, BN, SE, RW, H	--
Jr. Technician (Attendant Operator - Chemical Plant)	IGMM	B) D, HH C) OL, Dw, AAV D) ASD(M), SLD, MI E) MD involving (B) to (D) above	S, ST, BN, MF, RW, SE	--
Jr. Technician (Carpentry)	IGMM	B) D, HH C) OL, BL, Dw, AAV D) ASD (M, MoD), ID, SLD, MI	S, ST, W, BN, L, KC, PP, MF, RW, SE, H	--



		E) MD involving (B) to (D) above		
Jr. Technician (Goldsmith)	IGMH	B) D, HH C) OL, BL, LC, Dw, AAV D) ASD (M), SLD, MI E) MD involving (B) to (D) above	S, BN, MF, SE	Distance Vision: 6/9, 6/12 with or without glasses (power of lenses not to exceed 4D). Near Vision: Sn:0.6, 0.6 with or without glasses when reading or close work is required. Candidate should not have colour blindness, colour vision deficiency. Must pass test for binocular vision.
Jr. Technician (Electrician)	IGMM	B) HH C) OA, OL, LC, Dw, AAV D) ASD (M), SLD, MI E) MD involving (B) to (D) above	S, ST, W, MF, RW, SE	--

CATEGORY ABBREVIATIONS USED: B=Blind, LV=Low Vision, D=Deaf, HH= Hard of Hearing, OA=One Arm, OL=One Leg, BA=Both Arms, BL=Both Leg, OAL=One Arm and One Leg, BLOA=Both leg & one arm, BLA=Both Legs Arms, CP=Cerebral Palsy, LC=Leprosy Cured, Dw =Dwarfism, AAV=Acid Attack Victims, MDy=Muscular Dystrophy, ASD= Autism Spectrum Disorder (M= Mild, MoD= Moderate), ID= Intellectual Disability, SLD= Specific Learning Disability, MI= Mental Illness, MD=Multiple Disabilities, S=Sitting, ST=Standing, W=Walking, BN=Bending, L=Lifting, KC=Kneeling & Crouching, PP= Pulling & Pushing, MF=Manipulation by Fingers, RW=Reading & Writing, SE=Seeing, H=Hearing, C=Communication.

Persons with Benchmark Disability – Persons suffering from not less than 40 % of relevant disability shall be eligible for the benefit of Reservation as permissible to the extent of Rules.

4. ELIGIBILITY CRITERIA:

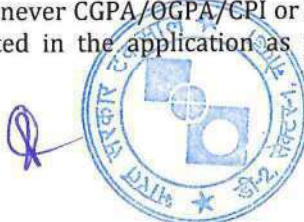
S. No.	Name of the Post	Applicant must possess the requisite Qualification as on the closing date of online application
ENGINEERING/Technical Operations (T.O.)		
1	Supervisor (Assay)	1st class full time Diploma in Chemical Engineering from recognized Institution/University. OR Higher Qualification i.e. B. Tech/B.E./BSc (Engineering) in Chemical Engg. from recognized Institution/University
2	Supervisor (T.O.-Mechanical)	1st class full time Diploma in Engineering in Mechanical from recognized Institution/University. OR Higher Qualification i.e. B. Tech/B.E./BSc (Engineering) in Mechanical from recognized Institution/University.
3	Supervisor (T.O.-Electrical)	1st class full time Diploma in Engineering in Electrical from recognized Institution/University. OR Higher Qualification i.e. B. Tech/B.E./BSc (Engineering) in Electrical from recognized Institution/University.
4	Supervisor (T.O.-Metallurgy)	1st class full time Diploma in Engineering in Metallurgy from recognized Institution/University. OR Higher Qualification i.e. B. Tech/B.E./BSc (Engineering) in Metallurgy from recognized Institution/University.
RESOURCE MANAGEMENT		



5	Jr. Office Assistant	Graduate in any discipline and computer knowledge with typing speed on computer in English @40 w.p.m. / Hindi @ 30 w.p.m. Note: In case of vacancy reserved for Ex-Servicemen, eligibility criteria for Ex-Servicemen, as prescribed in DoP&T OM No. 15012/8/82/Estt (D) dated 12.02.1986 which stipulates that "the Indian Army Special Certificate of Education or corresponding certificate in the Navy & Air Force and has put not less than 15 years of service in the Armed Force" will be considered eligible.
6	Jr. Hindi Typist	Graduate in any discipline and computer knowledge with typing speed on computer in Hindi @ 30 w.p.m.
TECHNICAL CONTROL /BULLION		
7	Engraver (Sculpture/Metal works)	Bachelor of Fine Arts (Sculpture) with at least 55% marks OR Bachelor of Fine Arts (Metal Works) with at least 55% marks.
8	Junior Bullion Assistant	Graduate in any discipline and computer knowledge with typing speed on computer in English @40 w.p.m. / Hindi @ 30 w.p.m. Note: In case of vacancy reserved for Ex-Servicemen, eligibility criteria for Ex-Servicemen, as prescribed in DoP&T OM No. 15012/8/82/Estt (D) dated 12.02.1986 which stipulates that "the Indian Army Special Certificate of Education or corresponding certificate in the Navy & Air Force and has put not less than 15 years of service in the Armed Force" will be considered eligible.
9	Laboratory Assistant	Bachelor's Degree in Science (B.Sc.) with "Chemistry" as a Major Subject during the course of Study with at least 55% marks.
TECHNICAL OPERATIONS		
10	Junior Technician (Fitter)	Full-time ITI certificate recognized from NCVT/SCVT in Fitter Trade
11	Jr. Technician (Attendant Operator - Chemical Plant)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Chemical Plant Operator/ Attendant Operator (Chemical Plant)
12	Junior Technician (Turner)	Full time ITI certificate recognized by NCVT/SCVT in Turner Trade
13	Junior Technician (Carpentry)	Full-time ITI certificate recognized from NCVT/SCVT in Carpentry Trade
14	Junior Technician (Electrician)	Full time ITI certificate recognized by NCVT/SCVT in Electrician Trade
15	Junior Technician (Goldsmith)	a) Two (2) years full time ITI certificate in Gold Smith Trade along with one year NAC certificate from NCVT/SCVT. OR b) Two years full time ITI in fitter trade along with one year NAC certificate from NCVT/SCVT.
16	Jr. Technician (Melter)	Full time ITI certificate recognized by NCVT/SCVT in Foundry Trade

Note:

- Posts reserved for physically handicapped and Ex-Serviceman will be adjusted by horizontal reservation i.e., the selected candidates will be adjusted against the categories of UR/EWS/SC/ST/OBC to which they belong.
- 1st class means 1st class awarded by the University / Institute irrespective of the percentage of marks. In case a University/Institute does not award any class or percentage then minimum 60% will be required to be considered for Eligibility in cases where First Class is required. Further, whenever CGPA/OGPA/GPI or letter grade in a degree is awarded, equivalent percentage of marks should be indicated in the application as per norms adopted by



University /Institute. Candidate is required to obtain a certificate to this effect from the University/Institute.

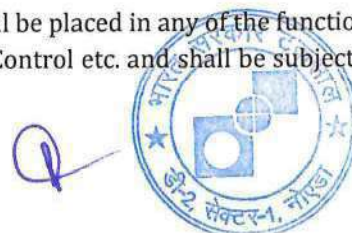
- c. Internal Candidates of SPMCIL who have acquired higher qualification through part time courses will be eligible for higher positions if the same has been acquired during the service in SPMCIL with the prior approval of Competent Authority provided they have rendered minimum length of 5 years' service in SPMCIL on the closing date of application process. This exemption will not be applicable if the process of acquiring qualification was commenced or completed before joining SPMCIL.
5. **Ex-Servicemen** – Only those candidates shall be treated as Ex-Servicemen who fulfills the revised definition as laid down in Govt. of India, Ministry of Home Affairs. Dept. of Personnel and Administrative Reforms notification No. 36034/5/85 Estt.(SCT),dtd. 27-10-1986 as amended from time to time.
6. **Applicants** are advised to apply for the post most suitable to your qualification and experience.

7. **IMPORTANT NOTE FOR EWS (ECONOMICALLY WEAKER SECTIONS)-**

- (a) 10% of Vacancies are reserved for the EWS as per the directions of Government of India instructions issued vide DoPT OM No. 36039/1/2019-Estt (Res) dated 31st January, 2019.
- (b) Persons who are not covered under the existing scheme of reservations to the Scheduled Castes, the Schedule Tribes and the socially and Educationally Backward Classes and whose family has gross annual income below Rs. 8.00 lakh are to be identified as EWSs for the benefit of reservation. Family for this purpose will include the person who seeks benefit of reservation, his/her parents and siblings below the age of 18 years and his/her spouse and children below the age of 18 years. The income shall include income from all sources i.e., salary, agriculture, business, profession etc. and it will be income for the financial year prior to the year of application. Also, persons whose family owns or possesses any of the following assets shall be excluded from being identified as EWSs, irrespective of the family income:
- (i) 5 acres of Agricultural Land and above;
 - (ii) Residential flat of 1000 sq. ft. and above;
 - (iii) Residential plot of 100 sq. yards and above in notified municipalities;
 - (iv) Residential plot of 200 sq. yards and above in areas other than the notified municipalities.
- (c) The income and assets of the families as mentioned above would be required to be certified by an officer not below the rank of Tehsildar in the States/UTs. The candidates shortlisted for document verification/interview shall be required to bring the requisite certificate as specified by the Government of India at the time of appearing for the process of document verification/interview.
- (d) The reservation of EWS shall be governed as per the instructions issued by the Company in this regard from time to time.

8. **IMPORTANT CONDITIONS:-**

- a) Nationality: Candidate must be a citizen of India.
- b) Applicants are advised to submit their applications well before the closing date to avoids any last-minute technical issues or delays. Applications received after the deadline will not be considered under any circumstances. **KINDLY REFER TO PARA 9(A) FOR IMPORTANT DATES – RECRUITMENT ACTIVITY SCHEDULE.**
- c) **The age limit, qualification and other criteria for all applicants will be determined as on the closing date of the online application.** Candidates must ensure they fall within the prescribed age range. Age relaxation, wherever applicable (e.g., for SC/ST/OBC/PwBD/Ex-Servicemen), will be granted as per Government rules and regulations.
- d) Candidates are advised to **apply for only one post which is more suitable to him/her as per qualification as there may be chances of holding examination of multiple posts on the same day.** Applicants should thoroughly review the eligibility criteria before selecting the post to apply.
- e) Candidates are strictly advised to indicate their preference for the Unit i.e., India Government Mint, Mumbai/Kolkata/Hyderabad/Noida against the post for which they intend to apply. The final selection list of the candidates for each post including unit; shall be prepared based on the merit, reservation and preference opted by the candidate on his/her online application and accordingly the place of posting shall be decided. It is clarified that once the preference has been opted and submitted, no request for change of unit shall be entertained under any circumstances.
- f) The candidates selected for Supervisory positions at S-1 level shall be placed in any of the functional area of Technical Operation which includes Production, Maintenance, quality and Control etc. and shall be subject to rotation and they



shall be liable for transfer to other Units, Corporate Office or any establishment of the Company likely to come up in future.

- g) Applicants are advised to apply online in the proforma given in the advertisement in between the dates as mentioned in the Recruitment Activity Schedule (**para 9 A**) only through the Company's website at: <http://igmnoida.spmcil.com> under the page "**Discover SPMCIL**" and go to **CAREERS page**. Applicants may apply after carefully going through all the instructions given in this advertisement. Application submitted by post, email, or any other mode will not be accepted.
- h) Before applying, applicants should ensure that they fulfill all eligibility criteria as mentioned in the advertisement for the respective post. Company will take up verification of eligibility with reference to the original documents only after they have qualified their online examination. If the candidates are found 'Not eligible' during the document verification process, their candidature will be summarily rejected. Their admission to all the stages of the recruitment process shall be purely provisional subject to satisfying the prescribed eligibility criteria mentioned in the advertisement. Applicants who do not fulfill the eligibility criteria with regard to age and the educational qualification need not apply for the post.
- i) **Candidates are advised to submit only single online application for each post. However, if somehow, he/she submits multiple Online Applications, then he/she must ensure that Online Application with the higher "Application Number" is complete in all respects including fee.**
- j) The Candidates, who submit multiple Online Applications, should note that only the Online Application with higher "**Application Number**" shall be entertained and fee paid against one "**Application Number**" shall not be adjusted against any other "**Application Number**". Further, it is also informed that the fee once paid, including in case of multiple applications, shall not be refunded in any circumstances.
- k) Unit-wise Duties and responsibilities for each post have been annexed at **Annexure – IV**.
- l) The candidates who are in service and got selected are required to produce NO OBJECTION CERTIFICATE / DISCHARGE/ RELIEVING ORDER from their employer at the time of document verification.

9. **IMPORTANT DATES - RECRUITMENT ACTIVITY SCHEDULE :-**

A)

Sr. No.	Activity	Date
01	Opening of website link for applying online application	28 March 2026, From 15:00 hrs.
02	Online Application & fee deposit	28 March, 2026 from 15:00 hrs. to 27 April, 2026 upto 14:59 hrs.
03	Closing of website link	27 April, 2026 14:59 hrs.
04	Downloading of Admit Card	To be notified
05	Conduct of Computer Based Test (CBT)	May / June - 2026
06	Conduct of Typing /Skill Test	June / July 2026
07	Declaration of result	July / August 2026

- B) **Candidates are advised to regularly visit the official website at career page for updates and notification.**
- C) The above dates are tentative and may be changed at the discretion of the Competent Authority.
- D) Admit cards and other related updates will be available only through online mode.



10. **UPPER AGE LIMIT** will be relaxed as under:

Sr. No.	Category	Relaxation in Age
(i)	Scheduled Caste/Scheduled Tribe (SC/ST)	By 5 years
(ii)	Other Backward Classes (OBC)-Non Creamy Layer (NCL)	By 3 years
(iii)	Persons with Benchmark Disabilities (PwBD)	By 10 years (UR/EWS) 15 Years (SC/ST) 13 years (OBC)
(iv)	Ex-Servicemen	To the extent of service rendered by them in Armed Forces plus an additional period of 3 years (8 years for SC/ST and 6 years for OBC candidates) subject to maximum of 50 years of age.
(v)	Departmental Candidates (SPMCIL)	No Age bar for the in-service SPMCIL employees who fulfill the essential qualification and experience provided they have at least three years of service left on the date of Advertisement.

- **Relaxation in the Upper age limit is not admissible to SC/ST/OBC candidates applying for UR vacancies.**
- Candidates belonging to the Scheduled Castes, the Scheduled Tribes and the Other Backward Classes who are also covered under any other clauses of above, viz. those coming under the category of Ex-servicemen, Persons with Benchmark Disabilities etc. will be eligible for grant of cumulative age-relaxation under both the categories.
- PwBD candidates applying against UR vacancies will be allowed age relaxation applicable for UR PwBD only. Relaxation in upper age limit for PwBD will be subject to the post having been identified suitable for such disabilities. Relaxation of age limit would be permissible to such persons who have a minimum of 40% disability. PwBD can apply to the respective posts even if the post is not reserved for them but has been identified as suitable. However, such candidates will be considered for selection to such post by general standards of merit. Person suffering from not less than 40% of relevant disability shall alone be eligible for the benefit of reservation and other relaxation as permissible under the rules. Thus, persons with benchmark disabilities can avail benefit of reservation and other concessions & relaxation as permissible under the rules only when Degree of physical disability is 40% or more and the posts are reserved for PwBD candidates.
- Ex-Service Men (ESM) candidates who have put in not less than six months continuous service in the Armed Forces of the Union will eligible to apply any vacancy whether reserved or not and they will be allowed to deduct the period of such service from their actual age and if the resultant age does not exceed the maximum age-limit prescribed for the post or service for which he seeks appointment by more than three years, they will be deemed to satisfy the condition regarding age-limit. Therefore, the upper age limit shall be relaxed by the length of military service rendered in the Armed Forces plus three years.
- For any other category, the age relaxation as per extant Govt. rules as promulgated from time to time.

11. **EXAMINATION FEE:**

- (a) A non-refundable fee of Rs.1000/- (inclusive of GST) for candidates belonging to UR, EWS and OBC Categories.
- (b) Candidates belonging to SC/ST and PWBD are exempted from payment of application fee. However, the candidates belonging to SC/ST and PWBD are required to pay non-refundable fee of Rs.200/- towards service expenses.
- (c) The Examination fee shall be paid online as per the method **explained in para 29**. Transaction charge (if any) levied by the bank for the payment of above application fee is to be borne by the applicants. **Payment in any other manner will not be accepted** and the applicant will be considered not eligible. Fee once paid is not refundable.



12 PROBATION: The selected candidates will be placed on probation for a period of one year. The period of probation may be extended by a further maximum period of one year at the discretion of the Company. If the performance of the candidate is not found suitable during the extended period of probation, his/her service will be terminated.

13. EXECUTION OF BOND: Supervisors at S-1 level who are selected shall be liable to execute a Bond of Rupees Two lakhs to serve in the Company for a minimum period of 3 years. Such Supervisors shall have to provide two sureties. In the event of their leaving the Company before completion of minimum period of 3 years, such Supervisors shall indemnify the Company by making the payment of the Bond amount. In the event they fail to do so, the sureties will have to indemnify the Company by making the payment of Bond amount.

14. SELECTIONPROCEDURE:

(i) Selection for the posts will be done through online Computer Based Test (CBT) which will be of objective type.

(ii) The Objective type of online Computer Based Test (CBT) **(Single Phase)** will consist of following tests for the post of **Supervisor (Technical-Assay/Mechanical/Electrical/Metallurgy)** :

Part	Test Name*	No. of Questions	Max. Marks	Duration
I	General Arithmetic	25	25	120 Minutes
	Logical Reasoning	20	20	
II	Technical/Professional knowledge in relevant trade	105	105	
	Total	150	150	

(iii) The Objective type of online Computer Based Test (CBT) **(Single Phase)** will consist of following tests for the **Post of Engraver (Sculpture/Metal Works):-**

Part	Test Name*	No. of Questions	Max. Marks	Duration
I	General Arithmetic	25	25	120 Minutes
	Logical Reasoning	20	20	
II	Technical/Professional knowledge in relevant trade	105#	105	
	Total	150	150	

(iv) The Objective type of online Computer Based Test (CBT) **(Single Phase)** will consist of following tests for the post of **Laboratory Assistant:**

Part	Test Name*	No. of Questions	Max. Marks	Duration
I	General Arithmetic	25	25	120 Minutes
	Logical Reasoning	20	20	
II	Technical/Professional knowledge in relevant trade	105	105	
	Total	150	150	



- (v) The Objective type of online Computer Based Test (CBT) (Single Phase) will consist of following tests for the **Post of Junior Technician (Attendant Operator-Chemical Plant)/ Junior Technician (Carpentry)/ Junior Technician (Turner)/ Junior Technician (Electrician)/ Junior Technician (Goldsmith) / Junior Technician (Fitter) / Junior Technician (Melter):**

Part	Test Name*	No. of Questions	Max. Marks	Duration
I	General Arithmetic	20	20	120 Minutes
	Logical Reasoning	15	15	
II	Technical/Professional knowledge in relevant trade	85#	85	
	Total	120	120	

#Note: -

(a) **For the Post of Engraver (Sculpture/Metal Works)**, 105 no. of questions shall consist of 02 parts i.e., Part A- 45 questions (Compulsory with common syllabus) and Part B- 60 questions (Optional Trade Specialization i.e., Sculpture or Metal Works)

(b) **For the Post of Jr. Technician Goldsmith (Goldsmith)**, 85 no. of questions shall consist of 02 parts i.e., Part A- 35 questions (Compulsory with common syllabus) and Part B- 50 questions (Optional Trade Specialization i.e., Goldsmith or Fitter Trade)

(vi) The exam for JR. OFFICE ASSISTANT, JR. BULLION ASSISTANT & JR. HINDI TYPIST at (B-3 Level) will be conducted i.e. **First written test (Computer Based Test)** to be conducted for all the candidates who have applied. The candidates who **qualify the written test (CBT) will be called for typing test**. The merit list will comprise only those candidates who have qualified typing test in computer typing which is qualifying in nature and the final merit list shall be prepared on the basis of the performance of the candidates in the CBT.

COMPUTER BASED TEST (CBT) will be conducted first. The objective type of online examination for CBT will consist of following tests for: -

FOR JR. OFFICE ASSISTANT, JR. BULLION ASSISTANT & JR. HINDI TYPIST AT- B-3 LEVEL

Sr. No.	Test Name*	No. of Questions	Max. Marks	Duration
1	General Awareness	30	30	120 Minutes
2	Computer Knowledge	30	30	
3	English Language skills	30	30	
4	Numerical Aptitude	30	30	
5	Reasoning Aptitude	30	30	
	Total	150	150	

Typing Test:

FOR THE POST OF JR. OFFICE ASSISTANT AND JR. BULLION ASSISTANT AT B-3 LEVEL:

(a) Those candidates who qualify Computer Based Test (CBT) will be called for the typing test (English @ 40 w.p.m. or Hindi @30 w.p.m.) on computer.

(b) Candidates have to indicate their preference of Language (Hindi/English) of typing test to be conducted on computer while filling their online application form.

(c) Criteria for evaluation of typing test and other instructions are attached as **Annexure-II and Annexure-III**. Candidates can attempt the Typing Skill Test either in Hindi or in English language (as opted by Candidates in the Online Application form).



FOR THE POST OF JR. HINDI TYPIST AT B-3 LEVEL:

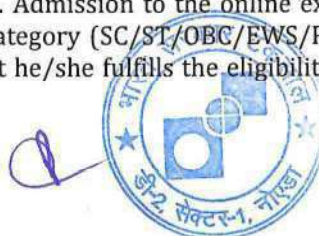
- (a) Those candidates who qualify Computer Based Test (CBT) will be called for the Hindi Typing Test @30 w.p.m. on computer.
- (b) Criteria for evaluation of Hindi typing test and other instructions are attached as **Annexure-II and Annexure-III**.

(*) **Post-wise Indicative Syllabus is appended as Annexure-I** to this Advertisement. Candidates have to take note that the syllabus mentioned is only indicative & not exhaustive and Questions may be set from other topics commensurate with the education qualification.

15. **THE ONLINE (CBT) TEST** will be in bilingual form i.e., Hindi & English language except the English language section which will be available only in English and there is no Interview for the selection of the posts. The selection will be on merit basis. **THERE IS NO NEGATIVE MARKING.**
16. **IN THE SELECTION PROCESS**, an applicant has to obtain high marks in the test and rank sufficiently higher to be allowed for next stage for further process of selection. However, since the final selection would depend on the number of vacancies as also relative performance, merely qualifying in the online examination will not entitle an applicant for appointment in the Company.
17. **THE FINAL MERIT LIST** will be drawn by the marks obtained in the online examination. The minimum qualifying marks i.e., cut-off marks required to consider on order of merit for different categories of candidates are as under:

General / EWS Category	55%
OBC	50%
SC/ST Category	45%

18. **THE ONLINE EXAMINATION (Computer Based Test)** will be held tentatively as mentioned in 9 (A). The exact date, shift & reporting time of examination will be mentioned in the Admit Card. The examination will be conducted online in venues given in the respective Admit Card. The applicants will have to take the examination on the date and time as indicated in the Admit Card at their own cost. **The applicants are requested to keep checking the Company's website <http://igmnoida.spmcil.com> for any update.**
19. **The online Examination (CBT) for all posts will be conducted in Delhi/NCR, Hyderabad, Mumbai, Kolkata. Typing Test on computer for Jr. Office Assistant, Junior Bullion Assistant & Jr. Hindi Typist Post will be conducted at Delhi/NCR only.** Preference of examination centre location i.e., Mumbai, Kolkata, Hyderabad & Delhi/NCR will be opted by the Applicants for CBT exam. Choice of location for CBT exam once exercised by the applicant will be final. No request for change of location/Centre/venue/date/shift for online examination shall be entertained. If sufficient number of applicants do not opt for a particular Centre for Online examination OR if the number of applicants is more than the capacity available for (CBT) Online examination for a Centre, the Company reserves the right to allot any other Centre to those applicants. The Company reserves the right to cancel any of the centres and/or add some other centres at its discretion, depending upon the response, administrative feasibility etc. The Company also reserves the right to allot the applicants to any of the centres other than the one he/she has opted for either within the state or outside the state.
20. Applicants will have to appear for the CBT online examination & typing test at their own risks and expenses. Company will not be responsible for any injury or losses etc. of any nature.
21. The Resolution of Tie of marks of candidates in merit list (in order of preference) would be done by the following:
- The candidate older in age will get preference.
 - Alphabetical order of names.
22. The Chief General Manager, IGM-Noida reserves the right to make changes in the Schedule/pattern of Examination, etc.; if considered necessary at any stage of Recruitment process. However, the same shall be notified in the website before the conduct of the examination. Admission to the online examination will be purely provisional without verification of Age/qualification/category (SC/ST/OBC/EWS/PwBD/Ex-SM) etc., of the applicants. Each applicant should, therefore, ensure that he/she fulfills the eligibility criteria and that



the particulars furnished in the application are complete and correct in all respects. In case it is found at any stage that, an applicant does not fulfill the eligibility criteria and/or has furnished incorrect/ false information or has suppressed any material information, his/her candidature will be cancelled. If any of these shortcomings are detected after appointment, his/her services will be summarily terminated without giving any notice and no compensation shall be given in lieu thereof.

23. **DOWNLOAD OF ADMIT CARD** - Applicants who have registered Online will be allowed to download online admit cards for the "Online" examination on the basis of the information furnished in the online application. No detail scrutiny of application will be carried out at the time of issuing admit cards Online. The admit cards can be downloaded from the Company's website <https://igmnoida.spmcil.com>. Once the applicant clicks the relevant link, he/she can access the window for downloading the admit card. The applicant is required to use (I) Application Number, (II) Password for downloading the admit card. Applicants are required to affix recent recognizable photograph on the Admit Card preferably the same as provided during registration. Applicants have to appear at the examination Centre with Original Admit Card and Original Valid Photo Identity Proof as specified and mentioned in Admit Card. Applicants are also required to bring one photocopy of the original photo identity proof. Intimation for downloading Admit Card will also be sent through email/SMS to the email id and mobile number as given by them in the online application form. However, applicants should keep checking the above website for latest updates.
24. **APPLICANTS REPORTING LATE FOR ONLINE EXAMINATION:** Applicants reporting late for online examination i.e., after the reporting time specified on the Admit Card for Examination will not be permitted to take the examination. The reporting time mentioned on the Admit Card is prior to the Start time of the test. Though the duration of the examination is 120 minutes (two hours) for all above-mentioned posts, the applicants may be required to be present at the venue for about 3 hours including the time required for completion of various formalities such as verification and collection of various requisite documents, logging in, giving of instructions for online test.
25. The possibility of occurrence of some problem in administration of the examination cannot be ruled out completely which may impact test delivery and/or result from being generated. In that event, every effort will be made to rectify such problem, which may include movement of candidates, delay in test. Conduct of a re-exam is at the absolute discretion of test conducting body. Candidates will not have any claim for a re-test. Candidates not willing to move or not willing to participate in the delayed process of test delivery shall be summarily rejected from the process.
26. If the examination is held in more than one session, the scores across various sessions will be equated to adjust for slight differences in difficulty level of different test batteries used across sessions. More than one session are required if the nodes capacity is less or some technical disruption takes place at any Centre or for any applicant.
27. In order to overcome the possibility of applicants seeking help of other applicants during the online examination, an analysis of the responses (answers) of individual applicants with those of other applicants in the online examination to detect patterns of similarity of right and wrong answers will be done. On the basis of such an analysis, it is inferred/concluded that the responses have been shared and scores obtained are not genuine/valid, the Company reserves the right to cancel the candidature of the concerned applicant and the result of such applicants (disqualified) will be withheld. Hence the applicants are advised in their own interests not to indulge in any unfair practice/malpractice in the examination.
28. Instances for providing incorrect Information and/or process violation by an applicant detected at any stage of the selection process will lead to disqualification of the applicant from the selection process and he/she will not be allowed to appear in any SPMCIL recruitment process in the future.

If such instances go undetected during the current selection process but are detected subsequently, such disqualification will take place with retrospective effect.

29. **HOW TO APPLY:**

➤ **IMPORTANT POINTS TO BE NOTED BEFORE REGISTRATION**

➤ Applicants are requested to follow the detailed procedures/guidelines as Indicated below:

- Upload a recent, clearly recognizable passport photo. Candidates are advised not to change their appearance until the admission process is completed. Any mismatch in photograph or signature can lead to disqualification.
- Candidates must upload the required documents as per the specifications given below. Failure to follow the instructions may lead to rejection of the application.



- Photograph
 - Recent passport-size colour photograph with light background
 - Format: JPG/JPEG only
 - Size: 20 KB – 50 KB
 - Dimensions: 4.5 cm × 3.5 cm
- Signature
 - Must be done using black ink on white paper
 - Size: 10 KB – 20 KB
 - Signature in CAPITAL LETTERS will NOT be accepted
- Left Thumb Impression
 - Use black or blue ink on white paper
 - Format: JPG/JPEG only
 - Size: 20 KB – 50 KB
 - Dimensions: 240 × 240 pixels (200 DPI preferred)
 - If left thumb is not available, right thumb may be used
- Handwritten Declaration
 - Write clearly in English on white paper using blue ink
 - Must be written only by the candidate
 - Do NOT write in CAPITAL LETTERS
 - Format: JPG/JPEG only
 - Size: 50 KB – 100 KB
 - Dimensions: 800 × 400 pixels (200 DPI preferred)

Declaration Text:

"I, _____ (Name of the candidate), hereby declare that all the information submitted by me in the application form is correct, true and valid. I will present the supporting documents as and when required."

- Other Documents
 - Format: PDF only
 - Size: 100 KB – 300 KB

➤ The applicant should ensure that the above scan documents adhere to the required Specifications as given below:

- The left thumb impression should be properly scanned and not smudged. (If a candidate is not having left thumb, he/she may use his/her Right thumb for applying).
- If the handwritten declaration is written and uploaded by anybody else or in any other language, the application will be considered as invalid.
- Have a valid personal email ID and mobile no., which should be kept active till the completion of this Recruitment Process. Company may send intimation to download admit cards for examination etc., through the registered e-mail ID. In case an applicant does not have a valid personal e-mail id, he/she should create his/her new e-mail id and mobile no. before applying on-line and must maintain that email account and mobile number. Under no circumstances, he/she should share/mention email id to/or of any other person.

➤ **Application Registration Procedure:**

Applicants are advised to visit "Career" page at Company's website <https://igmnoida.spmcil.com> for filling the Online Application Form and follow the instruction to complete the submission of online application.

➤ **Payment of Fees procedure (Online Mode):**

I. The application form is integrated with the payment gateway and the payment process can be completed by following the Instructions.

II. The payment can be made by using Debit Cards, Credit Cards, Internet Banking & UPI.

III. After submitting your payment information in the online application form, PLEASE WAIT FOR THE INTIMATION FROM THE SERVER. DO NOT PRESS BACK OR REFRESH BUTTON IN ORDER TO AVOID DOUBLE CHARGE

IV. On successful completion of the transaction, a confirmation e-mail will be sent to the Applicant.



V. PAYMENT FAILURE- On failure of payment, Applicants are advised to login again using their Application number and Password and repeat the process of payment.

VI. To ensure the security of your data, please close the browser window once your transaction is completed.

VII.No other mode of payment of fees will be accepted.

VIII.Bank Transaction charges for Online Payment of application fees/intimation charges will have to be borne by the applicant.

IX.Application once submitted cannot be withdrawn. Application fee and other charges, as applicable, once paid will not be refunded in any case / circumstances and neither the same shall be held reserved for any other recruitment OR selection process.

➤ **OTHER GUIDELINES/INSTRUCTIONS:**

- i. Decision of IGM-Noida in all matters regarding eligibility of the candidate, the stages at which such scrutiny of eligibility is to be undertaken, the documents is to be produced for the purpose of the conduct of online test, selection and any other matter relating to recruitment will be final and binding on the candidate. Management reserves the right to fix the standard and specifications for screening and calling the number of candidates for online test.
- ii. Applicants are advised to apply on-line much before the closing date in their own interest and not to wait till the last date to avoid the possibility of disconnection /inability/failure to log on to the Company's website on account of heavy load on internet website jam. IGM-Noida takes no responsibility for applicants not being able to submit their applications online within the last date on account of aforesaid reasons or for any other reason beyond the control of the IGMN.
- iii. Any information submitted by an applicant in his/her application shall be binding on the applicant personally and he/she shall be liable for prosecution / civil consequences in case the information /details furnished by him /her are found to be false at a later stage.
- iv. IGM-Noida shall not be responsible for any application made/wrong information provided by an unauthorized person/institution. Applicants are advised not to share/mention their application details with/to anyone.
- v. Identity Verification –In the examination hall as well as at the time of verification of certificates & Medical Examination, the Admit Card along with original and a photocopy of the candidate's currently valid photo identity such as PAN Card/Passport/ Permanent Driving Licence/Voter's Card/Bank Passbook with clear photograph/ Photo identity proof issued by a Gazetted Officer on official letter head/ Photo identity proof issued by a People's Representative on official letter head/ valid recent Identity Card issued by a recognized College/University/Aadhar/E-Aadhar card with a photograph/ Employee ID card.
- vi. Identity Card with photograph should be submitted to the Invigilator for verification at the Examination center. The applicant's identity will be verified with respect to his/her details on the Admit Card, in the Attendance List and requisite documents submitted. If identity of the applicant is in doubt the applicant may not be allowed to appear for the Examination.

Please note that Ration Card and Learner's Driving License are not valid id proof for this recruitment exercise.

Note: Applicants have to produce in original the photo identity proof and submit photocopy of the photo identity proof along with Examination Admit Card while attending the examination, without which they will not be allowed to take up the examination. Applicants must note that the name as appearing on the Admit Card (provided during the process of registration) should exactly match the name as appearing on the photo identity proof. Female applicants who have changed first/last middle name post marriage must take special note of this.

If there is any mismatch between the name indicated in the Admit Card and Photo Identity Proof, the applicant will not be allowed to appear for the examination. In case of candidates who have changed their name, will be allowed only if they produce original Gazette notification/their original marriage certificate/affidavit in original.



➤ **ACTION AGAINST APPLICANTS FOUND GUILTY OF MISCONDUCT/USE OF UNFAIR MEANS**

Applicants are advised in their own interest that they should not furnish any particulars that are false, tampered with or fabricated and should not suppress any material information while submitting online application. At the time of examination, verification of certificates or in a subsequent selection procedure, if an applicant is (or has been) found guilty of using unfair means or impersonating or procuring impersonation by any person or misbehaving in the examination hall or disclosing, publishing, reproducing, transmitting, storing or facilitating transmission and storage of contents of the test(s) or any information therein in whole or part thereof in any form or by any means, verbal or written, electronically or mechanically for any purpose or resorting to any irregular or improper means in connection with his/her candidature or obtaining support for his/her candidature by unfair means, or carrying mobile phones or similar electronic devices of communication in the examination hall such a candidate may, in addition to rendering himself/herself liable to criminal prosecution, be liable:

- a) To be disqualified from the examination.
- b) To be debarred either permanently or for a specified period from any examination conducted by SPMCIL.
- c) For termination of service, if he/ she has already joined SPMCIL.

30. APPLICANTS ARE ADVISED to take a printout of the system generated application form. Applicant should also sign at appropriate places. Applicants are not required to send anything through post i.e., Applicants are invited through "online" mode only.

a) They should attach the following documents and keep ready with them at the time of documents verification.

- Self-attested copies of the certificates pertaining to age, educational qualification i.e. Copies of all the marks sheets of all semesters/ years.
- Self-attested copies of caste certificate for SC/ST/EWS/OBC (Non-Creamy Layer) applicants. The certificates should have been issued by the Competent Authority for claiming the benefits of reservation for these categories under the Government of India.
- A copy of the Disability Certificate issued by the Competent Authority as prescribed by Government of India from PWBD applicants. Candidates having less than 40% disability are not eligible for concessions meant for PWBD candidates.
- Ex-Serviceman candidates have to produce a copy of discharge certificate/NOC/pension payment order documentary proof of rank last / presently held (substantive as well as acting) at the time of document verification.

b) Applicants in their own interest should keep all the above-mentioned documents readily available with them. The documents should only be submitted at the time of verification or if advised, be submitted at any date after being shortlisted for further selection process on the basis of examination results. Any discrepancy in the online application and documents submitted, if found at a later stage, shall be liable for rejection of his/her candidature. The applicants should ensure that the signatures appended by them in all the places viz. in online application, admit card, attendance sheet etc. and in all correspondences with the Company in future should be identical and there should be no variation of any kind.

c) Management reserves the right to call for any additional documentary evidence in support of educational qualification etc of the applicant.

d) Canvassing in any form will be treated as disqualification.

31. THE APPLICANTS MAY NOTE THE FOLLOWING:

I. In case of the applicants belonging to OBC Category, the Certificate to that effect should not be earlier than 6 months. Candidates should submit a photocopy of the certificate issued by the Competent Authority in the format prescribed for claiming benefits of reservations for Other Backward Classes under the Government of India at the time of certificates verification or on any date after being advised about the same. The certificate, inter alia, must specifically state that the applicant does not belong to the socially advanced sections/Creamy Layer.

The certificate should have been obtained from the Competent Authority. The applicant should not belong to the socially advanced sections/Creamy layer on the last date of application. The OBC applicants coming under 'Creamy Layer' will be treated as "GENERAL" category applicant and hence they should select their category in online application as 'GENERAL'. It may be noted that only the castes/sub-castes figuring in the Central List (Govt. of India) will be considered accordingly. OBC caste/Sub-caste figuring in the concerned State list but not in Central List will not be considered under OBC category.

II. Community/EWS status as on the closing date for ONLINE Registration of application for this



Advertisement shall only be considered for availing reservation benefits, if eligible and any change in the community/EWS status of the candidate thereafter shall not be entertained.

III. Persons with Disability must produce a copy of the certificate of their disability issued by authorities empowered to issue such certificates at the time of verification or on any date after being advised about the same.

IV. Applicants already in service of Govt./Quasi Govt. Organizations/ Public Sector Banks/Undertakings and Autonomous Bodies shall produce "No Objection Certificate" from their employer at the time of Document Verification. At the time of reporting for duty after selection, a proper and unconditional relieving order/discharge certificate from the previous employer will have to be produced by the applicant in absence of which he/she will not be allowed to join the Company.

V. Persons who have been dismissed from the service of any organization are not eligible to apply.

VI. Applicants are advised to upload/submit required certificate in the prescribed formats as approved/issued by the concerned departments of Government of India/State Government for seeking relaxation/reservation benefits.

VII. Candidates who do not possess the requisite qualification **as on last date of online receipt of application** need not apply. Applicant must have passed the essential qualification from Recognized University/College/Institute.

VIII. The decision of IGM-Noida, in all matters relating to this recruitment will be final and binding on the applicants. No correspondence or personal enquiries shall be entertained by IGM-Noida in this regard.

IX. The Selected candidates will be initially posted in the unit as per his/her preference/option; however, they are liable for transfer to any of the Units of SPMCIL as per requirement of the Company.

X. The seniority of the candidates on appointment will be decided by the respective Unit as per the extant rules.

XI. In case any dispute arises on account of interpretation of clauses in any version of this advertisement other than English, the English version published in Employment News and available on Company's website <http://igmnoida.spmcil.com> shall prevail. Any resultant dispute arising out of this advertisement shall be subject to the sole jurisdiction of the courts situated in Delhi/NCR.

XII. Appointments of selected candidates will be subject to his/her being declared medically fit by a Medical Officer in the rank of Civil Surgeon of a Government Hospital, satisfactory report about his/her character and antecedents by the Police Authorities, satisfactory report from his/her previous employer and referees, verification of caste certificate (for SC,ST,OBC and EWS category candidates) and completion of all other pre-recruitment formalities to the complete satisfaction of the Company. Further, such appointment shall also be subject to Service rules and Standing orders of the Company.

XIII. Canvassing in any form will be treated as a disqualification.

XIV. No correspondence from applicants regarding their eligibility to apply for the above posts will be entertained.

XV. No applicant is permitted to use or to have possession of calculators, mobile phones, pagers or any other instrument/device in the examination hall.

XVI. Please also refer to "How to apply" section in case of any difficulty in applying online or register the problem online.

XVII. Any corrigendum to this advertisement if any will be displayed only on the Company's website <http://igmnoida.spmcil.com> Therefore, applicants are advised to keep checking the Company's website for any update.

XVIII. The Company reserves the right to cancel the Advertisement fully or partly on any grounds and such decision of the Company will be displayed only on the Company's website <http://igmnoida.spmcil.com>. It will not be intimated to the applicants individually. However, in case of cancellation, examination fees (if any) paid by the applicants will be refunded to them.

संयुक्त महाप्रबंधक (मानव संसाधन)/
Joint General Manager (HR)
कृते मुख्य महाप्रबंधक / For Chief General Manager



सांकेतिक पाठ्यक्रम/ INDICATIVE SYLLABUS

FOR THE POST OF: SUPERVISOR (TECH- Mechanical/Electrical/Metallurgy/Assay)

1) General Arithmetic:

Problems relating to Integers and Whole Numbers, LCM and HCF, Decimals and Fractions, Relationship between numbers, Fundamental Arithmetic Operations and BODMAS, Percentage, Ratio and Proportions, Work and Time, Direct and inverse Proportions, Averages, Simple Interest, Profit and Loss, Discount, Area and Perimeter of Basic Geometric Figures, Distance and Time, Lines and Angles, Interpretation of simple Graphs and Data, Square and Square roots etc.

2) Logical Reasoning :

The questions will be broadly based on Alpha-Numeric Series, Coding and Decoding, Analogy, Following Directions, Similarities and Differences, Jumbling, Problem Solving and Analysis, Non-verbal Reasoning based on diagrams, age Calculations, Calendar and Clock, etc.

3) Technical/Professional knowledge in relevant trade:

[THE QUESTIONS SHALL BE COMMENSURATE TO DIPLOMA LEVEL]

For Mechanical Stream's Supervisor:***Mechanical Engineering:***

- a) **Theory of Machines and Machine Design-** Concept of simple machine, Four bar linkage and link motion, Flywheels and fluctuation of energy, Power transmission by belts – V-belts and Flat belts, Clutches – Plate and Conical clutch, Gears – Type of gears, gear profile and gear ratio calculation, Governors – Principles and classification, Riveted joint, Cams, Bearings, Friction in collars and pivots.
- b) **Engineering Mechanics and Strength of Materials-** Equilibrium of Forces, Law of motion, Friction, Concepts of stress and strain, Elastic limit and elastic constants, Bending moments and shear force diagram, Stress in composite bars, Torsion of circular shafts, Thin walled pressure vessels, Hardness scales & testing of material
- c) **Thermodynamics, Refrigeration & Air-conditioning-** 1st Law of Thermodynamics, 2nd Law of Thermodynamics; Thermal Efficiency of Heat Engines & co-efficient of performance of Refrigerators, Kelvin – Planck & Clausius Statements of 2nd Law of Thermodynamics, Absolute or Thermodynamic Scale of temperature, Clausius Integral, Entropy, Properties of Pure Substances: p-v & P-T diagrams of pure substance like H₂O, Heat treatment of steel
- d) **Automobile/IC engine** - Air standard Cycles for IC engines: Otto cycle; plot on P-V, T-S Planes; Thermal Efficiency, Diesel Cycle; Plot on P-V, T-S planes; Thermal efficiency,
- e) **Air compressors** - Types of Air compressors, screw compressor, air dryers, properties & industrial application of compressed air
- f) **Fluid mechanics** – types of flow, types of water pumps, types of pipes used in industries, pipe joints, Reverse osmosis plants
- g) **Power press** – Types of power press, principles, operation, load calculation, shearing/punching force
- h) **Workshop technology & Material science** – Lathe machines, CNC machining, grinding technology, milling machines, types of measuring instruments, workplace safety techniques, types of steel, type of alloys, copper alloys
- i) **Modern industrial practice** – Lean manufacturing, 5S
- j) **Machine Maintenance techniques** – Preventive, breakdown, planned, downtime calculations, modern machine maintenance tools



ELECTRICAL

- a) Basic concepts: Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units.
- b) Circuit law: Kirchhoff's law, Simple Circuit solution using network theorems.
- c) Magnetic Circuit: Concepts of flux, mmf, reluctance, Different kinds of magnetic materials, Magnetic calculations for conductors of different configuration e.g. straight, circular, solenoidal, etc. Electromagnetic induction, self and mutual induction.
- d) AC Fundamentals: Instantaneous, peak, R.M.S. and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of R.L. and C, Resonance, Tank Circuit.

CSE/IT

- **Computer:** History of Computer and their classification, Basic Organization, Memory – RAM, ROM, EPROM, etc, Magnetic-Floppy, Hard disks, CDROM, WORM etc, Concept of Virtual Memory and Cache Memory, Number systems, binary octal, Hexadecimal, Binary Addition, Subtraction and Multiplication, Flotation, point representation and arithmetic, Arithmetic through stacks.

OTHER TECHNICAL ASPECTS

- 1. ISO standards
- 2. Quality Management 7QC tools.
- 3. SPC/SQC Techniques Calibration, Gauging, Digital Measurements
- 4. Safety Guidelines, Factories Act.
- 5. Environment Aspects, Discharge and their control
- 6. Industry 4.0
- 7. Engg Math + Engg. Drawing
- 8. Material handling
- 9. BS Standards for materials & Material testing
- 10. Energy Efficiency.

For Electrical Stream's Supervisors:

ELECTRICAL ENGINEERING

- 1. Basic concepts: Concepts of resistance, inductance, capacitance, and various factors affecting them. Concepts of current, voltage, power, energy and their units.
- 2. Circuit law: Kirchhoff's law, Simple Circuit solution using network theorems.
- 3. Magnetic Circuit: Concepts of flux, mmf, reluctance, Different kinds of magnetic materials, Magnetic calculations for conductors of different configuration e.g. straight, circular, solenoidal, etc. Electromagnetic induction, self and mutual induction.
- 4. AC Fundamentals: Instantaneous, peak, R.M.S. and average values of alternating waves, Representation of sinusoidal wave form, simple series and parallel AC Circuits consisting of R.L. and C, Resonance, Tank Circuit.
- 5. Measurement and measuring instruments: Measurement of power (1 phase and 3 phase, both active and re-active) and energy, 2 wattmeter method of 3 phase power measurement. Measurement of frequency and phase angle. Ammeter and voltmeter (both moving oil and moving iron type), extension of range wattmeter, Multimeters, Megger, Energy meter AC Bridges. Use of CRO, Signal Generator, CT, PT and their uses. Earth Fault detection.
- 6. Generation, Transmission and Distribution – Different types of power stations, Load factor, diversity factor, demand factor, cost of generation, inter-connection of power stations. Power factor improvement, types of faults, short circuit current for symmetrical faults. Switchgears – rating of circuit breakers, Cable – Different type of cables, cable rating and derating factor.
- 7. Electrical Machine: Induction Motor, Synchronous Motor, DC machines, Three Phase Induction Motor, Single Phase Induction motor, Synchronous Machines.

(A)



ELECTRONICS

- 1) Conductors, Semi-conductors, Insulators, Magnetic, Passive components, characteristics of Resistors, Capacitors and inductors. PN Junction diode, forward and reverse bias characteristics and equivalent circuits of diode, Zener diode and applications, clipping, clamping and rectifier circuits using diodes. Bipolar Junction Transistors (BJT) Field Effect Transistor (FET) and MOSFET; Biasing and stability, Emitter follower and its applications – Negative feedback Transistor as a switch, Multistage Amplifiers, Feedback, Oscillators, Multivibrators, Voltage regulation, Power amplifiers.
- 2) Introduction to Network Theorems: Kirchoff's laws, superposition, Thevenin's Norton's and Maximum power theorems. Voltage and Current relationship in the resistance, inductance and capacitance. Concept of reactance, susceptance, conductance, impedance and admittance in series and parallel RL, RC and RLC circuits – Three phase supply-star and delta connection diagrams – Relation between line and phase voltages and currents, series and parallel resonance circuits – condition of resonance, resonant frequency, Q factor and bandwidth.
- 3) Digital electronics: – Logic gates, Demorgan's theorem, Boolean algebra, frequency counters, flip-flops, shift registers, Basic concepts of Digital to Analog and Analog to Digital Converters, Timing circuits, Digital logic circuits, systems & codes Combinational logic design.
- 4) Power Electronics: Basic concepts

CSE/IT

- **Computer:** History of Computer and their classification, Basic Organization, Memory – RAM, ROM, EPROM, etc, Magnetic-Floppy, Hard disks, CDROM, WORM etc, Concept of Virtual Memory and Cache Memory, Number systems, binary octal, Hexadecimal, Binary Addition, Subtraction and Multiplication, Floating point representation and arithmetic, Arithmetic through stacks.

OTHER TECHNICAL ASPECTS

1. ISO standards
2. Quality Management 7QC tools.
3. SPC/SQC Techniques Calibration, Gauging, Digital Measurements
4. Safety Guidelines, Factories Act.
5. Environment Aspects. Discharge and their control
6. Industry 4.0
7. Engg Math + Engg. Drawing
8. Material handling
9. BS Standards for materials & Material testing
10. Energy Efficiency.

For Metallurgy Stream's Supervisors:

- 1) Photo-electric effect, Einstein's photoelectric equation, working of a photoelectric cell, super conductor and superconductivity, examples of superconducting materials. concept of expansion of gases, Boyle's Law, Charles Law, absolute zero temperature, ideal gas, gas constant and Universal gas constant, Isothermal process & adiabatic process, first and second laws of thermodynamics.
- 2) Fundamental particles of an atom like electron, proton and neutron etc., concept of atomic number and mass number, Postulates of Bohr's atomic theory. Aufbau's principle, Hund's rule and Pauli's exclusion principle.-



- Postulates of Electronic theory of valency, three types of Chemical bonding, Arrhenius theory of Acids and Bases, Bronsted - Lowry theory of acids and bases. , Lewis theory of acids and bases. Sources of water- soft water and hard water, Degree of hardness, Osmosis and Reverse Osmosis (RO).
- 3) Materials classification, metal properties & classification, divisions of metallurgy. Ferrous, Non Ferrous Metals and their Alloys: Classification of steels and their applications. Need for alloying steels, different alloy steels - their properties, applications. Different cast irons - composition, properties and their applications. Important non-ferrous metals brass, bronze - their compositions, properties and applications. Properties of bearing metals.
 - 4) MANUFACTURING PROCESSES: Melting process, different furnace used for melting - cupola, reverberator, induction, arc., Definition of casting, sand casting processes - Rolling operation, different rolling mills, Principle of forging, different types of forging hammers and press ,smith forging and closed die forging .Process of extrusion by direct method and indirect method., Different drawing processes - rod drawing, wire drawing, deep drawing., Powder metallurgy processes : production of metal powders, powder mixing ,sintering and compacting of powders into shapes., Powder metallurgy applications.
 - 5) PRINCIPLES OF EXTRACTIVE METALLURGY-PYROMETALLURGY: Types of pyro metallurgical operations- Drying, calcination and Roasting. Smelting: Types of smelting-principle of Reduction smelting & Matte smelting. Refining: Definition & purpose -Types of refining. PRINCIPLES OF EXTRACTIVE METALLURGYHYDROMETALLURGY: Leaching- properties of leachant -suitable Materials for leaching- types of leaching methods - precipitation-. PRINCIPLES OF EXTRACTIVE METALLURGY-ELECTRO METALLURGY: Electrolysis: Definition & principle- cathodic & anodic reactions of electrolysis, Faraday's laws of electrolysis - Electrolytic Refining.
 - 6) Crystal Structure: Metallic Bond, Space lattice, Unit cell . Lattice parameter, Coordination Number, Effective Number of atoms. Planar Density for different planes. Solidification of Metals and Alloys: Differentiate Metal & Alloy, types of Solid phases, Cooling curves, process of crystallization with respect to Nucleation, Grain growth & under cooling, Dendritic Growth & Coring, Homogeneous & Heterogeneous Nucleation. Allotropy Transformations in pure Iron, curie temperature, meta-stable phase, effect of Carbon on Mechanical properties of steel, Classification of Cast irons. Copper-Zinc equilibrium up to 50% Zinc, different brasses. season cracking and its remedies, Copper, Nickel alloys with composition and applications.
 - 7) Foundry as a production process, advantages and Limitation of foundry. Type of foundries, sand casting process -pattern making-core making-moulding-meltingpouring - cleaning. Patterns: Pattern and its function in a foundry. Sand moulds: Green and dry sand moulds, Properties of sand, shatter Index value, sand testing methods. Cores: Function of cores, core sands, core ingredients, core oils, core binders, Properties of core sands, Core making. Hand moulding tools and equipment. Machine moulding equipment.
 - 8) Heat treatment Furnaces: Classification and use, Continuous and Batch furnaces. Furnace Atmospheres: Types of furnace atmospheres - Exothermic and Endothermic atmosphere, Method of controlling of controlled atmospheres. Heat treatment of Nonferrous Metals: Precipitation hardening of Al-Cu alloys, Heat treatment of Brasses and Bronzes.
 - 9) Welding, weld ability, HAZ. Micro structures of welds. PWHT. Introduction, metallurgical aspects of welding, weld ability, HAZ. Micro structures of welds. PWHT.
 - 10) Corrosion principles: Electro - chemical principles of corrosion, Faraday's laws, Types of electrochemical cells, Thermodynamic principles of corrosion, Electrode potential of Metals, Nernst Equation for electrode potentials, Reversible Hydrogen electrode, Conversion of signs for electrode potentials, Electromotive series/standard electrode potentials and thermodynamic corrosion theory.
 - 11) Mechanical working of Metals: Hot working & Cold working, Necessity of annealing to cold worked metal, Recovery, Recrystallization and Grain Growth, Recrystallization Temperature, Variables influencing the re-crystallization. Forging: Forging, Open die forging operations- Edging, Filleting, Swaging, Drawing down, Punching & Piercing, Rotary swaging.
 - 12) Properties of Gold & Silver, Applications and uses of Gold & Silver plating. Equipments for Silver plating. Various types of Gold & Silver solutions, their compositions and operating conditions, their preparation and maintenance. Processing steps of Gold & Silver plating. Various defects generally encountered in the Gold &



Silver plating, causes for these defects and their remedies. Methods for the removal of Gold & Silver deposit from various metals. Applications of electroless plating in electroplating industry. Electroless plating solutions and their operating conditions of copper, silver and gold. General defects, their causes and remedies in electroless plating.

- 13) Principles of qualitative analysis Groups I to V (only Ag^+ , Hg_2^{2+} , Cu^{2+} , Pb^{2+} , Bi^{3+} , Fe^{3+} , Cr^{3+} , Al^{3+} , Ca^{2+} , Ba^{2+} , Zn^{2+} , Mn^{2+} and Mg^{2+}); Nitrate, halides (excluding fluoride), sulphate and sulphide.
- 14) Standards Knowledge of Assaying Process as per IS1417:2016, IS: 1418 – 2009 for Gold and IS 2113: 2016 for Silver, Hall Marking as per IS 15820:2009.

For Assay Stream's Supervisors:

- 1) Measuring Instruments and Measurements
- 2) Applied Mechanics
- 3) Mechanical Operations and Solid Handling
- 4) Fluid Mechanics
- 5) Material Science
- 6) Basics of Electrical and Electronics Engineering
- 7) Chemical Technology
- 8) Chemical Engineering Thermodynamics
- 9) Process Plant Utilities
- 10) Fuel and Material Technology
- 11) Heat Transfer Operations
- 12) Mass Transfer Operations
- 13) Pollution Control and Industrial Safety
- 14) Chemical Reaction Engineering
- 15) Process Control
- 16) Process Equipment Design
- 17) Material and Energy Balance
- 18) Renewable Energy Sources
- 19) Computer Applications in Chemical Engineering
- 20) Properties of Matter Elasticity: definition of stress and strain, moduli of elasticity, Hooke's law, significance of stress-strain curve. Pressure: definition, units, atmospheric pressure, gauge pressure, absolute pressure, Fortin's Barometer and its applications. Surface tension: concept, units, cohesive and adhesive forces, angle of contact, Ascent Formula (No derivation), applications of surface tension, effect of temperature and impurity on surface tension. Viscosity and coefficient of viscosity: Terminal velocity, Stoke's law and effect of temperature on viscosity, application in hydraulic systems. Hydrodynamics: Fluid motion, stream line and turbulent flow, Reynold's number Equation of continuity, Bernoulli's Theorem (only formula & numerical) & its applications.
- 21) Heat and Thermometry Concept of heat and temperature, modes of heat transfer (conduction, convection and radiation with examples), specific heats, scales of temperature and their relationship, Types of Thermometer (Mercury thermometer, Bimetallic thermometer, Platinum resistance thermometer, Pyrometer) and their uses. Expansion of solids, liquids and gases, coefficient of linear, surface and cubical expansions and relations amongst them, coefficient of thermal conductivity, engineering applications.
- 22) Mechanical Properties of Metals such as Hardness, Toughness, Ductility, Malleability, Tensile Strength, Tenacity, Machinability, Extrusion, Forging, Castability, Weldability, Soldering.
- 23) Physical properties and applications of some commonly used metals and metalloids such as Fe, Cu, Al, Cr, Ni, Sn, Pb, Zn, Ag, Si.
- 24) Concept of pH, pH scale, applications of pH in industry



FOR THE POST OF ENGRAVER (SCULPTURE / METAL WORKS)/Laboratory Assistant/ Junior Technician (Fitter/Turner/Electrician/Attendant Operator - Chemical Plant / Carpentry/ Goldsmith/ Melter)

1) General Arithmetic:

Problems relating to Integers and Whole Numbers, LCM and HCF, Decimals and Fractions, Relationship between numbers, Fundamental Arithmetic Operations and BODMAS, Percentage, Ratio and Proportions, Work and Time, Direct and inverse Proportions, Averages, Simple Interest, Profit and Loss, Discount, Area and Perimeter of Basic Geometric Figures, Distance and Time, Lines and Angles, Interpretation of simple Graphs and Data, Square and Square roots etc.

2) Logical Reasoning :

The questions will be broadly based on Alpha-Numeric Series, Coding and Decoding, Analogy, Following Directions, Similarities and Differences, Jumbling, Problem Solving and Analysis, Non-verbal Reasoning based on diagrams, age Calculations, Calendar and Clock, etc.

3) Technical/Professional knowledge in relevant trade:-

Technical/Professional Knowledge Questions for the post of Engraver (Sculpture/Metal Works)

- History of Indian and Western Art
- History Of Art
- Fundamental of Art

A) Indian Art: Ajanta Murals, Ellora Cave Temples, Buddhist & Jain Manuscript Painting, Rajput, Kalighat Patachitras, Indus Valley Civilization-Sculpture, Terracotta & Pottery, Mauryan Sculpture, Shunga Sculpture – Sanchi, Bharahut and Bodhgaya, Amaravati Sculpture, Kushan Period – Gandhara and Mathura Sculpture, Origin of the Buddha Image, Gupta Sculpture-Hindu, Pala-Sena Sculpture, Pallava Sculpture, Khajuraho, Bhuvaneshwar and Konarak, Chola Sculpture, Pallava Sculpture

B) Metal Sculptures of North India.

C) Metal Sculptures of Western India.

D) Metal Sculptures of East India.

E) Metal Sculptures of South India

F) Western Art: Realism –Gustave Courbet & Mille, Impressionism—Manet, Monet, Renoir, Degas, Post Impressionism—Gauguin, Van Gogh, Seurat, Cezanne, Fauvism-Matisse, German Expressionism, Edward Munch, Modigliani, Influence of Cubism on later Modern Art, Modern Sculpture-Rodin, Brancusi, Giacometti, Henry Moore, Futurism-A brief Introduction, Dadaism- Marcel Duchamp, Egyptian Sculpture, Greek Sculpture and Painting, Roman Sculpture.

MODELLING FROM LIFE

- 1) Study of human figures structures with reference to anatomy of full figure and portrait study n classy $\frac{1}{2}$, $\frac{3}{4}$ size clay modelling from life model I various poses as well as nude, semi-nude and draped.
- 2) Simplifications of human figure – various textural qualities to be obtained the application of the clay modelling to get various light effect, moulding an casting of $\frac{1}{2}$, $\frac{3}{4}$ size full figure model in plaster and small sketches in bronze.
- 3) Torso study in drawing and making torso in clay

SCULPTURAL DESIGN

- 1) Study of the development of sculptural organization observed from objective and non-objective forms in order to explore the expressive possibilities.
- 2) A segment in round and relief in clay and plaster creating structural forms through various mixed Medias and various medium such as bronze, lead wax etc.

Wood Sculpture & Wood Carving

- 1) Study of different woods which are permanently used in wood carving such as teak, Rosewood, Yellow wood and similar to that study of various possibilities of wood carving methods.



- 2) Study of wood carving methods also methods of joining wood treatment & wood seasoning etc. Assignment based on carving on wood block and assembling the wooden various colored pieces.

Ceramic Sculpture

- 1) Preparing various bodies of clay and selecting three out of these bodies from sculptures.
- 2) Soft Body –Earthen wears, Semi stone wear, also executing sculpture either by slip, slab, and hand-built method. Making piece slip casting & surface made with various methods used in ceramics. To utilize the methods of Hand Building process and process for constructing the sculpture.
- 3) Terracotta relief & round sculpture relief & round sculpture decorated with the following methods- 1. Engobing, 2. Incising 3 Perforation, 4. Applique, 5. Coiling & 6. Impression.

Metal Sculpture (Welded Sculpture & Bronze Casting)

- 1) Copper, Brass, Lead and their use in response in round and in relief,
- 2) Possibilities and limitations of metals sculptors by casting Exercise in all stages of Bronze casting taking mold casting, Finishing & Platination .
- 3) Hammering & Casting Techniques
- 4) Embossing & Repousse Techniques
- 5) Chasing Techniques
- 6) Engraving Techniques
- 7) Inlaying Techniques
- 8) Drawing From Cast and Figure
- 9) Enamel Design
- 10) Repousse Design
- 11) Visualization Enamel Design
- 12) Visualization Repousse Design

Technical/Professional Knowledge Questions for the post of Laboratory Assistant

- 1) Atomic structure and elementary quantum mechanics: Black body radiation, heat capacities of solids, Rayleigh Jeans law, Planck's radiation law, photoelectric effect, Compton effect, De Broglie's hypothesis. Heisenberg's uncertainty principle, Schrodinger's wave equation and its importance.
- 2) Gaseous State: Deviation of real gases from ideal behavior: van der Waals equation of state. Critical phenomenon. PV isotherms of real gases, continuity of state. Andrew's isotherms of CO₂. The van der Waal's equation and critical state. Joule Thomson effect and inversion temperature of a gas.
- 3) Liquid State: Intermolecular forces, structure of liquids. Structural differences between solids, liquids and gases. Surface tension and its determination using stalagmometer. Viscosity of a liquid and determination of coefficient of viscosity using Ostwald viscometer.
- 4) Chemical Bonding: Ionic solids- lattice and solvation energy, solubility of ionic solids, Fajan's rule, polarity and polarizability of ions, covalent nature of ionic bond, covalent bond, Molecular orbital theory.
- 5) Volumetric Analysis: Standard solutions, indicators, end point, titration curves, Types of titrations: i) neutralization titration- principle, theory of acid base indicators, titration curves and selection of indicators- strong acid - strong base, strong acid –weak base, weak acid- strong base and weak acid –weak base.
- 6) Gravimetric analysis- Introduction, nucleation, precipitation, growth of precipitate, filtration and washing, drying and incineration of precipitate, co-precipitation and post precipitation. Determination of Ni²⁺ S₃-G-2:
- 7) Theories of bonding in metals: Valence bond theory, Free electron theory, thermal and electrical conductivity of metals, Band theory, formation of bands. Classification of materials- classification as metals. The property of super conductivity of materials, Meisner effect and thermal properties. Composites, advanced composites and their classification.
- 8) s-block elements: General Characteristics of groups I and II elements, Diagonal relationship between Li and Mg, Be and Al.

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- 9) p-block elements: Group-13, 14 & 15: Synthesis, structure, Classification, reactivity and Industrial application.
- 10) Oxides: Types of oxides, Structure of oxides of C, N, P, S and Cl - reactivity, thermal stability, hydrolysis. Oxy acids: Structure and acidic nature of oxyacid of B, C, N, P, S and Cl.
- 11) Anion analysis, Cation Analysis, separation and identification of group II (Hg^{2+} , Pb^{2+} , Bi^{3+} , Cd^{2+} , Sb^{2+}), III (Al^{3+} , Fe^{3+}), IV (Mn^{2+} , Zn^{2+}) . Application of concept of hydrolysis in group V cation analysis. Separation and identification of group V individual cations (Ba^{2+} , Sr^{2+} , Ca^{2+}). Theory of flame test. Identification of Group VI cations (Mg^{2+} , NH_4^+).
- 12) Zero group elements: General preparation, structure, bonding and reactivity of Xenon compounds – Oxides, Halides and Oxy-halides
- 13) Chemistry of d-block elements: Characteristics of d-block elements with special reference to electronic configuration variable valence, ability to form complexes, magnetic properties & catalytic properties.

Technical/Professional Knowledge Questions for the post of Junior Technician Attendant Operator-Chemical Plant

- 1) Atom, molecule, Element, compound, mixture, Physical change, chemical change, Acids, bases, salts & their properties. Molecular weight, equivalent weight, atomic weight, Normality, molarity. Hard and soft water, water for industrial purposes. Technique to convert hard water to soft water. Types of solutions, saturated, unsaturated, super saturated solutions, solubility of solids, distilled and de-ionized water, melting and boiling points. Reactions of anions and cations. Exothermic and endothermic reactions. Qualitative analysis. Reactions of cations and anions. Purification processes, organic reactions, Boiling point, Melting point, Distillation
- 2) Ohm's Law. Series and parallel circuits & related calculation. Thermometer and hydrometer. Degree Centigrade, Fahrenheit and its conversion. Definition of pH, pH scale, Chemical effect of electric current and principle of electrolysis. Faraday's Law of electrolysis. Explanation of Anodes and cathodes. Various types of corrosions and importance of protective treatments. Principles and applications of electroplating. Safety precautions in electroplating shop. Exothermic and endothermic reactions. Chemical formulas of different acids, alkalis & cyanides. Method of mixing of electrolyte, use of hydrometer & thermometer. Hard and soft water, water for industrial purposes. Technique to convert hard water to soft water. Types of solutions, saturated, unsaturated, super saturated solutions, solubility of solids, Analysis of chemical baths with hue cell process.
- 3) Modes of heat transfer – conduction, convection and radiation. Determination of thermal conductivity. Temperature & expansion of solid, liquid. Volumetric analysis- titrimetric analysis. Detection of end point. Types of Titrimetric analysis. Corrosion- causes, effects and prevention. Catalyst definition types of catalysts, characteristics of catalysts and use of catalyst. Introduction to Effluent treatment plan.
- 4) Definition of fluid, ideal fluid, real fluid, compressible fluid, incompressible fluid. Properties of fluid, Bernoulli's theorem Steam, cooling water, chilled water, brine, instrument air, Nitrogen, vacuum, introduction of boiler, cooling tower, chilling plant, compressor, ejector. Solvent Extraction: Introduction, definition, choice of solvent, distribution coefficient. Equipment used for extraction, Packed and perforated plate towers, application of extractions. Leaching: Application and different types of equipment uses for leaching oil extraction from oil seeds.
- 5) Mixing: Introduction, classification of mixing equipment's and its applications, mixers for mixing solid-solid, solid-liquid, solid gas. Drying: Definition, factors affecting rate of drying, Different types of dryers, & uses. Introduction and different types of conveyors. Sedimentation & Decantation: Various type of thickeners and sedimentation operation equipment.
- 6) Metallurgy of: • Copper • Silver • Gold and other alloys. Elasticity, Introduction, stress and strain, modulus of elasticity, different types of stresses, Hook's Law, Young's modulus, Yield point, ultimate, stress-strain graph.



- 7) Water Chemistry; Use of water in various industrial application viz. Steam generation; various chemical processes; Principles of water analysis; Meaning of the terms Hardness; Turbidity TDS, TSS, pH, DO, BOD, COD Available Chlorine, Principles adopted in determination of hardness of raw water; Analysis of Boiler feed water, Boiler Blow down Water. Principles of Analysis of Sewage water.

Technical/Professional Knowledge Questions for the post of Junior Technician (Fitter)

- a. Linear measurements - its units, dividers, calipers, hermaphrodite, centre punch, dot punch, prick punch their description and uses of different types of hammers. Description, use and care of „V“ Blocks, marking off table. Measuring standards (English, Metric Units), angular measurements.
- b. Bench vice construction, types, uses, care & maintenance, vice clamps, hacksaw frames and blades, specification, description, types and their uses, method of using hacksaws. Files - specifications, description, materials, grades, cuts, file elements, uses. Types of files, care and maintenance of files. Measuring standards (English, Metric Units), angular measurements.
- c. Marking off and layout tools, dividers, scribing block, - description, classification, material, care & maintenance. Try square, ordinary depth gauge, protractor - description, uses and cares. Uses, care & maintenance of cold chisels
- materials, types, cutting angles. Marking media, marking blue, Prussian blue, red lead, chalk and their special application & Description. Power Saw, band saw, Circular saw machines used for metal cutting.
- d. Micrometer- principle, parts graduation, reading, use and care. Micrometer depth gauge, parts, graduation, reading, use and care. Digital micrometer. Vernier calipers, principle, , graduations, reading, use and care. Vernier bevel protractor, construction, graduations, reading, use and care, dial Vernier Caliper, Digital Vernier caliper.
- e. Drilling processes: common type (bench type, pillar type, radial type), gang and multiple drilling machine. Marking and measuring tools, wing compass, tin man"s square tools, snips, types and uses. Tin man"s hammers and mallets type- sheet metal tools, types, specifications, uses. Trammel- description, parts, uses. Hand grooves specifications and uses.
- f. Stakes-bench types, parts, their uses. Various types of metal joints, their selection and application, tolerance for various joints, their selection& application. Wired edges. Various rivets shape and form of heads, importance of correct head size. Rivets-Tin man"s rivets types, sizes, and selection for various works. Riveting tools, dolly snaps description and uses. Method of riveting, The spacing of rivets. Flash riveting, use of correct tools, compare hot and cold riveting.
- g. Counter sink, counter bore and spot facing-tools and nomenclature, Reamer material, types (Hand and machine reamer), kinds, parts and their uses, determining hole size (or reaming), Reaming procedure. Tap wrench: material, parts, types (solid &adjustable types) and their uses removal of broken tap, studs (tap stud extractor). Drill kinds: Fraction, metric, letters and numbers, grinding of drill.
- h. Grinding wheel: Abrasive, grade structures, bond, specification, use, mounting and dressing. Selection of grinding wheels. Bench grinder parts and use. Gauges- Introduction, necessity, types. Limit gauge: Ring gauge, snap gauge, plug gauge, description and uses.
- i. Screws: material, designation, specifications, Property classes (e.g. 9.8 on screw head), Tools for tightening/ loosening of screw or bolts, Torque wrench, screw joint calculation uses. Power tools: its constructional features, uses & maintenance. Locking device: Nuts- types (lock nut castle nut, slotted nuts, swam nut, grooved nut) Description and use. Various types of keys, allowable clearances & tapers, types, uses of key pullers.



- j. Special files: types (pillar, Dread naught, Barrow, warding) description & their uses. Slip gauge: Necessity of using, classification & accuracy, set of blocks (English and Metric). Details of slip gauge. Applications of Slip Gauges. Application of slip gauges for measuring, Sine Bar-Principle, application & specification.
- k. Lapping: Application of lapping, material for lapping tools, lapping abrasives, charging of lapping tool. Surface finish importance, equipment for testing-terms relation to surface finish. Equipment for testing surfaces quality – dimensional tolerances of surface finish. Honing: Application of honing, material for honing, tools shapes, grades, honing abrasives. Frosting- its aim and the methods of performance.
- l. Annealing and normalizing, Case hardening and carburising and its methods, process of carburising (solid, liquid and gas). Tapers on keys and cotters permissible by various standards. Gauges and types of gauge commonly used in gauging finished product-Method of selective assembly „Go" system of gauges, hole plug basis of standardization. Bearing-Introduction, classification (Journal and Thrust), ball bearing: Single row, double row, description of each, and advantages of double row. Roller and needle bearings: Types of rollers bearing. Bearing metals – types, composition and uses.
- m. Vee belts and their advantages and disadvantages, use of commercial belts, dressing and resin creep and slipping, calculation. Power transmission coupling types-flange coupling, -Hooks coupling universal coupling and their different uses. Pulleys-types-solid, split and „V" belt pulleys, standard calculation for determining size crowning of faces -loose and fast pulleys -jockey pulley. Types of drives -open and cross belt drives.

FOR THE POST OF JUNIOR TECHNICIAN (GOLDSMITH)

- 1) Knowledge of different materials used in Gold Smith Industry. Steel rule – Inch and meter. Files – their types, grades, cut, convexity, specifications, their use and care. Hacksaw frames and blades – their uses. Description and Specification to different types of Hammers.
- 2) Knowledge of extracting pure Gold from ore. Knowledge of fired Pit furnace. Calculation of tap drill size. Tap & Dies. Drills, their size and nomenclature. Knowledge of the term carat. Different materials added with Gold to make alloy. Percentage of alloying ~~and~~ to make Gold of different carat (e.g. 24, 22, 20, 18 etc.). Calculation of different alloying elements according to quality of gold. Knowledge on Hallmark. Different process of melting Gold and metals used as an alloy. Melting temperature of Different materials. Assaying analysis of Gold and silver /or other metals.
- 3) Knowledge on different tools used to provide desired shape to wires and sheets. Knowledge of Die and Punch, Core and Cavity. Solders: - Composition of different materials in solder. Soldering Processes – Knowledge on different soldering processes. Knowledge of Brazing and different process of brazing Equipment's & tools used in soldering and brazing (e.g. Gas Burner, Blow pipe, etc.) lighter. Threads and joints used in Gold Smith trade.
- 4) Process of melting wax. Methods to fill molten Gold in the mould, removal of blow holes. Polishing. Necessity of jewelry filing and use of different types of jewelry files. Use of dust collector. Techniques for collection of dust during filing, scraping, etc. Precaution to be observed while working with Aqua-Regia.
- 5) Physical and mechanical properties of metals. Conductors and insulators. Conducting materials and their comparison. Fundamentals of electricity, definitions, units & effects of electric current. Types of electrical supply. Comparison and Advantages of DC and AC. Polarity test in DC. Resistance and specific resistance. Electrical measuring instruments such as Voltmeter, Ammeter and Ohmmeter. Ohm's Law. Magnetic terms; magnetic materials and properties of magnet. Electro magnet, Faradays laws of electromagnetic induction. Types of cells and their applications. Primary cells and secondary cells, Grouping of cells.



- 6) Basic electronics Semiconductor energy level, atomic structure, types of materials, P-N-junction. Doping, Intrinsic and extrinsic semiconductor, Covalent bond. PN junction diode and its characteristics.
- 7) Hard and soft water, water for industrial purposes. Technique to convert hard water to soft water. Types of solutions, solubility of solids, distilled and de-ionized water, melting and boiling points. Reactions of anions and cations. Exothermic and endothermic reactions Qualitative analysis. Reactions of cations and anions.
- 8) Definition of pH, pH scale, Chemical effect of electric current and principle of electrolysis. Faraday's Law of electrolysis. Explanation of Anodes and cathodes. Various types of corrosions and importance of protective treatments. Principles and applications of electroplating. General terms and definitions subjected to electroplating.
- 9) Properties of Gold & Silver, Applications and uses of Gold & Silver plating. Equipments for Silver plating. Various types of Gold & Silver solutions, their compositions and operating conditions, their preparation and maintenance. Processing steps of Gold & Silver plating. Various defects generally encountered in the Gold & Silver plating, causes for these defects and their remedies. Methods for the removal of Gold & Silver deposit from various metals. Applications of electroless plating in electroplating industry. Preparation of articles prior to electroless plating. General defects, their causes and remedies in electroless plating.
- 10) Electrochemical and chemical polishing. Electroforming on metallic and non-metallic models. Electro-eroding, Gilding, Dipping . Basic Metal Work. Preparation and application of enamels. Firing and finishing. Flush and tension setting. NC Milling for wax models. 3D Printing Technology. Laser soldering Technology .Laser Marking, Engraving.

FOR THE POST OF JUNIOR TECHNICIAN (ELECTRICIAN)

- 1) Fundamentals of electricity, definitions, units & effects of electric current. Conductors and insulators. Conducting materials and their comparison. Joints in electrical conductors. Techniques of soldering. Types of solders and flux.
- 2) Underground cables: Description, types, various joints and testing procedure. Cable insulation & voltage grades Precautions in using various types of cables.
- 3) Ohm"s Law; Simple electrical circuits and problems. Kirchoff"s Laws and applications. Series and parallel circuits. Open and short circuits in series and parallel networks. Laws of Resistance and various types of resistors. Wheatstone bridge; principle and its applications. Effect of variation of temperature on resistance. Different methods of measuring the values of resistance. Series and parallel combinations of resistors.
- 4) Magnetic terms, magnetic materials and properties of magnet. Principles and laws of electro-magnetism. Self and mutually induced EMFs. Electrostatics: Capacitor - Different types, functions, grouping and uses. Inductive and capacitive reactance, their effect on AC circuit and related vector concepts. Comparison and Advantages of DC and AC systems. Advantages of AC poly-phase system. Concept of three-phase Star and Delta connection. Line and phase voltage, current and power in a 3 phase circuits with balanced and unbalanced load.
- 5) I.E. rules on electrical wiring. Types of domestic and industrial wirings. Study of wiring accessories e.g. switches, fuses, relays, MCB, ELCB, MCCB etc. Grading of cables and current ratings. Principle of laying out of domestic wiring. PVC conduit and Casing capping wiring system. Different types of wiring - Power, control, Communication and entertainment wiring. Inspection and testing of wiring installations. Special wiring circuit e.g. godown, tunnel and Factory etc. Importance of Earthing. Plate earthing and pipe earthing methods and IEE regulations. Earth resistance and earth leakage circuit breaker.
- 6) Working principles and circuits of common domestic equipment and appliances. Concept of Neutral and Earth. Working principle, construction and classification of transformer. Single phase and three phase transformers. Turn ratio and E.M.F. equation. Series and parallel operation of transformer. Voltage Regulation and efficiency.
- 7) Study and understand Layout drawing of control cabinet, power and control circuits. Various control elements: Isolators, pushbuttons, switches, indicators, MCB, fuses, relays, timers and limit switches etc. Wiring accessories:



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Race ways/ cable channel, DIN rail, terminal connectors, thimbles, lugs, ferrules, cable binding strap, buttons, cable ties, sleeves, gromats and clips etc. Testing of various control elements and circuits.

- 8) Basic concept, block diagram and working of voltage stabilizer, battery charger, emergency light, inverter and UPS. Preventive and breakdown maintenance. Transmission and distribution networks. Line insulators, overhead poles and method of joining aluminum conductors.
- 9) Safety precautions and IE rules pertaining to domestic service connections. Various substations. Various terms like - maximum demand, average demand, load factor, diversity factor, plant utility factor etc. Types of relays and its operation. Types of circuit breakers, their applications and functioning. Production of arc and quenching.

FOR THE POST OF JUNIOR TECHNICIAN (TURNER)

- 1) Measurement, line standard and end standard, steel rule different types, graduation and limitation. Hammer and chisel materials, types and uses. Prick punch and scriber. Vice - types and uses, Files different types of uses, cut, grade, shape, materials etc. Try square-different types, parts, material used etc. Calipers types and uses (firm joint). Vee - block, scribing block, straight edge and its uses. Hacksaw-their types & uses.
- 2) Surface plate its necessity and use. Tap - different types (Taper 2nd and bottoming) care while tapping. Dies different types and uses. Lathe with its main components, lever positions and various lubrication points as well. Definition of machine & machine tool and its classification. Classification of lathe in Function and construction of different parts of Lathe. Types of lathe drivers. Description in details-head stock- cone pulley type- all geared type construction & function. Tumbler gearset. Lathe cutting tool-different types, shapes and different angles (clearances and rake), specification of lathe tools.
- 3) Vernier caliper-its construction, principle graduation and reading, least count etc. Digital vernier caliper. Outside micrometer -different parts, principle, graduation, reading, construction. Digital micrometer. Cutting speed, feed depth of cut, calculation involved-speed feed R.P.M. etc. recommended for different materials. Different types of micrometer, Outside micrometer. Uses of digital measuring instruments.
- 4) Drills-different parts, types, size etc., different cutting angles, cutting speed for different material. Boring tool. Counter - sinking and Counter boring. Letter and number drill, core drill etc. Reamers-types and uses.
- 5) Knurling meaning, necessity, types, grade, cutting speed for knurling. Lathe mandrel-different types and their uses. Concept of interchangeability, Limit, Fit and tolerance as per BIS: 919-unilateral and bilateral system of limit, Fits- different types, symbols for holes and shafts. Hole basis & shaft basis etc.
- 6) Driving plate. Face plate & fixed & traveling steadies construction and use. Transfer caliper-its construction and uses. Lathe centers-types and their uses. Lathe carrier function types & uses. Mandrel - Different types and its use. Magnetic stand dial indicator, its used and care.
- 7) Taper - different methods of expressing tapers, different standard tapers. Method of taper turning, important dimensions of taper. Taper turning by swiveling compound slide, its calculation. Bevel protector & Vernier bevel protractor-its function & reading. Method of taper angle measurement. Sine bar- types and use. Slip gauges-types, uses and selection.
- 8) Form tools-function-types and uses, Template-purpose & use. Dial test indicator- construction & uses. Cutting tool material-H.C.S., HSS, Tungsten. Carbide, Ceramic etc, - Constituents and their percentage. Tool life, quality of a cutting material. Cutting speed, feed, turning time, depth of cut calculation, cutting speed chart (tungsten carbide tool) etc. Basic classification of tungsten carbide tips.
- 9) Preventive maintenance, its necessity, frequency of lubrication. Preventive maintenance schedule., TPM (Total Productive Maintenance), EHS (Environment, health, Safety) Marking table-construction and function. Angle plate construction, eccentricity checking. Different types of attachments used in lathe. Various procedures of thread measurement thread screw pitch gauge. Screw thread micrometer, microscope etc.
- 10) CNC technology basics: Difference between CNC and conventional lathes. Advantages and disadvantages of CNC machines over conventional machines. Machine model, control system and specification. Axes convention of CNC machine - Machine axes identification for CNC turn centre. Different types of programming techniques of CNC machine. Tool Nose Radius Compensation (G41/42) and its importance (TNRC). Cutting tool materials, cutting tool geometry - insert types, holder types, insert cutting edge geometry. - Describe Tooling system for



turning - Setting work and tool offsets. - Describe the tooling systems for CNC TURNING Centers. - Cutting tool materials for CNC Turning and its applications. Tool holders and inserts for radial grooving, face grooving, threading, drilling.

FOR THE POST OF JUNIOR TECHNICIAN (CARPENTRY)

- 1) Introduction to carpentry hand tools, their classification, names and the uses. Measuring, marking and testing tools, types, sizes, uses, etc Introduction to timber: growth of a trees, cross-section of an exogenous tree trunk, parts, formation. Parts of a tree. Functions and identification of timber and defects, diseases of timber VIZ. Knots, shakes, grains etc.
- 2) Saw and the Plane: description, types, sizes, setting, sharpening, uses, etc. Special saws - Compass saw, coping saw, Bow saw, fret saw portable circular saw. Different types of Plane : description, types, sizes, setting, sharpening, uses, etc. Special planes: - Compass plane Moulding plane, Rebate plane, Grooving plane etc. - description, type, size, use, care and maintenance. Portable power planer machine and its uses.
- 3) Hand tools (paring tools); Different types of the chisels, description, sizes, uses. Grinding, sharpening & honing etc. Striking tools - Hammers, mallets etc. Workshop appliances: work bench, bench vice, bench hook, bench stop shooting board, MITRE board etc. - types, sizes, uses etc.
- 4) Classification and grading of timbers as per ISI. types of the grains. Joineries: Classification of joint (framing, Angle broadening and the lengthening) Framing Joints: - Halving, Mortise and tenon joints, Bridle joints- description, types and uses. Angle joint: - Description, types size, uses etc. Seasoning of Timber: Types, advantages and disadvantages, stacking (vertical and horizontal) Moisture content in timber and its effect on timber, moisture meter and oven method. Characteristics of wood, Physical and mechanical properties of wood, qualities of good timber. Broadening joints - description, types, and uses. Adhesives - types, uses etc. Lengthening joints: Different types of scarf joints – Description and types of Table scarf, bevel scarf, tension scarf etc.
- 5) Preservation of timber: Chemical treatment of timber - types, process etc. and preservatives used. Files: Types, grades, uses, care and maintenance. Uses of electrical portable jig saw, portable disc sander, portable electrical drill machine.
- 6) Boring tools: Description and types Country drill, hand drill, ratchet brace, breast drill – parts, functions, size and use. Portable electric drilling machine - description, uses etc. Drill bits - type, size and uses. Calculation of timber required for stool. Prepare cutting list from drawing (sawn size and finish size). Hand augur – description, size & uses.
- 7) Description of timbers used in furniture making work: - Teak, Sal, Deodar and other wood as available in the local market. Conversion of timber: Parallel sawing, radial sawing, quarter sawing, tangential sawing etc. Design of Furniture's for different purpose: - Bed room, dining Hall, Library, Office, Work-shop, Class room.
- 8) Tools required for carving ornamental works. Properties of wood. Preparation of bill of materials and simple estimation. Wood working machines: Description, types, sizes, parts, functions, operations. Safety precautions, care and maintenance. Oiling, greasing etc. of the following machines: A) Band Saw B) Circular saw C) Planning machine D) Wood Turning Lathe with Turning tools. Market form of timber. Conversion of timber method, advantages, disadvantages.
- 9) Description, types, sizes, parts, functions, operations, safety precautions, care and maintenance etc. of the following machines) Drilling Machine. B) Grinding Machine. C) Mortiser Machine. D) Universal wood working Machine.
- 10) Calculation of timber – weight, area, volume etc. Introduction to pattern making Hand tools. Contraction rule and different allowances. Shrinkage, drafting, machine allowances. Different types of timbers used in pattern making. Reading of blue print. Layout board and its use. Types of pattern and their uses. Split patterns -Types and uses. Dowel- types, size and uses in pattern making work. Core and core prints: Types & uses. Colour code as per IS specifications. Use of paints on pattern core, core box, core prints etc. Estimate volume of wood and other requirements for pattern making box.



- 11) Introduction about carpentry work involved in building construction. Types of doorframes, door shutters- description, sizes, uses, advantages and disadvantages etc. Fittings used in door. Types of panels used in panel shutter, glazed shutter. Familiarization with the materials which is used in industries as substitute of wood. Characteristics of material, Mechanical properties, durability, Applications, etc. Types of window frame and window shutters. Protection bars: types and uses. Roof trusses: King post, queen post etc. related terms, sizes construction etc.
- 12) Basic principle of repairing work and repairing technique of furniture, door, window, rack etc. Use of Nails, screws angle plate, bracket, nuts, bolts etc. for repairing work. Packing case: -Types, material and tools used. Types of hanging plates, corner plates etc. used in carpentry work. Economic factors and material estimate.

FOR THE POST OF JUNIOR TECHNICIAN (Melter)

- 1) Importance of trade training, List of tools & Machinery used in the trade.
- 2) Safety attitude development of the trainee by educating them to use Personal Protective Equipment (PPE).
- 3) First Aid Method and basic training.
- 4) Safe disposal of waste materials like cotton waste, metal chips/burrs etc.
- 5) Hazard identification and avoidance.
- 6) Safety signs for Danger, Warning, caution & personal safety message.
- 7) Preventive measures for electrical accidents & steps to be taken in such accidents.
- 8) Use of Fire extinguishers.
- 9) Practice and understand precautions to be followed while working in fitting jobs.
- 10) Safe use of tools and equipment used in the trade.
- 11) Identify each and every tools & equipment as per desired specification.
- 12) PPT show of various raw materials used in foundry.
- 13) Identify each raw materials used in foundry.
- 14) Finding out clay content of sand.
- 15) Finding out permeability test of green sand with permeability tester.
- 16) Finding out strength test with universal testing machine.
- 17) Finding out grain fineness no. of moulding sand with sieve shaker tester.
- 18) Ramming practice in moulding boxes with hand rammers to obtain desire green hardness such as 70,80, 90 by green hardness tester.
- 19) Cut channel on rammed boxed with cross section such as trapezoid & triangular and finish with cleaner & double ender etc.
- 20) Prepare unit sand and prepare mould for block such as square, Rectangular and round and preparation of various types of moulds related to foundry.
- 21) Prepare simple pattern & wooden patterns & core boxes.
- 22) Metal working - Marking and sawing on straight line - chipping and filling to desired size on different metals.
- 23) Grinding the metals to desire size by pedestal grinder and flexible shaft grinder.
- 24) Drilling on various metals.
- 25) Prepare induction furnace for charging, prepare charges for charging, operate and melt aluminium and pour aluminum into the mould and identify defects.



FOR THE POST OF Jr. Office Assistant/ Jr. Bullion Assistant AND Jr. HINDI TYPIST at B-3 LEVEL

1) General Awareness:

- a) Current Affairs
- b) Indian Polity
- c) Modern Indian History

2) Computer Knowledge:

Computer Knowledge including MS Office, MS Excel, MS Power Point and MS Access.

• English Language Skills:

- a) Fill in the Blanks
- b) Error Recognition
- c) Articles
- d) Verbs
- e) Preposition
- f) Spelling Test
- g) Vocabulary
- h) Grammar
- i) Synonyms
- j) Sentence Structure
- k) Antonyms
- l) Sentence Completion
- m) Correct use of words
- n) Phrases and Idioms

• Numerical Aptitude:

Problems relating to Integers and Whole Numbers, LCM and HCF, Decimals and Fractions, Relationship between numbers, Fundamental Arithmetic Operations and BODMAS, Percentage, Ratio and Proportions, Work and Time, Direct and inverse Proportions, Averages, Simple Interest, Profit and Loss, Discount, Area and Perimeter of Basic Geometric Figures, Distance and Time, Lines and Angles, Interpretation of simple Graphs and Data, Square and Square roots etc.

• Reasoning Aptitude:

The questions will be broadly based on Alpha-Numeric Series, Coding and Decoding, Analogy, Following Directions, Similarities and Differences, Jumbling, Problem Solving and Analysis, Nonverbal Reasoning based on diagrams, age Calculations, Calendar and Clock, etc.



h

GUIDELINES FOR EVALUATION OF TYPING TEST (ENGLISH/HINDI) FOR THE POSTS OF JUNIOR OFFICE ASSISTANT,
/Junior Bullion ASSISTANT AND JUNIOR HINDI TYPIST at B-3 LEVEL

I. Duration of typing test: 10 minutes

II. Speed criteria: 40 w.p.m. in English and 30 w.p.m. in Hindi

III. Nature of Mistakes:-

A. Full Mistakes: The following errors are treated as full mistakes: -

- For every omission of a word/figure.
- For every substitution of a wrong word/figure, except transposition of words.
- For every addition of a word/figure not found in the passage.
- For every spelling error committed by way of repetition, or addition, or omission, or substitution of a letter/letters, e.g. the word "spelling" typed as seeplings; seplling; speling; seepling; etc.
- For repetition of word/figure, e.g. "I shall shall be grateful"
- Incomplete words (half typed words will be treated as mistake).

B. Half Mistakes: The following errors are treated as half mistakes:-

- Spacing Errors:** Where no space is provided between two words, e.g. „Ihope“, or undesired space is provided between the words or letters of a word e.g. "I have", "I h ave" (space left between a word).
- Wrong Capitalisation:** Wrong typing of a capital letter for small letter or vice-versa. (This does not apply in respect of Hindi Typewriting scripts)
- Punctuation Errors:** Where the punctuation mark is omitted or added or substituted by another.
- Transposition Errors:** Where words are transposed, e.g. the words "I hope" typed as "hope I".
- Paragraphic Errors:** Half mistake shall be treated for each irrational para, where the space given before starting of any paragraph is not uniform, i.e paragraph given manual spaces; without pressing the **Tab Key**, will be treated half-mistake.

NOTE:

Any corrections made by pen or pencil will be treated as a Mistake.

Enclosures: Instructions to the Candidates (**Annexure - III**).

IV. Criteria for Calculation of Typing Speed and Error:-

A. The Criteria for evaluation of typing speed is illustrated below as -

Note: 1 word = 5 key strokes, 1 error = 5 key strokes.

Net Speed (WPM) = [(Gross Strokes - Error Hits) / 5] / Total Test Time (Min).

Duration: 10 min.

Gross Strokes = Total Stokes Typed in 10 Min. e.g. 2000.

Words Typed = (2000/5) = 400.

Gross Speed = 400/10 = 40 WPM.

B. Criteria for Calculation of Error

Mistakes / Error Stokes = 250.

Error Words = 250/5 = 50.

Net Errors = 50/10 = 5 WPM.

Net Speed = 40 - 5 = 35 WPM.

Percentage of Error allowed -

- Relaxation of 5% error for UR Category
- Relaxation of 7% error for other categories



(Handwritten signature)

INSTRUCTIONS TO THE CANDIDATES

- i. The candidates are expected to type the words/figures and numerical/years in the manner as given in the Question Paper (both in English & Hindi). Mistake will be treated if a candidate types differently or in other language. This applies for both in English & Hindi Mediums.
- ii. The candidate is required to type the Test Passage in the Medium opted by him, e.g. if he opts for English Medium, he is required to type in English language and vice-versa. No credit will be given if a candidate types in the Medium not opted by him.
- iii. Candidates are required to use **Tab Key** for beginning of any Para; rather than giving spaces manually. Every Para, where the space given without pressing the **Tab Key**, will be treated as a half-mistake.
- iv. Candidates are **Not** required to repeat the passage, if he/she has completed the passage once and has time in his/her disposal, however they are allowed to revise and correct their mistakes and inaccuracies, if any, during the prescribed time.
- i. After every Punctuation mark, only **One** space is to be inserted, e.g. after comma, full stop, mark of interrogation etc. However, candidates are advised to follow the Question paper scrupulously in this regard.
- ii. Any irrelevant matter/numerical typed will be treated as a mistake.
- iii. Any incomplete word arising due to any reason will be treated as one full mistake.



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पदों के लिए कर्तव्य एवं जिम्मेदारियाँ /
DUTIES AND RESPONSIBILITIES OF POSTS

भारत सरकार टकसाल, मुंबई/ INDIA GOVERNMENT MINT -MUMBAI

Name of the Post	Duties & Responsibilities
Supervisor (TO-Mechanical)	• Execution of production plans and ensure to reach the production targets. • Ensure products quality standards. • Manage inventory at section level, track material usage and initiate for procurement. • Ensure that production activities comply with safety norms. • Maintenance of machines, procurement of spares and ensuring safety. • Lead and manage a team of technicians, providing training and support. • Oversee the maintenance and upkeep of assets including equipment, facilities and infrastructure. • Any other work assigned from time to time
Supervisor (Assay)	• Oversee and coordinate activities related to the analysis and refining of precious metals, primarily Gold and Silver. • Supervise the preparation of chemical solutions used for assay and refining operations. • Operate and maintain precision analytical instruments such as Spark Optical Emission Spectrometer (OES), potentiometric analyzers, and other related equipment's. • Ensure accurate and reliable analysis of precious metals in raw materials, intermediates, and final products. • Maintain records of analysis, calibration data, and refining operations in compliance with regulatory and internal standards. • Train and guide team members in analytical methods, equipment usage, and safety practices. • Implement and monitor safety, quality, and environmental compliance within the department. • Collaborate with other departments to improve efficiency, yield, and quality of the refining process. • Any other work assigned from time to time.
Supervisor (Metallurgy)	• Execution of production plans and ensure to reach the production targets. • Ensure products quality standards. • Manage inventory at section level, track material usage and initiate for procurement. • Ensure that production activities comply with safety norms. • Maintenance of machines, procurement of spares and ensuring safety. • Lead and manage a team of technicians, providing training and support. • Oversee the maintenance and upkeep of assets including equipment, facilities and infrastructure. • Any other work assigned from time to time.
Jr. Office Assistant	Junior Office Assistant may be posted in HR/Finance/Marketing/Purchase or in Factory as Recorder. Roles and Responsibilities: • Creation and Maintenance of data pertaining to concerned section • Noting and drafting of letters, circulars, internal office notes etc. • Using SAP and e portals if required depending on their posting in the Department



	• Effective record keeping • Assisting the Superiors in the functional activities • Any other work assigned from time to time
Jr. Technician (Attendant Operator-Chemical Plant)	• Handle chemicals such as acids (e.g., hydrochloric acid, nitric acid), bases, and other reagents used in the assay and refining process. • Assist in routine chemical preparation, sample handling, and cleaning of glassware and equipment. • Ensure adherence to standard operating procedures (SOPs) during chemical handling and processing. • Follow all safety protocols and use personal protective equipment (PPE) to maintain a safe working environment. • Assist in the operation of basic equipment used in the chemical plant. • Maintain cleanliness and orderliness of the laboratory and working areas. • Support senior staff in day-to-day operations related to assay and refining activities. • Any other work assigned from time to time
Jr. Technician (Fitter)	• Assemble and install machinery, equipment and other mechanical systems. • Perform routine maintenance and repair on existing machinery and equipment. • Reading blueprint/drawing etc. • Filling the metal workpiece as per drawing/blueprint/specification etc. • Assemble the fabricate parts and components. • Maintain tools and equipment in good working condition. • Measure and inspect parts and equipment to ensure accuracy and quality. • Operating the machinery as per requirement. • Any other work assigned from time to time.
Jr. Technician (Turner)	Turner in Production: • Set up and operate lathes machine/CNC turning center and other machine tool. • Maintain and sharpen cutting tool Operating lathes/CNC turning center and other machine tool to shape metal or wood workpieces. • Perform precision work to achieve accurate dimensions and finishes. • Inspect workpiece for quality and accuracy. • Reading blueprint/drawing etc. • Any other work assigned from time to time Turner in Maintenance: • Basic lathe operations such as facing, turning, threading, and boring of metal components. • Use precision instruments like Vernier calipers, micrometers, and limit gauges to check part accuracy. • Maintain cleanliness of machines, assist in lubrication, and ensure proper tool storage and care. • The job will be on a shift basis (day and night shifts) as per departmental requirements • Any other work assigned from time to time
Jr. Technician (Carpentry)	• Build, repair and install structures and fixture made of wood and wood substitutes. • Reading blueprint/drawing etc. • Manufacture different sizes of wooden boxes as per drawing/blueprint/specification etc. • Measure, cut, shape and fit wood and other material as per technical detail.



	• Staining and varnishing to wood surfaces. • Maintain tools and equipment in good working condition. • Any other work assigned from time to time
Jr. Technician (Electrician)	• Installation, troubleshooting, and maintenance of electrical systems in buildings, substations, and outdoor areas. • Perform substation activities such as transformer checks, panel cleaning, relay testing, and cable terminations under supervision. • Carry out wiring, conduit laying, and fitting of switches, sockets, and distribution boards. • Perform maintenance at heights including lighting fixtures, ceiling fans, and control boxes with all safety norms. • Learn and use of testing instruments such as multimeters, meggers, and clamp meters. • The job will be on a shift basis (day and night shifts) as per departmental requirements. • Any other work assigned from time to time
भारत सरकार टंकसाल, कोलकाता/ INDIA GOVERNMENT MINT- KOLKATA	
Jr. Technician (Fitter)	• Operating the coin minting presses. • Coin stamping dies setting & replacement. • Carrying out coin minting production. • Carrying out coin packaging production. • Operating coin packaging machines. • Need to carry out maintenance (breakdown & preventive) of coining presses, coin packaging machines along with auxiliary equipment's (plants) of coins minting presses and coins packaging machines. • Any other work assigned from time to time
Jr. Technician (Turner)	• Operating the coin minting presses. • Coin stamping dies setting & replacement. • Carrying out coin minting production. • Carrying out coin packaging production. • Operating coin packaging machines. • Need to carry out maintenance (breakdown & preventive) of coining presses, coin packaging machines along with auxiliary equipment's (plants) of coins minting presses and coins packaging machines. • Any other work assigned from time to time
Jr. Hindi Typist	• The Junior Hindi Typist shall execute all Hindi typing works and initiate noting regarding Official Language implementation. • He shall assist the reporting officer in implementing the Official Language Policy, conducting Hindi Workshops and Hindi Training Programmes. Further, he shall also assist in preparing progressive reports, as well as maintain all files pertaining to the Official Language. • Any other work as per sectional requirement shall be assigned from time to time.
Jr. Technician (Melter)	• To carry out pre melting, melting, bar making of Precious Metals, like gold, silver along granulation for electrolyte preparation for gold, silver etc. • Carryout installation, maintenance & repair works of Electrical AC/ DC machinery, lighting circuits and equipment's used in industries. • Usage, handling and storage of hazardous chemicals. • Maintenance of ready crucibles, tools required, mould, LPG gas, water etc for melting. • Cutting of bars, silver or gold article to put into melting furnace, putting into oven. Perform metal working, marking, sawing, chipping, filling, grinding & drilling etc.



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	• 5S & Housekeeping awareness and techniques, importance of safety and general precautions of first aid. • Knowledge of fire safety and PPEs. • Any other work as per sectional requirement shall be assigned from time to time.
भारत सरकार टंकसाल, हैदराबाद / INDIA GOVERNMENT MINT - HYDERABAD	
Engraver (Sculpture/ Metal Works)	• Design and Execution- Translating design specifications into intricate engraved patterns on metal surfaces. • Tool proficiency - Utilizing a range of engraving tools, techniques, and equipment to create high- quality engravings. • Precision and Accuracy - Maintaining strict tolerances and accuracy in engraving to ensure the integrity of the final product. • Quality control - Inspecting and verifying the quality of engraved work to meet stringent standards and specifications. • Material Handling - Safely handling and working with various metals, including precious metals like gold and silver. • Technical Expertise and production efficiency and other duties as assigned by the management. • Any other work as per sectional requirement shall be assigned from time to time by Superiors.
Junior Office Assistant	• General Administration, all personnel function, discipline, maintenance of Industrial relations, Receipt and disbursement of Dak and despatch of all communications. • Processing of terminal/ pension/ family pension cases etc. • Processing of cases for procurement of all Office/Factory purchases. • Processing of purchase bills, Maintenance of GPF A/cs of all employees, GPF subscription, advances, recovery, withdrawal and final settlement of GPC. Medical claims and advances, CGHS, Budget proposals, control on expenditure and sanction. • Salary processing, Income tax, TDS & GST compliance, Hand on experience of MS office & MS excel and Knowledge of MIS. • Drawing and disbursement of Cash through cashier maintenance of account and cash book, annual audits and settlement of audit objections etc. • Work related to accounts, Costing, Priced stores Ledger, Raising of bills on organizations receiving products, realization of revenue etc. • Maintenance of all service books and records in SAP also, ledger, and leave accounts, grant of increments, drawl of pay bill, OTA bills LTC claim, TA/DA claims; bonus claims, court attachments; ECS system and all other establishment matters. • Initiation of APAR/ACR for all concerned employees, Assist in Processing of DPCs, recruitment, appointments, all admin. Matters coordination with audit party, Factory license – Correspondence and accident report, vigilance cases, NOCs for passport, forwarding of application for outside employment • To work as Time Keeper to maintain the musters through AMS (Electronically) and send the same establishment section for further calculation of wages. • Any other work as per sectional requirement shall be assigned from time to time.
Junior Bullion Assistant	• Responsible for receiving Bullion, other metals, Coin Blanks from Vendors and issuing Coin Blanks to Coining Section. • Entrusted with the work of maintenance of up-to-date account of balances of coin blanks, Coins, medals, miscellaneous item, and materials from security point of view. To write/check all the sectional account books and consolidated account books for submission to the Superiors. • To see that duties assign to him and other workmen are properly



	carried out and responsible for the keys entrusted to him and will personally bring keys from key safe and deposit it every day. • Receive packed coin bags from counting section and ensure stack properly. • Issue coins to RBI and prepare necessary documents like invoice, gate pass, entry in registers and SAP. • Prepare all the daily production reports, weekly reports, monthly reports, Fortnightly report etc and maintain in SAP. • Receive rejected coins and coin blanks from coining shop and maintain proper records. • To see that no defective coin is passed out as good material. • They may be posted in Day or Night Shift Duty. • Any other work as per sectional requirement shall be assigned from time to time.
Laboratory Assistant	• Assaying of Gold and Silver, Refining of Silver, Preparation of chemical solution, Handling of XRF, Sample Handling and Testing. Record keeping and documentation, quality control and maintenance and other duties as assigned by the management. • Any other work as per sectional requirement shall be assigned from time to time.
Junior Technician (Goldsmith)	• Operation and maintenance of effluent treatment plant and recovery of precious metals from the effluents inside the assay department, Copper recovery from spent electrolyte and assisting in the maintenance and repair of equipment related to precious metals processing, conducting routine diagnostic tests, and troubleshooting issues with machinery and other duties as assigned by the management. • Any other work as per sectional requirement shall be assigned from time to time.
Jr. Technician (Fitter)	• Work in all section of Production Floor (Coining, Counting and Packaging, Die shop, OSM, R&D Lab and Sub- station). • Machine Operations, Die-fitting, Coining press operations, Maintenance of machines, Counter operations of Counting and Packaging machines, operation of air compressor, water treatment plant, operations of lathe machine, milling machine, drilling machine, cylindrical grinder, hobbing press, heat treatment operations. Electrical maintenance of staff quarters, sub-station. • Maintain day to day records and reports. • Sorting of rejected coins and coin blanks. • Maintenance of machines and equipment. • They may be posted in Day or Night Shifts Duty. • Any other work as per sectional requirement shall be assigned from time to time.

भारत सरकार टकसाल, नोएडा/ INDIA GOVERNMENT MINT - NOIDA

Supervisor (Technical - Mechanical / Electrical)	• Entrusted with responsibility of production and other day to day duties like posting of workmen on Machines, indenting raw materials, drawing from stores, etc. • To see that the production on each machine is achieved and maintained in SAP. • Entry of data in SAP • Supervisor will be in-charge for production, reduction of wastage, maintenance of machines, Safety, ensure availability of spare parts. • Ensure periodical preventive maintenance. • They may be posted in Day or Night Shift Duty. • To give the annual requirement of raw material like coin blanks etc. • Purchase Memos for spares, etc., and suitability reports to their Technical Officers concerned. • To monitor the availability of Coin blanks and other consumable items of their respective fields and report to the officers
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	concerned for immediate action. • Ensure that the shop floors are neat and clean. • Any other work as per sectional requirement shall be assigned from time to time.
Junior Office Assistant	• General Administration, all personnel function, discipline, maintenance of Industrial relations, Receipt and disbursement of Dak and despatch of all communications. • Processing of terminal/pension/family pension cases etc. • Processing of cases for procurement of all Office/Factory purchases. • Processing of purchase bills, Maintenance of GPF A/cs of all employees, GPF subscription, advances, recovery, withdrawal and final settlement of GPF. Medical claims and advances, CGHS, Budget proposals, control on expenditure and sanction. • Salary processing, Income tax, TDS & GST compliance, Hand on experience of MS office & MS excel and Knowledge of MIS. • Drawing and disbursement of Cash through cashier, maintenance of account and cash book, annual audits and settlement of audit objections etc. • Work related to accounts, Costing, Priced stores Ledger, Raising of bills on organizations receiving products, realization of revenue etc. • Maintenance of all service books and records in SAP also, ledger, and leave accounts, grant of increments, drawl of pay bill, OTA bills LTC claim, TA/DA claims; bonus claims, court attachments; ECS system and all other establishment matters. • Initiation of APAR/ACR for all concerned employees, Assist in Processing of DPCs, recruitment, appointments, all admin. Matters coordination with audit party, Factory license- Correspondence and accident report, vigilance cases, NOCs for passport, forwarding of application for outside employment. • To work as Time Keeper to maintain the musters through AMS(Electronically) and send the same to establishment section for further calculation of wages. • Any other work as per sectional requirement shall be assigned from time to time by Superiors.
Junior Bullion Assistant	• Responsible for receiving Coin Blanks from Vendors and issuing Coin Blanks to Coining Section. • Entrusted with the work of maintenance of up-to-date account of balances of coin blanks, Coins, medals, miscellaneous item, and materials from security point of view. To write / check all the sectional account books and consolidated account books for submission to the Superiors. • To see those duties, assign to him and other workmen are properly carried out and responsible for the keys entrusted to him and will personally bring keys from key safe and deposit it every day. • Receive packed coin bags from counting section and ensure stack properly. • Issue coins to RBI and prepare necessary documents like invoice, gate pass, entry in registers and SAP • Prepare all the daily production reports, weekly reports, monthly reports, Fortnightly report etc and maintain in SAP. • Receive rejected coins and coin blanks from coining shop and maintain proper records • To see that no defective coin is passed out as good material. • They may be posted in Day or Night Shift Duty. • Any other work as per sectional requirement shall be assigned from time to time by Superiors.



Jr. Technician (Fitter)	• Work in all the section of Production Floor (Coining, Counting and Packaging, Die shop, OSM, R&D Lab and Sub-station). • Machine Operations, Die-fitting, Coining press operations, Maintenance of machines, Counter operations of Counting and Packaging machines, operation of air compressor, water treatment plant, operations of lathe machine, milling machine, drilling machine, cylindrical grinder, hobbing press, heat treatment operations. Electrical maintenance of staff quarters, sub-station. • Maintain day to day records and reports. • Sorting of rejected coins and coin blanks. • Maintenance of machines and equipment. • They may be posted in Day or Night Shift Duty. • Any other work as per sectional requirement shall be assigned from time to time by Superiors.
Jr. Technician (Turner)	• Operating the coin minting presses. • Coin stamping dies setting & replacement. • Carrying out coin minting production. • Carrying out coin packaging production. • Operating coin packaging machines. • Need to carry out maintenance (breakdown & preventive) of coining presses, coin packaging machines along with auxiliary equipment's (plants) of coins minting presses and coins packaging machines. • Any other work as per sectional requirement shall be assigned from time to time

नोट/ NOTE: उपरोक्त पदों के लिए कर्तव्य एवं जिम्मेदारियाँ सांकेतिक हैं / The duties mentioned above are only indicative in nature.

-----सामाप्त / END-----

