



भारत सरकार टकसाल / INDIA GOVERNMENT MINT
(A UNIT OF SPMCIL)
WHOLLY OWNED BY GOVERNMENT OF INDIA



E-MAIL:- igm.hyderabad@spmcil.com
PHONE 040- 27268300(Ext:114)
WEBSITE: <https://igmhyderabad.spmcil.com>

I.D.A. PHASE II, HCL POST,
CHERLAPALLY,
HYDERABAD,
TELANGANA-500 051.

F.No.I-240/Per./Rectt./2023-24/1264

Dated.02.09.2023

ADVERTISEMENT No. 02/2023

India Government Mint, Hyderabad is a unit of SPMCIL which is a wholly owned company of the Government of India. The mint was originally established in 1803 as the Royal Mint to serve the Nizam of Hyderabad. In 1950, the mint was taken over by the Government of India, and the present Mint was inaugurated on 28th August 1997 at Cherlapally.

This is the most modern minting unit in the country with modern machinery and has the capacity to produce 1200 Million pieces of coins to meet the growing demand of the nation. It is equipped with State of Art facilities on the lines of International standards and is one of the Asia's biggest Mint having refining facility as well as facility to mint coins, medals and medallion.

With the above background India Government Mint, Hyderabad invites applications from the prospective candidates for the posts of Junior Technicians at W-1 Level in various trades.

Eligible and interested Candidates willing to contribute to the Company are invited to apply online only through the Company's website at: <https://igmhyderabad.spmcil.com> under the page "Careers". Applicants may apply after carefully going through all the instructions given in this advertisement. No other means/mode of application will be accepted other than onlinemode.

IMPORTANT INSTRUCTIONS

1. Candidates to Ensure their Eligibility for the Posts:

Before applying, candidates should ensure that they fulfil the eligibility criteria for the advertised posts. India Government Mint, Hyderabad, hereinafter referred to as 'IGMH', would admit to the Examinations all the candidates applying for the post with the requisite fee/intimation charges (wherever applicable) based on the information furnished in the **ONLINE application** and shall determine their eligibility only at the final stage i.e. document verification stage. If at that stage, it is found that any information furnished in the ONLINE application is false/ incorrect or not according to this advertisement, or if the candidate does not satisfy the eligibility criteria for the post, his/ her candidature will be cancelled.

2. Mode of Application:

Candidates are required to apply ONLINE only through the IGMH website <https://igmhyderabad.spmcil.com/en/discover-spmcil/#career>. No other mode for submission of application is available.

Brief Instructions for filling up the "Online Application Form" are given in [Appendix-I](#):

3. Important Dates:

Uploading of Detailed Advertisement on the website	02.09.2023
Activation of Online Application Link/Start Date of submission of on-line application and Payment of fees through online mode:	02.09.2023
Last Date of submission of on-line application and Payment of fees through online mode :	01.10.2023
Dates of Online Test for all the posts	October/November 2023 (Tentatively)

4. Help Facility: In case of any problem in filling up the form, payment of fee/intimation charges or in downloading of Call Letter, queries may be made through the link <https://cgrs.ibps.in>.

5. Use of MOBILE PHONES and other electronic devices BANNED:

(a) The use of any mobile phone (even in switched off mode), pager or any electronic equipment or programmable device or storage media like pen drive, smart watches etc. or camera or blue tooth devices or any other equipment or related accessories either in working or switched off mode capable of being used as a communication device during the examination is strictly prohibited. Any infringement of these instructions shall entail criminal action, including ban from future examinations.

(b) Candidates are advised in their own interest not to bring any of the banned items including mobile phones/pagers to the venue of the examination, as arrangement for safe-keeping cannot be assured.

(c) Candidates are advised not to bring any valuable/costly items to the Examination Halls, as safe-keeping of the same cannot be assured. The IGMH will not be responsible for any loss in this regard.

6. Corrigendum: Please note that Corrigendum, if any, issued on the above advertisement, will be published only on the Mint's website: <https://igmhyderabad.spmcil.com/en/discover-spmcil/#career>

DETAILED ADVERTISEMENT

1. India Government Mint, Hyderabad (IGMH) invites applications from eligible candidates for the posts mentioned below:

S.No/ Post Code	Name of the Post	No. of Posts						Horizontal Reservation	
		Unreserved i.e., General (GEN/UR)	OBC \$	EW S @	SC	ST	Total	Ex-SM	PwBD
1	Jr.Technician (Foundryman) at W-1 Level in Assay & Refining Cadre	04	01	00	00	00	05	00	00
2.	Jr.Technician(Electroplating) at W-1 Level in Assay & Refining Cadre	04	01	00	00	00	05	00	00
3.	Jr.Technician(Chemical Plant) at W-1 Level in Assay & Refining Cadre	05	02	00	01	00	08	00	00
4.	Jr.Technician (Die & Medal) at W-1 Level	02	01	00	00	00	03	00	00
5.	Jr.Technician(Precious Metals) at W-1 Level	02	00	00	00	00	02	00	00
6.	Jr.Technician (Fitter) at W-1 Level	10	04	04	02	00	20	02	01 (B & LV)
7.	Jr.Technician(Electrician) at W-1 Level	03	01	00	00	00	04	00	00
8.	Jr.Technician(Welder) at W-1 Level	01	00	00	00	00	01	00	00
9.	Jr.Technician(Electronics/ Instrumentation) at W-1 Level	02	00	00	00	00	02	00	00
10.	Jr.Technician(Plumber) at W-1 Level	00	01	00	00	00	01	00	00
11.	Jr.Technician(Machinist) at W-1 Level	01	00	00	00	00	01	00	00
12.	Jr.Technician(Turner) at W-1 Level	01	00	00	00	00	01	00	00

Abbreviations used in this Advertisement: UR: Un-Reserved; SC: Scheduled Caste; OBC: Other Backward Classes; NCL: Non- Creamy Layer; EWS: Economically Weaker Sections; Ex-SM: Ex-Serviceman; PwBD: Persons with Benchmark Disabilities;.

- The advertised numbers of vacancies are subject to variation, at any point of time as per the actual requirement of India Government Mint, Hyderabad.
- **Important Note: Candidates are hereby informed that the advertised posts at SI.No.1 to 5 pertain to Non-Coinage Areas involving working in Precious Metal Assaying, Melting, Refining and Medal works involving arduous nature of work. They are also liable to be posted in any Department of IGMH as per the need of work. Advertised Posts at SI.No.6 to 12 involve arduous nature of work and are liable to be posted in any section as per requirement.**
- \$ Candidates belonging to OBC category but coming in the 'Creamy Layer' are not entitled to OBC reservation. They should indicate their category as 'General (GEN)'.
- @Reservations for Economically Weaker Sections (EWSs) in recruitment is governed by Office Memorandum No.36039/1/2019-Estt(Res) dated 31.01.2019 of Department of Personnel & Training, Ministry of Personnel, Public Grievances & Pensions, Government of India.

Disclaimer: "EWSs vacancies are tentative and subject to further directives of Government of India and outcome of any litigation. The appointment is provisional and is subject to the Income & Asset certificate being verified through proper channels". Benefit of reservation under EWSs category can be availed upon production of an 'Income and Asset Certificate' issued by a Competent Authority on the format prescribed by Government of India. The Income & Asset Certificate should not have been issued one year prior to the last date of the application form.

Note for Persons with Benchmark Disability (PwBD) candidates:

(1) IGMH has identified the following post(s) as suitable for each category of PwBD along with the Physical Requirements and Functional Classifications. Only following categories of PwBD candidates are, therefore, eligible to apply for the posts.

S.NO/ Post Code	Name of the Post	Suitable category of Benchmark Disabilities	Functional requirements	Visual Acuity
1	Jr.Technician (Foundryman) at W-1 Level in Assay & Refining Cadre	a) D, HH b) OL, BL, LC, Dw, AAV c) ASD (M), SLD, MI d) MD involving (a) to (c) above	S,ST,BN, L, MF.SE	-
2	Jr.Technician(Electroplating) at W-1 Level in Assay & Refining Cadre			
3	Jr.Technician(Chemical Plant) at W-1 Level in Assay & Refining Cadre			
4	Jr.Technician (Die & Medal) at W-1 Level	a) D, HH b) OL, BL, LC, Dw, AAV c) ASD (M), SLD, MI d) MD involving (a) to (c) 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.
5	Jr.Technician(Precious Metals) at W-1 Level			
6	Jr.Technician (Fitter) at W-1 Level	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	-
7	Jr.Technician(Electrician) at W-1 Level	a) D, HH b) OL, LC, Dw, AAV c) ASD (M), SLD, MI d) MD involving (a) to (c) above	S, ST, W, L, MF, SE	-
8	Jr.Technician(Welder) at W-1 Level	a) D, HH b) OL, Dw, AAV c) ASD (M), SLD, MI d) MD involving (a) to (c) above	S, ST, W, BN, MF, SE	-
9	Jr.Technician(Electronics/ Instrumentation) at W-1 Level	a) LV b) D, HH c) OA, BA, OL, OAL, CP, LC, Dw, AAV d) ASD (M, MoD), ID, SLD, MI e) MD involving (a) to (d) above	S, ST, W, MF, SE, H, C	-

10	Jr.Technician(Plumber) at W-1 Level	a) LV b) D, HH c) OL, LC, Dw, AAV d) ASD (M, MoD), ID, SLD, MI e) MD involving (a) to (d) above	S, ST, W, L, KC, PP, MF, SE, C
11	Jr.Technician(Machinist) at W-1 Level	a) D, HH b) OL, CP, LC, Dw, AAV c) ASD (M), SLD, MI d) MD involving (a) to (c) above	S, ST, BN, MF, SE
12	Jr.Technician(Turner) at W-1 Level	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

ABBREVIATIONS:

FUNCTIONAL REQUIREMENT ABBREVIATIONS USED: S=Sitting, ST=Standing, W=Walking, BN=Bending, L=Lifting, KC=Kneeling &Crouching, JU=Jumping, CRL= Crawling, CL=Climbing, PP= Pulling & Pushing, MF=Manipulation by Fingers, RW=Reading & Writing, SE=Seeing, H=Hearing, C=Communication.

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.

IMPORTANT NOTE: Candidates are advised to ensure that they are eligible as per the above Medical standards for all the Posts. The Candidates applying for the posts may note that the posts at Sl.No.1 to 12 requires above medical standards and hence they are specifically advised to ensure that their fitness both in terms of vision as well as physical standards stated above. Further, the candidates with Multiple Disabilities are advised to ensure that they possess the above requirements. If any candidate is found to be unfit as per the above standards at any stage, their candidature shall be cancelled,

1) PAY SCALE: Pay Scale for the posts of Junior Technician at W-1 Level: Pay in the IDA Pay Scale: ₹.18,780 - ₹.67,390/- (3rd PRC) and other Allowances as applicable to W-1 Level.

2. ELIGIBILITY CONDITIONS:

I. Nationality: a candidate must be either:-

- (a) a citizen of India, or
- (b) a subject of Nepal, or
- (c) a subject of Bhutan, or
- (d) a Tibetan refugee who came over to India before 1st January, 1962 with the intention of permanently settling in India, or
- (e) a person of Indian origin who has **migrated** from Pakistan, Burma, Sri Lanka, East African countries of Kenya, Uganda, the United Republic of Tanzania, Zambia, Malawi, Zaire, Ethiopia and Vietnam with the intention of permanently settling in India.
- f) Provided that a candidate belonging to categories (b), (c), (d) and (e) shall be a person in whose favour a certificate of eligibility has been issued by the Government of India.
- h) A candidate in whose case a certificate of eligibility is necessary may be admitted to the examination, but the offer of appointment may be given only after the necessary eligibility certificate is issued to him/her by the Government of India.

(f) Age Limits:

- A. The lower and upper age limit indicated for all the advertised posts will be reckoned as on the last date of the advertisement. For all the advertised Posts, the Date of Birth of candidates should be between the dates given below (both dates inclusive):

Post Code & Name	Age Group	Upper Limit of Date of Birth (Not earlier than)			Lower Limit of Date of Birth (Not later than)
		UR(Gen)/EWS	OBC- Non Creamy Layer@	SC@/ST@	For all community / categories
01 to 12 & Jr.Technicians	18 to 25	02.10.1998	02.10.1995	02.10.1993	01.10.2005

Note: The date of birth limits for SC, ST and OBC-NCL given in the above table includes community age relaxation. Candidates belonging to community/ categories in the table at Para B below shall be eligible for age relaxation as applicable.

@Wherever, Posts are not reserved for a particular Category; age limit pertaining to UR/General Category shall apply.

- B. However the relaxation in upper age limit / maximum upper age for the following categories/communities is given as indicated in the table below subject to submission of requisite certificates.

Sl. No.	Community/categories	Relaxation in upper age limit (or) maximum upper age	
1	OBC-Non Creamy Layer (NCL)	3 Years	
2	SC/ST	5 Years	
3	Ex-Servicemen candidates who have put in more than 6 months service after attestation.	UR/EWS	03 years after deduction of the military service rendered from the actual age as on the closing date.
		OBC-NCL	03 Years plus 03 years after deduction of the military service rendered from the actual age as on the closing date.
		SC/ST	05 Years plus 03 years after deduction of the military service rendered from the actual age as on the closing date.
4	PwBD UR/EWS	10 Years	
	PwBD OBC-NCL	13 Years	
	PwBD SC/ST	15 Years	
5	In-service Candidates of SPMCIL	For In-Service candidates of SPMCIL, employees who fulfill the essential qualification shall have no age bar provided they have at least 03 years of service left as on the last date of application	
6	Women candidates, who are widowed, divorced or judicially separated from husband but not Remarried.	UR	33 Years of age
		OBC-NCL	36 Years of age
		SC/ST	38 Years of age
7	Defence Personnel disabled in operation during hostilities with any foreign country or in a disturbed area and released as a consequence thereof	UR/OBC-NCL/EWS	03 Years
		SC/ST	08 Years

- a. No age relaxation is allowed to SC/ST/OBC-NCL (Non Creamy Layer) candidates applying against unreserved vacancies.
- b. 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 posts having been identified suitable for such disabilities. Relaxation of age limit would be permissible to such persons who have a minimum of 40% disability.

- c. If a candidate is eligible for relaxation of age on more than one ground, he/she would be accorded the highest of the age relaxations for which he/she is eligible.
- d. **Candidates should note that the date of birth filled in this application should be same as recorded in the Matriculation/SSLC/Xth Class or an equivalent certificate. No subsequent request for its change will be considered.**

Note I: - Candidates belonging to the Scheduled Castes and the Scheduled Tribes and the Other Backward Classes those coming under the category of Ex-servicemen, PwBD, will be eligible for grant of cumulative age-relaxation under both the categories.

Note II: - The term Ex-servicemen will apply to the persons who are defined as Ex-servicemen in the Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979, as amended from time to time.

Note III: - The age concession will not be admissible to Ex- servicemen who are released on own request.

Note IV: - Notwithstanding the provision of age relaxation above, a PwBD candidate will be considered to be eligible for appointment only if he/she (after such physical examination as the IGMH may prescribe) is found to satisfy the requirements of physical and medical standards for the concerned Services/Posts to be allocated to the PwBD candidates by the IGMH. **Since some of the Posts Advertised pertains to UR/OBC/EWS/SC/ST Category; PwBD & Ex-Serviceman candidates have to secure minimum qualifying marks in respective category Standards and rank sufficiently high in merit to be eligible for appointment.**

Special Note for all the Candidates seeking reservation/relaxation benefits:

All the candidates seeking reservation/relaxation benefits available for SC/ST/OBC-NCL/EWS/PwBD/Ex-SM must ensure that they are entitled to such reservation/relaxation as per eligibility prescribed in this Advertisement. They should be in possession of all the requisite certificates in the prescribed format i.e. as per the annexures attached at the end of this Advertisement in support of their claim.

III. Educational Qualifications: The following minimum educational qualifications are prescribed for the posts:

Post Code & Name	Essential Educational Qualifications (as on closing date of application):
01 & Jr.Technician (Foundryman)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Foundryman/Furnace Operator
02 & Jr.Technician (Electroplating)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Electroplater
03 & Jr.Technician (Chemical Plant)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Chemical Plant Operator/ Attendant Operator(Chemical Plant)/ Lab.Assistant(Chemical Plant)
04 & Jr.Technician (Die & Medal)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Heat Treatment Operator/ Tool & Die Maker/ Mechanic Machine Tool Maintenance
05 & Jr.Technician (Precious Metals)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Goldsmith/ Jewel Smith
06 & Jr.Technician (Fitter)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Fitter/ Millwright maintenance mechanic.
07 & Jr.Technician(Electrician)	Full time ITI certificate recognized by NCVT/SCVT in the trade of Electrician.
08 & Jr.Technician(Welder)	Full time ITI certificate recognized by NCVT/SCVT in the trade of Welder.
09 & Jr.Technician(Electronics/ Instrumentation)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Electronics/Instrumentation/ Electronics Mechanic/Instrument Mechanic.
10 & Jr.Technician(Plumber)	Full time ITI certificate recognized by NCVT/SCVT in the trade of Plumber.

11 & Jr.Technician(Machinist)	Full time ITI certificate recognized by NCVT/SCVT in the trades of Machinist/ Machinist(Grinder).
12 & Jr.Technician(Turner)	Full time ITI certificate recognized by NCVT/SCVT in the trade of Turner.

Note: The candidate must hold the certificate from NCVT/SCVT or National Trade Certificate and the courses/certificates must have the recognition of Ministry of Skill Development and Entrepreneurship, Directorate General of Training (DGT), Govt. of India. Certificates issued other than by Central/State Boards are considered invalid and no further correspondence shall be made with the candidates in this regard.

3. RESERVATION:

- 4.1 This Advertisement provides for Vertical Reservation for Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Classes (OBC) - Non Creamy Layer (NCL) and Economically Weaker Sections (EWS), wherever applicable and admissible under extant rules, as mentioned in the Vacancy Table.
- 4.2 All candidates, irrespective of community may be considered against UR vacancies, subject to fulfillment of parameters for UR candidates. However, against the vacancies earmarked for specific communities (SC/ST/OBC-NCL/EWS), only candidates belonging to that community will be considered.
- 4.3 For availing reservation, SC/ST/OBC-NCL candidates should furnish Caste Certificate from competent authorities as per the format given at **Annexure I** (for SC/ST candidates) and at **Annexure II** (for OBC-NCL candidates) at the time of document verification. Further, in case of OBC-NCL candidates, the certificates should specifically indicate that they do not belong to the Persons/Sections (Creamy Layer) mentioned in Column 3 of the Schedule of the Government of India, Department of Personnel and Training O.M.No.36012/22/93-Estt. (SCT) dated 08.09.93 & its subsequent revision through O.M.No.36033/3/2004-Estt. (Res) dated 09.03.2004, 27.05.2013, 13.09.2017 and further revision, if any, received till the closing date for ONLINE Registration of applications for this Advertisement. The candidates should ensure that they belong to the OBC- Non Creamy Layer (NCL) category while applying for the posts against this Advertisement. Such candidates should produce a valid OBC certificate in the prescribed format during document verification. Further, in addition to the community certificate (OBC), a declaration in the prescribed format as per **Annexure IIA** has to be furnished by the candidates during document verification, that he/she does not belong to the creamy layer. The certificate produced shall not be older than one year at the time of document verification. In case of not complying to these stipulations, their claim for reserved status (OBC-NCL) will not be entertained and the candidature / application of such candidates, if fulfilling all the eligibility conditions for General (Unreserved) category, will be considered under General(UR) vacancies only.

4.4 EWS (Economically Weaker Section) Reservation

Candidates who are not covered under the scheme of reservation for SC/ST/OBC- NCL and whose family gross annual income is below Rs. 8 Lakh (Rupees eight lakh) are to be identified as EWS for benefit of reservation for EWS. The income shall also include income from all sources i.e. salary, agriculture, business, profession etc. for the financial year prior to the year of application. Also candidates whose family owns or possesses any of the following assets shall be excluded from being identified as EWS, irrespective of 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.

The property held by a —Family in different locations or different places/cities would be clubbed while applying the land or property holding test to determine EWS status.

The term —Family for this purpose will include the person who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

The benefit of reservation under EWS can be availed upon production of an Income and Asset Certificate issued by a Competent Authority. The Income and Asset Certificate issued by any one of the following

authorities in the prescribed format as given in **Annexure III** shall only be accepted as candidate's claim as belonging to EWS:

- A. District Magistrate/Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / 1st Class Stipendary Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner
- B. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate/
- C. Revenue Officer not below the rank of Tehsildhar and
- D. Sub-Divisional Officer of the area where the candidate and/or his family normally resides.

The candidates applying against the vacancies reserved for EWS must possess Income and Asset Certificate as on closing date of registration of application for this Advertisement.

Further, these candidates are also required to produce valid Income and Asset Certificate during document verification. In case of non-compliance to these stipulations, their claim for reserved status under EWS will not be entertained and the candidature / application of such candidates, if fulfilling all the eligibility conditions for General (UR) category, will be considered under General (UR) vacancies only.

- 4.5 Candidates belonging to SC/ST/OBC-NCL/EWS who fulfill required minimum educational qualification can also apply against UR vacancies. They will however, have to compete with the UR candidates. No age relaxation will be allowed to such SC/ST/OBC-NCL candidates applying against UR vacancies. However, candidates have to indicate their actual community in the application.
- 4.6 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.

4. EX-SERVICEMEN (ExSM) :

- 5.1 The term Ex-Servicemen means a person who has served in any rank (whether as a Combatant or non-Combatant) in the regular Army, Navy or Air Force of the Indian Union but does not include a person who has served in the Defence Security Corps, the General Reserve Engineering Force, the Lok Sahayak Sena and the Para Military Force

And

- a. Who either has been retired or relieved or discharged from such service whether at his/her own request or being relieved by the employer after earning his or her pension; (or)
 - b. Who has been relieved from such service on medical grounds attributable to military service or circumstances beyond his control and awarded medical or other disability pension; (or)
 - c. who has been released from such service as a result of reduction in establishment; (or)
 - d. Who has been released from such service after completing the specific period of engagement, otherwise than on his own request, or by way of dismissal, or discharge on account of misconduct or inefficiency and has been given a gratuity; and includes personnel of the Territorial Army, namely, pension holders for continuous embodied service or broken spells of qualifying service; (or)
 - e. Personnel of Army Postal Service who are part of Regular Army and retired from the Army Postal Service without reversion to their parent service with pension, or are released from the Army Postal Service on medical grounds attributable to or aggravated by military service or circumstances beyond their control and awarded medical or other disability pension; (or)
 - f. Personnel who were on deputation in Army Postal Service for more than six months prior to 14th April 1987; (or)
 - g. Gallantry award winners of the Armed forces including personnel of Territorial Army; (or)
 - h. Ex-recruits boarded out or relieved on medical ground and granted medical disability pension w.e.f. 01.02.2006.
 - i. The Period of Call-up service of an Ex-serviceman in the Armed forces shall also be treated as service rendered in the Armed Forces for purpose of Age Relaxation, as per Rules.
 - j. Age Relaxation/Ex-Serviceman reservation is not admissible to sons, daughters and dependents of Ex-servicemen. Therefore such candidates should not indicate their category as ex-serviceman.
- 5.2 Persons serving in the Armed Forces of the Union, who on retirement from service would come under the category of Ex-Servicemen are eligible to apply for re- employment one year before the completion of the specific terms of engagement and avail themselves of all concessions available to Ex-Servicemen but such persons shall not be permitted to leave the uniform until they complete the specific terms of engagement in the Armed Forces of the Union.

Accordingly, such serving Defence personnel to be released within one year from the closing date of ONLINE Registration of applications for this Advertisement can also apply, both for vacancies earmarked for Ex-Servicemen and for posts not reserved for them. However, they should possess the prescribed educational qualifications as on the closing date of registration of online applications for this advertisement.

- 5.3 Ex-Servicemen candidates who have already secured civil employment under Central Government in Group C & D (including PSUs, autonomous bodies/statutory bodies, nationalized banks etc.) after availing of the benefits given to Ex-Servicemen will be permitted only the benefit of age relaxation as prescribed for Ex-Servicemen for securing another employment in a higher grade or cadre in Group C/D under Central Government. Such candidates will not be considered against the vacancies reserved for Ex-Servicemen in the Central Government jobs.
- 5.4 If an Ex-Serviceman applies for various vacancies before joining any civil employment, he/she can avail the benefit of reservation as Ex-Servicemen for any subsequent employment, subject to the condition that an Ex-Serviceman as soon as he/she joins any civil employment, should give self-declaration/undertaking to the concerned employer about the date wise details of application for various vacancies, including this Advertisement, for which he/she had applied for, before joining the initial civil employment. The acknowledged copy of this declaration along with no objection certificate (NOC) from the civil employer should be produced during document verification failing which they will not get benefit of reservation for Ex-Servicemen. Further, this benefit would be available only in respect of vacancies which are filled on direct recruitment and wherever reservation is applicable to the Ex-Servicemen.

5. PERSONS WITH BENCHMARK DISABILITIES (PwBD)

- 6.1 The suitability or otherwise of a post for PwBD has been indicated under the heading "Note for Persons with Benchmark Disability (PwBD) Candidates" with details of sub disability for all the posts.

Benchmark Disabilities: - As per The Rights of Persons with Disabilities (RPwD) Act, 2016 (effective from 19th April, 2017), the Benchmark Disabilities are as under:-

- I. Blindness and low vision;
- II. Deaf and hard of hearing;
- III. Locomotor disability including cerebral palsy, leprosy cured, dwarfism, acid attack victims and muscular dystrophy;
- IV. Autism, intellectual disability, specific learning disability and mental illness;
- V. Multiple disabilities from amongst persons under clauses (a) to (d) including deaf-blindness in the posts identified for each disability.

Note: Only those persons with benchmark disabilities would be eligible for reservation. "Benchmark disability" means a person with not less than 40% of a specified disability where specified disability has not been defined in measurable terms and includes the persons with disability, where disability has been defined in a measurable terms, as certified by the certifying authority. A person who wants to avail benefit of reservation will have to submit a disability certificate issued by a Competent Authority as per Government of India guidelines. Such certificate will be subject to verification/ re-verification as may be decided by the competent authority

Definition of Specified Disabilities as provided in the Schedule of RPwD Act, 2016 is as mentioned below:

6.2 Definition of Specified Disabilities:

6.2.1 Physical disability: -

- A) Locomotor disability (a person's inability to execute distinctive activities associated with movement of self and objects resulting from affliction of musculoskeletal or nervous system or both), including-
- Ⓐ —Leprosy cured person means a person who has been cured of leprosy but is suffering from—
 - (i) loss of sensation in hands or feet as well as loss of sensation and paresis in the eye and eye-lid but with no manifest deformity;
 - (ii) manifest deformity and paresis but having sufficient mobility in their hands and feet to enable them

to engage in normal economic activity;

(iii) extreme physical deformity as well as advanced age which prevents him/her from undertaking any gainful occupation, and the expression — leprosy cured shall be construed accordingly;

(b) —cerebral palsy means a group of non-progressive neurological condition affecting body movements and muscle coordination, caused by damage to one or more specific areas of the brain, usually occurring before, during or shortly after birth;

(c) —dwarfism means a medical or genetic condition resulting in an adult height of 4 feet 10 inches (147 centimeters) or less;

(d) —muscular dystrophy means a group of hereditary genetic muscle disease that weakens the muscles that move the human body and persons with multiple dystrophies have incorrect and missing information in their genes, which prevent them from making the proteins they need for healthy muscles. It is characterized by progressive skeletal muscle weakness, defects in muscle proteins, and the death of muscle cells and tissue;

(e) —acid attack victims means a person disfigured due to violent assaults by throwing of acid or similar corrosive substance.

B) Visual impairment—

(a) —blindness means a condition where a person has any of the following conditions, after best correction—

(i) total absence of sight; or

(ii) visual acuity less than 3/60 or less than 10/200 (Snellen) in the better eye with best possible correction; or

(iii) limitation of the field of vision subtending an angle of less than 10 degree.

(b) —low-vision means a condition where a person has any of the following conditions, namely: -

(i) visual acuity not exceeding 6/18 or less than 20/60 upto 3/60 or upto 10/200 (Snellen) in the better eye with best possible corrections; or

(ii) Limitation of the field of vision subtending an angle of less than 40 degree upto 10 degree.

C) Hearing impairment—

(a) —deaf means persons having 70 dB hearing loss in speech frequencies in both ears;

(b) —hard of hearing means person having 60 dB to 70 dB hearing loss in speech frequencies in both ears

D) (1) —speech and language disability means a permanent disability arising out of conditions such as laryngectomy or aphasia affecting one or more components of speech and language due to organic or neurological causes.

(2) Intellectual disability, a condition characterized by significant limitation both in intellectual functioning (reasoning, learning, problem solving) and in adaptive behaviour which covers a range of every day, social and practical skills, including—

(a) —specific learning disabilities means a heterogeneous group of conditions wherein there is a deficit in processing language, spoken or written, that may manifest itself as a difficulty to comprehend, speak, read, write, spell, or to do mathematical calculations and includes such conditions as perceptual disabilities, dyslexia, dysgraphia, dyscalculia, dyspraxia and developmental aphasia;

(b) —autism spectrum disorder means a neuro-developmental condition typically appearing in the first three years of life that significantly affects a person's ability to communicate, understand relationships and relate to others, and is frequently associated with unusual or stereotypical rituals or behaviours.

(3) Mental behaviour— —mental illness means a substantial disorder of thinking, mood, perception, orientation or memory that grossly impairs judgment, behaviour, capacity to recognize reality or ability to meet the ordinary demands of life, but does not include retardation which is a condition of arrested or incomplete development of mind of a person, specially characterized by sub normality of intelligence.

(4) Disability caused due to— (a) chronic neurological conditions, such as—

(i) —multiple sclerosis means an inflammatory, nervous system disease in which the myelin sheaths around the axons of nerve cells of the brain and spinal cord are damaged, leading to demyelination and affecting the ability of nerve cells in the brain and spinal cord to communicate with each other;

(ii) —Parkinson's disease means a progressive disease of the nervous system marked by tremor, muscular rigidity, and slow, imprecise movement, chiefly affecting middle-aged and elderly people associated with degeneration of the basal ganglia of the brain and a deficiency of the neurotransmitter dopamine.

(b) Blood disorder—

(i) —Haemophilia means an inheritable disease, usually affecting only male but transmitted by women to their male children, characterized by loss or impairment of the normal clotting ability of blood so that a minor wound may result in fatal bleeding;

(ii) —Thalassemia means a group of inherited disorders characterized by reduced or absent amounts of hemoglobin.

(iii) —Sickle cell disease means a hemolytic disorder characterized by chronic anemia, painful events, and various complications due to associated tissue and organ damage; —hemolytic refers to the destruction of the cell membrane of red blood cells resulting in the release of hemoglobin.

(5) Multiple Disabilities (more than one of the above specified disabilities) including deaf, blindness which means a condition in which a person may have combination of hearing and visual impairments causing severe communication, developmental, and educational problems.

(6) Any other category as may be notified by the Central Government.

6.2.2. Degree of Benchmark Disability for Reservation and Competent Authority for Issue of Disability Certificate:

Only such persons would be eligible for relaxation in conditions/ reservation in posts who suffer from not less than 40 percent of relevant benchmark disability. Those Persons with Benchmark Disabilities (PwBD) who have availed the relaxation and/or reservation and shortlisted for Document Verification have to submit Certificate of Disability issued by the Competent Authority as per the form V, VI and VII of rule 18(1) under chapter 7 of Rights of Persons with Disabilities Rules, 2017 dated 15.06.2017. Refer **Annexure IV (A)**, **Annexure IV (B)** and **Annexure IV(C)** for the revised formats. The existing certificates of disability issued under the Persons with Disabilities Act 1995 (since repealed) shall continue to be valid for the period specified therein.

6.1 **Assistance of Scribe:** Candidates whose writing speed is affected by Cerebral Palsy/muscular dystrophy/candidates with Locomotor disability (one arm)/Intellectual disability (Autism, specific learning disability and mental illness) can avail the assistance of scribe for writing answers on their behalf. For engaging the scribe, candidates will have to indicate the same while filling ONLINE application form. During the exam, at any stage, if it is found that scribe is independently answering the questions, the exam session will be terminated and candidate's candidature will be cancelled. The candidature of such candidates using the services of a scribe will also be cancelled if it is reported after the examination by the test administrator personnel that the scribe independently answered the questions

Engagement of scribe will be subject to the following conditions:

- (a) Candidates will have to arrange for the scribe on their own.
- (b) **The scribe so arranged should not himself/herself be the candidate for the posts advertised vide this notification for which the candidate is appearing.** Also same scribe should not be engaged for more than one candidate. The scribe and the candidate shall give a declaration to this effect. Any violation, if detected at any stage, will render both candidate and scribe disqualified.
- (c) Candidates opting for scribe will have to provide additional details for scribes as per **Annexure V**, while appearing in the online examination. Scribe should produce original and valid ID proof at Online examination Center and bring passport size photograph.
- (d) The candidate shall be responsible for any misconduct on the part of the scribe brought by him/her during the examination.
- (e) Candidates availing the assistance of a scribe shall be eligible for compensatory time of not less than 20 minutes for every hour of examination.

- (f) Candidates who wish to avail services of scribe but are unable to furnish the details of scribe at the time of ONLINE application, may avail the services of scribe by filling up necessary details in Format given at **Annexure V** at the Online Examination center duly complying the conditions stipulated for scribe. Any subsequent request may not be favorably entertained.
- (g) The scribe may be from any academic stream. However the scribe should be from an academic stream different from that prescribed for the post.
- (h) Both the candidate as well as scribe will have to give a suitable undertaking confirming that the scribe fulfils all the stipulated eligibility criteria for a scribe mentioned above. Further in case it later transpires that he/she did not fulfill any laid down eligibility criteria or suppressed material facts the candidature of the applicant will stand cancelled, irrespective of the result of the online examination.
- (i) Scribe should not answer on his/her own. Any such behaviour observed will result in cancellation of candidature.
- (j) Only candidates registered for compensatory time will be allowed such concessions since compensatory time given to candidates shall be system based, it shall not be possible for the test conducting agency to allow such time if he / she is not registered for the same. Candidates not registered for compensatory time shall not be allowed such concessions.
- (k) Selected PwBD candidates will be subjected to medical examination from the Medical Authorities as prescribed by IGMH at the time of document verification and only those conforming to the medical standards as laid down in this Notification/Advertisement and other extant provisions, as the case may be, will be eligible for appointment.
- (l) These guidelines are subject to change in terms of Govt. of India guidelines/ clarifications, if any, from time to time
- (m) **Guidelines for Candidates with locomotor disability and cerebral palsy:** A compensatory time of twenty minutes per hour or otherwise advised shall be permitted for the candidates with locomotor disability and cerebral palsy where dominant (writing) extremity is affected to the extent of slowing the performance of function (minimum of 40%impairment).

7. SCHEME, CENTRE, CALL LETTER AND LANGUAGE OF EXAM:

Selection for the posts will be done through an examination which will be conducted "Online", and will be of objective type. The examination will be bilingual, i.e., Hindi and English. In case of any discrepancy, English will prevail over other languages.

i) Name of the Post & Post Codes: Jr.Technicians at W-1 Level [Post Code Nos. 1 to 12]

An online exam with the under-mentioned Scheme will be conducted.

Sr. No.	Test Name	No. of Questions	Max. Marks	Duration of Exam for each Part	Total Duration of the Exam	
PART-A						
1	General Ability Test (General Awareness, Basic English Language skills, Basic Computer Knowledge, Basic Arithmetic Ability)	30	30	30 Minutes	90 Minutes	
PART-B						
2	Technical Subject (Subject Pertaining to Specific Stream)	60	120	60 Minutes		
Total Marks			150			

The Minimum Qualifying marks required to be scored by the candidates in the online examination to be eligible for further selection process for different categories is as under:

S.No	Category of Candidate	Minimum Marks	Qualifying
1.	General/EWS	55%	
2.	OBC	50%	
3.	SC/ST	45%	

- **Important Note: There shall be no separate Qualifying Marks for PART-A & PART-B of the online Examination, however, each candidate will have to secure a minimum overall score as detailed above.**
- Mere qualifying the online examination does not entail any candidate to be eligible for his/her appointment. He/She must rank sufficiently high in the order of merit for his/her final selection.
- Roll No. of the candidates shortlisted for Document Verification will be published on IGMH website, after Online examination.

Other Instructions to the Candidates

- 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. The minimum marks will be decided by the Company based on the performance of the applicants in the online examination only. 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.
- Syllabus for the posts shall be commensurate to that of the educational qualifications. In the online examination, wherever necessary, the Metric systems of weights and measures only will be used.
- **There will be no negative marking.**
- The exact date, session, reporting time of examination will be mentioned in the call letter. The examination will be conducted online in venues given in the respective call letters. The applicants will have to take the examination on date and time as indicated in the call letter at their own cost. The applicants are requested to keep checking the Company's website <https://igmhyderabad.spmcil.com> for any change in the examination date.
- The date of examination indicated in the Notice is tentative. Any change in the schedule of examination will be informed to the candidates only through the website of the IGMH.
- All applicants will have to appear for the online examination at their own risks and expenses. Company will not be responsible for any injury or losses etc. of any nature.
- There shall be no provision for re-evaluation/ re-checking of the scores. No correspondence in this regard shall be entertained.
- The Resolution of Tie (in order of preference) would be done by the following:
 - The Candidate Scoring higher Marks in the Technical Subject.
 - The candidate older in age will get preference.
 - Alphabetical order of names.
- The minimum aggregate cut-off marks for being shortlisted for document verification will be decided by the IGMH in relation to the number of vacancies. Roll No. of the candidate shortlisted for document verification will be published on IGMH web-site, after the written examination.
- The Chief General Manager, IGMH reserves the right to make changes in the Scheme/pattern of Examination if considered necessary at any stage of Recruitment process. However, the same shall be notified in the website before the conduct of the examination.
- If the Online examination is held in more than one session, the scores across various sessions will be equated to adjust for slight differences in the difficulty level of different test batteries used across sessions.

- **Note: Indicative Syllabus for all the advertised posts/vacancies are appended as Annexure-V to this Advertisement. Candidates have to take note that the syllabus mentioned is only indicative and not exhaustive and Questions may be set from other topics commensurate with the Educational qualification.**

DOWNLOAD OF CALL LETTER

- Candidates will have to visit the **IGMH** website for downloading call letters for online test. Intimation for downloading call letter will also be sent through email/SMS. Once the candidate clicks the relevant link, he/she can access the window for call letter download. The candidate is required to use (i) Registration Number/Roll Number, (ii) Password/Date of Birth for downloading the call letter. Candidate needs to affix recent recognizable photograph on the call letter preferably the same as provided during registration and appear at the examination centre with (i) Call Letter (ii) Photo Identity Proof as stipulated in para 11(c) of the advertisement below and also specified in the call letter and photocopy of the same Photo Identity Proof as brought in original.

ONLINE CENTRES OF EXAMINATION:

- (i) A) The online Examination (for all the posts) will be held in the following Centre's:

S.No.	Centre
01	Hyderabad
02	Chennai
03	Mumbai
04	Kolkata
05	Delhi(Including NCR Region)

Important Note: In case if any Centre is opted by less candidates the same shall be cancelled forthwith without any notice and candidates opting the Centre shall be shifted to the nearest available Centre or Hyderabad Test Centre as per the feasibility.

- (ii) Candidates have to appear for the examination at an Examination Centre at their own risks and expenses. IGMH does not make any arrangements for boarding/lodging of candidates. IGMH will not be responsible for any injury or losses etc. of any nature during the course of Examination.
- 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 center or for any candidate.

8. Process for Arriving at Scores

The Scores of Online Examination are obtained by adopting the following procedure:

(i) Number of questions answered correctly by a candidate in each objective test is considered for arriving at the Corrected Score.

(ii) The Corrected Scores so obtained by a candidate are made equivalent to take care of the minor difference in difficulty level, if any, in each of the objective tests held in different sessions to arrive at the Equated Scores*

* Scores obtained by candidates on any test are equated to the base form by considering the distribution of scores of all the forms.

(iii) Test wise scores and scores on total is reported with decimal point upto two digits. Note: Cutoff is applied on total score.

i. on Total Score

8. APPLICATION FEE AND INTIMATION CHARGES:

Sr. No.	Category	Charges	Amount*
1.	SC/STs/PwBD/ Ex-SM	Intimation Charges* only	Rs. 300/-**
2.	GEN/OBC/EWSs	Application fee including intimation charges*	Rs. 650/-**

*Bank/Transaction charges are to be borne by the candidate.

** The Above fee is inclusive of GST.

Note I: Applications without the prescribed Fee/ Intimation Charges shall be summarily rejected.

Note II: Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination or selection.

Note III: Fee/ Intimation Charges are required to be paid only in the manner prescribed in this advertisement.

Note IV: Exemption from Payment of Fee: SC/ST/PwBD/Ex-SM candidates are exempted from payment of fee, However they are required to pay intimation charges and any Bank transaction/ convenience charges.

Note V: Candidates are also warned that they will be permanently debarred from the examinations conducted by IGMH/SPMCIL, in case they fraudulently claim SC/ST/OBC/EWS/Ex-Servicemen/PwBD status.

9. HOW TO APPLY

- (a) Candidates are required to apply only online using the website <https://igmhyderabad.spmcil.com/en/discover-spmcil/#career> and no other means/mode of application will be accepted. Detailed instructions for filling up online applications are available at Appendix-I which is available on the IGMH website. The applicants are advised to submit a single application; however, if due to any unavoidable situation, if he/she submits another/multiple applications, then he/she must ensure that application with the higher Registration ID (RID) is complete in all respects like applicant's details, examination centre, photograph, signature, left thumb impression and hand writing undertaking, fee etc. The applicants who are submitting multiple applications should note that only the last completed applications with higher RID shall be entertained by the IGMH and fee paid against one RID shall not be adjusted against any other RID.
- (b) All candidates, whether already in Government Service, Autonomous Bodies, Government owned industrial undertakings/PSU's or other similar organizations, whether in a permanent or temporary capacity or as work charged employees other than casual or daily rated employees or those serving under the Public Enterprises are required to submit an undertaking in the Online application or a proof to that effect during document verification that they have informed in writing to their Head of Office/Department that they have applied for the Examination. Candidates should note that in case a communication is received from their employer by the IGMH withholding permission to the candidates applying for/appearing at the examination, their application will be liable to be rejected/candidature will be liable to be cancelled. At the time of joining, the recommended candidates will have to bring proper discharge certificates from their PSU/Government/Quasi-Government employer.

NOTE: Candidates are not required to submit along with their applications any certificate in support of their claims regarding Age, Educational Qualifications, Scheduled Castes/ Scheduled Tribes/Other Backward Classes and Physically disabled, EWSs etc. which will be verified at the time of the Document Verification only. The candidates applying for the posts should ensure that they fulfil all the eligibility conditions for admission to the Examination. Their admission at all the stages of examination for which they are admitted by the IGMH will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification at any time before or after the Examinations or during the Trade Test or Document Verification Stage, it is found that they do not fulfil any of the eligibility conditions; their candidature for the examination will be cancelled by the IGMH. If any of their claims is found to be incorrect, they may render themselves liable to criminal/disciplinary action by the IGMH.

ACTION AGAINST CANDIDATES FOUND GUILTY OF MISCONDUCT/ USE OF UNFAIR MEANS

A candidate who is or has been declared by the IGMH to be guilty of:

- (i) Obtaining support for his/her candidature by the following means, namely:-
 - (a) offering illegal gratification to, or
 - (b) applying pressure on, or
 - (c) blackmailing, or threatening to blackmail any person connected with the conduct of the examination, or
- (ii) impersonating, or
- (iii) procuring impersonation by any person, or
- (iv) submitting fabricated documents or documents which have been tampered with, or making statements which are incorrect or false or suppressing material information, or
- (v) resorting to the following means in connection with his/her candidature for the examination, namely
 - (a) obtaining copy of question paper through improper means,
 - (b) finding out the particulars of the persons connected with secret work relating to the examination.
 - (c) influencing the examiners, or
- (vi) using unfair means during the examination,
- (vii) or writing obscene matter or drawing obscene sketches in the scripts, or
- (viii) misbehaving in the examination hall including tearing of the scripts, provoking fellow examinees to boycott examination, creating a disorderly scene and the like, or
- (ix) using a scribe / availing compensatory time in examination despite being ineligible, or
- (x) harassing or doing bodily harm to the staff employed by the IGMH for the conduct of their examinations, or
- (xi) being in possession of or using mobile phone, pager or any electronic equipment or device or any other equipment capable of being used as a communication device during the examination, or
- (xii) violating any of the instructions issued to candidates along with their Admission Certificates permitting them to take the examination, or
- (xiii) attempting to commit or as the case may be abetting the Commission of all or any of the acts specified in the foregoing clauses; may in addition to rendering himself/herself liable to criminal prosecution, be liable.
 1. to be disqualified by the IGMH from the examination for which he/she is a candidate and/or
 2. to be debarred either permanently or for a specified period (i) by the IGMH from any examination or selection held by them; (ii) by the IGMH from any employment under them; (iii) dismissal from service by IGMH/SPMCIL if he / she is already in SPMCIL Service.; and (iv) if he/she is already in some other service, the IGMH writing to his/her employer for taking disciplinary action.

Provided that no penalty shall be imposed except after (i) giving the candidate an opportunity of making such representation, in writing as he/she may wish to make in that behalf; and (ii) taking the representation, if any, submitted by the candidate within the period allowed to him/her into consideration.

10. GENERAL INSTRUCTIONS:

- (a) **Correspondence with the IGMH:** The IGMH will not enter into any correspondence with the candidates about their candidature except in the following cases:

The eligible candidates shall be issued an Call Letter two week before the commencement of the examination. The Call Letter will be made available on the Company's website www.igmyderabad.spmcil.com for downloading by candidates. No Call letter will be sent by post. If a candidate does not receive his e-Call letter or any other communication regarding his/her candidature for the examination two weeks before the commencement of the examination, he/she should at once contact the help facility as mentioned above.
- (b) No candidate will ordinarily be allowed to take the examination unless he/she holds an Call Letter for the examination. On downloading of Call Letter, check it carefully and bring discrepancies/errors, if any, to the notice of IGMH immediately.

- (c) **PROOF OF IDENTITY TO BE SUBMITTED AT THE TIME OF EXAMINATIONS:** At the time of appearing for Online Exam/ Phase - I or Phase - II of the examination, candidates are required to produce a currently valid photo identity card in original and a photocopy of the same, in addition to the Call letter. Acceptable photo identity cards are PAN Card/ Passport/ Driving Licence/ Voter's Card/ Bank Passbook with photograph/ Photo identity proof issued by a Gazetted Officer on official letterhead/ Photo identity proof issued by a People's Representative on official letterhead/ valid recent Identity Card issued by a recognised college / university/ e- Aadhar card / Aadhar card with a photograph/ Employee ID/ Bar Council Identity card with photograph. The candidate's identity will be verified with respect to his/her details on the Admission Letter /Examination Call Letter, in the Attendance List and requisite documents submitted. If identity of the candidate is in doubt, the candidate may not be allowed to appear for the Examination.

Note: Candidates have to produce in original the photo identity proof and submit a photocopy of the photo identity proof along with Admission Letter/ Examination Call Letter while attending the examination without which they will not be allowed to take up the examination. For Phase-II examination, candidates will have to carry more than one photocopy of photo ID proof. However, in Phase-I only one photocopy of photo ID will be sufficient. Candidates must note that the name (provided during the process of registration) as appearing on the call letters should exactly **match the name as appearing on the photo identity proof, certificates, mark-sheets.** Female candidates who have changed first/last/middle name post marriage must take special note of this. 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, together with a photocopy. If there is any mismatch between the name indicated in the Admission Letter/ Examination Call Letter and Photo Identity Proof, the candidate will not be allowed to appear for the examination.

CANDIDATES REPORTING LATE i.e. after the reporting time specified on the call letter for Examination will not be permitted to take the examination. The reporting time mentioned on the call letter is prior to the Start time of the test. Though the duration of the examination is 1.5 hours, candidates may be required to be at the venue for about 3-4 hours including the time required for completion of various formalities such as verification and collection of various requisite documents, logging in, giving of instructions.

- (d) The IGMH would be analyzing the responses of all appeared candidates to detect abnormal similarity of responses. On the basis of such an analysis, if it is found that the responses have been shared and scores obtained are not genuine/ valid, the IGMH reserves the right to cancel his/her candidature.
- (e) IGMH does not assume any responsibility for the candidates not being able to submit their applications within the last date on account of or for any other reason beyond the control of the IGMH.
- (f) The candidates should note that their admission to the examination will be purely provisional based on the information given by them in the Application Form. This will be subject to verification of all the eligibility conditions by the IGMH/SPMCIL. The mere fact that a Call Letter has been issued to a candidate, will not imply that his/her candidature has been finally cleared by the IGMH or that entries made by the candidate in his/her application for the Advertisement have been accepted by the IGMH as true and correct. Candidates may note that the IGMH takes up the verification of eligibility conditions of a candidate, with reference to original documents, only after the candidate has qualified for the appointment. Unless candidature is formally confirmed by the IGMH, it continues to be provisional. The decision of the IGMH as to the eligibility or otherwise of a candidate for admission to the Examination shall be final.
- (g) All candidates who are declared qualified in the online examination for appearing in the subsequent selection process will be required to produce the relevant Certificates such as Mark sheets for all the years of Post- Graduation/Graduation/ Provisional Certificate/ Degree of Graduation in original as proof of having acquired the minimum educational qualification **as on the last date of the application form**, failing which the candidature of such candidates will be cancelled by IGMH. The candidates who are able to prove, by documentary evidence, that the result of the qualifying examination was declared on or before the cut-off date and he/ she has been declared passed, will also be considered to

meet the educational qualification. **It is reiterated that the result of required educational qualification must have been declared by the Board/Institute/ University by the specified date i.e. 01.10.2023. Mere processing of the result by the University/ Institute by the crucial cut-off date does not fulfill the EQ requirement.**

- (h) Candidates should note that the name in the Call letter in some cases may be abbreviated due to technical reasons.
- (i) The possibility for occurrence of some problems in the administration of the examinations 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 IGMH/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.
- (j) Candidates are advised to keep their e-mail ID/mobile number alive for receiving advices viz. Call letters/document verification letters, etc. Candidates may check e-mails/SMS regularly. The IGMH does not send any communication through any other mode.
- (k) The IGMH does not furnish the mark-sheet to candidates. Marks obtained in Phase-I (Online exam) will be made available on the website www.igmhyderabad.spmcil.com, after shortlisting of candidates for Appointment.
- (l) Any canvassing by or on behalf of the candidates or to bring political or other outside influence with regard to their selection/recruitment shall be considered as disqualification.
- (m) In all matters regarding eligibility, conduct of examinations, assessment, prescribing minimum qualifying standards in the Examination, in relation to number of vacancies and communication of result, the IGMH's decision shall be final and binding on the candidates and no correspondence shall be entertained in this regard.
- (n) The eligibility for availing reservation against the vacancies reserved for the PwBD shall be the same as prescribed in "Rights of Persons with Disabilities (RPWD) Act 2016" provided Further that the PwBD shall also be required to meet special eligibility criteria in terms of physical requirements/functional classification (abilities/disabilities) consistent with requirements prescribed.
- (o) A candidate will be eligible to get the benefit of community reservation only in case the particular caste to which the candidates belong is included in the list of reserved communities issued by the Central Government. If a candidate indicates in his/her application form that he/she belongs to General category but subsequently writes to the IGMH to change his/her category to a reserved one, such request shall not be entertained by the IGMH. Similar principle will be followed for EWSs/PwBD categories also. In case of a candidate unfortunately becoming physically disabled during the course of the examination process, the candidate should produce valid document showing him/her acquiring a disability to the extent of 40% or more as defined under RPWD Act, 2016 to enable him/her to get the benefits of PwBD reservation.
- (p) Candidates seeking reservation/ relaxation benefits available for SC/ST/PwBD/Ex-servicemen must ensure that they are entitled to such reservation/ relaxation as per eligibility prescribed. They should also be in possession of all the requisite certificates in the prescribed format in support of their claim as stipulated for such benefits and these certificates should be dated earlier than the due date (closing date) of the application.
- (q) Please note that corrigendum, if any, issued on the above advertisement, will be published only on the IGMH website www.igmhyderabad.spmcil.com.
- (r) **Dispute Resolution:**
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://igmhyderabad.spmcil.com> shall prevail. Any resultant dispute arising out of this advertisement shall be subject to the sole jurisdiction of the courts/tribunals situated in Hyderabad/Secunderabad.
- (s) **Action against candidates found guilty of misconduct:**
If any candidate is found indulging in any irregularity/ misconduct/ malpractice at any stage of recruitment, the candidate shall be debarred, apart from cancellation of candidature for the examination without prejudice to any other legal action. IGMH may take appropriate actions as deemed fit including verification of Signature, Thumb Impression, Handwriting, Photograph, etc captured during various stages of recruitment to ascertain genuineness of candidates to ensure fair selection.

- (t) Candidates whose applications have been rejected will be notified on the website in advance before conduct of examination.
- (u) **Payment of Travelling Allowance for SC/ST/PwBD candidate:**
SC/ST/PwBD candidates called for document verification will be paid Travelling Allowance, as per extant of Government rules.
- v) The examination will be conducted online in venues given in the respective call letters.
- w) No request for change of centre/venue/date/session for Examination shall be entertained.
- x) IGMH, however, reserves the right to cancel any of the Examination Centres and/ or add some other Centres, at its discretion, depending upon the response, administrative feasibility, etc.
- y) IGMH also reserves the right to allot the candidate to any centre other than the one he/she has opted for.
- z) Choice of centre once exercised by the candidate will be final.

11.1 Applicants are advised to note the following instructions carefully:

- I. The candidates are required to carefully go through the advertisement in detail.
- II. The candidate must check her/his eligibility before applying for a trade/post and take an informed decision.
- III. Candidates will have to apply ONLINE only. Please also refer to "How to apply" section under the link "Click here for applying online" in case of any difficulty in applying online.
- IV. Candidates are required to check the website regularly for any updates and changes. Any corrigendum to this advertisement will be displayed only on the Company's website <http://igmhyderabad.spmcil.com>. Therefore, applicants are advised to keep checking the Company's website for any update.
- V. Candidates are required to give a valid mobile Number and e-mail id for periodical notices. Error in these details will result in non-delivery of important communication with respect to the examination. Candidates are advised to retain the same Mobile Number and email ID in their own interest, till all the processes of the said recruitment drive are completed.
- VI. Online examination is 'Multiple Choice Question type (MCQ)' There will be NO NEGATIVE MARKING for any wrong answer.
- VII. **BEWARE OF TOUTS:** Canvassing of any kind will disqualify the candidate. **Candidates are advised not to fall prey to any unscrupulous elements.** The candidates are requested to bring the same to the notice of Senior Vigilance Officer at his email id anjinappa.dombara@spmcil.com.
- VIII. **The candidates are also advised to ensure that their clear PHOTO, SIGNATURE, Declaration & Left Thumb Impression have been uploaded and are also printed on the Application Form.**
- IX. The candidate must not attempt impersonation or take help from any impersonator at any stage of the selection process or try to copy from neighboring candidates, books and use any electronic gadgets or any other unfair means. This shall lead to cancellation of candidature, debarment in appearing future exams conducted by IGMH/SPMCIL without prejudice to criminal prosecution.
- X. The candidates will be thoroughly frisked at the time of entry to the examination Centre. Candidates are advised not to bring any valuable/costly items to the Examination Halls. IGMH/SPMCIL will not be responsible for safe keeping of any items belonging to them and the candidates shall be solely responsible for their belongings. No electronic gadgets shall be allowed inside the examination Centre.
- XI. **BIOMETRIC DATA – Capturing and Verification:** In the event, the Central Government allows for Biometric Capturing in the wake of COVID-19 Pandemic and if required by IGMH, the biometric data (thumb impression) of the candidates may be captured.
- XII. The candidate may note that IGMH/SPMCIL if required, may record the entire examination process through Videography/CCTV at all the venues.
- XIII. Any material suppression of facts or submitting forged certificates/documents shall lead to rejection of candidature at any stage of selection of this process.
- XIV. Decision of the competent authority in all matters relating to the eligibility, acceptance/rejection of any application, allotment of language, examination Centre, etc will be final and binding on the candidate and no inquiry/correspondence shall be entertained in this regard.
- XV. The candidates applying for the examination should ensure that they fulfil all the eligibility criteria for admission to the examination. Their admission at all the stages of examination will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If, on verification of documents / certificates, at any time before or after the online examination, it is found that the candidate does not fulfil any of the eligibility conditions, his/her candidature for the examination shall be cancelled by IGMH at any stage of recruitment.
- XVI. Record retention period for examination material (Marks Sheets/Response Sheets/Attendance Sheet/any other records / documents etc.) will be 3 months after the declaration of final result. After that, no RTI shall be entertained by IGMH regarding this examination. RTI queries regarding furnishing category-wise or total number of candidates shortlisted /appeared for Online Examination/Phase I, shortlisted for Phase-II/Document Verification phase, Answer keys/Response Sheets will be entertained only after the completion of the entire selection process and declaration of

final results of this recruitment. All candidates may also note that, the conduct of the entire recruitment process has been outsourced to an external examination conducting body and as per its policy, the said body does not provide questions papers, sample answers papers to client organisation, thus IGMH will not be able to provide the same, under RTI.

- XVII. The Competent Authority reserves the right to adopt any alternative lawful mode of selection in part or in whole, in case of contingency.
- XVIII. Request for change/correction in any particulars in the application form shall not be entertained under any circumstances. The IGMH/SPMCIL will not be responsible for any consequence arising out of non-acceptance of any correction/addition/deletion in any particulars filled in the application form, whatever the reason may be.
- XIX. The vacancies intimated in this advertisement are tentative in nature and IGMH/SPMCIL reserves the right to increase/decrease the number of vacancies or cancel the recruitment process, in total.
- XX. The candidates may please take note that they are liable to be posted/adjusted in any of the SPMCIL Units situated across India, other than the one they have applied to.
- xxi. In accordance with the directions issued by DoPT vide its O.M. No. 39020/1/016/Estt(B) dated 21.06.2016 for increasing access of the unemployed candidates to job opportunities it has been decided that after declaration of final result, IGMH will make available scores and ranking of candidates in the recruitment examination on its portal/ <http://igmhyderabad.spmcil.com>. Accordingly, it has been decided that apart from Roll Number-scores, ranking of the candidates in the final examination, Name of candidate, name of parents/husband, educational qualification, date of birth, category, sex (male/female), total marks in qualifying examination, complete address including e-mail address will be made available on the website after the declaration of final result. However, the candidates will have the option to opt out from the disclosure scheme to disclose his/her information publically at the time of filling up the application.
- XXII. 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://igmhyderabad.spmcil.com>. It will not be intimated to the applicants individually.

11.2 REJECTION OF CANDIDATURE:

Instances for providing incorrect Information and/or process violation by an applicant detected at any stage of the selection process will lead of 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.

The application or candidature of the candidate may be rejected for any of the following reasons:

- I. Incomplete Application
- II. Fees not remitted where applicable
- III. Fees Details not entered while submitting the ONLINE application.
- IV. Does not possess the prescribed qualification as on closing date of submission of on-line application.
- V. Over aged or under aged or Date of Birth not filled or wrongly filled.
- VI. Double or multiple applications submitted.
- VII. Application with unclear photo, photo with cap, wearing goggles, disfigured or unidentifiable photo, unclear signature or LTI.
- VIII. Candidate's name is figuring in the debarred list of SPMCIL or any other Government recruitment agencies
- IX. Only a single application will be entertained. Candidature in respect of multiple applications (if found) may be rejected out rightly, without any notice to such candidates.
- X. Mismatch of Name, Father's name and Date of Birth in ONLINE application form with the 10th certificate/10+2/Graduation/Post Graduation/Experience certificates.
- XI. Irrelevance between the applied trade and Graduation certificate.
- XII. Any other irregularities which may render the candidature of applicant invalid by IGMH
- XIII. Any material suppression of facts or submitting forged certificates/documents shall lead to rejection of candidature at any stage of selection of this process.
- XIV. The candidature of candidates shall be cancelled in the absence of non-capture of biometric data due to mehendi/tattoo on fingers.
- XV. Candidate found to be appearing malpractices during examination. In this regard decision of the Invigilator shall be final.

11. . POST SELECTION PROCESS:

- I. Selected candidates will be posted at I.G.Mint, Hyderabad and are liable to be posted to any of the Mint/Presses as per the requirement of the company.
- II. The seniority of the candidates on appointment will be as decided by the Company based on their merit.
- III. Appointments of selected candidates will be subject to his/her being declared medically fit by Company Medical Officer, satisfactory report about his/her character and antecedents by the Police Authorities, satisfactory report from his/her previous employer and referees, verification of caste/tribe and class certificate (for reserved category candidates only) 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.
- IV. The Panel of candidates in order of merit as recommended by the Selection committee, on approval by the competent authority, will form the basis for issue of offers of appointment.
- V. A waiting list shall be prepared and the same will remain valid for one year. In case any selected candidate fails to join, the waiting list will be operated and offer letter will be issued to the candidates placed as per merit in the waiting list.
- VI. **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 also, his service will be terminated.
- VII. **NOTE: Please note that Corrigendum/Addendum etc, if any, issued in respect of this advertisement, will be published only on the IGMH's website www.igmhyderabad.spmcil.com.**
- VIII. **Disclaimer:** Any translation of this Advertisement into Hindi language shall be deemed as a reference and English version shall prevail in any case.

**Joint General Manager (HR),
For Chief General Manager,
India Government Mint,
Hyderabad.**

HOW TO APPLY

Candidates must apply only online through the Mint's website i.e. www.igmhyderabad.spmcil.com from September 02nd to October 01st, 2023. No other means/mode of applications will be accepted.

(A) PRE-REQUISITES FOR APPLYING ONLINE:

Before applying online, candidates should—

- (i) scan their :
 - photograph (4.5cm × 3.5cm)
 - signature
 - left thumb impression
 - a hand-written declaration (text given below)

ensuring that the all these scanned documents adhere to the required specifications as given below.
- (ii) Signature in CAPITAL LETTERS will NOT be accepted.
- (iii) 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.)**
- (iv) The text for the hand-written declaration is as follows –
“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.”
- (v) The above-mentioned hand-written declaration has to be in the candidate's hand writing and in English only. If it is written and uploaded by anybody else or in any other language, the application will be considered as invalid. **(In the case of Visually Impaired candidates who cannot write may get the text of declaration typed and put their left hand thumb impression below the typed declaration and upload the document as per specifications.)**
- (vi) Keep the necessary details/documents ready to make **Online Payment** of the requisite application fee/ intimation charges.
- (vii) Have a valid personal email ID and mobile number which should be kept active till the completion of this recruitment process. IGMH may send intimation to download call letters for the Examination etc. through the registered e-mail ID. In case a candidate does not have a valid personal e-mail ID, he/she should create his/her new e-mail ID and have mobile number before applying on-line and must maintain that email account and mobile number.
- (viii) **The IGMH does not send any communication by any other mode than E-mail/SMS.**
 No change in E-mail ID will be entertained during the entire process of the recruitment.

(B) PROCEDURE FOR APPLYING ONLINE:

- (i) Candidates satisfying the conditions of eligibility as on the last date of the advertisement/notification are first required to visit the URL “Recruitment for the posts of “Engravers” on IGMH's website i.e. www.igmhyderabad.spmcil.com
 >careers >Recruitment to the posts of Jr.Technicians in Various Trades and click on the hyperlink **“Online Application Form”** in the advertisement page for filling the ‘Online Application’. It redirects the candidates to the online registration page.
- (ii) Candidates will have to enter their basic details and upload the photograph, signature, left thumb impression and a hand-written declaration in the online application form as per the specifications given.
- (iii) To register application, choose the tab "Click here for New Registration" and enter Name, Contact details and Email-id. A Provisional Registration Number and Password will be generated by the system and displayed on the screen. Candidate should note down the Provisional Registration Number and Password. An Email & SMS indicating the Provisional Registration number and Password will also be sent.

- (iv) In case the candidate is unable to complete the application form in one go, he / she can save the data already entered by choosing "SAVE AND NEXT" tab. Prior to submission of the online application, candidates are advised to use the "SAVE AND NEXT" facility to verify the details in the online application form and modify the same if required. Visually Impaired candidates should fill the application form carefully and verify/get the details verified to ensure that the same are correct prior to final submission.
- (v) Candidates are advised to carefully fill and verify the details filled in the online application themselves as no change will be possible/entertained after clicking the COMPLETE REGISTRATIONBUTTON.
- (vi) The Name of the candidate or his /her Father/ Husband etc. should be spelt correctly in the application as it appears in the Photo identity proof / Certificates/ Mark sheets. Any change/alteration found may disqualify the candidature.
- (vii) Validate your details and Save your application by clicking the 'Validate your details' and 'Save & Next' button.
- (viii) Candidates can proceed to upload Photo, Signature, left thumb impression and a hand-written declaration as per the specifications given in the Guidelines for Scanning and Upload of Documents as given in item (D) below.
- (ix) Candidates can proceed to fill other details of the Application Form.
- (x) Click on the Preview Tab to preview and verify the entire application form before COMPLETE REGISTRATION.
- (xi) Modify details, if required, and click on '**COMPLETE REGISTRATION**' ONLY after verifying and ensuring that the photograph, signature uploaded, and other details filled by you are correct.
- (xii) Click on 'Payment' Tab and proceed for payment.
- (xiii) Click on 'Submit' button.
- (xiv) Candidates shall be solely responsible for filling up the online applications correctly. In case of invalid applications due to errors committed by the applicant no claims for refund of application fees/intimation charges so collected shall be entertained by the IGMH.
- (xv) To avoid last minute rush, candidates are advised to pay the application fees/ intimation charges and register online at the earliest.
- (xvi) IGMH does not assume any responsibility for the candidates not being able to submit their applications within the last day on account of aforesaid reasons or any other reason.

(C) MODE OF PAYMENT FOR APPLICATION FEE/INTIMATION CHARGES: Candidates have to make the payment of requisite fee/intimation charges through the online mode only:

- (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 (RuPay/Visa/MasterCard/Maestro), Credit Cards, Internet Banking, IMPS, Cash Cards/ Mobile Wallets.
- (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, an e-Receipt will be generated.
- (v) Non-generation of 'E-Receipt' indicates PAYMENT FAILURE. On failure of payment, Candidates are advised to login again using their Provisional Registration Number and Password and repeat the process of payment.
- (vi) Candidates are required to take a printout of the e-Receipt and online Application Form. Please note that if the same cannot be generated, online transaction may not have been successful.
- (vii) For Credit Card users: All charges are listed in Indian Rupee. If you use a non-Indian credit card, your bank will convert to your local currency based on prevailing exchange rates.
- (viii) To ensure the security of your data, please close the browser window once your transaction is completed.
- (ix) There is facility to print application form containing fee details after payment of fees.

(D) GUIDELINES FOR SCANNING & UPLOADING THE PHOTOGRAPH & SIGNATURE:

Before applying online, a candidate will be required to have a scanned (digital) image of his/her photograph and signature as per the specifications given below.

Photograph Image: (4.5cm × 3.5cm)

- Photograph must be a recent passport style colour picture.
- Make sure that the picture is in colour, taken against a light-coloured, preferably white background.
- Look straight at the camera with a relaxed face
- If the picture is taken on a sunny day, have the sun behind you, or place yourself in the shade, so that you are not squinting and there are no harsh shadows
- If you have to use flash, ensure there's no "red-eye"
- If you wear glasses make sure that there are no reflections and your eyes can be clearly seen.
- Caps, hats and dark glasses are not acceptable. Religious headwear is allowed but it must not cover your face.
- Dimensions 200 x 230 pixels (preferred)
- Size of file should be between 20kb–50 kb
- Ensure that the size of the scanned image is not more than 50kb. If the size of the file is more than 50 kb, then adjust the settings of the scanner such as the DPI resolution, no. of colours etc., during the process of scanning.

Signature, Left Thumb (LT) impression and Handwriting declaration Image:

- The applicant has to sign on white paper with Black Ink pen.
- The applicant has to put his left thumb impression on a white paper with black or blue ink.
- The applicant has to write the declaration in English clearly on a white paper with black ink
- The signature, left thumb impression and the hand-written declaration should be of the applicant and not of any other person.
- The signature will be used to put on the Call Letter and wherever necessary.
- If the Applicant's signature on the attendance sheet or Call letter, signed at the time of the examination does not match the signature uploaded, the applicant will be disqualified.
- Dimensions 140 x 60 pixels (preferred)
- Size of file should be between 10kb – 20kb for signature and left thumb impression.
- For hand written declaration size of file should be 20kb – 50kb
- Ensure that the size of the scanned image is not more than 20kb or 50 kb (for hand written declaration)
- Signature / Hand written declaration in CAPITAL LETTERS shall NOT be accepted.

Scanning the documents:

- Set the scanner resolution to a minimum of 200 dpi (dots per inch)
- Set Color to True Color
- File Size as specified above.
- Crop the image in the scanner to the edge of the photograph/signature/ left thumb impression / hand written declaration, then use the upload editor to crop the image to the final size (as specified above).
- The image file should be JPG or JPEG format. An example file name is: image01.jpg or image01.jpeg. Image dimensions can be checked by listing the folder files or moving the mouse over the file image icon.
- Candidates using MS Windows/MsOffice can easily obtain documents in .jpeg format not exceeding 50kb (photograph and hand-written declaration) & 20kb (signature and left thumb impression) by using MS Paint or MsOffice Picture Manager. Scanned documents in any format can be saved in .jpg format by using 'Save As' option in the File menu and size can be reduced

below 50 kb (photograph and hand written declaration) & 20 kb (signature and left thumb impression) by using crop and then resize option (Please see point (i) & (ii) above for the pixel size) in the 'Image' menu. Similar options are available in other photo editor also.

- If the file size and format are not as prescribed, an error message will be displayed.
- While filling in the Online Application Form, the candidate will be provided with a link to upload his/her photograph, signature, left thumb impression and hand-written declaration.

Procedure for Uploading the documents

- There will be separate links for uploading Photograph, signature, left thumb impression and hand-written declaration
- Click on the respective link "Upload Photograph / signature / left thumb impression / hand written declaration"
- Browse and Select the location where the Scanned Photograph / signature / left thumb impression / hand written declaration file has been saved.
- Select the file by clicking on it
- Click the 'Open/Upload' button

Your Online Application will not be registered unless you upload your Photograph, signature, left thumb impression and hand-written declaration as specified.

Note:

- (1) In case the face in the photograph or signature or left thumb impression or the hand-written declaration is unclear / smudged the candidate's application may be rejected.
- (2) After uploading the Photograph / signature / left thumb impression / hand written declaration in the online application form, candidates should check that the images are clear and have been uploaded correctly. In case the photograph or signature or left thumb impression or the hand-written declaration is not prominently visible, the candidate may edit his/ her application and re-upload his/ her photograph or signature, prior to submitting the form.
- (3) After registering online candidates are advised to take a printout of their system generated online application forms.

NOTE: Please note that Corrigendum, if any, issued on the above advertisement, will be published only on the IGMH's website www.igmhyderabad.spmcil.com

FORM OF CASTE CERTIFICATE FOR SC/ST

This is to certify that Shri*/ Srimati/ Kumari*
 son/daughter* of.....Village/Town
 District/Division* of
 the State/Union Territory* belongs to the
Caste*/Tribe which is recognised as a Scheduled Caste /

Scheduled Tribe under:-

- *The Constitution Scheduled Castes Order 1950.
- *The Constitution Scheduled Tribes Order 1950.
- *The Constitution (Scheduled Castes) (Union Territories) (Part C States) Order 1951;
- *The Constitution (Scheduled Tribes) (Union Territories) (Part C States) Order 1951; [As amended by the Scheduled Castes and Scheduled Tribes Lists (Modification Order 1956, the Bombay Re-organisation Act 1960, the Punjab Re- organisation Act 1966, the State of Himachal Pradesh Act 1970, the North Eastern Areas (Re-organisation) Act 1971 and the Scheduled Castes and Scheduled Tribes Orders, (Amendment) Act 1976]
- *The Constitution (Jammu and Kashmir)* Scheduled Castes Orders, 1956
- *The Constitution (Andaman and Nicobar Islands)* Scheduled Tribes Order, 1959 as amended by the Scheduled Castes and Scheduled *Tribes Orders (Amendment) Act, 1976
- *The Constitution (Dadra and Nagar Haveli)* Scheduled Castes Order, 1962.
- *The Constitution (Dadra and Nagar Haveli) Scheduled Tribes, Order, 1962
- *The Constitution (Pondicherry) Scheduled Castes Orders, 1964
- *The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967
- *The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968
- *The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968
- *The Constitution (Nagaland) Scheduled Tribes Order, 1970.
- *The Constitution (Sikkim) Scheduled Castes Order, 1978
- *The Constitution (Sikkim) Scheduled Tribes Order, 1978
- *The Constitution (Jammu & Kashmir) Scheduled Tribes Order, 1989.
- *The Constitution (SC) Orders (Amendment) Act, 1990
- *The Constitution (ST) Orders (Amendment) Ordinance Act, 1991
- *The Constitution (ST) Orders (Amendment) Ordinance Act, 1996
- *The Constitution (Scheduled Castes) Orders (Amendment) Act, 2002
- *The Constitution (Scheduled Castes) Orders (Second Amendment) Act, 2002.
- *The Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002.

2. Applicable in the case of Scheduled Castes/Scheduled Tribes persons who have migrated from one State/Union Territory Administration.

This certificate is issued on the basis of the Scheduled Castes/ Scheduled Tribes Certificate issued to Shri /Srimati * father / mother* of Shri / Srimati / Kumari of Village / Town* in District / Division * of the State / Union Territory * who belongs to theCaste*/Tribe which is recognised as a Scheduled Caste / Scheduled Tribe in the Station/ Union Territory* issued by the dated

3. Shri / Srimati / Kumari* and /or* his/her* family
ordinarily resides in Village / Town* District / Division*
..... of the State/ Union Territory* of

Place.....

Signature.....

Date.....

Designation.....

(with seal of Office)

State/ Union

Territory.....

* Please delete the words which are not applicable.

@ Please quote the specific presidential order.

% Delete the Paragraph, which is not applicable

Note: (a) The term -ordinarily reside(s)' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950. Officers competent to issue Caste/Tribe certificates.

1. District Magistrate / Additional District Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st Class Stipendiary Magistrate / Sub-Divisional Magistrate / Taluka Magistrate / Executive Magistrate / Extra Assistant Commissioner. 2. Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate. 3. Revenue Officers not below the rank of Tehsildar. 4. Sub-Divisional Officer of the area where the candidate and / or his / her family normally reside(s). 5. Certificates issued by Gazetted Officers of the Central or of a State Government Countersigned by the District Magistrate concerned. 6. Administrator/ Secretary to Administrator (Laccadive, Minicoy and Admindivi Islands).

OBC CERTIFICATE FORMAT**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POST UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri / Smt. / Kumari.....
 son / daughter of of Village/Town in
 District/ Division in the State / Union Territory belongs to the
 community which is recognised as a Backward Class under the
 Government of India, Ministry of Social Justice and Empowerment's Resolution No.
 Dated..... *

Shri/Smt./Kum.* and /or his/her family ordinarily
 reside(s) in the District / Division of the
 State / Union Territory. This is also to certify that he/she does not belong to
 the persons / sections (Creamy layer) mentioned in column 3 (of the Schedule to the Government of
 India, Department of Personnel & Training OM No. 36012/22/93-Estt(SCT), dated 8.9.1993 and modified
 vide Government of India, Department of Personnel and Training O.M.No.36033/1/2013-Estt. (Res)
 dated 27.05.2013 and 13.09.2017**.

Date:

DISTRICT MAGISTRATE /
 DY. COMMISSIONER ETC.

(Seal)

* The authority issuing the certificate may have to mention the details of Resolution of Government of India, in which the caste of the candidate as OBC.

** As amended from time to time.

Note: The term "Ordinarily" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

DECLARATION

Annexure II A

**Proforma for declaration to be submitted by Other Backward Class
Candidates at the time of document verification.**

—I, son/daughter of
Shri resident of Village/Town/City
....., district..... State
..... hereby declare that I belong to the

(indicate your sub caste) community which is recognized as a backward class by the Government of India for the purpose of reservation in services as per orders contained in Department of Personnel and Training Office Memorandum No. 36012/22/93- Estt.(SCT) dated 08.09.1993. It is also declared that I do not belong to persons/sections (Creamy Layer) mentioned in column 3 of the Schedule to the above referred Office Memorandum dated 08.03.1993 and its subsequent revision through O.M.No.36033/1/2013-Estt. (Res) dated 27 05.2013 and 13.09.2017.

Place:

Signature of the Candidate

Date:

Name of the candidate

Government of _____
 (Name & Address of the authority issuing the certificate)

INCOME & ASSET CERTIFICATE TO BE PRODUCED BY ECONOMICALLY WEAKER SECTIONS (EWS)

Certificate No. _____

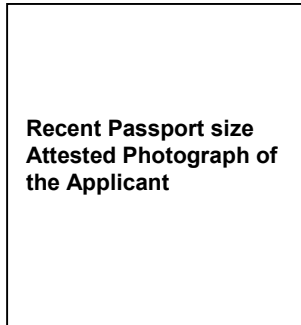
Date: _____

VALID FOR THE YEAR _____

This is to certify that Shri / Smt./ Kumari _____
 son/daughter/wife of _____ permanent resident of _____,
 Village/Street _____ Post Office _____ District _____
 _____ in the State/Union Territory _____ Pin Code _____

whose photograph is attested below belongs to Economically Weaker Sections, since the gross annual income* of his/her -familyl** is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year _____
 _____. His/her family does not own or possess any of the following assets***:

- 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.
2. Shri/Smt./Kumari _____ belongs to the caste which is not recognized as a Scheduled Caste, Scheduled Tribe and Other Backward Classes (Central List).



Signature with seal of
 Office _____
 Name _____
 Designation _____

***Note 1:** Income covered all sources i.e. salary, agriculture, business, profession, etc.

****Note 2:** The term 'Family' for this purpose include the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

*****Note 3:** The property held by a 'Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

FORM-V

Certificate of Disability

(In cases of amputation or complete permanent paralysis of limbs or dwarfism and in cases of blindness)

[See Rule 18(1)]

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

Recent Passport
Size
Attested
Photograph
(Showing face
only) of the person
with disability

Certificate No.:..... Date:

This is to certify that I have carefully examined Shri / Smt / Kum

son / wife / daughter of Shri Date of Birth

(DD/MM/YYYY) Age..... Years, Male/Female Registration No.

..... Permanent Resident of House No..... Ward

/ Village / Street Post Office..... District.....

State, whose photograph is affixed above, and am satisfied that:

(A) He/she is a case of:

*Locomotor Disability

*Dwarfism

*Blindness

(Please tick as applicable)

(B) The diagnosis in his/her case is

(1) He / She has% (in figure)..... percent (in words)
permanent locomotor disability / dwarfism/blindness in relation to his/her
..... (part of body) as per guidelines (to be specified).

(2) The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

Signature/Thumb
Impression of the person in
whose favour disability
certificate is issued

(Signature and Seal of Authorized Signatory of notified Medical
Authority)

FORM-VI

ANNEXURE IV(B)

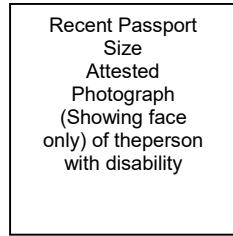
Certificate of Disability
(In case of multiple disabilities) [See Rule 18(1)]

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

Certificate No.:.....

Date:

1. This is to certify that we have carefully examined Shri/Smt./ Kum
..... son/wife/daughter Of Shri
..... Date of Birth(DD/MM/YYYY)
Age.....years, Male/FemaleRegistration No.
Permanent Resident of House No. Ward/Village/Street
whose photograph is affixed above and are satisfied that:



(A) He/She is a case of **Multiple Disability**. His / Her extent of permanent physical impairment/disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below and shown against the relevant disability in the table below:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent Physical Impairment/ Mental Disability (in%)
1	Locomotors Disability	@		
2	Muscular Dystrophy			
3	Leprosy cured			
4	Dwarfism			
5	Cerebral Palsy			
6	Acid attack Victim			
7	Low Vision	#		
8	Blindness	#		
9	Deaf	£		
10	Hard of Hearing	£		
11	Speech and Language disability			
12	Intellectual Disability			
13	Specific Learning Disability			
14	Autism Spectrum Disorder			
15	Mental illness			
16	Chronic Neurological Conditions			
17	Multiple Sclerosis			
18	Parkinson's Disease			
19	Hemophilia			
20	Thalassemia			
21	Sickle Cell disease			

(B) In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures:percent , In wordspercent

2. This condition is progressive/non-progressive/likely to improve/not likely to improve.

3. Reassessment of disability is :

i) not necessary, Or

ii) is recommended/afterYear..... months, and therefore this certificate shall be valid till

@ e.g. Left/Right/both arms/legs; # e.g. Single eye/both eyes; £e.g. Left/Right/both ears

4. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of issue	Details of authority issuing certificate

5. Signature and seal of the Medical Authority

--	--	--

Name and seal of Member Name and seal of Member Name and seal of the Chairperson

Signature/Thumb impression of the person in whose favour disability certificate is issued

FORM-VIICertificate of Disability

(In cases other than those mentioned in Forms V and VI) [See Rule 18(1)]

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

Certificate No.: Date:

Recent Passport
Size
Attested
Photograph
(Showing face
only) of the
person
with disability

1. This is to certify that we have carefully examined Shri / Smt. / Kum

..... son / wife / daughter of

Shri..... Date of Birth.....(DD/MM/YYYY)

Age years, Male / Female Registration No.

..... Permanent Resident of House NoWard/Village/Street

..... whose photograph is affixed above and I am satisfied that He / She

is a case of _____ **Disability**. His/Her extent of permanent physical

impairment/disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below

and shown against the relevant disability in the table below:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent Physical Impairment/ Mental Disability (in%)
1	Locomotor Disability	@		
2	Muscular Dystrophy			
3	Leprosy cured			
4	Cerebral Palsy			
5	Acid attack Victim			
6	Low Vision	#		
7	Deaf	£		
8	Hard of Hearing	£		
9	Speech and Language disability			
10	Intellectual Disability			
11	Specific Learning Disability			
12	Autism Spectrum Disorder			
13	Mental illness			
14	Chronic Neurological Conditions			
15	Multiple Sclerosis			
16	Parkinson's Disease			
17	Haemophilia			
18	Thalassemia			
19	Sickle Cell disease			

(B) In the light of the above, his/her over all permanent physical impairment as per guidelines (to be specified) is as follows:

In figures: percent, In words percent

2. This condition is progressive/non-progressive/likely to improve/not likely to improve.

3. Reassessment of disability is :

i) not necessary, Or

ii) is recommended/afterYear months, and therefore this certificate shall be valid till (DD/MM/YYYY)

@ e.g. Left/Right/both arms/legs; # e.g. Single eye/both eyes; £e.g. Left/Right/both ears

4. The applicant has submitted the following document as proof of residence :

Nature of Document	Date of issue	Details of authority issuing certificate

Countersigned [(Countersignature and seal of the CMO / Medical Supdt.) Superintendent / Head of Government Hospital in case the certificate is issued by a medical authority who is not a government servant (with seal)]		(Authorised Signatory of notified Medical Authority) (Name and Seal)

Signature/Thumb impression of the person in whose favour disability certificate is issued

Note: In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District. The principal rules were published in the Gazette of India vide notification number S.O. 908(E), dated the 31st December, 1996.

INDICATIVE SYLLABUS FOR ALL THE POSTS**PART-A**
(GENERAL ABILITY TEST)

General Awareness: Questions will be aimed at testing the candidate's general awareness around him and to test knowledge of current events and of such matters of day to day importance. Questions relating to India pertaining to sports, History, Culture, Geography, economy, Polity & Indian Constitution. These Questions will be such that they do not require a special study.

Basic English Language Skills: Candidates' ability to understand Basic English and his basic comprehension would be tested.

Basic Computer Knowledge: Candidates' basic ability to work with Computers is tested in these questions.

Basic Arithmetic Ability: Questions on problems relating to Number Systems, Computation of Whole Numbers, Decimals and Fractions and relationship between Numbers, Fundamental arithmetical operations, Percentages, Ratio and Proportion, Averages, Interest, Profit and Loss, Discount, Mensuration, Time and Distance, Ratio and Time, Time and Work, etc.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (FOUNDRYMAN)
PART-B(CONCERNED STREAM/TECHNICAL SUBJECT)

- 1) Types of foundries. Different tools & equipment used in foundry. Different raw materials used in foundry Industries. Specification tools & equipment. Special casting process definition materials used composition, the process; use advantages and disadvantage of CO₂ process and shell moulding process.
- 2) Definition of green sand Advantage and disadvantage of green sand mould, loam sand mould and cement bonded sand mould. Construction, operation and maintenance of pit furnace.
- 3) Moulding process – bench moulding different methods advantages, disadvantages and their application. Different types of coating on mould cores. Methods of repairing the pattern & core boxes. Various types of drill bits and drilling machine. Induction furnace types & operation. Description of dry sand mould. Brief description types, of die casting, centrifugal casting and ceramic moulding process.
- 4) Slush casting process, continuous casting process, permanent mould casting process; Nishiyama process (by using ferrosilicon powder). Binders - Common binders used in foundry. Classification of iron ores & its treatments. Common cost iron-alloys..
- 5) 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.
- 6) Sand testing different methods of moisture content test permeability test, clay content test, strength test, sand grain fineness test, refractoriness test of moulding sand. Common types of natural & synthetic moulding sand as per IS 3343-1965 properties of moulding sand. Ramming procedure of rammer and other tools used in making mould. Importance of hardness test. Different types of Gate cutting system with different tools used & repairs of gates. principle ingredients in moulding sand & their effect on physical properties special additives in moulding sand & their effect unit sand. Facing sand, baking sand Composition of various moulding sand. Types of mould- advantage and disadvantage of sand mould and metal mould.
- 7) Construction, operation and maintenance of pit furnace. Moulding process – bench moulding different methods advantages, disadvantages and their application. Induction furnace types, construction, operation and maintenance. Description of dry sand mould. Die casting, centrifugal casting and ceramic moulding process. Slush casting process, continuous casting process, permanent mould casting process; Nishiyama process (by using ferrosilicon powder). Common “Fluxes” used in foundry and their application. Specification. Function of chills, densers.
- 8) Manufacturing process of Silver. Brief information about its furnace. Brief information about blast furnace, Brief information about open hearth furnace, air furnace, paddling furnace and convertors. Heat treatment of casting. Calculation of ferro-static pressure.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (ELECTROPLATING)
PART-B(CONCERNED STREAM/TECHNICAL SUBJECT)

- 1) Electron theory, Fundamental terms- Current, Voltage definitions, AC, DC, Phase, Neutral, Earth. Units & effects of electric current. Solders, flux and soldering technique. Resistors types of resistors & properties of resistors. Definition and properties of conductors, insulators and semi-conductors. Types of wires & cables, standard wire gauge.
- 2) Ohm's Law . Resistors -Law of Resistance. Series and parallel circuits & related calculation. Alternating Current -Comparison and Advantages D.C and A.C. Related terms Frequency, Instantaneous value, R.M.S. value Average value, Peak factor, form factor. Sine wave, phase and phase difference. Inductive and Capacitive reactance, Impedance (Z), power factor (p.f). Active and Reactive power. Single Phase and three-phase system etc. Power consumption in series and parallel, P.F. etc. Concept three-phase Star and Delta connection. Line and phase voltage, current and power in a 3 phase circuits with balanced and unbalanced load.
- 3) Chemical effect of electric current-Principle of electrolysis. Faraday's Law of electrolysis. Lead acid cell-description, methods of charging. Different types of lead acid cells. Sealed Maintenance free Batteries, Solar battery.
- 4) Introduction to electroplating, electroplating techniques, definitions of the terms used in electroplating, calculation of surface areas and volumes, specific gravity, properties of metals and non-metals, alloys-their composition and uses; effluent treatment of plating effluents, BOD and COD of effluents.
- 5) Fundamental particles- electron, proton & neutrons, elements, compounds and mixtures, examples; formulas and symbols; chemical reactions, types of chemical reactions, acids, bases and salts with examples, acidity of a solution, alkalinity of a solution, solutions, solute, solvent, saturated solutions ,unsaturated solutions, dilute and concentrated solutions, supersaturated solutions.
- 6) Grinding and polishing techniques, polishing of different metals such as copper, brass, and finishing of gold and silver, barrelling purpose and methods & techniques.
- 7) Properties of silver, significant of Silver plating on different metals, advantages and disadvantages. Preparation of Silver solutions, Silver plating on various metals, maintenance of the plating solutions, post plating treatment Silver passivation (Silchrome). Quality tests and inspection like visual, Thickness, Corrosion resistance, Surface finish etc. defects, causes and remedies.
- 8) Properties of Gold, significant of Gold plating on different metals, advantages and disadvantages. Preparation of Gold solutions, Gold plating on various metals, maintenance of the plating solutions, post plating treatment like lacquering etc. Quality tests and inspection of Gold plating like visual, Thickness, Surface finish etc. Defects, causes and remedies.
- 9) Copper plating- properties, copper solutions, troubles of copper solutions, factors to be considered in plating, copper plating, defects and causes, application; Nickel plating, electroless nickel plating, trouble shooting application ,process control of plating solutions. Inspection of plated surfaces, visual test, BNF test, salt spray test, corrosion test.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (CHEMICAL PLANT)
PART-B(CONCERNED STREAM/TECHNICAL SUBJECT)

- 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. Equipments 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.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (Die & Medal)
PART-B/CONCERNED STREAM/TECHNICAL SUBJECT

- 1) Bench work – Metal working hand tools and devices – Work bench – vices – files. Vernier calliper – its parts, principles, reading, uses and care. Outside micrometer – its parts, principles, reading, uses and care, vernier height gauge. Marking tools – scriber. Bevel protractor, uses and cares. Pedestal grinder, star wheel dresser, safety precautions, care and maintenance.
- 2) Surface plate and auxiliary marking equipment, 'V' block, angle plates, parallel block, description, types, uses, accuracy, care and maintenance. Drill, Tap, Die-types & application. Determination of tap drill size. Reamer- material, types (Hand and machine reamer). Drilling machines-types and their application.
- 3) Introduction about metals, difference between Metal and Non-Metal, properties of metal, Classification of metals and its applications, pig – iron, cast iron, wrought iron, steel-plain carbon steel, Low carbon steel, medium and high carbon steels, high speed steel, stainless steel, carbides, etc. Heat treatment of metals, process- such as annealing, nitriding, hardening, tempering, case hardening, carburizing, cyaniding, flame hardening, Induction hardening, purposes and its effects on the properties of steel.
- 4) Different types of Lathe operations - facing, turning, parting-off, grooving, chamfering, boring etc. Lathe cutting tool-different types, shapes and different angles. Milling Machine, types. Driving and feed mechanism of Milling Machine
- 5) Counter - sinking and Counter boring. Letter and number drill, core drill etc. Reamers- types and uses. Lubricant and coolant-types, necessity, system of distribution. Knurling meaning, necessity, types, grade, cutting speed for knurling. 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, it's used and care. Taper – different methods of expressing tapers, different standard tapers.
- 6) Grinding wheel: Abrasive, grade structures, bond, specification, use, mounting and dressing. Selection of grinding wheels. Bench grinder parts and use. Gauges. Limit gauge: Ring gauge, snap gauge, plug gauge, description and uses. Annealing and normalizing, Case hardening and carburizing and its methods, process of carburizing (solid, liquid and gas). 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 roller bearing. Bearing metals – types, composition and uses. Tool & cutter grinder.
- 7) 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.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (PRECIOUS METALS)
PART-B(CONCERNED STREAM/TECHNICAL SUBJECT)

- 1) Knowledge of different raw 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 element 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 othermetals.
- 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.CNC Milling for wax models. 3D Printing Technology. Laser soldering Technology .Laser Marking, Engraving.

SYLLABUS FOR THE POST OF JUNIOR TECHNICIAN (FITTER)
PART-B(CONCERNED STREAM/TECHNICAL SUBJECT)

- 1) 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.
- 2) 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.
- 3) 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
- 4) 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..
- 5) 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.
- 6) Stakes-bench types, parts, their uses. Various types of metal joints, their selection and application, tolerance for various joints, their selection& application. 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.
- 7) 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.
- 8) 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.
- 9) 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.

10) 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 Guages. Application of slip gauges for measuring, Sine Bar-Principle, application & specification.

12) 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 tasting 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.

13) 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.

14) Vee belts and their advantages and disadvantages, use of commercial belts, dressing and resin creep and slipping, calculation. Power transmission scoupling 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.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT) FOR THE POST OF

Jr. Technician (Turner) at W-1

- 1) Measurement, line standard and end standard, steel rule different types, graduation and limitation. Hammer and chisel materials, types and uses. Prick punch and scribe. 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.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT) FOR THE POST OF

Jr. Technician (Welder) at W-1 Level

- 1) Introduction and definition of welding. - Arc and Gas Welding Equipments, tools and accessories. - Various Welding Processes and its applications. - Arc and Gas Welding terms and definitions. Different process of metal joining methods: Bolting, riveting, soldering, brazing, seaming etc. - Types of welding joints and its applications. Edge preparation and fit up for different thickness. - Surface Cleaning.
- 2) Basic electricity applicable to arc welding and related electrical terms & definitions. - Heat and temperature and its terms related to welding - Principle of arc welding. Common gases used for welding & cutting. - Types of oxy-acetylene flames and uses. - Oxy-Acetylene Cutting Equipment principle, parameters and application. Arc welding power sources: Transformer, Rectifier and Inverter type welding machines and its care & maintenance.
- 3) Welding positions as per EN & ASME: flat, horizontal, vertical and overhead position. - Weld slope and rotation. Arc length – types – effects of arc length. Polarity: Types and applications. - Weld quality inspection, common welding mistakes and appearance of good and defective welds - Weld gauges & its uses. Calcium carbide uses and hazard. Acetylene gas properties and flash back arrestor. Oxygen gas and its properties, uses in welding. Oxy acetylene gas welding Systems (Low pressure and High pressure).
- 4) Specification of pipes, various types of pipe joints, pipe welding all positions, and procedure. - Difference between pipe welding and plate welding.
- 5) Gas welding filler rods, specifications and sizes. - Gas welding fluxes – types and functions. Gas Brazing & Soldering : principles, types fluxes & uses - Gas welding defects, causes and remedies Electrode : types, functions of flux, coating factor, size specifications of electrode. - Effects of moisture pick up. - Storage and baking of electrodes.
- 6) Weldability of metals, importance of pre heating, post heating and maintenance of inter pass temperature. Welding of low, medium and high carbon steel and alloy steels. - Induction welding, brazing of copper tubes, Cast iron and its properties types. Welding methods of cast iron. Aluminium properties and weldability, Welding methods - Arc cutting & gouging. Safety precautions in Gas Metal Arc Welding and Gas Tungsten Arc welding.
- 7) Introduction to GMAW - equipment – accessories. - Various other names of the process Advantages of GMAW welding over SMAW , limitations and applications - Process variables of GMAW. Wire feed system – types – care and maintenance. - Welding wires used in GMAW, standard diameter and codification as per AWS.
- 8) Heat input and techniques of controlling heat input during welding. - Heat distribution and effect of faster cooling. Pre heating & Post Weld Heat Treatment - Use of temperature indicating crayons. Submerged arc welding process – principles,

equipment, advantages and limitations. Thermit welding process types, principles, equipments, Thermit mixture types and applications. - Use of backing strips and backing bars. Plasma Arc Welding (PAW) and cutting (PAC) process – equipments and principles of operation.

9) Resistance welding process -types, principles, power sources and welding parameters. - Applications and limitations. Metalizing – types of metalizing principles. - Manual Oxy – acetylene powder coating process principles of operation and applications.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT)
FOR THE POST OF Jr. Technician (Electrician) at W-1

- 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: 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.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT) FOR THE POST OF

Jr. Technician (Electronics/Instrumentation) at W-1 Level

1) Basic terms such as electric charges, Potential difference, Voltage, Current, Resistance. Basics of AC & DC. Various terms such as +ve cycle, -ve cycle, Frequency, Time period, RMS, Peak, Instantaneous value. Single phase and Three phase supply. Terms like Line and Phase voltage/ currents. Insulators, conductors and semiconductor properties. Different type of electrical cables and their Specifications.

2) Single range meters Introduction to electrical and electronic measuring instruments. Basic principle and parts of simple meters. Specifications, symbols used in dial and their meaning. Introduction to electrical measuring instruments. Importance and classification of meters. MC and MI meters. Characteristics of meters and errors in meters. Multi meter, use of meters in different circuits. Care and maintenance of meters. Use of CRO/DSO, Function generator, LCR meter.

3) Different types of soldering guns, related to Temperature and wattages, types of tips. Solder materials and their grading. Use of flux and other materials. Selection of soldering gun for specific requirement. Soldering and De-soldering stations and their specifications. Different switches, their specification and usage.

4) Ohm's law and Kirchhoff's Law. Resistors; types of resistors, their construction & specific use, color-coding, power rating. Principles of induction, inductive reactance. Types of inductors. Self and Mutual induction. Types of capacitors, construction, specifications and applications. Dielectric constant. Significance of Series parallel connection of capacitors.

5) Semiconductor materials, components, PN Junction, Forward and Reverse biasing of diodes. Forward current and Reverse voltage. Different diodes, Rectifier configurations, their efficiencies. Working principles of Zener diode, varactor diode, their specifications and applications. Working principle of a Transformer, construction, Specifications and types of cores used. Step-up, Step down and isolation transformers with applications.

5) Construction, working of a PNP and NPN Transistors, purpose of E, B & C Terminals. Transistor applications as switch and amplifier. Transistor input and output characteristics. Transistor power ratings & packaging styles and use of different heat sinks. Different types of biasing, various configurations of transistor (C-B, C-E & C-C), their characteristics.

6) Diode shunt clipper circuits, Clamping / limiting circuits and Zener diode as peak clipper, uses their applications. Heat Sink- Uses & purpose. Suitability of FET amplifiers in measuring device applications. Working of different power electronic components such as SCR, TRIAC, DIAC and UJT.

7) MOSFET, Power MOSFET and IGBT, their types, characteristics, switching speed, power ratings and protection Flip-Flop: Basic RS Flip Flop, edge triggered D Flip Flop, JK Flip Flop, T Flip Flop. Basic flip flop applications like data storage, data transfer and frequency division.

8) Precision Measuring Instruments, gauge blocks, sine bar, dial indicators, vernier callipers, micrometers, bevel protractor, thickness gauges. Types of tubes used for instrumentation. Basics of electrical measuring instruments Types - absolute and secondary instruments. Types of secondary instruments, DC instruments- working principle, method of working.

9) Ohm meters- measuring electrical resistance. Basic construction of Ohm meter, working method of ohmmeter. Types of Ohm meter - series and shunt type of ohm meters. Megger/insulation tester, earth tester - construction working advantages and disadvantages of various types of ohm meter. AC instruments - types of AC measuring instruments -MI, electro dynamometer type, Working principle, advantages and disadvantages of MI instruments and electro dynamometer instruments. Various applications. Induction type meters - working principle construction and operation of induction type instruments. Construction and Applications - single phase and three phase energy meter, watt meter. Watt hour meter, Ampere Hour meter, power factor meter etc. Special instruments: voltage tester, continuity tester, rotation test, phase sequence indicator, synchronizing, the synchroscope, _ frequency meter. Thermocouple type ammeters.

11) Scope and necessity of instrumentation. Fundamentals of measurement systems. Calibration and calibration standards- basic standards, secondary standards, working standards. Fundamental units - The metric system, Base & supplementary units, Derived Units, Multiplying factors and standards of length, mass, time & frequency.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT) FOR THE POST OF

Jr. Technician (Plumber) at W-1 Level

- 1) Plumber's common hand tools • Description, types and uses of holding device, hammers & cold chisels, cutting tools. Description of simple fitting operations hack sawing, punching and filing. • Types of files used commonly. • Marking instruments and their use of simple drilling machine. • Method of using drills. • Description of simple bench drilling Machine. • Description of Grinding and Chisel. • Description of different types of locking and fastening devices.
- 2) About different types of pipes-GI, CI, DI, PVC/ CPVC, PPR, AC and HDPE etc. • About different Types of Pipe Fittings:- Socket, Elbow, Tee, Union, Bend, Cap, Plug, Cross, Ferrule etc. • About different types of Thread cutting.
- 3) Purpose of Gas welding. • Method of gas welding • Safety precautions to be observed -Methods of soldering and brazing - fluxes used & Types of fluxes precautions to be observed. • Hard & soft solders -their properties, composition and uses.
- 4) Description of plumber tools and Equipment Ratchet brace, Threading die, Pipe wrench, Sliding wrench, Spanner set, Chain Wrench etc. and their safety. Care & use of tools. • Pipes of different kinds • Method of Pipe bending in different dia. • Plumbing Symbols and Code for Tools & Materials on water line.
- 5) Types of fittings for different joints & different pipes.:- CI,HCI,AC,AC Pressure, DI, GI Pipes. Joints:- Flange joint, Socket joint with lead, Detachable joint, Socket & Spigot joints etc. • Description of pipe fittings. • Methods of joining and their uses. • Precautions to be taken while fixing. Different kinds of Joints, Fittings and Materials in joining pipes: - PVC/CPVC, PPR and HDPE etc.
- 6) Composition of Water: - • Sources of water • Hard & Soft water, temporary hardness & permanent hardness. • Impurities of water – organic and inorganic impurities. • Water purification stages and methods. • Static water pressures and measurement of pressures. Bursting pressure, • Expansion of water on freezing and heating. • Bernoulli's principles • Pascal's law. • Pressure of water on the sides of cistern or tank. • Water hammer in pipes.
- 7) Use of hummed and asbestos pipes of different sizes. • Method of laying out pipes alignment and joining. Description of various pipe joints- straight, Branch, Taft and blow, Expansion joints. Solders and fluxes used in joints. Description of Plumber's materials Lead, tin, Zinc, solder, copper, red lead etc. and their uses. • Water supply system of a small town. • Description and types of pumps viz. suction pump, Centrifugal pump etc. Contamination of water in a well.
- 8) Description of pipe dies, their uses, care and precaution. • Metric specification of various pipes. • Standard pipe threads. • Method employed for bending, Joining and fixing PVC pipe. • Joining material for water and gas pipes. • Use of blow lamp.
- 9) Inspection chamber, septic tank, description of drains, cesspools, soak pits etc. • Types of traps • layout of drainage system.

- 10) Method of bending pipes by hot and cold process. Method of dismantling and renewal of the valves and pipes. Leaks in pipes and noises in plumbing. • Installation of water meters. Air lock in pipes and its removal. (Description of cocks & valves-their types, materials & advantages for particular work.
- 11) Erecting rain water and drainage pipe system, • Installation of sanitary fittings, inspection and testing of water supply system. -Pipe alignment and slope. -Prevention of water hammer. • Storage tanks for general water supply propose. • Test for water supply pipes. • Description of sanitary fittings, • general points to be observed when choosing sanitary.

INDICATIVE SYLLABUS FOR PART-B(TECHNICAL SUBJECT) FOR THE POST OF

Jr. Technician (Machinist) at W-1 Level

- 1) Linear measurements- its units, steel rule dividers, callipers – types and uses, Punch – types and uses. Uses of different types of hammers. Description, use and care of marking off table. Bench vice construction, types, uses, care & maintenance, vice clamps, hacksaw frames and blades, specification, description, types and their uses, method of using hacksaws. Files- elements, types, specification and their uses. Methods of filing.
- 2) Pedestal grinding machine: Use, care and safety aspect. Marking off and layout tools, scribing block, care & maintenance. Try square, ordinary depth gauge, Care & maintenance of cold chisels, materials, types, cutting angles.
- 3) Marking media, Prussian blue, red lead, chalk and their special application, description. Surface plate and auxiliary marking equipment, 'V' block, angle plates, parallel block, description, types, uses, accuracy, care and maintenance. Drill, Tap, Die-types & application. Reamer- material, types (Hand and machine reamer), parts and their use.
- 4) Interchangeability: Necessity in Engg, field, Limit- Definition, types, terminology of limits and fits-basic size, actual size, deviation, high and low limit, zero line, tolerance zone, allowances.
- 5) Vernier calliper-its parts, principle, reading, uses & care. Outside micrometer- its parts, principle, reading, uses, Reading of Vernier Micrometer), care & maintenance. Dial test indicator-its parts, types, construction and uses.
- 6) Drilling machines-types & their application, construction of Pillar & Radial drilling machine. Countersunk, counter bore and spot facing-tools and nomenclature. Lathe cutting tool-different types, material, shapes and different angles (clearance, rake etc.) and their effects, specification of lathe tools, grinding process of tools. Concept of Orthogonal and Oblique Cutting. Chucks & different types of job holding devices on lathe. Mounting and dismounting of chucks. Vernier Bevel Protractor – parts, reading and uses.
- 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. Different thread forms, their related dimensions and calculations of screw cutting in a lathe.
- 8) Slotter– Classification, principle, construction, Safety precaution. Job holding devices-vice, clamps, Vblock, parallel block etc. Slotting tools- types, tool angles. Milling Machine: Introduction, types, parts, construction and specification. Driving and feed mechanism of Milling Machine.
- 9) Jigs and Fixtures– Introduction, principle, types, use, advantages & disadvantages. Properties of metals general idea of physical, mechanical properties of metals, colour, weight, hardness toughness, malleability, ductility their effect on machinability. Heat Treatment – Introduction, necessity, types, Purposes, different methods of Heat Treatment. Heat Treatment of Plain Carbon Steel.

- 10) Turning of taper by taper turning attachment - advantages and disadvantages, taper calculations. Terms relating screw thread major/ minor diameter, pitch and lead of the screw, depth of thread. Simple gear train and compound gear train change gears for fractional pitches.
- 11) Grinding – Introduction, grinding wheel abrasive, types, bond, grade, grid, structure, standard marking system of grinding wheel, selection of the grinding wheel. Surface Grinder – Types, Parts, construction, use, methods of surface grinding, specification & safety. Cylindrical grinder: Introduction, parts, construction, types, specification, safety, different methods of cylindrical grinding. Cylindrical grinder: Introduction, parts, construction, types, specification, safety, different methods of cylindrical grinding. Various methods of cutter grinding.
- 12) Vertical Milling Machine- its parts. Method of boring in Vertical milling. Difference between Horizontal and Vertical Milling Machine. Helix and Spiral introduction, types and elements. Difference between helix & spiral. Difference between R.H. and L.H. helix. Reamer – types, elements and uses. Calculations for cutting Reamer.
- 13) CNC technology basics, Comparison between CNC and conventional lathes. Concepts of positioning accuracy, repeatability. Tool nose radius compensation (TNRC) and why it is necessary.