Government of India Bhabha Atomic Research Centre Personnel Division

Advertisement No: 3/2014 (R-II)

Last date for receipt of applications is April 21, 2014

Diploma in Radiological Physics (Dip.R.P.) - One year Post-M.Sc. programme

Radiological Physics and Advisory Division (RP&AD) of Bhabha Atomic Research Centre (BARC) is conducting the Diploma in Radiological Physics (Dip.R.P.) course since 1962. This is a post-M.Sc. programme and the duration is one year. Fifty one courses have been successfully conducted so far. The course is conducted under the aegis of Homi Bhabha National Institute (HBNI a deemed to be University), Mumbai (more details can be obtained at URL: http://www.hbni.ac.in) and BARC is one of its Constituent Institutions. The current 52nd course (academic year 2013 – 2014) is scheduled to be completed by the end of July, 2014. The 53rd Dip.R.P course is planned to commence from the first week of August 2014. It is proposed to induct a maximum of 30 (under upward revision) candidates (25 non-sponsored + 5 sponsored from govt. institution) in this course. When 5 sponsored candidates are not available/not found suitable, 30 number of non-sponsored candidates may be admitted to the Dip. R.P. course.

1. Course content

Medical radiation physics is a dominant subject of the course. The course content covers statistics, numerical methods, radiation physics, interaction of radiation with matter, principles of radiation detection and measurements, radiation dosimetry and standardization, radiation biology, applications of radiation and radioisotopes in medicine, industry, agriculture and research; radiotherapy treatment planning, transport of radioactive materials, radiation hazards, evaluation and control; radiation emergencies and management, etc. In addition, the training is supplemented by practicals and field training. The duration of field training: four weeks at BARC, two weeks each at Tata Memorial Centre (TMC) and Radiation Medicine Centre at Mumbai. The medium of instruction is English.

2. Eligibility criteria

The basic qualification for applying to this course is M.Sc.(Physics). The candidates should have scored minimum of 60% marks (aggregate) in B.Sc. as well as in M.Sc.(Physics). In case of grade system, grade to percentage of marks conversion scheme obtained from University should be submitted along with the application failing which application will not be considered. In addition to the above qualification, the sponsored candidates should have at least one-year working experience in a Radiotherapy Department in India. The sponsored candidates should also submit a documentary evidence of availing personal monitoring service from BARC/accredited laboratories.

Those who await the final results of M.Sc., (Physics) may also apply. Such candidates should necessarily attach a copy of first year mark sheet along with the application. Note that when such candidates are selected they should submit their final mark sheet by October 30, 2014.

3. Age limit

Age limit as on August 01, 2014: (a) General Category-26 years, b) OBC-29 years, (c) SC/ST-31 years. For physically challenged candidates, there is a relaxation of age by up to 10 years. The candidates with physical disabilities limited to the lower extremities, but permitting to stand and move and physically able to carry out the course requirement only will be considered. For the sponsored candidates, the age limit as on 01/08/2014 is 40 years.

4. Selection procedure

- (a) Selection of non-sponsored candidates is based on written test followed by an interview. The candidates who are eligible to participate in the written test will be short-listed based on merit and such candidates will be informed in advance. The written test (duration 2 hrs) will be based on Multiple Choice Questions with **negative marking** for incorrect answers. Note that written test is meant for screening the candidates and the final selection to the course is solely based on performance in the interview. Selection of sponsored candidates is through interview only and hence eligible sponsored candidates will be called for the interview directly.
- **(b)** M.Sc. (Physics) candidates applied for one-year Orientation Course for Engineering Graduates and Science Post-Graduates for the year 2014-2015 (OCES 2014) conducted by BARC Training School may also be considered for admission to the Dip.R.P. course.
- (c) The successful candidates will be admitted to the course only after they are declared medically fit by the BARC hospital, Mumbai.

5. Travelling allowance and stay

The candidates called for the written test are eligible for traveling allowance (round trip **sleeper class** railway fare). Round trip defines travel from his/her place of permanent residence to Mumbai and back by the shortest route. The candidates need to produce the railway tickets while claiming traveling allowance. However, sponsored candidates and the candidates from Mumbai and its suburban regions are not eligible for Travelling Allowance (TA). The candidates are required to make their own arrangements for their stay in Mumbai at least for three days, as the candidates screened through written test will be interviewed on the subsequent days of the written test.

6. Stipend

On admission to the course, each non-sponsored candidate is eligible to receive a stipend of Rs.9300/- (under upward revision) (Rupees nine thousand and three hundred only) per month for a period of one year. The sponsored candidates are not eligible for the stipend.

7. Accommodation

All the candidates admitted to the course will be provided hostel accommodation at Government Guest House, Anushaktinagar, Mumbai for one year. The charges as applicable towards this accommodation should be borne by the candidates.

8. Admission fee

The candidates should pay an admission fee of Rs.3000/- (three thousand only) at the time of admission. The fee should be paid in the form of a crossed Demand Draft (DD) drawn in favour of **Accounts Officer**, **HBNI**, payable at Mumbai.

9. Bond

Non-sponsored candidates are required to execute a bond at the time of admission. In case, the candidate desires to discontinue the course, he/she needs to refund the entire amount of the stipend received along with interest, as applicable.

10. Award of certificate and employment opportunities

On successful completion of the Dip.R.P. course, the candidates will be awarded Dip.R.P. certificate by HBNI. However, to qualify as Medical Physicists to serve in radiotherapy centres, the candidates are required to complete one-year internship in AERB (Atomic Energy Regulatory Board, Mumbai) recognized radiotherapy centres on successful completion of the Dip. R. P. course. This is in accordance with the recently introduced requirements by AERB, Mumbai. Note

that the candidates will not be paid any stipend during this one year internship programme. However, radiotherapy centres that offer internship programme may provide stipend. On successful completion of this internship programme, the candidates are eligible to participate in the Radiological Safety Officer-Medical (RSO-Medical) certification examination, which will be conducted by RP&AD, BARC. On successful completion of this RSO (Medical) examination, the candidates are eligible to work as RSO (Medical) in radiotherapy centres subject to the approval by AERB. To work as RSO in industrial establishments, the candidates need to clear RSO (Industrial) certification examination, separately. The candidates may appear for the RSO (Industrial) examination after the successful completion of the Dip.R.P. course. This examination will be conducted by RP&AD.

The requirement of Medical Physicists in India is increasing due to increase in the number of Radiotherapy Centres to cater to the growing need of managing cancer treatment. About 90% of candidates are therefore generally employed with good emoluments within three months of their successful completion of the course. There is a scope for the deserving candidates to get internship at Tata Memorial Centre (TMC), Mumbai for a period of one year. TMC, Mumbai is one of the leading radiotherapy centres in the Country with the state-of-the-art radiotherapy treatment equipments. This training will enhance the job opportunities in the Country. In addition, there is a scope for the first few rank holders to be recruited in the DAE establishments as Scientific Officer in the grade of SO/C, only after an interview. This recruitment is subject to the availability of vacancies.

11. Application fee

Interested candidates should submit their applications in an appropriate format along with a non-refundable application processing fee of Rs. 200/- (Rupees two hundred only). With regard to payment of application fee, the candidate may download the three fold challan from the BARC website http://www.barc.gov.in and make the payment in any branch of the State Bank of India from 18/03/2014 to 21/04/2014. The portion of the challan marked "Institution Copy" should be attached along with the application. Candidates shortlisted for interview will have to produce original challan at the time of interview. The SC/ST applicants, Dependents of Defense Personnel Killed in Action (DODPKIA), women candidates and physically challenged candidates are exempted from payment of application fee.

12. How to apply

The candidates may please follow the guidelines below:

- a) Forward a single copy of application, preferably typewritten on a thick A4 size paper (21 cm x 30cm).
- b) **PHOTOGRAPH**: Two recent photographs (passport size). One should be pasted at the marked place in the application with the candidate's signature partly covering the photograph and the application and other with name of the applicant written in block letters on the reverse, should be enclosed.
- c) **ENVELOPE**: A self addressed **(bilingual Hindi & English)** unstamped envelope (size: 23cm x 10cm) should be attached to the application.
- d) COPIES OF CERTIFICATES: Attested copies of all certificates for (a) Mark sheets (b) Degree (c) Date of Birth and (d) Caste certificate (for SC/ST/OBC candidates) (e) PH certificate (if applicable) must be attached.
- e) Application processing fee (please see Sr. No. 11) should be enclosed.
- f) The envelope containing the application and the other attachments should be superscribed "Application for Dip.R.P. - (2014-15)"
- g) Application that is complete in all respects should be sent to **Deputy Establishment Officer (R-II), Bhabha Atomic Research Centre, Trombay, Mumbai 400 085** so as to reach not later than April 21, 2014.
- h) Include a checklist.

GENERAL INSTRUCTIONS TO CANDIDATES:

- 1. Persons working under the Central/State Governments or Public Sector Undertakings should submit their applications through proper channel. They may however, send an advance copy of the application along with enclosures as detailed above.
- 2. In the case of sponsored candidates, the sponsoring institute must certify (in the attached format) that their candidate is a full time/permanent employee employed by the Institution and on successful completion of the course he/she would be designated as a Medical Physicist / Radiological Safety Officer.
- 3. Applications, which do not adhere to the requirements as described in the advertisement will be rejected. Mere fulfilling of requirements as laid down in the advertisement does not qualify a candidate for the written test or interview as only limited number of candidates (selection is based on the merit) will be called for the written test or interview.
- 4. No correspondence shall be entertained from the candidates who are not called for the written test/ interview.
- 5. Canvassing in any form will lead to a disqualification.

(Last date of receipt of application is April 21, 2014)

Application No.	
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(For office use only)

APPLICATION FOR ADMISSION TO THE ONE YEAR POST-M.Sc. DIPLOMA COURSE IN RADIOLOGICAL PHYSICS (DIP. R.P. 2014-2015)

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b) Inter/PUC/PDC/ HSC					
c) B.Sc.					
d) M.Sc.					
e) Any other					

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13.	Experienc	e (particulars	of all previo	us and pre	sent employme	ent are to be fu	rnished here):
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	Make sı				e been attache oox applicable.	ed to your appl	ication
1.	Application form completed and signed.						
2.	Self addressed (bilingual – Hindi & English) envelope attached.						
3.	Challan marked "Institution Copy" attached						
4.	Two Photo	ographs one s	igned & pas	sted and an	other enclosed	d.	
5.		d copy of each s attached.	n of the follo	owing			
	5.1 Ce	rtificate indica	ting your D	ate of Birth			

		5.2	Certificates of Educational Qualifications.				
		5.3	Experience Certificate (if applicable).				
		5.4	SC/ST/OBC certificate (if applicable).				
		5.5	PH certificate (if applicable)				
6.		Letter from sponsoring institution attached (in case of sponsored candidates).					
7.		Grade to percentage conversion certificate obtained from the university.					
	8.	Check	list signed and attached.				
Date	e:		Signature of the candidate				

Proforma for the Certificate of Sponsorship (To be issued on letterhead of the institute)

Ι,		, Head/Directo	or of this
institute, hereby spo	onsor Shri/Smt./Kum.		, to
undergo the One Ye	ear Post-M.Sc. Diplon	na Course in Radiological Physics condu	icted by the
Radiological Physics	& Advisory Division, E	shabha Atomic Research Centre for the ac	ademic year
2014-2015.			
I certify that S	Shri/Smt./Kum		has been
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		der the Personnel Monitoring Service and	
registration no. is _		I further declare that, or	successful
completion of the cou	irse and subsequent si	uccessful completion of one year internship	programme
in a reputed Radiothe	erapy Centre, he/she w	ill be designated as Medical Physicist in ou	ır institute.
I hereby unde	ertake to bear all the	expenses in connection with the training of	of the above
candidate and also	pay him/her a month	y stipend/salary of `	(Rupees
) during the training period.	
Place:		(Signature) Head/Director of the Institute with t	·ho
Place. Date:		Name, Designation, Address and C	-
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Signature of the Candidate/ Remitter				Signature of	of the Candidate/ Remitter		Signature	of the Candidate/ Remitter
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