Government of India
Bhabha Atomic Research Centre
Personnel Division

Advertisement No: 4/2016 (R-V)
Last date for receipt of applications is April 29, 2016

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 three courses have been successfully conducted. Since 2007, the course is conducted under the aegis of Homi Bhabha National Institute (HBNI a deemed University), Mumbai (more details can be obtained at URL: http://www.hbni.ac.in). The 54th course (academic year 2015 – 2016) is scheduled to be completed by July, 2016. The 55th batch of Dip.R.P. course is scheduled to commence from the first week of August, 2016. Allocated seats for admission to the course is 30 (25 non-sponsored + 5 sponsored from Government Institution in India).

1. Course content

The course contains radiation physics (including statistics, numerical methods), principles of radiation detection and measurement, radiation dosimetry and standardization, radiation biology, applications of ionizing radiation and radioisotopes in medicine, industry, agriculture and research, physics of radiotherapy and medical imaging; transport of radioactive materials, radiation hazard evaluation and control, radiation emergencies and its management. The course also contains practicals and field training relevant to the practice of Medical Physicists and Radiological Safety Officers. The total duration of the field training is ten weeks [six weeks at BARC, two weeks each at Tata Memorial Hospital (TMH) and Radiation Medicine Centre (RMC), Mumbai]. The medium of instruction is English.

2. Eligibility criteria

The eligibility for admission to the Dip. R.P. course is M.Sc. (Physics) with not less than 60% marks in aggregate. In addition, the candidates should have B.Sc. Degree (Physics as a main subject) with not less than 60% marks in aggregate. In case of grade system, grade to percentage of marks conversion scheme obtained from the University should be submitted along with the application, failing which application will not be considered. The sponsored candidates should have at least one-year working experience in a radiotherapy department of Government Institution in India. The working experience will be counted from the date of enrolment in personal monitoring services. A certificate/declaration in this matter should be attached along with the application. The sponsored candidate 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. However, such candidates should necessarily attach copies of the mark sheets of B.Sc. Degree and a copy of M.Sc. first year mark sheet(s) along with the application. If appearing candidates are selected for admission to DipRP course, they should submit their M. Sc. Degree mark sheets by October 30, 2016, failing which their candidature may be terminated. In case the
appearing candidates admitted to the course do not secure 60% marks in aggregate in the M.Sc. (Physics) examination, their candidature will be terminated.

3. Age limit

The upper age limit as on August 01, 2016: (a) General Category-26 years, b) OBC-29 years, (c) SC/ST-31 years. For physically challenged (PH) 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, move and physically able to carry out the course work will only be considered. For the sponsored candidates of all categories the upper age limit as on August 01, 2016 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 the merit and such candidates will be informed well in advance. The written test (duration 2 hrs) will be based on Multiple Choice Questions with negative marking for incorrect answers. Please 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 who are waitlisted for admission to one-year Orientation Course for Engineering Graduates and Science Post-Graduates for the year 2016-2017 (OCES – 2016) 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 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/- (Rupees nine thousand and three hundred only) per month for a period of one year. However, the amount of monthly stipend is under consideration for upward revision. The sponsored candidates are not eligible for the stipend.

7. Accommodation

All the candidates admitted to the course will be provided hostel accommodation at
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 ₹ 3000/- (Rupees 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 for continuing in the Dip. R. P. course for the full one year period. 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 Post M. Sc. Diploma in Radiological Physics by HBNI. However, as per the requirement of Atomic Energy Regulatory Board (AERB) to qualify as Medical Physicist to serve in radiotherapy centres, the candidates are required to complete one-year internship in AERB recognized radiotherapy centre on successful completion of the DipRP Course. Please note that BARC does not provide stipend during the one year internship. However, radiotherapy centres that offer internship programme may provide the stipend to the candidate. On successful completion of this internship programme, the candidates are eligible to participate in the Radiological Safety Officer-Medical (RSO-Medical) Certification Examination, which is conducted by RP&AD, BARC. On successful completion of this RSO (Medical) examination, the candidates are eligible to be nominated as RSO (Medical) in medical institutions subject to the approval by the AERB. To work as RSO in industrial establishments, the candidates need to pass RSO (Industrial) Certification Examination, separately. It is not required to undergo the medical physics internship at radiotherapy centre if a candidate wishes to appear for the RSO (Industrial) exam on successful completion of the Dip.R.P. course. RSO (Industrial) certification examination is also be conducted by RP&AD, BARC along with RSO (Medical) Certification Examination. 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 cancer patients. Almost all the candidates find employment opportunities with good emoluments on successful completion of Dip. R. P. course and medical physics internship. The RSO (Medical)/ RSO (Industrial) certified candidates have extra advantage of working as Radiological Safety Officers in the medical/ industrial institutions. There is a scope for the deserving candidates to get internship at Tata Memorial Hospital (TMH), Mumbai for a period of one year. TMH, Mumbai is one of the leading cancer centres in the Country with ultra modern radiotherapy facilities. The internship at TMH provides value addition towards the employment opportunities in India and abroad. In addition, there is a scope for the first few rank holders of the Dip. R.P. course to be recruited in the DAE establishments as Scientific Officer in the grade of SO/C. This recruitment is subject to the availability of vacancies in DAE establishments.

11. Application fee

Interested candidates should submit their applications in an appropriate format along with a non-refundable application processing fee of ₹ 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 01/04/2016 to 29/04/2016. 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 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: Self attested copies of all certificates for (a) Mark sheets (including each Semester) (b) Degree (c) Date of Birth and (d) Caste certificate (for SC/ST/OBC candidates) (e) PH certificate (if applicable) (f) Sponsorship letter in the prescribed format (if applicable) (g) NOC from the employer (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 super-scribed "Application for Dip. R.P. Course (2016-17)"

g) Application that is complete in all respects should be sent to Deputy Establishment Officer (R-V), Bhabha Atomic Research Centre, Trombay, Mumbai - 400 085 so as to reach not later than April 29, 2016.

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 and subsequent successful completion of one-year internship programme in a reputed radiotherapy centre, he/she would be designated as a Medical Physicist.

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 29, 2016

Application No: ____________________________ (For Office use only)

APPLICATION FOR ADMISSION TO THE ONE YEAR POST – M.Sc.
DIPLOMA IN RADIOLOGICAL PHYSICS (Dip. R.P.) COURSE (2016-17)
(To be filled by the applicant)

1. Advertisement No.: 4/2016(R-V)

2. Name (Surname first): Shri/Smt./Kum. ________________________________ (in block letters)

3. Date of Birth: Date________Month_________Year__________

4. Address for correspondence (in block letters):
____________________________________________________________________________
____________________________________________________________________________
City: ___________________ State: ___________________ Pin: ___________________
Phone: ___________________ e-mail: ___________________

5. Permanent address (in block letters):
____________________________________________________________________________
____________________________________________________________________________
City: ___________________ State: ___________________ Pin: ___________________
Phone: ___________________

6. Nationality: ________________________________

7. SC/ST/OBC/General: __________________ Caste: __________________

8. PH: Yes / No

9. Challan No. ___________________________ Date:____________________

10. Have you earlier applied for any course in BARC: Yes/No
    (If yes, please give details): ____________________________

11. Educational Qualifications:

<table>
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<tr>
<th>Examinations passed</th>
<th>Board/University</th>
<th>Year of Passing</th>
<th>Subjects</th>
<th>% of marks (aggregate) / grade</th>
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<tbody>
<tr>
<td>a) SSC</td>
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<tr>
<td>b) Inter/PUC/PDC/HSC</td>
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<td>c) B.Sc.</td>
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<tr>
<td>d) M.Sc.(Physics)</td>
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<td>e) Any other</td>
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Passport size Photograph duly Signed by the Candidate across the photograph
N.B.: 1. Percentage of marks or grade should invariably be indicated otherwise the application will not be considered. **In case of grade system, grade to percentage of marks conversion scheme obtained from the University should be attached along with the application.**
2. Main and subsidiary subjects should be clearly indicated year/semester wise. In case of mark sheet showing subject code, clearly mention the corresponding subject title in above table.
3. Mention clearly if results are not declared.

12. Are you undergoing any course presently: ____________________________
   (If yes, give details)__________________________________________________________________________

13. Experience (particulars of all previous and present employment are to be furnished here):

<table>
<thead>
<tr>
<th>Name and address of the Employer</th>
<th>Post held</th>
<th>Period</th>
<th>Whether Central or State Govt.</th>
<th>Permanent or Temporary</th>
<th>Reasons for leaving</th>
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<td></td>
<td>From</td>
<td>To</td>
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@ If employed, please submit no objection certificate (NOC) from the employer along with the application.

14. Are you a sponsored candidate: ____________________________
   (If yes, please attach a certificate from the sponsoring Institute)

15. Have you applied for OCES (Physics) 2015 (BARC Training School)? ____________________________
   If yes, mention the Application No. ____________________________________________________________

**DECLARATION**

I hereby declare that,

1. The information furnished above is correct to the best of my knowledge and belief.
2. I am aware that my application is liable to be rejected if the information given above is incomplete or found to be incorrect.
3. Following documents, as per the check list, are attached to the application.

Place: ____________________________
Date: ____________________________
Signature of the candidate __________________________________________________________________

**CHECK LIST**

Make sure that the following documents have been attached to your application by putting a X in the box applicable.

1. Application form completed and signed. [ ]
2. Self addressed (bilingual – Hindi & English) envelope attached. [ ]
3. Challan marked “Institution Copy” attached. [ ]
4. Two passport size photographs:
   (i) Signed & pasted with signature across it, (ii) enclosed. [ ]
5. A self attested copy of each of the following Certificates attached.
   5.1 Certificate indicating your Date 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. Original letter from sponsoring institution attached
   (in case of sponsored candidates).

7. No Objection Certificate from the employer (if applicable).

8. Grade to percentage conversion Certificate obtained
   from the University (if applicable).

9. Check list signed and attached

Date: ____________________________

Signature of the candidate
Proforma for the Certificate of Sponsorship
(To be issued on letterhead of the Institution)

I, ____________________________________________, Head/Director of this Institute, hereby sponsor Shri/Smt./Kum. ____________________________________________, to undergo the One Year Post-M.Sc. Diploma in Radiological Physics Course conducted by the Radiological Physics & Advisory Division, Bhabha Atomic Research Centre under the aegis of Homi Bhabha National Institute for the academic year 2015-16.

I certify that Shri/Smt./Kum. ____________________________________________ has been working as ____________________________________________ on permanent basis in this Institute since __________________. He/She is under the Personnel Monitoring Service and his/her TLD personal monitoring number is _____________________. I further declare that on successful completion of the course and subsequent successful completion of one-year internship programme in a reputed Radiotherapy Department/Centre, he/she will be designated as a Medical Physicist in our Institute.

I hereby undertake to bear all the expenses in connection with the training of the above candidate and also pay him/her a monthly stipend/salary of ₹ ____________ (Rupees ____________________) during the training period.

__________________________
(Signature)

Place: Head/Director of the Institution with the
Date: Name, Designation, Address and Office Seal
Phone (Office & Mobile):
E-mail:
<table>
<thead>
<tr>
<th>Name of the Candidate</th>
<th>Discipline Code</th>
<th>Date of Birth</th>
<th>Mobile/Landline No.</th>
<th>E-mail Address</th>
<th>Category</th>
<th>Physically Disabled</th>
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<thead>
<tr>
<th>Head</th>
<th>Amount</th>
<th>Credit to</th>
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<tbody>
<tr>
<td>Application Fees</td>
<td>₹ 200.00</td>
<td>31519633821</td>
</tr>
<tr>
<td>Bankers Charges</td>
<td>₹ 50.00</td>
<td>98353XXXXXX</td>
</tr>
<tr>
<td>Total</td>
<td>₹ 250.00</td>
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</table>

Amount in words: Rupees Two Hundred Fifty Only

Signature of the Candidate/Remitter

For Receiving Branch use only

CHALLAN NO.

SEAL / DATE

AUTHORIZED SIGNATORY