

**BAREILLY INTERNATIONAL UNIVERSITY**  
**Ordinance effective from session 2020-21**  
**Bachelor of Science in Radiological Imaging Techniques (B.R.I.T)**

**Scope**

This ordinance shall apply to the program leading to B.Sc. in Radiological Imaging Techniques.

**Eligibility for Admission:**

- a) A candidate seeking admission to B.Sc. in Radiological Imaging Techniques should have passed the 10+2 examination or equivalent examination from any Board/University with Physics, Chemistry, Biology and English as subjects.
- b) A candidate must have obtained minimum 45% marks in the qualifying examination. The candidate belongs to the schedule cast and the schedule tribe must have obtained minimum 40% instead of 45%.
- c) The minimum age for admission shall be 17 years as on 31st December of the year in which admission is sought.
- d) Admission shall be made once in a year and open to both male and female candidates.
- e) A candidate shall have to be medically fit.

**Eligibility for admission directly to 2<sup>nd</sup> yr (lateral Entry):**

A candidate having completed two years Diploma in Radiology Courses [Diploma in X-Ray Technician (D.X-Ray) & Diploma in Radiological Imaging Techniques (DRIT)] from any institution recognized by State Medical faculty shall be eligible for direct admission to second year of B.Sc. in Radiological Imaging Techniques (BRIT).

**Program Duration:**

- a) The duration of the program leading to the award of B.Sc. in Radiological Imaging Techniques shall be of three academic years excluding 6 months compulsory rotatory internship.
- b) The maximum period for successful completion of program should not exceed Six years excluding internship.

**Annual Intake:**

- a) The number of students shall be admitted as approved by the executive council of the University subject to maximum seat 40 students.
- b) Admission to program shall be made only in 1<sup>st</sup> year and last date for admission shall be 31<sup>st</sup> Aug of the admission year.

**Medium of Instruction:**

- a) The medium of instruction for all subjects of study and examination shall be English.

**Organization of the Program:**

- a) Each academic year shall comprise of two parts. First part shall be termed as odd semester and second part as even semester.
- b) There shall be minimum 20 weeks devoted to academic activities, excluding 3 weeks for examination and their preparations.
- c) The academic activities shall be carried for minimum 36 hrs per week.
- d) The syllabus of the program shall contain subject-wise content details, semester-wise duly approved by Board of Study and shall be published separately.



e) The academic activities for subject given below shall be conducted semester-wise:

<b>Semester I:</b> <ul style="list-style-type: none"> <li>• Human Anatomy-I</li> <li>• Human Physiology-I</li> <li>• Basic Physics including Radiological Physics-I</li> <li>• Radiographic and Imaging Processing</li> <li>• Biochemistry</li> <li>• <b>Subsidiary subject</b></li> <li>• Basic Computers and Information Science</li> </ul>	<b>Semester II:</b> <ul style="list-style-type: none"> <li>• Human Anatomy-II</li> <li>• Human Physiology-II</li> <li>• Basic Physics including Radiological Physics-II</li> <li>• Conventional Radiography and equipment</li> <li>• Clinical Radiography-positioning-I</li> <li>• <b>Subsidiary subject</b></li> <li>• English and Communication skills</li> </ul>
<b>Semester III :</b> <ul style="list-style-type: none"> <li>• Radiation safety in diagnostic radiology-I</li> <li>• Pathology</li> <li>• Contrast &amp; Special Radiography Procedures</li> <li>• Clinical Radiography Positioning-II</li> <li>• Modern Radiological &amp; Imaging Equipment including Physics</li> <li>• <b>Subsidiary Subject</b></li> <li>• Research methodology and Biostatistics</li> </ul>	<b>Semester IV :</b> <ul style="list-style-type: none"> <li>• Radiation safety in diagnostic Radiology- II</li> <li>• Newer Imaging techniques including patient care-I</li> <li>• Physics of newer Imaging modalities</li> <li>• Quality control in radiology &amp; radiation safety-I</li> <li>• <b>Subsidiary subject</b></li> <li>• Introduction to quality &amp; patient safety</li> <li>• Environmental Sciences</li> </ul>
<b>Semester V:</b> <ul style="list-style-type: none"> <li>• Physics of advanced imaging technology-I</li> <li>• Radiographic Techniques in advanced imaging technology-I</li> <li>• Hospital Practice &amp; care of patient-I</li> <li>• Newer Imaging techniques including patient care-II</li> <li>• Quality control in radiology &amp; radiation safety-II</li> <li>• <b>Subsidiary subject</b></li> <li>• Medical Terminology &amp; record keeping</li> </ul>	<b>Semester VI:</b> <ul style="list-style-type: none"> <li>• Physics of advanced imaging technology-II</li> <li>• Regulatory requirements in diagnostic radiology</li> <li>• Hospital practice &amp; care of patient-II</li> <li>• Radiographic Techniques in advanced imaging technology-II</li> <li>• <b>Subsidiary subject</b></li> <li>• Medical Law &amp; ethics</li> </ul>

#### Evaluation Scheme:

- A student's performance will be evaluated through end term examination held at the end of each semester.
- In addition, the continued evaluation of the student shall be made by way of class participation, class-test and assignments. The internal assessment shall be the part of total evaluation.
- The distribution of marks for the subjects shall be as per the scheme below-



### 1<sup>st</sup> Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Human Anatomy - I	70	30	-	100
2	Human Physiology - I	70	30	-	100
3	Basic physics including Radiological Physics - I	70	30	-	100
4	Radiographic and Imaging Processing	70	30	-	100
5	Biochemistry	70	30	-	100
<b>Practical</b>					
6	Human Anatomy - I	35	15	-	50
7	Human Physiology - I	35	15	-	50
8	Biochemistry	35	15	-	50
9	Radiological Physics- I Radiographic and Imaging Processing	35	15	-	50
<b>Total</b>					<b>650</b>
<b>Subsidiary Subject</b>					
10	Basic Computers and Information Science	30	20		50
<b>Note: All subsidiary examination shall be non University Examination only and will not be part of grand total.</b>					

### 2<sup>nd</sup> Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Human Anatomy - II	70	30	-	100
2	Human Physiology- II	70	30	-	100
3	Basic Physics including Radiological physics - II	70	30	-	100
4	Conventional Radiography and Equipment	70	30	-	100
5	Clinical Radiography- positioning-I	70	30	-	100
<b>Practical</b>					
6	Human Anatomy- II	35	15	-	50
7	Human Physiology- II	35	15	-	50
8	Conventional Radiography and Equipment/ Clinical Radiography- positioning-I	35	15	-	50
<b>Total</b>					<b>650</b>
<b>Subsidiary Subject</b>	English and Communication skills	30	20	-	50
<b>Note: All subsidiary examination shall be non University Examination only and will not be part of grand total.</b>					



### 3<sup>rd</sup> Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Radiation safety in diagnostic radiology –I	70	30	-	100
2	Pathology	70	30	-	100
3	Contrast & Special Radiography Procedures	70	30	-	100
4	Clinical Radiography Positioning-II	70	30	-	100
5	Modern Radiological & Imaging Equipment including Physics	70	30	-	100
<b>Practical</b>					
6	Radiation safety in diagnostic radiology-I	35	15	-	50
<b>Total</b>					<b>550</b>
<b>Subsidiary Subject</b>					
7	Research methodology and Biostatistics	30	20		50
<b>Note:</b> All subsidiary examination shall be non University Examination only and will not be part of grand total.					

### 4<sup>th</sup> Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Radiation safety in diagnostic radiology-II	70	30	-	100
2	Newer Imaging techniques including patient care-I	70	30	-	100
3	Physics of newer Imaging modalities	70	30	-	100
4	Quality control in radiology & radiation safety-I	70	30	-	100
<b>Practical</b>					
5	Quality control in radiology & radiation safety-I	35	15	-	50
<b>Total</b>					<b>450</b>
<b>Subsidiary Subject</b>					
6	Introduction to quality & patient safety	30	20	-	50
7	Environmental Sciences	30	20	-	50
<b>Note:</b> All subsidiary examination shall be non University Examination only and will not be part of grand total.					



### 5th Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Physics of advanced imaging technology-I	70	30	-	100
2	Radiographic Techniques in advanced imaging technology-I	70	30	-	100
3	Hospital Practice & care of patient-I	70	30	-	100
4	Newer imaging techniques & patient care-II	70	30	-	100
5	Quality control in radiology & radiation safety-II	70	30	-	100
<b>Practical</b>					
6	Physics of advanced imaging technology-I	35	15	-	50
7	Radiographic Techniques in advanced imaging technology-I	35	15	-	50
	Total				600
<b>Subsidiary Subject</b>					
8	Medical Terminology & Record keeping	30	20	-	50
<b>Note:</b> All subsidiary examination shall be non University Examination only and will not be part of grand total.					

### 6<sup>th</sup> Semester

Sl	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Physics of advanced imaging technology-II	70	30	-	100
2	Regulatory requirements in diagnostic radiology	70	30	-	100
4	Hospital practice & care of patient-II	70	30	-	100
5	Radiographic Techniques in advanced imaging technology-II	70	30	-	100
<b>Practical</b>					
6	Physics of advanced imaging technology-II	35	15	-	50
7	Radiographic Techniques in advanced imaging technology	35	15	-	50
	Total				500
<b>Subsidiary Subject</b>					
8	Medical law & ethics	30	20	-	50
<b>Note:</b> All subsidiary examination shall be non University Examination only and will not be part of grand total.					



**Attendance:**

- a) Each student is normally required to attend all the lectures of every subject as well as the curricular and co-curricular activities.
- b) A student must have minimum 75% attendance in each subject for appearing in the examination. In special circumstances, short-fall in attendance can be condoned on case's merit to the extent of 5% by the Principal. If the short-fall is more than 5%, but not more than 10%, the Principal may recommend on case's merit to the Vice Chancellor for condonation. The order of Vice Chancellor shall be final.

**Examinations:**

- a) In an academic year, at the end of each Semester University examination shall be held.
- b) The question papers shall be get prepared from the list of examiners for paper setting subject-wise duly approved by faculty Board. In no case more than 75% question papers of a semester will be get set from internal examiners.
- c) The evaluation of answer books shall be carried out by examiners duly approved by Faculty Board subject-wise. In no case more than 75% internal examiners shall be involved for evaluation of answer-books of a semester.
- d) The evaluation of project work shall be done by the panel of examiners consists of one internal and one external examiner.
- e) A student shall be allowed to appear in 6<sup>th</sup> semester examination but result will be declared only after clearing all the back / failed subjects of 1<sup>st</sup> to 4<sup>th</sup> semesters only.
- f) There will not be any separate back paper examination for 1<sup>st</sup> to 4<sup>th</sup> semester subjects. However, special carry over examination will be conducted to clear back paper of 5<sup>th</sup> and 6<sup>th</sup> semesters within two months of declaration of 6<sup>th</sup> semester result.
- g) A student not qualified in any subject can appear in the next examination held in the respective semester (Odd/ Even).

**Qualifying Standards:**

- a) Minimum qualifying marks for each subject shall be 50% in aggregate of examination excluding subsidiary subjects. Minimum qualifying marks for subsidiary subject shall be 50%.
- b) The marks obtained in external examination, Viva and internal assessment of the subject shall be added to compute subject percentage.

**Promotional Rules:**

- a) A student satisfying the qualifying standard of all the subjects shall be declared pass in the semester examination.
- b) A student failing to satisfy the qualifying standards of one or more subjects in a semester shall be declared as promoted with back papers and shall be permitted to pursue course work of next semester and clear back papers in the subsequent University examination.
- c) A student, if in conjunction of grace marks, satisfies the qualifying standards of all subjects of the semester shall be declared as 'Pass with grace marks'.



- d) If a student, for any reason, fails to appear in the examination, he or she shall be declared fail and will not be promoted to the next semester. Such a student will be permitted to appear as ex-student during the subsequent examination.

**Grace Marks:**

- a) A student fail to satisfy on his own, the qualifying standards prescribed to be declared pass in the semester examination can be awarded 'Grace Marks' not exceeding a maximum 5 marks which can be shared by not more than two subjects (theory only). However the grace marks shall not be part of the grand total. There will not be any Grace marks for any subsidiary subject.

**Results:**

- a) The examination result of a student shall be declared separately for each examination which will indicate the status of his performance of the semester.
- b) In case student appear in back paper, revised statement of marks will be issued incorporating the back paper examination result.
- c) The six semester statement of marks shall carry result of all previous semesters and will be issued only once the student has completed the course successfully.
- d) The final result for declaring division and award of degree shall be prepared on the basis of cumulative performance of student.

**Award of Division:**

- a) The division to a student shall be awarded on the basis of his/her 'FINAL RESULT' at the end of sixth semester examination.
- b) A student will be said to have passed with 'First Division with Honors' if he/ she obtains 75% or more marks in the final result, provided he/she has passed all examinations in first attempt and without invoking any grace marks.
- c) A student will be said to have passed with 'First Division' if he/she has obtained 60% or more marks in the final result without invoking any grace marks.
- d) A student will be said to have passed with 'Second Division' if he/she has obtained 50% or more marks in the final result.
- e) A student will be said to have 'Passed with Grace' if he/she invoke grace marks in any examination.

**Merit List:**

The merit list to award the rank shall be prepared on the basis of aggregate marks of final result. However those students who have passed all examination in first attempt without invoking any grace marks shall be eligible for award of Rank.

**Award of Degree:**

A student shall be eligible for award of Bachelor in Medical Radiology and Imaging Technology degree on successful completion of prescribed course of study and declared pass.

**Power to Amend the Ordinance**

The 'Academic Council' shall have the powers to relax, amend any or all the provisions of the Ordinances, subject to the approval of the 'Executive Council' of the University. However, amendments shall not be in contravention of guidelines and directives of UGC.



## COURSE: B.SC. RADIOLOGICAL IMAGING TECHNIQUES (BRIT)

7.(e) The academic activities for subject given below shall be conducted semester-wise:

<p><b>Semester I:</b></p> <ul style="list-style-type: none"> <li>• Human Anatomy-I</li> <li>• Human Physiology-I</li> <li>• Basic Physics including Radiological Physics-I</li> <li>• Radiographic and Imaging Processing Techniques</li> <li>• Biochemistry</li> <li>• <b>Practical:</b> Human Anatomy-I</li> <li>• <b>Practical:</b> Human Physiology-I</li> <li>• <b>Practical:</b> Biochemistry</li> <li>• <b>Practical:</b> Basic Physics including Radiological Physics-I</li> <li>• <b>Practical:</b> Radiographic and Imaging Processing Techniques</li> <li>• <b>Subsidiary subject</b></li> <li>• Basic Computer and Information Science</li> </ul>	<p><b>Semester II:</b></p> <ul style="list-style-type: none"> <li>• Human Anatomy-II</li> <li>• Human Physiology-II</li> <li>• Basic Physics including Radiological Physics-II</li> <li>• Conventional Radiography and equipment</li> <li>• Clinical Radiography-Positioning-I</li> <li>• <b>Practical:</b> Human Anatomy-II</li> <li>• <b>Practical:</b> Human Physiology-II</li> <li>• <b>Practical:</b> Basic Physics including Radiological Physics-II</li> <li>• <b>Practical:</b> Clinical Radiography-Positioning-I</li> <li>• <b>Subsidiary subject</b></li> <li>• English and Communication skills</li> </ul>
<p><b>Semester III:</b></p> <ul style="list-style-type: none"> <li>• Radiation safety in diagnostic radiology-I</li> <li>• Pathology</li> <li>• Contrast &amp; Special Radiography Procedures</li> <li>• Clinical Radiography Positioning-II</li> <li>• Modern Radiological &amp; Imaging Equipment including Physics</li> <li>• <b>Practical:</b> Radiation safety in diagnostic radiology-I</li> <li>• <b>Practical:</b> Contrast &amp; Special Radiography Procedures</li> <li>• <b>Practical:</b> Clinical Radiography Positioning-II</li> <li>• <b>Practical:</b> Modern Radiological &amp; Imaging Equipment including Physics</li> <li>• <b>Subsidiary Subject</b></li> <li>• Research methodology and Biostatistics</li> </ul>	<p><b>Semester IV:</b></p> <ul style="list-style-type: none"> <li>• Radiation safety in diagnostic Radiology- II</li> <li>• Newer Imaging techniques including patient care-I</li> <li>• Physics of newer Imaging modalities</li> <li>• Quality control in radiology &amp; radiation safety-I</li> <li>• <b>Practical:</b> Radiation safety in diagnostic Radiology- II</li> <li>• <b>Practical:</b> Quality control in radiology &amp; radiation safety-I</li> <li>• <b>Subsidiary subject</b></li> <li>• Introduction to quality &amp; patient safety</li> <li>• Environmental Sciences</li> </ul>



Semester V:	Semester VI:
<ul style="list-style-type: none"> <li>• Physics of advanced imaging technology-I</li> <li>• Radiographic Techniques in advanced imaging technology-I</li> <li>• Hospital Practice &amp; care of patient-I</li> <li>• Newer Imaging techniques including patient care-II</li> <li>• Quality control in radiology &amp; radiation safety-II</li> <li>• <b>Practical:</b> Physics of advanced imaging technology-I</li> <li>• <b>Practical:</b> Radiographic Techniques in advanced imaging technology-I</li> <li>• <b>Subsidiary subject</b></li> <li>• Medical Terminology &amp; record keeping</li> </ul>	<ul style="list-style-type: none"> <li>• Physics of advanced imaging technology-II</li> <li>• Regulatory requirements in diagnostic radiology</li> <li>• Hospital practice &amp; care of patient-II</li> <li>• Radiographic Techniques in advanced imaging technology-II</li> <li>• <b>Practical:</b> Physics of advanced imaging technology-II</li> <li>• <b>Practical:</b> Radiographic Techniques in advanced imaging technology-II</li> <li>• <b>Subsidiary subject</b></li> <li>• Medical Law &amp; ethics</li> </ul>

8. (c). The distribution of marks for the subjects shall be as per the scheme below-

**1<sup>st</sup> Semester**

S.NO.	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Human Anatomy – I	70	30	-	100
2	Human Physiology – I	70	30	-	100
3	Biochemistry	70	30	-	100
4	Basic physics including Radiological Physics – I	70	30	-	100
5	Radiographic and Imaging Processing	70	30	-	100
<b>Practical</b>					
6	Human Anatomy – I	35	15	-	50
7	Human Physiology – I	35	15	-	50
8	Biochemistry	35	15	-	50
9	Basic physics including Radiological Physics – I	35	15	-	50
10	Radiographic and Imaging Processing	35	15	-	50
<b>Total</b>					<b>750</b>
<b>Subsidiary Subject</b>					
11	Basic Computers and Information Science	30	20	-	50
<b>Note: All subsidiary examination shall be non-University Examination only and will not be part of grand total.</b>					



### 2<sup>nd</sup> Semester

S.NO.	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Human Anatomy – II	70	30	-	100
2	Human Physiology- II	70	30	-	100
3	Basic Physics including Radiological physics - II	70	30	-	100
4	Conventional Radiography and Equipment	70	30	-	100
5	Clinical Radiography- positioning-I	70	30	-	100
<b>Practical</b>					
6	Human Anatomy- II	35	15	-	50
7	Human Physiology- II	35	15	-	50
8	Basic Physics including Radiological physics – II	35	15	-	50
9	Clinical Radiography- positioning-I	35	15	-	50
<b>Total</b>					<b>700</b>
<b>Subsidiary Subject</b>					
10	English and Communication skills	30	20	-	50
<b>Note: All subsidiary examination shall be non-University Examination only and will not be part of grand total.</b>					

### 3<sup>rd</sup> Semester

S.NO.	Subject	Examination	Internal Assessment	Practical Viva	Grand Total
<b>Theory</b>					
1	Radiation safety in diagnostic radiology –I	70	30	-	100
2	Pathology	70	30	-	100
3	Contrast & Special Radiography Procedures	70	30	-	100
4	Clinical Radiography Positioning-II	70	30	-	100
5	Modern Radiological & Imaging Equipment including Physics	70	30	-	100
<b>Practical</b>					
6	Radiation safety in diagnostic radiology-I	35	15	-	50
7	Contrast & Special Radiography Procedures	35	15	-	50
8	Clinical Radiography Positioning-II	35	15	-	50
9	Modern Radiological & Imaging Equipment including Physics	35	15	-	50
<b>Total</b>					<b>700</b>
<b>Subsidiary Subject</b>					
10	Research methodology and Biostatics	30	20	-	50
<b>Note: All subsidiary examination shall be non-University Examination only and will not be part of grand total.</b>					