ABSTRACT
This is on the transformation of education system during pandemic situation of COVID-19 in India. COVID-19 is an infectious disease caused by corona virus. The first case of COVID-19 in India was reported on 30th January 2020, originating from China. The virus not only affected the human life, economy and other living factors but also disturbed education system. For purpose of social distancing and human safety, various strong decisions are taken by government of India was announced on 24th March midnight by Prime Minister Narendra Modi which was of 21 days. On 14th April the Prime Minister extended lockdown up to 3 May, the rising in corona virus cases the lockdown again extended till 17th May and there are chances of extension depending upon cases. The extension of lockdown and closures of schools, colleges affected the education learning, classes, economy as well as the academic year of 2020.

KEYWORDS: academic calendar, guidelines, digital technologies

1. CURRENT ISSUES:
1.1. Modes of Teaching-learning Process
The universities have adopt offline mode, i.e. conducting classes in face to face interaction, with a few exceptions and that too, for very few courses. Some of the universities lack adequate IT infrastructure for effective delivery of education through e-learning mode. In order to tackle the pandemic COVID-19 in the educational institutions and to ensure continuity in teaching-learning process, UGC have issued certain guidelines and advisories from time to time and have taken concrete steps to impart online education by making the best use of e-resources which are available on http://www.ugc.ac.in. Teaching-learning process using online modes such as Google Classroom, Google Hangout, Cisco WebEx Meeting, YouTube Streaming, OERs, SWAYAM Platform and SWAYAMPRABHA (available on Doordarshan (Free dish) and Dish TV), etc. The faculty members have contributed a lot for the benefit of students during the lockdown period by using a number of tools like WhatsApp groups, other social media tools and email.

1.2. Academic Calendar for the Session 2019-2020
The universities have completed the examinations of the odd semester during December 2019 - January 2020 and the results have been declared. Most of the institutions had already covered 60% to 70% of teaching-learning process for ongoing Even Semester before the dispersal of classes in March, 2020. Further, the remaining part of the curriculum has been attended / being attended through online mode as the norms of “social distancing” are to be followed by all educational institutions in the interest of the students, faculty and the staff. The norms of social distance will be required to be maintained by the educational institutions for quite some time, even if the normalcy returns by the first week of May, 2020. Therefore, for the sake of safety of the students, faculty and staff, all universities are required to reschedule the academic calendar 2019-2020

1.3. Modes of Examinations
Like the modes of teaching-learning, most of the universities follow the physical mode of examinations, with a few exceptions. On this aspect also, some of the universities lack adequate IT infrastructure for conducting online examinations. The hiring of private agencies for conducting online examinations also does not seem feasible in view of the fact that examinations are to be conducted simultaneously by all the universities. Therefore, keeping in view the basic infrastructure available at the level of the institutions and accessibility of internet to the students, especially in remote areas, it is not feasible to uniformly adopt the online mode of examination at this juncture.

1.4. Academic Calendar for the Session 2020-21
Several School Boards are yet to complete their Class XII Examinations, as of now. Examinations for the Even Semester in the universities are also getting delayed due to national lockdown. Naturally, all these things will delay the admission process in the university system for the next academic session. In order to tackle this situation, the universities may require some amendments in their academic calendar for the academic session 2020-21.
1.5. Functioning of Laboratories
Like teaching, research has also suffered during the lockdown period as the laboratories are closed. It would be appropriate that during the period of lockdown, laboratories are maintained by the research staff/teachers of the concerned department(s) on rotation basis, without violating the norms of “social distancing”. However, the universities may take appropriate decision to allow Ph.D. scholars and Post-Doctoral Fellows to maintain labs/conduct research, with strict compliance of the guidelines/directives issued by the appropriate authorities/Governments from time to time.

2. Academic calendar
1. The following calendar is suggested for the academic session 2019-2020:
The Academic Calendar is suggestive in nature. The universities may adopt/adapt it after making a comprehensive assessment of their level of preparedness, residential status of the students, and status of COVID-19 pandemic spread in their city/region/state and other factors.

![Calendar Image]

The following calendar is suggested for the academic session 2020-2021:

<table>
<thead>
<tr>
<th>Event Description</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission Process</td>
<td>01.08.2020 to 31.08.2020</td>
</tr>
<tr>
<td>Commencement of Classes</td>
<td></td>
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<tr>
<td>i. Students of 2nd 3rd year</td>
<td>01.08.2020</td>
</tr>
<tr>
<td>ii. Fresh batch (First Semester/Year)</td>
<td>01.09.2020</td>
</tr>
<tr>
<td>Conduct of Examinations</td>
<td></td>
</tr>
<tr>
<td>i. Terminal Semester/Year</td>
<td>01.01.2021 to 25.01.2021</td>
</tr>
<tr>
<td>ii. Intermediate Semester/Year</td>
<td>27.01.2021</td>
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<tr>
<td>Commencement of Classes For Even Semester</td>
<td>25.05.2021</td>
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<tr>
<td>Dispersal of Classes</td>
<td>26.05.2021</td>
</tr>
<tr>
<td>Conduct of Examinations</td>
<td></td>
</tr>
<tr>
<td>i. Terminal Semester/Year</td>
<td>01.07.2021 to 30.07.2021</td>
</tr>
<tr>
<td>ii. Intermediate Semester/Year</td>
<td>14.08.2021</td>
</tr>
</tbody>
</table>

* For courses more than 3-year duration, the university may plan accordingly.

Some General Guidelines
1. All the universities may follow a 6-day week pattern to compensate the loss for the remaining session of 2019-20 and the next session 2020-21.
2. In view of the importance of “social distancing”, universities may take necessary steps to ensure that the students are given exposure to laboratory assignments/practical experiments through virtual laboratories, sharing of the recorded visuals of laboratory work and digital resources available for the purpose. The link provided by Ministry of Human Resource Development for virtual laboratories to facilitate the students of science/engineering/technology streams may also be suitable for such purposes.
3. Every institute should develop virtual classroom and video conferencing facility and all teaching staff should be trained with the use of the technology.
4. The universities should prepare e-content/e-lab experiments and upload the same on their websites.
5. The universities should strengthen the mechanism of mentor-mentee counseling through a dedicated portal on university website to impart timely guidance and counseling to the students. Besides, the faculty advisor and supervisor assigned to each student should maintain regular communication with the students.
6. The universities may devise a preformed to record the Travel/Stay history of the staff and students for the period when they were away from the university due to lockdown, so that necessary precautions may be taken in specific cases, if required. In addition, the universities will strictly comply with all precautions and preventive measures to curb the spread of COVID-19.
7. In order to overcome such challenges in future, the faculty should be adequately trained for the use of ICT and online teaching tools, so that they complete about...
25% of the syllabus through online teaching and 75% syllabus through face to face teaching.
8. In view of the present scenario and future uncertainties:
   A. the universities may adopt and implement these Guidelines in a transparent manner by making alterations/ additions / modifications/ amendments to deal with particular situation(s) in the best interest of students, educational institution and the entire education system,
   B. if the university faces difficulty in making admissions as per the existing policy, it may adopt alternative modes of admission process, if otherwise legally tenable, and
   C. In case of educational institutions located at places where the Government (Centre/ State) have imposed restrictions on gathering of public, the institutions may plan accordingly. In any case, the above recommendations shall not cause any restrictions on the guidelines/directions issued by the appropriate Government/competent authority.
   D. The universities may adopt appropriate strategies to deal with particular situation(s) in the best interest of students, educational institution and the entire
   E. hours to 2 hours assigned to each examination, if need arises but without compromising the quality, so that the process may be completed in multiple shifts and, at the same time, sanctity to evaluate the performance of a student is also maintained.
   F. Term examination to 2 hour examinations, if need arises but without compromising the quality, so that the process may be completed in multiple shifts and, at the same time, sanctity to evaluate the performance of a student is also maintained.
   G. In case of educational institutions located at places where the Government (Centre/ State) have imposed restrictions on gathering of public, the institutions may plan accordingly. In any case, the above

3. UGC GUIDELINES ON EXAMINATIONS
1. Maintaining the sanctity of academic expectations and integrity of examination process, the universities may adopt alternative and simplified modes and methods of examinations to complete the process in shorter period of time in compliance with CBCS requirements as prescribed by UGC from time to time. These may include MCQ/ OMR based examinations, Open Book Examination, Open Choices, assignment/ presentation-based assessments etc.
2. The universities may adopt efficient and innovative modes of examinations by reducing the time from 3 hours to 2 hours assigned to each examination, if need arises but without compromising the quality, so that the process may be completed in multiple shifts and, at the same time, sanctity to evaluate the performance of a student is also maintained.
3. The universities may conduct Terminal/ Intermediate Semester / Year examinations in offline / online mode, as per their Ordinances/ Rules and Regulations, Scheme of Examinations, observing the guidelines of “social distancing” and keeping in view the support system available with them and ensuring fair opportunity to all students.
4. Terminal semester / year examinations for PG/ UG courses/ programmes may be conducted by universities as suggested in the academic calendar keeping in mind the protocols of “social distancing”.
5. For intermediate semester/year students, the universities may conduct examinations, after making a comprehensive assessment of their level of preparedness, residential status of the students, status of COVID-19 pandemic spread in different region/ state and other factors. In case the situation does not appear to be normal in view of COVID-19, in order to maintain “social distancing”, safety and health of the students, grading of the students could be composite of 50% marks on the basis of the pattern of internal 6 evaluation adopted by the universities and the remaining 50% marks can be awarded on the basis of performance in previous semester only (if available). The internal evaluation can be continuous evaluation, prelims, mid-semester, internal assignments or whatever name is given for student progression. In the situations where previous semester or previous year marks are not available, particularly in the first year of annual pattern of examinations, 100% evaluation may be done on the basis of internal evaluation. If the student wishes to improve the grades, he/she may appear in special exams for such subjects during next semester. This provision for intermediate semester examinations is only for the current academic session (2019-20) in view of COVID-19 pandemic, while maintaining safety and health of all the stakeholders and sanctity and quality of examinations.
6. In addition to the above, following steps are required to be taken: i. The scheme of “Carry forward” (for the subjects in which the student has failed) will be allowed for the current academic year in the universities and every student will be promoted to next semester/year. However, such students may clear the examination for the course in which he/ she has failed/ remained absent, whenever the examination is held next. ii. The students may be allowed to improve their grades by offering one additional opportunity to appear for the current semester course(s) in succeeding semesters/ years or through supplementary examinations.
7. The modalities for examination and other related activities be applied uniformly across all courses in a university.
8. The students should be informed well in advance (at least one week) about the conduct of examinations and other related activities.
9. Regarding the requirement of minimum percentage of attendance for the students/ research scholars, the period of lockdown may be treated as ‘deemed to be attended’ by all the students/ research scholars.
10. The universities may adopt appropriate strategies to facilitate the UG/ PG students pursuing Projects/ Dissertations, in view of the prevailing circumstances. The universities may consider to assign review-based/ secondary data-based projects 7 or software-driven projects, instead of laboratory-based experiments or field/ survey-based assignments to these students.
11. The universities may conduct the practical examinations and Viva-Voce Examinations through Skype or other meeting apps, and in case of intermediate semesters, the practical examinations may be conducted during the ensuing semesters.
12. The universities may conduct the Ph.D. and M.Phil. Viva-Voce Examinations through Video Conferencing using Google, Skype, Microsoft Technologies or any other reliable and mutually convenient technology, subject to the approval of the concerned statutory authority of the university, in compliance of Clause 9.6 to 9.9 of the UGC Regulations, 2016 regarding award of M. Phil / Ph.D. Degree. While conducting the Viva-Voce Examination through Video Conferencing using electronic means, it may be ensured that it will be open to be attended by members of the Research Advisory Committee, all faculty members of the department, research scholars and other interested experts/ researchers, besides the Research Supervisor and Expert(s)/Examiner(s), as applicable. It is also imperative on the part of the university to maintain due record of the same, including the report signed by Expert(s)/Examiner(s) appointed for conducting the same.
13. The M.Phil. or Ph.D. students, whose maximum period for submission of M. Phil/ Ph.D. Dissertation/ Thesis prescribed under relevant rules/ regulations/
organisational documents of the concerned universities is expired/ 
expiring during the Corona pandemic period, may be 
allowed to submit their Dissertation/ Thesis, including 
completion of pending formalities, within six months 
from the date of expiry of regular prescribed period. The 
extension of six months may also be considered for 
those students who are yet to submit their Dissertation/ 
Thesis.

14. Every University shall establish a cell for handling 
student grievances related to examinations and 
academic activities during COVID-19 pandemic and 
notify effectively to the students.

15. The UGC will establish a Help Line for monitoring 
student grievances related to examinations and 
academic activities during COVID-19 pandemic.

4. TRANSFORMATION TO DIGITAL TECHNOLOGY

4.1. Accelerated Adoption of Digital Technologies:
The education sector has been slow to adopt digital 
technologies for long. Today, with the pandemic, every 
alternative to run the physical classroom has been shut. This 
is an opportunity for the educators to embrace the new 
model and make it work. Cloud, data bandwidth, storage 
technologies, compute power, analytics, data management 
methods etc. are all working in tandem to create an 
unprecedented opportunity in the digital world to dream of 
things that could not have been possible few years back. 
They all have come of age. It is time for our education system 
to leverage the same and fight the pandemic.

4.2. Teacher centric to Student Centric:
We have always been a teacher-centric (mostly one-way) in 
our approach to education. This is the time for all of us to 
move from this teacher-centric physical classroom to 
student-centric digital glass-rooms. It is an opportunity for 
us to nurture and develop self-learning behavior in the 
students. This will broaden their thinking, stimulate 
curiosity and cultivate a higher level of interest.

4.3. Physically Distanced, but Digitally a Community:
A community approach in the digital world will help 
students connect for learning ‘anywhere, anytime’. 
Communities will offer a relevant collaborative space for 
students, where they can be kept engaged and their potential 
can be developed. As a beginning, let us put three digital 
communities for every student.
A. School or College as a community
B. i) Classroom as a community
C. Every Subject or Topic as a community.

This will initiate active engagement within students and 
across educationists and students.

4.4. Virtual, but engagement is Real:
Keeping students interested and engaged in a digital space 
comes with its own set of challenges. One way is to ensure 
regular digital assignments, contests, debates etc. to 
stimulate student interest and learn the key practical 
applications of the subject.

4.5. Validation for the virtual world:
It is also important to have digital assessments on a regular 
basis, to allow evaluation of learning effectiveness. This 
helps the educationists to spot and initiate appropriate 
additional interventions where needed to specific and 
needed students. The educationists can take the entire 
students in the digital glass-room together as though they 
are in a physical classroom.

4.6. Technology and Content are enablers, but key is 
the Pedagogy:
Access to technology is not a challenge. The content to teach 
is also available. Educationists have access to the content as 
they have been teaching in the physical classroom. The 
missing link is the pedagogy. The pedagogies for a physical 
classroom may not be readily suitable for the digital glass-
room. A whole new set of methods and practices are 
emerging. They are more interactive, gamified, visually rich, 
personalized and hands-on. This takes the learning 
effectiveness to a completely new level.

4.7. Democratization of Education:
In this hour of crisis, it is important for us to ensure that the 
digital technologies are not available just to elite few. It has 
to be democratized and be available to every citizen without 
discrimination. The government runs a very large part of our 
education system. They must adopt and make the platform, 
content and methods available to every school. Few state 
governments must take the lead in demonstrating adoption 
of digital glass-room to the rest of the country.

Conclusion
It is to conclude that the situation occur during pandemic of 
COVID-19 made the huge changes among the education 
system. The various committees came together to make 
changes in the UGC guidelines among the examinations, 
academic calendars, and admission processes. In the new era 
of digital world the education system got transformed into 
virtual classrooms and took advantages of digital 
technologies.

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