

OFFICE OF THE CONTROLLER OF EXAMINATIONS ANNA UNIVERSITY

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CONTROLLER OF EXAMINATIONS (i/c)

Letter No. 19777/C12/2021/Others

14.07.2021

To

The Deans of Regional Campuses /

The Deans of Constituent Colleges /

The Principals of the Non-Autonomous Affiliated Colleges

Sir/Madam,

Sub: Office of COE – End-Semester Practical Examinations in online mode – Procedure for the conduct of Practical/Laboratory Examinations and Viva-Voce Examinations for the Project Work of non-autonomous affiliated Colleges – Nov./Dec.2020 (Reexamination) and April/May 2021 Examinations – Reg.

- Ref: 1. Syndicate Res. No. 260.17 dated 16.02.2021 (Res. No. VC26.25 of 26th Academic council Meeting held on 11.02.2021).
 - Note approval for the Conduct of Practical Examinations and Viva-Voce Examinations for the Project Work by the Convener Committee dated 13-03-2021.

Kind attention is invited to the references cited, wherein the Syndicate and the Convener Committee had approved a procedure for the conduct of November / December 2020 (Reexaminations) and April/May 2021 end-semester laboratory practical examinations and the Viva-Voce examinations for the Studio Courses and Project Work/Thesis, as a onetime measure due to COVID-19 pandemic, for the benefit of the students of non-autonomous affiliating institutions and the same is given below for necessary implementation at your end through online mode.

The procedure for the conduct of End-Semester Laboratory Practical Examinations and modalities for the conduct of Viva-Voce Examinations for Project Work of non-autonomous affiliated Colleges is enclosed herewith. The practical examinations and the Viva-Voce examinations for the Studio Based Courses and Project Work/Thesis shall be conducted in two slots as mentioned below.

Slot	From	То
1	30.07.2021	04.08.2021
2	05.08.2021	10.08.2021

You are requested to get in touch with the Zonal Coordinator/Zonal Officer of your Zone for any additional necessary support and clarifications. Your support and cooperation in this regard is solicited.

CONTROLLER OF EXAMINATIONS i/c

Encl: As above

Copy to: The Zonal Co-ordinators/ Zonal Officers Zone I – XVIII, XX, XXI & XXIII

Procedure for the conduct of University end-semester examinations for Laboratory Courses through online proctored mode

- (A) The laboratory course examinations shall be conducted online through any suitable popular online video communication services.
- (B) The laboratory examinations shall be conducted using the regular procedure prescribed by the University.
- (C) The duration of the examination shall be 3 Hours.
- (D) The college principals shall create necessary web-link for the conduct of the online laboratory course examination and publish/post the same with the university web portal along with other necessary details.
- (E) The college Principals shall coordinate with the internal examiners of the laboratory course and communicate the web-link to all the eligible students those who have registered for the laboratory examinations.
- (F) The external examiner shall set the question paper based on the prescribed university syllabus for the conduct of the laboratory examinations. The relevant and usual university procedure needs to be followed for the conduct of the examinations.
- (G) Only one student shall be evaluated at a time by the internal and the external examiners.
- (H) The camera should be in ON condition at all the time for the entire duration of three hours and the internal and the external examiners must monitor the examination activity of the student. Violation, if any, shall be treated as malpractice.
- (I) In addition, a vigilance squad also shall monitor the conduct of practical examination by the examiners.
- (J) The Zonal Officer (ZO)/Zonal Coordinator (ZC) shall download the web links of the examinations from the web portal and forward the same to the external examiners and squad members for the conduct, monitoring and evaluation of the laboratory examinations.

The Proctored Online Examination has to be completed by the given procedure:

1. MCQ based Proctored Online Test:

- The laboratory course examination shall be conducted online through any suitable popular online video communication services.
- The objective type (MCQ) questions shall be set by the external examiner based on the syllabus of the laboratory course, the MCQ test may be conducted in parallel to all the students of the class/college using any open source platform such as Google Forms/ Microsoft

teams, the copies of the same must be forwarded to the concerned zonal office.

2. Experiment Understanding Test:

- The examination shall be conducted using any suitable open source platform/ scientific software packages/ Simulation software/Modelling tools/ Design software/ IoT enabled/ IoT assisted/ Comprehensive Assessment Method using online mode. Any suitable open source platform/ scientific software packages/ Simulation software/Modelling tools/ Design software can be used for IT/CSE/ Design/ Programming laboratory courses.
- For courses other than IT/CSE/ programming laboratory, if possible, it
 is recommended to use any suitable open source platform/ scientific
 software packages/ Simulation software/Modelling tools/ Design
 software/ IoT enabled/ IoT assisted approaches for the online
 laboratory courses examination.
- If usage of open source platform/ scientific software packages/
 Simulation software/Modelling tools/ Design software/ IoT enabled/ IoT
 assisted approaches is not possible, for such laboratory courses a
 comprehensive assessment method may be followed, the external
 examiner shall assess (strictly only one student at a time) the students'
 performance based on the complete understanding of the laboratory
 courses and the particular experiment orally over online.
- The external examiner shall assess the students understanding of the laboratory course and particular experiment based on some of the following points: objectives, theory/concepts/ laws/ procedure/ design steps/ methods/ techniques/ Algorithms/ methodologies need to be used for the experiment, inference/observations, significant outcome of the experiments, advantages/ disadvantages, Applications, and etc.
- Students shall use plain A4 sheets for answering the laboratory examinations questions.
- At the end of the laboratory examination each student has to send the scanned copies of the laboratory course write up - answer sheet to the email IDs of the external examiner and internal examiners. The answer may contain the AIM, equipments / apparatus/ software / software suites/ hardware/ tools/ components/ accessories required for the conduct of examination, theory/ concepts/ laws/ procedure/ design

steps/ methods/ techniques/ Algorithms/ methodologies /calculations, circuit diagrams/ schematic diagrams/ flow chart/ process diagrams, graph/plot/ model plot/ model graph, tables/model tables, inference/observation and results.

3. Evaluation Process

The examiners have to assess the performance of the students' based on the knowledge on the particular experiment and mark split up procedure given in Table-I.

4. Viva-Voce Examination for Laboratory Examination

The external examiner shall raise certain questions during the phase of examination relevant to the experiment/ Laboratory course through proctored online mode.

After successful completion of all of the above,

- a. The external examiner shall evaluate the scanned copies of the answer sheet of the individual students and award the marks based on the prescribed mark split up (Refer Table-I). The consolidated mark statement of the course bearing the details of the entire student those who have attended the online laboratory examinations must be prepared and signed by the external examiner, the scanned copy of the same must be communicated to the internal examiner as well as to zonal office for reference and further action. The internal examiner shall enter the marks of the students in the university web portal strictly based on the consolidate mark statement given by the external examiners. Usual procedure need to be followed for Mark Entry and for other examination related activities.
- b. The Online platform should ensure the generation of attendance of those present (some platforms that do not inherently have this feature allow this through browser extensions). Screenshot is to be taken for each student with the video on. The attendance generated and the screenshot would be the basis for the filling up of the attendance sheet by the institution.
- c. The scanned copies of the answers sheets and soft copies of the MCQ test of all the students of the courses must be forwarded to the zonal office by the examiners, intern the zonal office shall consolidate all the soft copies of the different laboratory courses and name and keep all the files in a separate folder for each course, college wise and submit the same in CD/DVD to office of the COE for further action.
- d. The ZO/ZC shall appoint vigilance squad members for proctoring the laboratory courses, such squad members shall monitor 8 laboratory courses per session through web link provided by the zonal office periodically/randomly and monitor the examination activities. The squad members shall crosscheck and verify the

examinations activities through online and prepare the observation report in the format prescribed by the university, the same must be sent to the concern zonal office for further process and necessary action. A separate report must be prepared for each laboratory courses. The concerned zonal office must educate the squad members to ensure the online examinations are conducted in a smooth and fair manner.

e. In case of any circumstance which does not allow the above mode and if a student has connectivity problems at the time slot given to them, their viva can be rescheduled.

The evaluation scheme and awarding of marks may be carried out as given below.

Table-I Mark split-up

1	MCQ based Proctored Online test (MCQ with 4 options / Objective type questions - 15 Questions- for all the students)	15 marks
2.	Experiment Understanding Test Aim, equipment / apparatus/ software / software suites/hardware/tools/ components/ accessories required for	
	carrying out the experiments, theory/concepts/ laws/ procedure/ design steps/methods/techniques/ Algorithms/ methodologies/calculations, circuit diagrams/schematic diagrams/ flow chart/ process diagrams, graph/plot/ model plot/ model graph, tables/model tables, Record/observation books	65 marks
3.	Evaluation Test Results/inference /observations	10 marks
4.	Viva-Voce Examination	10 marks
	Total Marks	100 marks

Procedure for the conduct of Project Work Viva-Voce examination for the final semester of UG & PG through online mode

- The Viva-Voce examination shall be conducted online through any suitable popular online video communication services.
- The Viva-Voce examination shall be conducted using the regular procedure prescribed by the University.

Number of Students to be evaluated and Examiners:

SI. No.	Programme	No. of Students	Examiners		
		A project group or a	One Internal Examiner, One		
1	B.E./B.Tech.	single student shall be	External Examiner and the		
		evaluated at a time	Supervisor		
	M.E./M.Tech./	Only one Student shall	The supervisor, one internal		
2	M.B.A./M.C.A.	be evaluated at a time	examiner and one external		
	IVI.B.A./IVI.G.A.	be evaluated at a time	examiner		

- The college principals shall create necessary web link for the conduct of the online
 Viva-Voce examination and publish/post the same with the university web portal along with other necessary details.
- The college principals shall coordinate with the internal examiners of the Project Work course and communicate the web link to all the eligible students those who have registered for the Viva-Voce examinations.
- The Zonal Coordinator / Zonal Officer shall download the web links of the examinations from the web portal and forward the same to the external examiners and squad members for the conduct, monitoring and evaluation of the Viva-Voce examinations.
- The softcopy of the Project Work shall be approved by the Supervisor and Head of the Department (HoD) before finalizing the Viva-Voce examination of the candidate.
- The examiners shall be appointed for the conduct of Viva-Voce Examination as per the Regulations of the programmes of the candidates taking up their examination.
- Project Work done by the candidate in softcopy will be assessed by the committee
 along with the presentation made by the candidate on the day of Viva-Voce
 examination. A separate format for evaluation of Project Work will be sent by our
 office through the Zonal Offices.
- The ZO/ZC shall appoint vigilance squad members for proctoring the Viva-Voce Examinations, such squad members shall monitor 8 Viva-Voce Examinations per session through web link provided by the zonal office periodically/randomly and monitor the examination activities. The squad members shall crosscheck and verify the examinations activities through online and prepare the observation report in the format prescribed by the university, the same must be sent to the concern zonal office for further process and necessary action. A separate report must be prepared for each Viva-Voce Examinations. The concerned zonal office

- must educate the squad members to ensure the online examinations are conducted in a smooth and fair manner.
- After the end of Viva-Voce examination, soft copy of the thesis should be sent to Zonal Office immediately in CD. Further, the details of marks shall be uploaded in Practical Web Portal immediately upon completion of the viva voce examinations. The working sheet signed by all the examiners along with the print out of the mark sheet taken from the portal duly signed by all the examiners are to be sent to the Office of the COE at the earliest. In case the examiners are remotely located e-signature of the examiners may be affixed in the mark sheet and send it to the office of the COE immediately upon completion of the examinations. Finally the mark sheets with the original signatures are to be submitted upon the resumption of normalcy.

Special additional instructions regarding the conduct of Project Viva-Voce Examinations:

- The evaluation shall be carried out only through online mode and no students shall be called to the campus in connection with Project Viva-Voce examination.
- In case of hardware/working model(s) students may be asked to demonstrate the working/functioning of such model via online mode only.
- In the case of any Project Work involving fabrication, etc., necessary instructions shall be communicated to the students to include images / snapshots of the step-by-step process development in the presentation.
- During the Online UG Project Viva-Voce examination, one of the members of the Project Group can present the slides prepared fully from their Project Work and other members can orally interact with the committee.
- In the event of any technical glitches with any sessions of Online Project Viva-Voce examination, another session shall be arranged on the same scheduled dates to ensure that the Viva-Voce examination for the students are completed without fail.
- The Online platform should ensure the generation of attendance of those present (some platforms that do not inherently have this feature allow this through browser extensions). Screenshot is to be taken for each student with the video on. The attendance generated and the screenshot would be the basis for the filling up of the attendance sheet by the institution.
- The evaluation scheme and awarding of marks may be carried out as given below.

Table-II Mark split-up

SI. No.	Topics					
1.	Project/Thesis report	20				
2.	Development and demonstration of Prototype/Model					
3.	Power Point presentation					
4.	Viva-Voce					
5.	Usage of Modern Tools/Technology in Project / Thesis	15				
6.	Innovations / Creative Ideas	10				
7.	Individual Contribution for UG / Unique Contribution for PG					
	Total Marks	100				

Procedure for conducting examination for Communication Skills Laboratory

The End Semester examination for the course Communication Skill Laboratory examination shall be conducted in Proctored Online mode based on the guidelines given below:

- (A) The Communication Skills Laboratory course examination shall be conducted online through any suitable popular online video communication services.
- (B) The Communication Skills Laboratory examination shall be conducted using the regular procedure prescribed by the University.
- (C) The duration of the examination shall be 3 Hours.
- (D) The Principals of the College shall create necessary web-link for the conduct of the online laboratory course examination and publish/post the same with the university web portal along with other necessary details.
- (E) The Principals of the College shall coordinate with the internal examiners of the laboratory course and communicate the web-link to all the eligible students those who have registered for the laboratory examinations.
- (F) The question paper shall be provided by the University for the Conduct of the Communication Skills Laboratory examination. The relevant and usual university procedure needs to be followed for the conduct of the examinations.
- (G) Only one student shall be evaluated at a time by the internal and the external examiners.
- (H) The camera should be in ON condition at all the time for the entire duration of three hours and the internal and the external examiners must monitor the activity of the student. Violation, if any, shall be treated as malpractice.
- (I) In addition, a vigilance squad also shall monitor the conduct of Communication Skills Laboratory examination by the examiners.

(J) The Zonal Officer (ZO)/Zonal Coordinator (ZC) shall download the web links of the examinations from the web portal and forward the same to the external examiners and squad members for the conduct, monitoring and evaluation of the Communication Skills Laboratory examination.

Conduct of Examination:

- 1. The proctored online examination consists of two parts, the first part is carrying 25 marks which is based on audio and comprehension type, the second part is carrying 75 marks, which is based on Group Discussion, Technical/Non-Technical Presentation and Personal Interview.
- 2. The examiners shall follow the usual University Procedures for the conduct and evaluation of the examinations as per the Regulations.
- 3. The examiners shall conduct the examination for both first and second parts through Proctored Online mode only.
- 4. The procedure for conducting the first part (25 Marks) shall be as follows:
 - a) The question paper set which comprises of audio and Question paper of Comprehension mode (PDF file) shall be provided by the office of the COE to the Zonal Office, which in turn shall forward the above question paper sets to the concerned Examiners.
 - b) The office of the COE shall provide sufficient number of question papers sets to the Zonal Office such that it can be distributed to the colleges according to the student strength.
 - c) The examiners shall forward the softcopy of the question paper to all the students through any other suitable internet platform as per time schedule drawn and allow the students to answer the questions comprises of the audio and PDF file.
 - d) The students shall be proctored by the internal and external examiners during the Examination.
 - e) The students shall answer the questions in a plain A4 paper within the scheduled time and should send the photo/scanned copy of the same to the internal examiners immediately after the completion of the examination. Further, the internal examiner shall consolidate all the answer papers and forward the same to the external examiner for evaluation. Each student must mention his/her particulars such as University Registration Number and other related particulars on each page of the answer sheets without fail.
- 5. The second part which carries 75 marks shall be conducted as per the guidelines and regulations through any suitable online platform such as

- Microsoft team, Google meet, zoom and any other suitable platforms, jointly by the internal and external examiners.
- 6. The internal/external examiner shall capture snap shots of the students' attendance page and certify the students' attendance in a plain paper. Both the snap shot and certified attendance of the students shall be forwarded to the Zonal Office.
- 7. The evaluation and awarding of the marks shall be carried out as per the usual University procedures and Regulations.
- 8. At the end, the internal examiner shall send the soft copies of the students answer sheets and attendance particulars to the concerned Zonal Office, which in turn forward the same in CD/DVD format to the office of the COE for the records and further necessary action.
- In case of any circumstance which does not allow the above mode and if a student has connectivity problems at the time slot given to them, their viva can be rescheduled.
- 10. The Online platform should ensure the generation of attendance of those present (some platforms that do not inherently have this feature allow this through browser extensions). Screenshot is to be taken for each student with the video on. The attendance generated and the screenshot would be the basis for the filling up of the attendance sheet by the institution.

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ANNA UNIVERSITY:: CHENNAI 600 025

NOVEMBER-DECEMBER 2020 / APRIL-MAY 2021 END SEMESTER EXAMINATIONS

College Name:	
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College Code:

To be used for B.E/B.Tech

Subject Name:

Subject Code:

Semester:

EVALUATION WORKING SHEET(Separate sheet to be used for every supervisor)

S. BATCH No. NUMBER		I PEC NO I	NAME OF THE STUDENT	THESIS SUBMISSION (30 MARKS)		VIVA- VOCE (50 MARKS)			TOTAL (80	TOTAL (100
				Internal	External	Internal		Supervisor	MARKS)	MARKS)
				(15)	(15)	(15)	(20)	(15)		
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						1				

NAME OF THE INTERNAL EXAMINER

STAFF ID

Signature

NAME OF THE EXTERNAL EXAMINER

STAFF ID

Signature

NAME OF THE SUPERVISOR

STAFF ID

Signature



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APRIL/MAY 2021 END SEMESTER EXAMINATIONS

To be used for M.E/M.Tech/MBA & MCA

College Name:

College Code:

Subject Name:

Subject Code:

Semester:

PROJECT VIVA EVALUATION WORKING SHEET (Separate sheet to be used for every supervisor)

S. No.	REG. NO.		THESIS SUBMISSION (30 MARKS)	VIVA- VOCE (50 MARKS)			TOTAL (80 MARKS)	TOTAL (100
110.		STOBERT	External (30)	Internal (15)	External (20)	Supervisor (15)	(60 MARKS)	MARKS)
								4

NAME			

STAFF ID

Signature

NAME OF THE EXTERNAL EXAMINER:

STAFF ID

Signature

NAME OF THE SUPERVISOR:

STAFF ID

Signature