Appendix III

Techno-Pedagogic Competencies Test

1. A teacher said, 'I viewed classroom lecture, discussion, and chalkboard as "information technologies" with particular strengths.' Which of the following statements substantiate his statement –
   a. They are used to introduce topics and allow students' immediate clarification.
   b. They are ideal for describing and diagramming theoretical models of processes and structures
   c. These are the initial tools that can be successfully used in analysis of interrelated phenomena
   d. All the above

2. Techno-Pedagogic Competency is
   a. A Science of using technology in teaching
   b. A Technique of combining principles of technology and principles of teaching
   c. A Set of skills of interweaving technology into teaching and learning both scientifically and aesthetically.
   d. A competence to develop techno-pedagogic systems in education.

3. Computers have become an important part of today's classroom. Use of computers in the teaching learning situations is thought of as equivalent to integrating technology in teaching subjects. Which of the following statements stands against the above view?
   a. Computers have occupied a dominant position in the day to day life activities of the people
   b. Computers are also used to perform difficult things that are beyond the capacity of human being.
   c. Computers have mechanized the teaching learning environment.
   d. None of the above

4. Technology and pedagogy are interconnected and formed an essential part of teaching from beginning. Knowingly or unknowingly a teacher uses these two aspects in an integrated manner to make teaching interesting, joyful and motivating to students. Which of the following statements supports the above argument?
   a. Blackboard and text book used by teacher are part of techno pedagogy
   b. A teacher uses audio or visual aids while teaching in classroom
   c. If a teacher is using computer to teach subject in classroom, then it can be said that technology is properly used in teaching the subject
   d. None of the above

5. Which of the following sequences represents a gradual evolution in the development of educational technology?
   a. Computers / Tape recorder / Television / Pictorial Chart
   b. Tape recorder / Pictorial chart / Computers / Television
   c. Television / Pictorial chart / tape recorder / Computers
   d. Pictorial Chart / Tape Recorder / Television / Computers

6. A teacher has designed a power point presentation to enhance content learning in the classroom. He felt that the power point presentation is sufficient enough to satisfy all the learning needs of his class. Basing on which of the following aspects he arrived at this decision.
   a. Power point presentation is attractive and motivates learner

b. Power point package is the most useful and dominant educational software

c. Power point presentation is a self-learning material available

d. A power point presentation satisfies learners needs through its multi-sensory teaching approach

7. Developing a classroom environment for proper teaching learning involves judicial use of principles of technology and teaching principles while designing teaching learning process. What other factors play an important role in developing learning environment in the classroom.

a. Facilities available in the classroom

b. Content knowledge of the teacher

c. Objectives set for teaching

d. All the above

8. Even though the importance of using technology in teaching learning is recognized by Indian education system, average Indian classroom is still following traditional method in teaching subjects. Which of the following factor is solely responsible for this situation

a. Apathy of administration

b. Lack of interest in teacher

c. Students refusing to use technology

d. Lack of training facilities in schools

9. A classroom is provided with the following facilities for teaching learning – enough space to accommodate 60 students; an elevated platform for teacher to view all the class; enough furniture for teacher and students to carry on classroom activities and with minimum electric facilities. Teacher wants his students to learn the preparation of sulphuric acid. Which of the following would be the best practices to achieve his objective?

a. For a class of 60 students, he can draw the diagram of preparation on BB and simply explain the process.

b. He can arrange for the demonstration of the topic in Lab in two batches

c. Arranging for demonstration of topic for whole class in the classroom

d. Involving students in the preparation of Sulphuric Acid in the lab in two batches

10. In a well equipped class with facilities to use computers while teaching, a teacher always preferred to teach through oral explanation. The teacher's attitude towards technology use is –

a. Interested

b. Resistant

c. Arrogance

d. Positive

11. Which of the following description of a classroom best illustrates the use of technology in teaching and learning?

a. Classroom well decorated with pictures, charts and maps.

b. Classroom provided with PC and CCTV connections

c. Classroom provided with electric supply for using gadgets

d. Both a & b

12. A biology teacher has to teach the concepts of Ecology for 11th standard students. For a given class of 35 students with good facilities to use technology, what could be the better option to achieve the set objectives to maximum extent?

a. The topic can be directly explained using lecture method

b. To involve students in discussion after providing them with initial introduction of topic

c. To develop a CAI using specific computer software for self learning

d. To provide a power point presentation of the topic with related website addresses for further clarity in the concept

13. Research students from various disciplines are provided training in using a statistical package in EXCEL to solve problems related to their specific topics. After undergoing training for two days participants said that they need guidance in basic statistics in order to use the package on their own. Which of the following factors are responsible for this situation?

    a. Authorities thought that providing training in use of software package will ensure subject knowledge (statistics) automatically

    b. Software packages are made with an assumption that the persons using them possess basic knowledge of the subject for which it is prepared

    c. It is not necessary that all students doing research possess good knowledge of statistics.

    d. All the three

14. A group of teachers are provided training in using advanced operating systems for two weeks. When the trainer met the teachers after a lapse of three months, he enquired with the teachers about the usefulness of the program. They said that the program has enhanced their knowledge in the field of technology, but they were still not able to use the operating system in their classroom due to unavailability of software in the market. Which of the following statements best describes the situation?

    a. Training programs in technology use always focus on enhancing knowledge of teachers about new software

    b. Technology training program has to be designed after enquiring with the facilities available in the school

    c. Technology training program should focus on what a teacher can best use in classroom for learning of his students, and not only on latest programs available in the market

    d. None of the above

15. A school has decided to automate the evaluation process through using database programming. It was decided by the school authorities that staff members involved with the evaluation work are to be provided training in the database program. It is also decided that they will hire the services of experts in case of need for team while developing the program. Which of the following principles are involved in this decision?

    a. Distribute product development across the organization.

    b. Team approach is always a better option in solving problems

    c. Considering the long term usage providing training to teachers and hiring experts can be cost-worthy

    d. All the three

16. Identify the correct sequence

    a. Class Instruction / Small Group Discussion / Global Instruction / Country Wide Class room / Self Instruction

    b. Self instruction / Small Group Discussion / Class Instruction / Country Wide Classroom / Global Instruction

    c. Global Instruction / Country Wide Classroom / Class Instruction / Small Group Discussion / Self instruction

d. Country Wide Classroom / Class Instruction / Global Instruction / Self Instruction / Small Group Instruction

17. Commenting on provision of facilities to marginalized groups to enhance their mainstreaming process, one expert commented, ' one cannot overcome their disability to full extent using technology, but one can minimize the extent of damage caused due to their disability'. He is intending to comment that -
a. Technology has unlimited applications
b. A technological device cannot fully supplement to meet the discrepancy
c. Technology is not that much helpful in mainstreaming the marginalized groups
d. Technology is artificial in nature

18. A variety of technological devices are available now in the name of assistive technology for disabled persons in the market to help them in performing their daily chores. A parent after visiting a shop selling these devices commented, 'To choose for a perfect match with my need among these costly devices available in numerous varieties is really a headache'. The opinion of the parent is -
a. Assistive technology is too costly to afford
b. Assistive technology is available in different forms
c. It is difficult to find a perfect match between the disability and the device
d. none of the above

19. Which of the following sequence is representing a change from dependent to independent learning?

a. Lecture Method / Demonstration / Group Project / Individual Assignment
b. Individual Assignment / Group Project / Demonstration / Lecture Method
c. Demonstration / Lecture Method / Individual Assignment / Group Project
d. Group Project / Individual Assignment / Demonstration / Lecture Method

20. Irrespective of availability of facilities, training, interest and cooperative nature of related individuals, a teacher has to practice techno-pedagogy skill in day to day teaching. Because –
a. Technology and pedagogy are separate parts
b. Techno pedagogy is a natural feature of teaching environment
c. A teacher is trained in pedagogical aspects
d. Now a days training in technology use is a part of teacher training program

21. Which of the following does not represent the perfect match between forms and levels of techno pedagogy?
a. CAI – Self Instruction
b. Teleconferencing – Global Instruction
c. Educational TV – Countrywide Instruction
d. Video Conferencing – Class Instruction

22. Video Conferencing and Teleconferencing are better ways of using techno-pedagogy than ETV. Because –
a. They represent high level of technological innovations
b. They can cover more area
c. They provide for facilities of two way communication
d. They are costly and efficient

23. Integrating any kind of technology in teaching learning automatically enhances the learning level of students. Because
a. Teacher uses technology knowing the needs of classroom

b. A suitable instructional plan is developed by integrating technology
c. Use of technology caters to the individual differences of the learners
d. All the above

24. In spite of providing training in use of technology a teacher is not coming out freely to use technology while teaching. Which of the following situations are responsible for this status?
a. Lack of confidence
b. Fear of failure
c. Lack of facilities
d. All the above

25. Compared with children of yester years, today's younger generation are more aware about world due to availability of technological devices. They are better in communication, getting information and finding solution to problems. But continuous exposure to technological media has a negative impact on health, emotions and behaviour of children is the constant research finding. What is the possible solution to this situation?
a. It is a known fact that every coin has two sides
b. Judicious use is always advisable
c. Parental guidance and teacher control are required
d. Continuous vigilance is to be maintained

26. Which of the following better satisfies the information gathering skills of learners?
a. Lecture cum Discussion
b. CAI
c. A web page provided with related links
d. Program Learning Material

27. Explaining on integration of technology into teaching learning a teacher said, "I possess the necessary subject knowledge. With the exposure given during teacher training I can decide on different methods of teaching according to the content chosen. There could be many technological devices that can be used to deliver the content effectively. Looking into the context of learning available I select one method and one technology and use them in teaching." This explanation is pointing towards which aspect of techno-pedagogy?
a. Concept of techno pedagogy
b. Designing classroom teaching using technology as per teacher's view
c. Pre requisites for techno pedagogy
d. Evolving a suitable learner centered classroom

28. Dissection of animals especially Frog in biology is not preferred form of practical due to ecological problems arising out of the situations. Without doing dissection student is not in a position to understand internal body organization of any animal. In these situations, which of the following will help the student most?
a. Conducting demonstration at least once by teacher
b. Providing an animated version of dissection process
c. Developing a web page containing detailed films on dissection of various systems of frog
d. Providing experience through dissection of other related species.

29. In the days of giving much emphasis on students' needs, profile and level in developing teaching learning environment, use of technology occupied an important position in designing teaching learning environment. It is said that use of technology

leads to experiential learning. Which of the following examples illustrates the above statement?
a. A pictorial representation of Cell on a chart
b. A thermocole chart where parts of cell are cut and pasted at required time
c. Observing different living cells directly under the compound microscope
d. observing the slides of different cells under compound microscope

30. Computers occupie an important part of human life today. Any gadget that is being developed is fully automated by use of microchips. In the educational scenario also computers are being used for one or other purpose. In teaching learning environment it occupied a dominant role. For any need students' and teachers' refer to internet and WWW to clarify doubts. This is because –
a. Computers give more reliable information than any other media
b. Computers are sophisticated machines developed over a period of time to cater to the educational needs at all levels
c. Fully automated nature of machine and information processing skills make the information more accurate and believable.
d. Computer is the highly evolved technological device of all.

31. It is opined by some professionals even though lots of information is available on internet and World Wide Web, it is not reliable. Most of the times it is the general information about the topic. Research related findings are not made available for free access. The authenticity of author, publishing is not known and material on web pages continuously changes. So one cannot quote references from web sites simply providing URL address. Acceptable form is to quote date and time along with URL. Even then people use internet for surfing to access and use information to produce papers, research works etc. The reason is –
a. It is easy to copy and paste information from web pages
b. People feel boring to visit library for referencing
c. WWW is the reliable resource available in the immediate surrounding of the individual
d. Other sources of references are time consuming and costly

32. A student teacher decided to use different charts with pictures and notes to explain the lesson on struggle for independence in India. Class teacher who is supervising the lesson advised the student teacher to use a complete pictorial chart without notes or a leaf chart with all required information for better comprehension of students. The reason is –
a. Separate chart used will not help in clarity of concept
b. The aids suggested by supervisor will help in continuity of lesson and so in better understanding
c. It is easy to make a leaf chart than separate charts
d. Pictures alone are effective in arousing interest of students.

33. In today's technology dominated working environment, human beings are dependant on one or other kind of gadgets to do work. It is true for education system also, where several gadgets are being used to do academic and administrative work. When it is concerned with teaching and learning, still it is felt that integration is not there. Subject remains separated from technology. This is due to –
a. Teaching is an art
b. Teacher training programs are offering only technical knowhow related to technology
c. Various gadgets available now for teaching are not useful in integrating technology into teaching
d. Teaching and technology cannot be integrated

34. In a cosmopolitan school, a teacher always finds it difficult to teach lesson, even though it is an English medium school. On enquiry teacher found that students are not able to follow the lesson due to lack of parental support and lack of English language proficiency. What kind of technological support teacher can use to cope up with the situation?
    a. Teacher can adjust the level of teaching according to the level of students
    b. Teacher can take extra care in consultation with parents
    c. Teacher can expose students to web sites related to English language development
    d. All of the above