National Testing Agency

Question Paper Name:

Laboratory and Workshop Based Instruction and Learning 25th

March 2021 Shift 1

Subject Name: Laboratory and Workshop Based Instruction and Learning

Creation Date : 2021-03-25 13:44:15

Duration :180Number of Questions :100Total Marks :100Display Marks:Yes

Laboratory and Workshop Based Instruction and Learning

Group Number:

Group Id: 864351118

Group Maximum Duration:

Group Minimum Duration:

Show Attended Group?:

No
Edit Attended Group?:

No
Break time:

Group Marks:

100
Is this Group for Examiner?:

No

Laboratory and Workshop Based Instruction and Learning 1

Section Id: 864351528

Section Number:

Section type: Online

Mandatory or Optional: Mandatory

Number of Questions :100Number of Questions to be attempted :100Section Marks :100Mark As Answered Required? :YesSub-Section Number :1

Sub-Section Id: 864351570

Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 86435110193 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

To reduce the probability of accidents:

- 1. Use personal protective equipment
- 2. Practice the habit of accident prevention when possible,
- 3. Substitute a more hazardous chemical for a less hazardous one
- 4. All of the above

Options:

86435133007.1

86435133008. 2

86435133009.3

86435133010.4

Question Number: 2 Question Id: 86435110194 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The goal of teaching in laboratory classes is:

- 1. Desirable change in behavior and Psychomotor domain
- 2. To give information
- 3. To impart knowledge
- 4. To involve students in activities

Options:

86435133011.1

86435133012. 2

86435133013.3

86435133014.4

Question Number: 3 Question Id: 86435110195 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Which is not the advantage of cooperative learning in Laboratory and Workshop?

- 1. Better utilization of resources
- 2. Better planning
- 3. Better use of teaching techniques
- 4. Better financial benefits of teachers

Options:

86435133015.1

86435133016. 2

86435133017.3

86435133018.4

Question Number: 4 Question Id: 86435110196 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Activity in Laboratory and Workshop involves:

- 1. Physical action
- 2. Mental action
- 3. Physical and mental action
- 4. None of the above

Options:

86435133019.1

Question Number: 5 Question Id: 86435110197 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Students are passive in:

- 1. Project method of learning
- 2. Laboratory method of learning
- 3. Lecture method of learning
- 4. Inquiry method of learning

Options:

86435133023.1

86435133024. 2

86435133025.3

86435133026.4

Question Number: 6 Question Id: 86435110198 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

The label CORROSIVE on a chemical container indicates:

- 1. That contact with it destroys living tissue as well as equipment
- 2. That contact with it can destroy equipment
- 3. That the material is an oxidant
- 4. The material can degrade rapidly upon exposure to air

Options:

86435133027. 1

86435133028. 2

86435133029.3

Question Number: 7 Question Id: 86435110199 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Cooperative learning in Laboratory and Workshop is an alternative to:

- 1. Competitive models
- 2. Teaching models
- 3. Lesson plans
- 4. Micro teaching

Options:

86435133031.1

86435133032. 2

86435133033.3

86435133034.4

Question Number: 8 Question Id: 86435110200 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Practice in Laboratory classes is made in :

- 1. Inductive method
- 2. Deductive method
- 3. Discussion method
- 4. Drill method

Options:

86435133035.1

86435133036. 2

86435133037.3

Question Number: 9 Question Id: 86435110201 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Laboratory experiences can promote the students for :

- 1. Probem-solving abilities
- 2. Intellectual devlopment
- 3. Scientific thinking and Practical skills
- 4. All of the above

Options:

86435133039.1

86435133040.2

86435133041.3

86435133042.4

Question Number: 10 Question Id: 86435110202 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

In the flux control method for controlling the speed of a DC shunt motor, the speed is not possible :

- 1. Below normal rated speed
- 2. Above normal rated speed
- 3. Both (1) and (2)
- 4. None of the above

Options:

86435133043.1

86435133044. 2

86435133045.3

86435133046.4

Question Number: 11 Question Id: 86435110203 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Students like to spend the most of their time with:

- 1. Teachers
- 2. Parents
- 3. Relatives
- 4. Peers

Options:

86435133047. 1

86435133048. 2

86435133049.3

86435133050.4

Question Number: 12 Question Id: 86435110204 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

General guidelines for preventing accidents include:

- 1. Follow all safety instructions carefully
- 2. Never play tricks or indulge in horseplay in the chemical laboratory
- 3. Know where the safety equipment is
- 4. All of the above

Options:

86435133051.1

86435133052. 2

86435133053.3

86435133054.4

Question Number: 13 Question Id: 86435110205 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Ward-Leonard system is used for:

- 1. Very sensitive speed control
- 2. Wide range of speed control
- 3. Both (1) and (2)
- 4. None of the above

Options:

86435133055.1

86435133056. 2

86435133057.3

86435133058.4

Question Number: 14 Question Id: 86435110206 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Examples of Personal Protective Equipment does NOT include:

- 1. Long-sleeve shirts
- 2. Lab coats
- 3. Contact lenses
- 4. Goggles and long pants

Options:

86435133059. 1

86435133060.2

86435133061.3

86435133062.4

Question Number: 15 Question Id: 86435110207 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The number of students in cooperative learning groups in Laboratory is:

1.3 to 4

2.5 to 6

3.8 to 10

4. 10 to 15

Options:

86435133063.1

86435133064. 2

86435133065.3

86435133066.4

 $Question\ Number: 16\ Question\ Id: 86435110208\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

The basic purpose of a relay is to:

- 1. Detect the fault
- 2. Remove the fault
- 3. Trip the circuit
- 4. Both (1) and (2)

Options:

86435133067. 1

86435133068. 2

86435133069.3

86435133070.4

Question Number: 17 Question Id: 86435110209 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

What does MSDS stand for?

- 1. Material Safety and Density Sheets
- 2. Maternal Safety and Dada Sheets
- 3. Material Safety and Data Sheets
- 4. Material Security and Data Sheets

Options:

86435133071.1

86435133072. 2

86435133073.3

86435133074.4

Question Number: 18 Question Id: 86435110210 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Example of cognitive domain is:

- 1. Describe a topic of lab experiment
- 2. Develop a lab experiment
- 3. Type a letter
- 4. Take responsibility for tools to perform experiment

Options:

86435133075.1

86435133076. 2

86435133077.3

86435133078.4

 $Question\ Number: 19\ Question\ Id: 86435110211\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

The purpose of the evaluation is to make

- 1. Decision
- 2. Prediction
- 3. Judgement
- 4. Opinion

Options:

86435133079.1

86435133080. 2

86435133081.3

86435133082.4

Question Number: 20 Question Id: 86435110212 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

OSHA stands for

- 1. The Occupational Safety and Hazard Agency
- 2. Only Some Hazards are Actual
- 3. The Occupational Safety and Health Administration
- 4. The Occupational Safety and Health Agency

Options:

86435133083.1

86435133084. 2

86435133085.3

86435133086.4

Question Number: 21 Question Id: 86435110213 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Which one of the following types of shoes are recommended for general laboratory work?

- 1. Sandals
- 2. Cloth-topped "tennis" or "running" shoes
- 3. High heels
- 4. None of the above

Options:

86435133087. 1

86435133088. 2

86435133089.3

86435133090.4

Question Number: 22 Question Id: 86435110214 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Situation analysis is a component of which phase of evaluation?

- 1. Planning
- 2. Process
- 3. Product
- 4. All of the above

Options:

86435133091.1

86435133092. 2

86435133093.3

86435133094.4

Question Number: 23 Question Id: 86435110215 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Which one of the following domains of educational objectives entails physical abilities?

- 1. Cognitive domain
- 2. Affective domain
- 3. Psychomotor domain
- 4. All of the above

Options:

86435133095.1

86435133096. 2

86435133097.3

86435133098.4

Question Number: 24 Question Id: 86435110216 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Which one of the following should be a component of educational objectives?

- 1. Behaviour
- 2. Condition
- 3. Criterion
- 4. All of the above

Options:

86435133099. 1

86435133100.2

86435133101.3

86435133102.4

Question Number: 25 Question Id: 86435110217 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Instrument used for measuring a sample of behaviour is

- 1. Test
- 2. Measurement
- 3. Judgement
- 4. Opinion

Options:

86435133103.1

86435133104. 2

86435133105.3

86435133106.4

 $Question\ Number: 26\ Question\ Id: 86435110218\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

The purpose of the evaluation is to make a judgment about educational

- 1. Quantity
- 2. Quality
- 3. Time Period
- 4. Age

Options:

86435133107.1

86435133108. 2

86435133109.3

86435133110.4

Question Number: 27 Question Id: 86435110219 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Evaluation that is used to monitor during the learning process

- 1. Placement
- 2. Formative
- 3. Summative
- 4. Diagnostic

Options:

86435133111. 1

86435133112. 2

86435133113.3

86435133114.4

Question Number: 28 Question Id: 86435110220 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The ingredients of Alkali Iodide Azide solution are KOH, NaI

- 1. NaN₄
- 2. NaN₃
- 3. NaN₂
- 4. NaN

Options:

86435133115.1

86435133116. 2

86435133117. 3

86435133118.4

Question Number: 29 Question Id: 86435110221 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

A formal systematic procedure of getting information is

- 1. Assessment
- 2. Test
- 3. Measurement
- 4. Evaluation

Options:

86435133119.1

86435133120. 2

86435133121.3

86435133122. 4

Question Number: 30 Question Id: 86435110222 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Illness, headache, dizziness or nausea can keep you from paying full attention to what you are doing, and that could be dangerous. If you don't feel well:

- 1. Take two aspirin tablets
- 2. Tell the instructor
- 3. Keep your mind on the work
- 4. Take a break

Options:

86435133123.1

86435133124. 2

86435133125.3

86435133126.4

Question Number: 31 Question Id: 86435110223 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The purpose of formative evaluation is

- 1. To monitor the students' progress
- 2. Selecting students
- 3. Promoting next grade
- 4. Check final status

Options:

86435133127. 1

86435133128. 2

86435133129.3

86435133130.4

Question Number: 32 Question Id: 86435110224 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Cloth or leather gloves are appropriate:

- 1. When working with hazardous chemicals
- 2. When working around steam
- 3. Never in the laboratory
- 4. Never in the workshop

Options:

86435133131.1

86435133132. 2

86435133133.3

86435133134. 4

Question Number: 33 Question Id: 86435110225 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Visual learners learn more when information is presented like :

- 1. Visual displays in the form of pictures, diagrams and flow charts
- 2. Verbal illustrations
- 3. Facial expressions
- 4. All of the above

Options:

86435133135.1

86435133136. 2

86435133137.3

86435133138.4

Question Number: 34 Question Id: 86435110226 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Auditory learners learn best when they:

- 1. Listen to the teacher's verbal lectures and class discussions
- 2. Talking things through or explaining information to the others or listening to the others
- 3. Read text loudly or talk aloud to themselves when studying
- 4. All of the above

Options:

86435133139.1

86435133140. 2

86435133141. 3

86435133142. 4

Question Number: 35 Question Id: 86435110227 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The process of obtaining numerical value:

- 1. Assessment
- 2. Test
- 3. Measurement
- 4. Evaluation

Options:

86435133143. 1

86435133144. 2

86435133145.3

86435133146.4

 $Question\ Number: 36\ Question\ Id: 86435110228\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

A sample of water contains sodium chloride. It is:

- 1. Hard water
- 2. Soft water
- 3. Moderately hard
- 4. None of the above

Options:

86435133147. 1

86435133148. 2

86435133149.3

86435133150.4

Question Number: 37 Question Id: 86435110229 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

What should you ensure is present before the execution of laboratory activities?

- 1. Instruction Manual
- 2. Tools and Equipment
- 3. Consumables
- 4. All of the above

Options:

86435133151. 1

86435133152. 2

86435133153.3

86435133154. 4

Question Number: 38 Question Id: 86435110230 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Given below are two statements:

Statement 1: For proper conduct of the laboratory class, the faculty concerned and lab assistants or TAs should rehearse the procedure before the lab sessions as per the instruction manual and review the results.

Statement 2: The manual need not be followed strictly to identify potential issues or steps that might require extra time as per as the students are concerned.

Choose the **correct** answer from the options given below

- 1. Statement 1 is correct but Statement 2 is incorrect
- 2. Statement 1 is incorrect but Statement 2 is correct
- 3. Both of the statements are correct
- 4. None of the statements is correct

Options:

86435133155.1

86435133156. 2

86435133157.3

86435133158.4

Question Number: 39 Question Id: 86435110231 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

When working in the laboratory using machines and equipment, your attention should be directed to:

- 1. the job you are doing
- 2. the clock
- 3. the teacher
- 4. friends

Options:

86435133159.1

86435133160. 2

86435133161.3

86435133162.4

Question Number: 40 Question Id: 86435110232 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Identify the incorrect statement

- Time management is one of the most important components of planning laboratory activities
- 2. First Aid box should be available and kept in an easily accessible location
- 3. There should be a plan for proper disposal of waste material
- 4. The workplace should be cleaned once in a while

Options:

86435133163. 1

86435133164. 2

86435133165.3

86435133166.4

 $Question\ Number: 41\ Question\ Id: 86435110233\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

Whose responsibility is it to be aware of chemical hazards?

- 1. Anyone involved in work in a laboratory
- 2. The students, but only after being informed by a professor
- 3. Only the professor(s)
- 4. Only the laboratory assistant(s)

Options:

86435133167.1

86435133168. 2

86435133169.3

86435133170.4

Question Number: 42 Question Id: 86435110234 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Given below are two statements

Statement 1: The aim of a laboratory class is to acquaint the students with the practical aspects of the class.

Statement 2: The allotment of laboratory class should be done well in advance (at least one semester).

Choose the correct answer from the options given below

- 1. Statement 1 is correct but Statement 2 is incorrect
- 2. Statement 1 is incorrect but Statement 2 is correct
- 3. Both of the statements are correct
- 4. None of the statements is correct

Options:

86435133171.1

86435133172. 2

86435133173.3

86435133174.4

Question Number: 43 Question Id: 86435110235 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Water is hard when it contains:

- 1. Acid solution
- 2. Precipitate in suspension
- 3. Dissolved sodium salts
- 4. Dissolved Ca and Mg salts

Options:

86435133176. 2 86435133177. 3 86435133178. 4

Question Number: 44 Question Id: 86435110236 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Given below are two statements

Statement 1: You should be able to clearly state the primary goal of the laboratory work and how it relates to the theory and familiarize yourself with the experiments you will be conducting.

Statement 2: In experiment-wise planning one should only be familiar with the objectives.

Choose the correct answer from the options given below

- 1. Statement 1 is correct but Statement 2 is incorrect
- 2. Statement 1 is incorrect but Statement 2 is correct
- 3. Both of the statements are correct
- 4. None of the statements is correct

Options:

86435133179.1

86435133180. 2

86435133181.3

86435133182.4

Question Number: 45 Question Id: 86435110237 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The four routes by which toxic chemicals can enter the body include:

- 1. Inhalation, indigestion, transmission of bodily fluids, and interjection
- 2. Inhalation, ingestion, absorption, and injection
- 3. Inhalation, constipation, instigation, and investigation
- 4. Inhalation, ingestion, indigestion and interjection

Options:

86435133183. 1

86435133184. 2

86435133185.3

86435133186.4

Question Number: 46 Question Id: 86435110238 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Hearing protection should be worn:

- 1. When using loud power hand tools
- 2. Whenever you are in the same room with loud noises
- 3. When operating loud power equipment
- 4. All of the above

Options:

86435133187. 1

86435133188. 2

86435133189. 3

86435133190.4

Question Number: 47 Question Id: 86435110239 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Given below are two statements

Statement 1: Lab Tips are not mandatory to be prepared.

Statement 2: Time management is one of the most important components of planning laboratory activities.

Choose the correct answer from the options given below

- 1. Statement 1 and statement 2 are both correct and statement 2 is the reason of statement 1
- Statement 1 and statement 2 are both correct and statement 2 is not the reason of statement 1
- 3. Statement 1 is correct but Statement 2 is incorrect
- 4. Statement 1 is incorrect but Statement 2 is correct

Options:

86435133191.1

86435133192. 2

86435133193.3

86435133194.4

Question Number: 48 Question Id: 86435110240 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

The process of quantifying the degree to which someone or something possesses a given trait is called

- 1. Evaluation
- 2. Measurement
- 3. Assessment
- 4. Testing

Options:

86435133195.1

86435133196. 2

86435133197.3

86435133198.4

Question Number: 49 Question Id: 86435110241 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

To assess achievement at the end of the instructions is what kind of assessment?

- 1. Placement
- 2. Formative
- 3. Summative
- 4. Diagnostic

Options:

86435133199.1

86435133200.2

86435133201.3

86435133202.4

Question Number: 50 Question Id: 86435110242 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Which one of the following is NOT a method of determination of DO in water?

- 1. Winkler Method
- 2. Azide modification of Winkler Method
- 3. Precipitation titration Method
- 4. DO-meters

Options:

86435133203. 1

Question Number: 51 Question Id: 86435110243 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Performance tests are intended to measure

- 1. Attitudes
- 2. General intelligence
- 3. The process or product of an activity
- 4. Personality

Options:

86435133207.1

86435133208. 2

86435133209.3

86435133210.4

Question Number: 52 Question Id: 86435110244 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The scoring of student performance in work samples may be based on

- 1. Process evaluation
- 2. Product evaluation
- 3. The product and process of evaluation
- 4. All of the above

Options:

86435133211.1

86435133212. 2

86435133213.3

Question Number: 53 Question Id: 86435110245 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

_____ (N) Sodium thiosulphate Solution is used for the determination of DO

1. 0.035

2. 0.025

3. 0.026

4. 0.015

Options:

86435133215. 1

86435133216. 2

86435133217.3

86435133218.4

Question Number: 54 Question Id: 86435110246 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Which of the following are the objectives for process evaluation?

- 1. The act of performing is the main outcome, or there is no product
- 2. A diagnosis of the performance is needed to improve learning
- The performance is based on a collection of elements or series of steps that can be identified
- 4. All of the above

Options:

86435133219.1

86435133220. 2

86435133221.3

86435133222. 4

Question Number: 55 Question Id: 86435110247 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Which of the following are the objectives for product outcomes?

- 1. The product is the main outcome of the performance
- The product has identifiable characteristics that can be used in evaluating the quality of the product
- There is considerable variation in the process that can be used in producing the product, or the procedures are not observable to the instructor (e.g. out-of-class work)
- 4. All of the above

Options:

86435133223.1

86435133224. 2

86435133225.3

86435133226.4

Question Number: 56 Question Id: 86435110248 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Which one of the following Indicators is used for determination of total hardness?

- 1. Murexide Indicator
- 2. Potassium Chromate Indicator
- 3. Erichrome Black-T Indicator
- 4. Bromthymol Indicator

Options:

86435133227. 1

86435133228. 2

86435133229.3

Question Number: 57 Question Id: 86435110249 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The objectives for both process and product outcomes:

- Both the process and the product have identifiable elements that can be described and observed
- Learning is at an early stage and the product can be improved by correcting procedural errors
- Learning is at an early stage and the product can be improved by correcting procedural errors
- 4. All of the above

Options:

86435133231.1

86435133232. 2

86435133233.3

86435133234.4

Question Number: 58 Question Id: 86435110250 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Problem-based learning is

- 1. student-centered learning
- 2. inquiry-based learning
- 3. teacher-centered learning
- 4. Both (1) and (2)

Options:

86435133235. 1

86435133236. 2

86435133237.3

Question Number: 59 Question Id: 86435110251 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Advantages of PBL are

- 1. Group work
- 2. Leadership quality in a group and cooperation
- 3. Develop ethics and self-directed learning
- 4. All of the above

Options:

86435133239. 1

86435133240. 2

86435133241.3

86435133242.4

Question Number: 60 Question Id: 86435110252 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

_____ (N) EDTA Solution is used for the determination of Total Hardness

1.0.2

2. 0.01

3. 0.02

4. 0.1

Options:

86435133243. 1

86435133244. 2

86435133245.3

86435133246.4

Question Number: 61 Question Id: 86435110253 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The purpose of cooperative learning

- 1. More students actively learn
- 2. Students learn to help one another
- 3. Students-to-Students learning support
- 4. All of the above

Options:

86435133247. 1

86435133248. 2

86435133249.3

86435133250.4

Question Number: 62 Question Id: 86435110254 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The precipitate formed after the addition of MnSO₄ and Alkali azide is _____.

- 1. Manganese hydroxide
- 2. Sodium sulphate
- 3. Potassium sulphate
- 4. Manganese oxide

Options:

86435133251.1

86435133252. 2

86435133253.3

86435133254. 4

Question Number: 63 Question Id: 86435110255 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Checklist(s) can be used for

- 1. Process evaluation
- 2. Product evaluation
- 3. Both (1) and (2)
- 4. Neither (1) nor (2)

Options:

86435133255.1

86435133256. 2

86435133257.3

86435133258.4

Question Number: 64 Question Id: 86435110256 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The sample obtained for testing Dissolved Oxygen can be preserved by

- 1. adding the reagents and storing at 10-20 °C for up to 8 hours
- 2. storing at room temperature for up to 24 hours
- 3. storing at 0°C for up to 24 hours
- 4. adding the reagents and storing at room temperature for up to 24 hours

Options:

86435133259.1

86435133260. 2

86435133261.3

86435133262. 4

Question Number: 65 Question Id: 86435110257 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Which of the following tools is/are used to evaluate psychomotor skills and attitude?

- 1. Checklists
- 2. Ratings scale
- 3. Rubric
- 4. All of the above

Options:

86435133263.1

86435133264. 2

86435133265.3

86435133266, 4

Question Number: 66 Question Id: 86435110258 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Outcomes that can be assessed using laboratory work include

- 1. Technical and manipulative skills in using laboratory equipment, tools and materials
- An understanding of laboratory procedures, including health and safety, and scientific methods
- A deeper understanding of abstract concepts and theories gained by experiencing and visualizing them as authentic phenomena
- 4. All of the above

Options:

86435133267. 1

86435133268. 2

86435133269.3

86435133270.4

Question Number: 67 Question Id: 86435110259 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Permanent hardness in water is caused by the presence of:

- 1. Calcium chloride
- 2. Magnesium sulphate
- 3. Both (1) & (2)
- 4. None of the above

Options:

86435133271.1

86435133272. 2

86435133273.3

86435133274.4

Question Number: 68 Question Id: 86435110260 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

In the laboratory work, we assess

- The effectiveness of the procedure used (e.g. speech making, laboratory skills, motor or physical skills)
- 2. The product resulting from the performance (e.g. theme, graph, wood product).
- 3. Both the procedure (e.g. correct form in typing) and the product (e.g. typed letter) to obtain a complete assessment of the performance skill.
- 4. All of the above

Options:

86435133275.1

86435133276. 2

86435133277.3

86435133278.4

Question Number: 69 Question Id: 86435110261 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

The speed of DC shunt motors are controlled by

- 1. Flux control method
- 2. Armature voltage control method
- 3. Rheostatic control method
- 4. All of the above

Options:

86435133279.1

86435133280. 2

86435133281.3

86435133282. 4

Question Number: 70 Question Id: 86435110262 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

A chemical which can simultaneously act as a coagulant and softening agent is:

- 1. Alum
- 2. Soda
- 3. Sodium aluminate
- 4. Lime

Options:

86435133283.1

86435133284. 2

86435133285.3

86435133286. 4

Question Number: 71 Question Id: 86435110263 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

An example of psychomotor domain is that the student

- 1. demonstrates awareness of environment pollution
- 2. performs an experiment
- 3. can narrate a story
- 4. can compare results of two experiments

Options:

86435133287. 1

86435133288. 2

86435133289.3

86435133290.4

Question Number: 72 Question Id: 86435110264 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Which one of the following is NOT true about Laboratory experiments based projects?

- 1. It is a purposeful activity
- 2. It is conducted in a social environment
- 3. It is accomplished in real life
- 4. It is a teacher-centred activity

Options:

86435133291.1

86435133292. 2

86435133293.3

86435133294. 4

Question Number: 73 Question Id: 86435110265 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Intensive practice session with the laboratory supporting staff is required to

- 1. Assess the probable time requirement for each experiment
- To avoid consulting a senior member of the faculty or the laboratory coordinator / technician in case of any hesitation regarding the procedure of an experiment.
- 3. Both (1) and (2)
- 4. None of the above

Options:

86435133295.1

86435133296, 2

86435133297. 3

86435133298.4

Question Number: 74 Question Id: 86435110266 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

How does solubility of oxygen in water change with respect to temperature?

- 1. It decreases with increase in temperature
- 2. It increases with increase in temperature
- 3. It decreases with decrease in temperature
- 4. It does not depend on temperature

Options:

86435133299.1

86435133300.2

86435133301.3

86435133302.4

Question Number: 75 Question Id: 86435110267 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Statement 1: In the laboratory, students get the chance to assimilate theoretical knowledge acquired in lecture classes with practical applications.

Statement 2: Laboratory helps the students to understand theory by observing and verifying concepts

Choose the correct answer from the options given below

- 1. Statement 1 and statement 2 are both correct and statement 2 is the reason of statement 1
- Statement 1 and statement 2 are both correct and statement 2 is not the reason of statement 1
- 3. Statement 1 is correct but Statement 2 is incorrect
- 4. Statement 1 is incorrect but Statement 2 is correct

Options:

86435133303.1

86435133304. 2

86435133305.3

86435133306.4

 $Question\ Number: 76\ Question\ Id: 86435110268\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

Planning can be broadly classified into the following phases

- 1. Overall planning
- 2. Experiment wise planning
- 3. Time wise planning
- 4. Both (1) and (2)

Options:

86435133307.1

86435133308. 2

86435133309.3

86435133310.4

Question Number: 77 Question Id: 86435110269 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Before under taking any demonstration or conducting of any laboratory class, practice sessions are

- 1. Mandatory part of planning
- 2. Optional part of planning
- 3. Not required at all
- 4. None of the given options is correct

Options:

86435133311.1

86435133312. 2

86435133313.3

86435133314.4

 $Question\ Number: 78\ Question\ Id: 86435110270\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

A brief overview of the class should be prepared for:

- 1. Some specific experiments
- 2. Only for lengthy and complex experiments
- 3. Each experiment
- 4. Not required for any experiment

Options:

86435133315. 1

86435133316. 2

86435133317.3

86435133318.4

Question Number: 79 Question Id: 86435110271 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Given below are two statements

Statement 1: Demonstration means 'to show'

Statement 2: Demonstration involves a description and explanation of a concept, without performing an experiment.

Choose the correct answer from the options given below

- 1. Statement 1 is correct but Statement 2 is incorrect
- 2. Statement 1 is incorrect but Statement 2 is correct
- 3. Both of the statements are correct
- 4. None of the statements is correct

Options:

86435133319.1

86435133320. 2

86435133321.3

86435133322. 4

Question Number: 80 Question Id: 86435110272 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

When a certain portion of armature current is diverted through the diverter resistance, the speed of the DC series motor

- 1. Increases
- 2. Decreases
- 3. Remains the same
- 4. None of the above

Options:

86435133323. 1

86435133324. 2

86435133325.3

86435133326.4

Question Number: 81 Question Id: 86435110273 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

If a resistance is added in series with the field winding of DC shunt motor, then its

- 1. Speed decreases and Torque increases
- 2. Speed increases and Torque decreases
- 3. Both Speed and Torque decreases
- 4. Both Speed and Torque increases

Options:

86435133327. 1

86435133328.2

86435133329.3

86435133330.4

Question Number: 82 Question Id: 86435110274 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

An over current relay having a current setting of 150% is connected through a 400/5 CT. The pick up value of current is

1.10 A

2.7.5 A

3. 5A

4. 2.5 A

Options:

86435133331.1

86435133332. 2

86435133333.3

86435133334.4

 $Question\ Number: 83\ Question\ Id: 86435110275\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ Shuffling: No\ Sh$

Correct Marks: 1 Wrong Marks: 0

The desired quality in a fuse is

- 1. High conductivity
- 2. Low conductivity
- 3. High melting point
- 4. High conductivity and low melting point

Options:

86435133335. 1

86435133336.2

86435133337.3

86435133338.4

Question Number: 84 Question Id: 86435110276 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The polarity test ensures to the user that verification of polarity in an installation is to ensure that

- 1. The fuses and the single pole switches are connected in the phase wire
- 2. The fuses and the single pole switches are connected in the neutral wire
- 3. The fuses are connected in the phase wire and the single pole switches are connected in the neutral wire
- The fuses are connected in the neutral wire and the single pole switches are connected in the phase wire

Options:

86435133339. 1

86435133340. 2

86435133341.3

86435133342.4

Question Number: 85 Question Id: 86435110277 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

During continuity test in an installation of house wiring, the megger indicated reading is

- 1. Zero mega ohms
- 2. 1 mega ohms
- 3. 100 mega ohms
- 4. 500 mega ohms

Options:

86435133343. 1

86435133344. 2

86435133345.3

Question Number: 86 Question Id: 86435110278 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

In armature voltage control method of speed control of a DC shunt motor, a variable resistance is

- 1. Added in series with the field winding
- 2. Added in series with the armature winding
- 3. Connected across armature
- 4. Both in series with armature and field winding

Options:

86435133347. 1

86435133348. 2

86435133349.3

86435133350.4

Question Number: 87 Question Id: 86435110279 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

To estimate the materials and cable required for house wiring which one of the following are required?

- 1. Wiring diagram and Circuit diagram
- 2. Laying diagram and Wiring diagram
- 3. Installation plan and Circuit diagram
- 4. Wiring diagram only

Options:

86435133351.1

86435133352. 2

86435133353.3

Question Number: 88 Question Id: 86435110280 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

In house wiring, a stair case point is operated with

- 1. Two-one-way switches
- 2. Two pair one-way switches
- 3. Two two-way switches
- 4. Two intermediate switches

Options:

86435133355.1

86435133356. 2

86435133357.3

86435133358.4

Question Number: 89 Question Id: 86435110281 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

A Power System contains two relays of 5VA and 10 VA. Which one of the following is correct about the sensitivity of relays?

- 1. 5VA Relay is more sensitive than 10 VA relay
- 2. 10VA Relay is more sensitive than 5VA relay
- 3. Both relays are equally sensitive
- 4. None of the above

Options:

86435133359. 1

86435133360.2

86435133361.3

86435133362.4

Question Number: 90 Question Id: 86435110282 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Plug-setting multiplier is defined as the ratio of

- 1. Fault current in relay coil/Pick-up current
- 2. Pick-up current/Fault current in relay coil
- 3. Fault current in relay coil/Transformer secondary coil
- 4. Transformer secondary coil/Fault current in relay coil

Options:

86435133363. 1

86435133364. 2

86435133365.3

86435133366.4

Question Number: 91 Question Id: 86435110283 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Given below are two statements

Statement 1: Consistency of fine-grained soils changes with varying moisture contents.

Statement 2: This happens due to the presence of absorbed water in the clay particles.

Choose the correct option from the options given below

- 1. Statement 1 and statement 2 is correct but statement 2 is the reason of statement 1
- 2. Statement 1 and statement 2 is correct but statement 2 is not the reason of statement 1
- 3. Statement 1 is correct but statement 2 is incorrect
- 4. Statement 1 is incorrect but statement 2 is correct

Options:

86435133367.1

86435133368. 2

Question Number: 92 Question Id: 86435110284 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Given below are two statements

Statement 1: Consistency varies with the water content of the soil

Statement 2: Liquid limit (WL) is the moisture content where the soil changes from a semisolid to a plastic (flexible) state

Choose the correct answer from the options given below

- 1. Statement 1 and statement 2 is correct but statement 2 is the reason of statement 1
- 2. Statement 1 and statement 2 is correct but statement 2 is not the reason of statement 1
- 3. Statement 1 is correct but statement 2 is incorrect
- 4. Statement 1 is correct but statement 2 is incorrect

Options:

86435133371.1

86435133372. 2

86435133373.3

86435133374.4

Question Number: 93 Question Id: 86435110285 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

The moisture content where the soil volume will NOT reduce further if the moisture content is reduced is called the

- 1. Plastic limit
- 2. Shrinkage limit
- 3. Liquid limit
- 4. Optimum moisture content

Options:

86435133375. 1

86435133376. 2

86435133377.3

86435133378. 4

Question Number: 94 Question Id: 86435110286 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Statement 1: The liquid limit (w_L) is arbitrarily defined as the water content, in percent, at which a pat of soil in a standard cup and cut by a groove of standard dimensions will flow together at the base of the groove for a distance of 1/4 in. when subjected to 25 shocks from the cup being dropped 10 mm in a standard liquid limit apparatus operated at a rate of two shocks per second.

Statement 2: As per precaution, ensure that the thickness of soil at the deepest point is 25mm

Choose the correct answer from the options given below

- 1. Statement 1 is correct but statement 2 is incorrect
- 2. Statement 1 is incorrect but statement 2 is correct
- 3. Both the statements are correct
- 4. Both the statements are incorrect

Options:

86435133379. 1

86435133380. 2

86435133381.3

86435133382.4

Question Number: 95 Question Id: 86435110287 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

As per IS code, the water content of each of the liquid limit moisture cans should be calculated after they have been in the oven for at least

- 1. 16 hours
- 2. 12 hours
- 3. 20 hours
- 4. 24 hours

Options:

86435133383. 1

86435133384. 2

86435133385.3

86435133386.4

Question Number: 96 Question Id: 86435110288 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Correct Marks: 1 Wrong Marks: 0

Fill in the blank

California Bearing Ratio is the ratio of force per unit area required to penetrate a soil mass with a cylindrical plunger of __ mm diameter at the rate of 1.25mm/min to that required for corresponding penetration of a standard material

- 1.75
- 2.50
- 3.25
- 4.100

Options:

86435133387. 1

86435133388. 2

86435133389.3

Question Number: 97 Question Id: 86435110289 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No Correct Marks: 1 Wrong Marks: 0

Fill in the blank

Where the ratio for 5.0 mm penetration is consistently more than 2.5 mm penetration, the ratio for _mm penetration is used.

- 1.5
- 2. 2.5
- 3.4
- 4. Both 1 and 2

Options:

86435133391.1

86435133392. 2

86435133393.3

86435133394.4

Question Number: 98 Question Id: 86435110290 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Statement 1: CBR test can only be performed on an undisturbed soil sample

Statement 2: Generally, the test is conducted at maximum dry density

Choose the correct answer from the options given below

- 1. Statement 1 is correct but statement 2 is incorrect
- 2. Statement 1 is incorrect but statement 2 is correct
- 3. Both of the statements are correct
- 4. Both of the statements are incorrect

Options:

86435133395. 1

86435133396. 2

86435133397.3

86435133398.4

Question Number: 99 Question Id: 86435110291 Question Type: MCQ Option Shuffling: No Is Question Mandatory: No

Statement 1: Standard loads for 2.5 and 5.0mm penetration are 1370 and 2055 kg respectively.

Statement 2: If the curve is convex downward, then a correction is to be applied

Choose the correct answer from the options given below

- 1. Statement 1 is correct but statement 2 is incorrect
- 2. Statement 1 is incorrect but statement 2 is correct
- 3. Both of the statements are correct
- 4. Both of the statements are incorrect

Options:

86435133399. 1

86435133400.2

86435133401.3

86435133402.4

 $Question\ Number: 100\ Question\ Id: 86435110292\ Question\ Type: MCQ\ Option\ Shuffling: No\ Is\ Question\ Mandatory: No\ And Mandatory: No\ MCQ\ Option\ Shuffling: No\ No\ MCQ\ Option\ Shuffling$

Correct Marks: 1 Wrong Marks: 0

To find out compressive strength of cement, as per IS code, the side of cube mould is of

- 1. 5.06 cm
- 2. 7.06 cm
- 3. 9.05 cm
- 4. 15.0 cm

Options:

86435133403. 1

86435133405.3