

Question Bank (I-scheme)

Name of subject: Emerging Trend in Mechanical Engg.

Unit Test: II

Subject code: 22652

Course: ME6I

Semester: VI

Chapter 4: Energy Audit and Management

4.1 Standards and Labelling

- 1) Energy audit is a kind of scientific management method of
 - a) Energy
 - ~~b) Power~~
 - c) Force
 - d) Fuel
- 2) Energy audit is conducted by.....
 - a) government
 - b) Company
 - c) Energy utilization unit
 - ~~d) Auditor~~
- 3) Energy audit refers to the.....
 - a) Inspecting
 - b) Examining
 - c) Analyzing
 - ~~d) All of the above~~
- 4) The targets of energy audit are....
 - a) Investigating problem
 - b) Rectifying problem
 - ~~c) Analyzing problem~~
 - d) None of the above
- 5) The ultimate aim of energy audit is to encourage enterprises to.....
 - a) Save energy
 - b) Reduce production cost
 - c) Increase economic benefit
 - ~~d) All of the above~~
- 6) During an audit and expert examines the facility for....
 - ~~a) Energy leakage~~
 - b) Reduction
 - c) Energy conservation
 - d) None of the above
- 7) Energy audit is an assessment of.....
 - ~~a) How much energy a facility consumes~~
 - b) How much money of facility consumes
 - c) Cost of the facility
 - d) Size of the facility

- 8) According to..... “energy audit” means verification, monitoring, analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption.
- ~~a) Energy conservation act 2001~~
 - b) Industrial act 1946
 - c) Factory act 1947
 - d) none of act
- 9) Energy audit can also save you significant amount of money by.....
- ~~a) Maximum energy efficiency~~
 - b) Minimum energy efficiency
 - c) None of the above
 - d) All of the above
- 10) The strategy of adjusting and optimising energy using systems and procedures so as to reduce energy requirements per unit of output while holding constant or reducing total cost of producing the output from the systems is.....
- a) Energy Management
 - b) Energy audit
 - ~~c) Energy utilisation~~
 - d) Energy wastage
11. The fundamental goal of energy management is to _____
- ~~A. Produce goods and provide services with least cost and least environmental effects~~
 - B. Produce goods and provide services with more cost and more environmental effects
 - C. Produce goods and provide services with No cost and no environmental effects
 - D. All of the above
12. Definition of energy management given by Capehart, Turner and Kennedy is _____
- ~~A. The judicious and effective use of energy to maximize profits and enhance competitive position.~~
 - B. The judicious and effective use of energy to minimize profits and enhance competitive position.
 - C. The systematic approach for decision making in area of energy management.
 - D. All of the above
13. The objective of energy management is _____
- A. To achieve and maintain optimum energy procurement and utilization throughout the organization
 - B. To minimize the energy cost without affecting production and quality
 - C. To minimize the environmental effects
 - ~~D. All of the above~~
14. Energy savings is not the driving force when companies decide to purchase _____
- ~~A. New equipment~~
 - B. New resources
 - C. New technologies
 - D. New low tech materials
15. The systematic approach for decision making in area of energy management is _____
- A. Energy audit
 - ~~B. Energy savings~~
 - C. Energy effect
 - D. All of the above
16. The form of implementing the new energy efficiency technologies, new materials and new manufacturing process is _____

- ~~A. Energy management~~ C. Energy savings
 B. Energy audit D. All of the above
17. The major inputs for the economic development of any country is ____
- A. Energy ~~C. Energy management~~
 B. Energy audit D. Energy saving
18. To balance the total energy inputs with its use which , serves to identify all the energy streams in a faculty is __
- A. Energy management C. Energy saving
~~B. Energy audit~~ D. Energy
19. In the case of developing country which sector assumes a critical importance in view of the ever increasing needs
- A. Energy sector C. Energy audit sector
 B. Energy management sector ~~D. Energy saving sector~~
- 20 .The ultimate aim to encourage the enterprise to save the energy , reduce the production cost and increase economic benefits is ____
- A. Energy audit ~~C. Energy saving~~
 B. Energy management D. Energy
21. Full form of BEE
- ~~a. Bureau of energy efficient~~
 b. Basic electrical and electronics
 c. Basic thermal engineering
 d. None of the above.
22. BEE under the provisions of the act ____.
- A. 2000 ~~C) 2001~~
 B. 2002 D) 1999
23. The standards and labeling scheme lunched in ____
- ~~A) may 2006~~ C) march 2006
 B) Feb 2005 D) June 2006
24. A star rating, ranging from _____ in the asending order of energy efficiency.
- A) 1 to 4. ~~C) 1 to 5~~
 B) 1 to 6. D) 1 to 10
25. The informative labels affixed ____.
- ~~A) Product.~~ C) equipment
 B) tool. D) machine .
26. _____ has been formulated by Bureau of energy efficient.
- ~~A) star labeling program.~~ B) computer program
 C) ranking program. D) None of the above.
27. BEE is under of ministry of ____.
- A) health. B) defense
~~C) power.~~ D) all of the above.
28. HVAC stands for ____.
- ~~A) heating, ventilation, air conditioning~~
 B) height, velocity ,area
 C) all of the above.
 D) None of the above.

29. The Prohibit manufacturers sale and import such equipment _____.
- A) which is confirm to the standard ~~B) which does not conform to the standard~~
 C) which is rejected. D) None of the above.
30. S&L stands for _____.
- A) sale and lost. ~~B) standard and labeling.~~
 C) None of the above. D) All of the above.
31. _____ is a level of quality or attainment.
- ~~A) Standards~~ C) monitoring energy
 B) Labels D) none of the above
32. _____ mainly give consumers the necessary information to make informed purchase.
- A) Energy management ~~C) label~~
 B) Standards D) energy efficiency
33. The full form of MEPS
- ~~A) Minimum energy protection standards~~ C) minimum energy policies standard
 B) Minimum energy performance standards D) minimum efficiency performance standards
34. The ratio of the total amount of heat that equipment can remove from the indoors to travel and amount of energy consumed by the equipment is known as
- A) Energy performance ratio (EPR). ~~C) Energy efficiency RATIO (EER).~~
 B) Energy consumption ratio (ECR). D) None of the above
35. In power saving guides "more stars more savings".
- ~~A) True~~ B) false
36. _____ is the minimum EER for 5-star in India in 2019.
- ~~A) 4.50~~ C) 4.00
 B) 7.10 D) 4.49
37. What is the full form of BEE?
- A) Basic electrical and electronics. ~~C) Bureau of energy efficiency.~~
 B) Bureau of energy equipment. D) all of the above.
38. In power saving guide efficiency parameter is mention.
- ~~A) True~~ B) false
39. Allow consumer to compare the energy consumption of similar products and factor life time running cost into their purchasing decision is called as
- ~~A) Comparative label~~ C) category label
 B) Endorsement label D) none of the above
40. Provide a certification to inform prospective purchasers that the product is highly energy efficient for its category is known as.
- A) Comparative label C) category label
~~B) Endorsement label~~ D) none of the above
41. One time registration fee of rupees 1,00,000 for large-scale and Rs _____ for small scale industry.
- A. 30,000 C. 15,000
~~B. 25,000~~ D. 28,000
42. S.S.I. stands for _____
- ~~A. Small scale industry~~ C. Scanner scale industry
 B. Scalar scale industry D. None of the above
43. Quality management system certificate has _____
- ~~A. ISO 9001.~~ C. ISO 9005
 B. ISO 9004. D. ISO 9006

44. S.S.I certificate is provided to _____ industry.
 A. Large scale. ~~C. Small scale~~
 B. Medium scale. D. All of these
45. Agreement between BEE and user of label should be done on ₹ 100 _____ stamp paper.
 A. Judicial stamp paper. C. Court fee stamp paper
~~B. Non judicial paper~~ D. Normal fee paper
46. For each product under S&L scheme, BEE should upload the information on the _____ web portal
~~A. Government~~ C. S&L web portal
 B. Small scale web D. Private portal
47. The Bureau initiated the standard and labeling program from ____
~~A. 2006~~ C. 2009
 B. 2008. D. 2010
48. The registration for BEE is done in _____ stage
~~A. Three stage.~~ C. Four stage
 B. Two stage. D. Single stage
49. The models applied to BEE should highlighted in the endorsement _____ sheet
 A. Endorsement C. Blank
 B. General. D. None of above
50. Labelling on the induction motor is voluntary
~~A. True~~
 B. False
51. are provided to the major kind of appliances in the form of labels.
 A) Graphic data. ~~C) star rating~~
 B) Star labeling. D) all of the above.
52. Star rating are given out of
- A) 3. C) 4
~~B) 5.~~ D) 6.
53. The manufacturer are officially required to put this label as per the standards and labelling program introduce in.....
- A) 2004. C) 2005
~~B) 2006.~~ D) 2007
54. Prime importance of star rating is to consumer about how the energy efficient each product is.
- A) Educate. C) Inform
 B) Indicate. ~~D) Educate and inform.~~
55. BEE (in star rating) stand for.
- A) Bureau of Earth Efficiency . C) Bicycle energy expenditure
~~B) Bureau of Energy Efficiency .~~ D) Bureau of Energy Expenditure
56. BEE star rating is solely based on appliance's power
- ~~A) Consumption.~~ C) Delivery.
 B) Recovery. D) Rejection.
57. Appliances need to have BEE star rating label are.....
- ~~A) Frost free refrigerator.~~ ~~C) Color TV~~
~~B) Distribution Transformer.~~ D) All of the above.
58. Types of scale used in BEE star rating labels.
- ~~A) Small.~~ ~~C) Big.~~
~~B) Both A and C.~~ D) None of the above

59. Small label can be found in plants which usually don't consume energy.
- ~~A) Less.~~ C) More
B) Medium. D) None of the above
60. Follow product has big label.
- A) Ceiling fan. C) Tubelight
B) Computer. ~~D) Refrigerator~~
61. Higher the number stars, EER or efficiency will be.
- ~~A. Greater~~ C. Lesser
B. Moderate D. None of the above
62. EER in BTU/HR/W = _____ X EER in W/W
- A. 3.410 C. 3.411
B. 3.412 ~~D. 3.413~~
63. Full form of EER is _____
- A. Energy Electric Ratio ~~C. Energy Efficiency Ratio~~
B. Energy Effective Ratio D. Energy Electron Ratio
64. Full form of BEE is _____
- A. Basic Electronics and Engineering ~~C. Bureau of Electric Energy~~
B. Bureau of Electric Efficiency D. Bureau of Energy Efficiency
65. Energy Efficiency Ratio is Equal
- ~~A. Cooling Capacity (W) + Power consumption (W)~~
B. Cooling Capacity (W) - Power consumption (W)
C. Cooling Capacity (W) / Power consumption (W)
D. Cooling Capacity (W) X Power consumption (W)
66. Total number of stars is limited to ____ for all ACs
- A. 5 ~~C.4~~
B. 6 D.7
67. Number of stars in Red background indicates _____
- A. The rating granted to that shop
B. The rating granted to that company
C. The rating granted to that particular model
D. The rating granted to that group
68. Full form of COP is
- A. Coefficient of Pressure
~~B. Coefficient of performance~~
C. Coefficient of program
D. None of the above
69. Full form of ISEER is _____
- A. Indian seasonal electric efficiency ratio
B. Indian seasonal efficiency energy ratio
C. International seasonal efficiency energy ratio
~~D. Indian seasonal energy efficiency ratio~~
70. Power saving guide label is stickled on _____
- A. Internal parts of AC C. On condenser and compressor
~~B. External cover of AC~~ D. On back cover of AC
71. If we take the numder above, we can see that with increase of energy star rating there is a possibility of saving up to _____.
- ~~a) 14%~~ c) 15-20%

- b) 35% d) 30%

72. In comparison an inverter tech AC being flexible tonnage AC can save more over _____ star AC.

- a) BEE3 c) BEE1
~~b) BEE5~~ d) BEE4

73. In inverter tech AC some manufactures claim up to saving _____.

- a) 50% ~~c) 60%~~
b) 20% d) 80%

74. Inverter tech AC if usage of AC is more than 1000 hour in a year and per unit cost of electricity is more than rs _____ per unit.

- a) 10 ~~c) 5~~
b) 7 d) 4

75. You may recover the incremental capital cost used to purchase a _____ air conditioner.

- a) Lower star ~~c) Higher star~~
b) Higher power d) Lower power

76. 5Star air conditioner will provide the same amount of colling using _____ power than 1 star air conditioner of same tonnage.

- a) Lesser ~~c) more~~
b) Equal d) all of the above

77. Star rating are provided to all the major kind of appliance in the form of _____.

- ~~a) Label~~ c) stamp
b) Punching d) sticker

78. Inverter technology AC cost further.

- ~~a) More~~ c) less
b) Equal d) all of the above

79. product on which labeling is voluntary.

- ~~A. LPG stoves~~ ~~C. laptops~~
~~B. Ballast~~ ~~D. All of above~~

80. How many stages of application for registration?

- A. only one ~~C. two~~
B. five D. four

81. Which are the following stages of registration?

- a) Company registration
b) Product registration
c) Model registration
d) Symbol registration

- A. a) and b) ~~C. b) and c)~~
B. a) and c) D. a) and d)

82. Each and every document submitted to BEE must beand

- A. verified and authorized C. sign and stamp
B. registered and uploaded D. verified and uploaded

83. documents are not accepted as per general guideline of company registration.

- A. without proper filling and loosing C. folded or improper
B. Both A and B D. None of above

84. Covering letter include.....

- A. Annexure 1A and 2A C. Annexure 1 and report
~~B. Annexure 1 and 2~~ D. None of above

85. One time company registration fee for large scale industry is Rs.....

A. 150000

~~C. 100000~~

B. 50000

D. 75000

86. Company registration fee for small scale industry is Rs

A. 10000

C. 15000

~~B. 25000~~

D. 20000

87. Name of the user of label include in Certificate.

~~A. Tread mark~~

B. SSI

C. BIS

D. None of above

88. If small scale industry applying for registration first time requiredcertificate

A. BIS

~~B. SSI~~

C. Both A and B

D. None of above

89. The applications of S&L scheme are _____.

a) Procedure for obtaining a label

b) Financial obligations involved

c) Frost free refrigerator

~~d) Model registration~~

90. The following are the types of labels.

~~a) Comparative label~~

b) Brand label

b) Descriptive label

d) Grade label

91. _____ are the function of a label.

a) Well defined test protocols

b) Target limits on energy performance

b) Disseminate information on the benefits to consumers d) Describes energy performance

92. Products on which labeling is voluntary are

~~a) Electric geysers~~

~~b) Induction motors~~

~~b) Ceiling fans~~

~~d) All of the above~~

93. The meaning of standard are

a) Target limits on energy performance

b) Well defined test protocols to obtain a sufficiently accurate estimate

~~c) Both are correct~~

d) Both are wrong

95. The effectiveness of energy labels depend upon what factors?

a) How they present information to consumer

b) How they are supported by information to the consumer

c) How they are supported by information campaigns

~~d) All of the above~~

96. Energy labels can be used _____

a) Efficiently

~~b) Effectively~~

b) Stand alone

d) None of the above

97. The function of comparative label is _____

~~a) Allow consumers to compare the energy consumption of similar products~~

b) Provide a certification to inform prospective purchasers

c) Gives necessary information

d) Target limits on energy performance

98. Function of endorsement label is _____.

a) Gives necessary information

b) Target limits on energy performance

c) Allow consumers to compare the energy consumption of similar products

- a. 1 < to 5
- b. 1 to 5 >

- c. 1 to 5
- d. None of the above

129. Higher the number of stars, _____ will be the efficiency or EER

- a) Lesser
- b) Likewise
- c) Greater
- e) average

130. We have defined EER by

- a) BTU/hr/W
- b) BTU/sec/W
- c) BTU/min/W
- d) BTU/hr/V

131. EER in BTU/hr/W =

- a) 3.222 * EER in W/W
- b) 3.234 * EER in W/W
- c) 3.413 * EER in W/W
- d) 3.400 * EER in W/W

132. A 5 star AC in the previous year may become a _____ AC the next year after revision of rating takes place.

- a) 5 star
- b) 7 star
- c) 3 star
- d) 10 star

133. Factor apart from cost that determines the selection of an AC is

- a) It's appearance
- b) It's type
- c) Power saving guide label
- d) it's durability

134. BEE Energy efficiency ratings are based on

- a) Savings in cost
- b) Savings in input
- c) savings in electricity consumption
- d) savings in machinery

135. Small labels can be found in appliances which usually

- a) Don't consume more energy
- b) Don't consume less energy
- c) don't have higher cost
- d) don't have high maintenance

136. Products with big label are

- a) Refrigerator
- b) Washing machine
- c) AC
- d) all of above

137. Big label helps to calculate actual money to be spent on

- a) Maintenance bills
- b) Repairing
- c) Electricity bills
- d) None of above

138. Labels show information such as

- a) Brand name
- b) Energy consumption of the product
- c) product category
- d) All of above

139. _____ is the system to reduce the amount of energy input into the system without negatively affecting the output.

- A) Energy Management.
- B) Energy audit.
- C) ISEER.
- D) Energy monitoring.

140. Energy audit is the first step towards systematic effort for _____.

- a) Realting energy inputs and production.
- b) Reducing the amount of energy input.
- c) Conversation of energy.
- d) None of the above.

141. Correct objectives of energy audit-

- a) Identifying the quality and cost of various energy inputs.
- b) Relating energy inputs and production output
- c) Highlighting wastage in major areas.
- d) All of the above.

142. The PEA is the first step in implementing an energy conversation programme, and consists of essentially collecting and analyzing data.

- A. True.
 - B. False.
154. The label which allows consumer to compare the energy consumption of similar products and factor lifetime running cost into their purchasing decisions.
- A. Comparative label.
 - B. Endorsement label.
 - C) Standard label.
 - D) None of the above.
155. The label which provides a certification to inform prospective purchasers that the product is highly energy efficient for its category.
- A. Standard label.
 - B. Comparative label.
 - C. Endorsement label.
 - D. None of the above.
156. State whether the Diesel Engine Driven Monoset Pumps for agricultural purposes have been notified under the voluntary labelling.
- A. True.
 - B. False.
157. The Model Registration fee for each model is _____ & payment can be made through ____.
- A. 1500rs & only bank DD.
 - B. 1000rs & bank DD or through online.
 - C. 10,000rs & only through online.
 - D. None of the above.

4.2 ENERGY MOUNTING AND TARGETING

1. The energy used by any business varies with _____ processes.
 - a) Input
 - b) Volumes
 - c) Production.
 - d) All of the above
2. Future energy use is likely to vary if you change _____ of your business
 - a) Labour.
 - b) Funds
 - c) Aspects
 - d) Efficiency
3. _____ will provide indications of effectiveness of your operations.
 - a) Benchmarking
 - b) Stops
 - c) Production
 - d) machines
4. Energy audit is an _____ of energy flows
 - a) Inspection
 - b) Survey
 - c) Analysis.
 - c) All of the above
5. Energy audit will help to keep focus on _____ which occurs in energy.
 - a) difficulty
 - b) change
 - c) variations
 - d) conversion
6. In any industry three top operating expenses are found to be _____.
 - a) wnergy.
 - b) labour cost
 - c) all of the above
 - d) material
7. CUSUM stands for _____
 - a) Constant summation.
 - b) Current sums
 - c) Control construction
 - d) Cumulative sum
8. CUSUM technique provides _____

- a) Deployment. b) Maintenance
c) Development. d) Trend line
9. Annual total energy & production chart smoothens out ____ in energy timing of meter readings.
a) Errors b) Efficiency
c) Accuracy. d) Repeatability
10. SEC is _____
a) Specific engine control b) System error control
c) Second error control d) Specific Energy Consumption
11. Energy monitoring and targeting is primarily a _____ technique.
A) management C) information
B) installation D) none of above
12. Energy monitoring and targeting is primarily a management technique that use Energy system on basic to
A) Eliminate waste C) Reduce pollution
B) Both A & C are correct D) None of above
13. It builds on the principle "you can't manage _____
A) what you don't measure". C) what you measure. "
B) what you weight. "
D) none of above
14. A management goal to work towards energy _____.
A) preservation C) conservation
B) consumption D) all of above.
- 14.It involves a _____ disciplined division of the facility into Energy Cost Centre
A) kinematics C) pneumatic
B) systematic D) none of above.
16. the energy used is compared with production _____.
A) space C) volume
B) material D) mass
17. The information is available on a regular basic ,variances can be spotted and _____.
A) interpreted C) discarded
B) change D) none of above
18. The Monitoring and Targeting programs they show typical elections in annual energy costs
A) selection C) power
B) election D) none of above
19. monitoring is essentially aimed at establishing the existing pattern of energy consumption.
A) surface C) marking
B) pattern D) none of above.
20. _____ information can be derived from the financial accounting systems - utilities cost centre
a) Plant level b) Plant department level
c) System level d) Equipment level
21. Plant level information can be found in?
a) variable yield data b) energy consumption data
c) both A & B d) none of the above
22. Sub metering data helps to determine which data.
a) financial data b) yield data
c) system level performance data d) none of the above
23. Equipment level information is obtained from ____ & ____

- a) Reporting
b) Recording
- c) Determining
d) Highlighting
39. Implementing management measures to correct any variances, which may have occurred ____.
- a) Recording
b) Controlling.
- c) Checking
d) Allocating
40. A critical feature of _____ is to understand what drives energy consumption.
- a) M&Y
c) T&M.
- b) M&T
d) C&V
41. After collection of what monitoring process starts
- a) production data.
c) money.
- b) visual presentation
d) all of the above
42. what is the next step of monitoring process?
- a) visual presentation.
c) study and analysis.
- b) Bar chart
d) none of the above
43. it is strongly recommended that the data be presented graphically.
- a) true.
c) both a & b.
- b) false.
d) none of the above
44. A better appreciation of variation is almost always obtained from a _____
- a) visual presentation.
c) both a & b.
- b) table of number
d) none of the above
45. Graphs generally provide an effective means of developing what
- a) map.
c) relationship.
- b) energy production
d) none of the above
46. The energy data entered into _____
- a) spreadsheet.
c) histogram
- b) bar chart
d) all of the above
47. It is hard to envisage it is happening from
- a) energy bills.
c) energy production.
- b) data
d) plain data
48. The starting point is to collect and collate _____ months of energy bills
- a) 24/24.
c) 12/12.
- b) 12/24
d) 24/12
- 49 Having how much months of production and energy data, we can plot a moving annual total
- a) Three.
c) Twelve.
- b) Five
d) six
50. In the production of wave energy _____ form of energy is used.
- a) Potential energy
b) Kinetic energy
c) Solar energy
d) Wind energy
51. _____ energy sources does not produce carbon dioxide.
- a) Oil
b) Uranium
c) Coal
d) Natural gas
52. _____ energy source is the largest source used in India.
- a. CNG
b. LPG
c. Coal

- d. Bio Gas
53. _____ is the most popular kitchen fuel in India
- LPG
 - Kerosene
 - Coal
 - Firewood
54. Common energy source in Indian villages is:
- Electricity
 - Coal
 - Sun
 - Wood and animal dung
55. Five of the world's top fourteen oil producing countries are located in
- Middle East
 - USA
 - Canada
 - Russia
56. Energy is released from fossil fuels when they are _____
- Pumped
 - Cooled
 - Burned
 - Pressurized
57. In the production of wave energy which form of energy is used?
- Potential energy
 - Kinetic energy
 - Solar energy
 - Wind energy
58. Energy in the form of heat and light is obtained by _____
- Biomass
 - Fossil fuels
 - Sun
 - Wind
59. How many forms of fossil fuels are there _____
- One
 - Two
 - Three
 - Four
60. Energy monitoring and targeting is built on the principle of “_____”.
- “production can be reduced to achieve reduced energy consumption”
 - “Consumption of energy is proportional to production rate”
 - “You cannot manage what you do not measure”
 - None of the above.
61. Poor scattering on trend line of production Vs Energy consumption indicates ____.
- poor level of control
 - good level of control
 - both the above
 - none of above.
62. Energy and production data is useful to calculate.....
- Specific Energy Consumption
 - Specific Fuel consumption
 - Specific Cost
 - None

63. Data required to plot a moving annual total is ____.
- Production
 - Energy
 - Both a and b
 - None the above
64. For any company, energy consumption mostly relates to.....
- Profits
 - Inventory
 - Production
 - All the above
65. The best way of correlating production and energy data in any plant is.....
- Text format
 - Graphical representation
 - Oral communication
 - None
66. The energy used by any manufacturing process varies with
- Production volume
 - Type of process
 - Resource input
 - All the above
67. To draw a CUSUM chart following data is required
- Monthly energy consumption & monthly production
 - Monthly specific energy consumption and turn over
 - Monthly profits and production
 - None
68. One of the following is not the element of energy monitoring & targeting system
- Recording the energy consumption
 - Comparing the energy consumption
 - Controlling the energy consumption
 - Reducing the production
69. Level of production may have an effect on specific energy consumption. State
- True
 - False
70. India's position in the Global Wind Energy Council (GWEC) is _____
- Fourth
 - Third
 - Second
 - First
71. Total primary energy consumption of fuel in the world is lead by _____
- Coal
 - Nuclear
 - Hydro
 - Oil
72. The world's top consuming country of domestically produced hydroelectricity is _____
- India
 - Brazil
 - China
 - Japan
73. India's energy consumption growth in 2016 is _____
- 3.6%
 - 4.6%
 - 2.9%

- d) 1.5%
74. The maximum work attainable as the system comes in equilibrium with surrounding is called__
- Energy
 - Availability
 - Exergy
 - Entropy
75. Exergic _____ is a measure of the perfectness of a thermal system.
- Enthalpy
 - Efficiency
 - Strength
 - Degree
76. _____ power does the small scale wind machine generate.
- 18 KW
 - 2 KW
 - 12 KW
 - 30 KW
77. _____ type of generator are made use in wind turbines.
- Recreational generators
 - Synchronous generator
 - Asynchronous generator
 - Alternator
- 78 India's total primary energy consumption is _____
- 24.3 BTU
 - 19.01 BTU
 - 120 BTU
 - 30.1 BTU
- 79 State true or false. Nordic countries consumption of energy per capita is among the highest in the world.
- True
 - False
80. _____ many percent of energy transferred from one trophic level to the next higher level.
- 20%
 - 10%
 - 50%
 - 100%
81. The value of the reference value is chosen _____
- 3/4 ways between mean and the out-of-control mean towards the mean
 - 1/2 ways between mean and the out-of-control mean
 - 3/4 ways between mean and the out-of-control mean towards the out-of-control mean
 - 1/4 ways between mean and the out-of-control mean towards the mean
82. After the value of C_{i-} increasing than the value of _____ the process is said to be out-of-control.
- Control interval
 - Decision interval
 - Distribution interval
 - Calculation interval
83. If the value of $\mu_0 > \mu_1$, K will have a negative value.
- True
 - False
84. Each vertical bar in cusum status chart represents _____
- The value of C_{i+} and C_{i-}
 - The value of C_{i-}
 - The value of C_{i+}
 - Neither the value of C_{i+} nor C_{i-}
85. The value of K and H should be determined according to the ARL required for the corresponding cusum chart.
- True
 - False

- a) 100
- b) 100%
- c) 0
- d) none of the above

102. To draw a CUSUM chart following data is required

- a) Monthly energy consumption & monthly production
- b) Monthly specific energy consumption and turn over
- c) Monthly profits and production
- d) None

103. What is specific energy consumption.

- a) energy consumption per month
- b) Energy consumed per unit of production
- c) energy consumption per year
- d) none of the above

104. Data required to plot a moving annual total is ____.

- a) production
- b) energy
- c) both the above
- d) none the above

105. Energy and production data is useful to calculate.....

- a) Specific Energy Consumption
- b) Specific Fuel consumption
- c) Specific Cost
- d) None

106. What type of data is useful to find out the fixed energy consumption?

- a) SEC Vs production
- b) SEC Vs Energy
- c) Production Vs energy
- d) None

107. What do you mean by “toe”

- a) Total oil equivalent
- b) Tons of effluent
- c) Tons of oil equivalent
- d) none of the above

108. _____ is primarily a management technique that uses energy information as a basis to eliminate waste, reduce and control current level of energy use and improve the existing operating procedures.

- a) Energy monitoring and targeting
- b) CUSUM
- c) Specific energy consumption
- d) Production

109. _____ is essentially aimed at preserving an established pattern.

- a) Targeting
- b) Analysing
- c) Monitoring
- d) recording

110. _____ is the identification of energy consumption level, which is desirable as a management objective to work towards energy conservation

- a) Recording
 - b) Targeting
 - c) Analysing
 - d) Monitoring
111. "The judicious and effective use of energy to maximise profits and enhance competitive positions". This can be the definition of:
- a) Energy conservation c) Energy management
 - b) Energy policy d) Energy Audit
112. The energy management function is generally vested in –
- a) Senior Management c) Distributed among number of middle manager
 - b) One energy manager or co-ordinator d) (b) & (c) together
113. The objective of energy management includes
- c) Minimising energy costs c) Minimising environmental degradation
 - d) Minimising waste d) all the above
114. One unit of electricity is equivalent to ___ kcal heat units.
- a) 800 c) 400
 - b) 860 d) 680
115. Which instrument is used to monitor O₂, CO in flue gas?
- a) Combustion analyzer c) Pyrometer
 - b) Power analyzer d) Fyrite
116. Lux meter is used to measure.....
- a) Illumination level c) Harmonics
 - b) Sound intensity and illumination level d) Speed
117. For a cement plant the parameter, "kWh/MT of clinker "indicates
- a) Energy Index parameter c) Production factor
 - b) Utility factor d) load factor
118. Energy manger should be well versed with
- a) Manufacturing and processing skills c) Technical and marketing skills
 - b) Managerial and technical skills d) Managerial and commercial skills
119. CO₂ measurement of Fyrite kit is based on (EA
- a) Weight basis (dry) c) Weight basis (wet)
 - b) Volume basis (dry) d) Volume basis (wet)
120. Non contact speed measurements can be carried out bb
- a) Tachometer c) Stroboscope
 - b) Stroboscope d) Speedometer
121. Energy monitoring and targeting is built on the principle of " ____".
- a) "production can be reduced to achieve reduced energy consumption"
 - b) "Consumption of energy is proportional to production rate"
 - c) "You cannot manage what you do not measure"
 - d) None of the above.
122. One of the following is not the element of energy monitoring & targeting system
- a) Recording the energy consumption b) comparing the energy consumption
 - C) Controlling the energy consumption d) Reducing the production
123. Which of the variable does not contribute to energy consumption?
- a) Production b) Hours c) Climate d) none of the above
124. Poor scattering on trend line of production Vs Energy consumption indicates ____.
- a) poor level of control b) good level of control

- c) both the above d) none of above.
125. Level of production may have an effect on specific energy consumption.
a) True b) False
126. M & T involves a systematic, disciplines division of the facility in to energy cost centres.
a) True b) False?
126. "The judicious and effective use of energy to maximise profits and enhance competitive positions". This can be the definition of:
e) Energy conservation c) Energy management
f) Energy policy d) Energy Audit
127. The energy management function is generally vested in –
c) Senior Management c) Distributed among number of middle manager
d) One energy manager or co-ordinator d) (b) & (c) together
128. The objective of energy management includes
g) Minimising energy costs c) Minimising environmental degradation
h) Minimising waste d) all the above
129. One unit of electricity is equivalent to ___ kcal heat units.
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130. Which instrument is used to monitor O₂, CO in flue gas?
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d) Power analyzer d) Fyrite
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d) Volume basis (dry) d) Volume basis (wet)
135. Non contact speed measurements can be carried out bb
c) Tachometer c) Stroboscope
d) Stroboscope d) Speedometer
136. Which of the following is must in food labeling?
a) Name c) Standard specification
b) Place of origin d) All of the mentioned
137. Which of the following need not to be in the same vision of field
c) Product name c) Quantity
d) Date mark d) Place above of origin
138. Food authenticity means_____
e) The food should match the description c) The food should taste good
f) It should be cheap d) None of the above
139. Which of the following is the form of mis-description?
g) Incorrect Origin c) Incorrect quantitative description

- a. primary management techniques
- b. secondary management techniques
- c. tertiary management techniques
- d. None

151. As per pie chart on energy consumption the supply unit of the electricity is.....

- a. kWh
- b. kg.
- c. kV
- d. Watts

152. As per the case study of the CUSUM technique energy consumption and the production data were collected for plant over a period of months.

- a. 20.
- b. 6.
- c. 19
- d. 18

153. Energy monitoring and techniques builds on the principle of “you can manage what you measure”.

- a. true
- b. false

154. Monitoring and targeting programs have been so effective that they show typical reductions in annual energy cost in the various industrial sectors between.....

- a. 10 to 30 %
- b. 5 to 10 %
- c. 5 to 20%
- d. 5 to 30%

155. As per chart on energy consumption the supply unit of furnace oil is

- a. kWh
- b. kg.
- c. kV
- d. Watts

156. India’s position in the Global Wind Energy Council (GWEC) is _____

- a) fourth
- b) third
- c) second
- d) first

157. Where does India stand on solar energy production?

- a) First
- b) Third
- c) Fifth
- d) Seventh

158. _____ country leads in the production of biofuel in the world?

- a) United States of America
- b) Brazil
- c) Germany
- d) Argentina

159. India is placed within the top 25 nations, in terms of oil production in the world.

- a) True
- b) False

The Arab states of the Persian Gulf are known for the production of _____

- a) Coal
- b) Copper
- c) Gold
- d) Petroleum

160. India stands in the first position, in the production of coal in the world.

- a) True
- b) False

161. _____ country produces the largest share of electricity generated by nuclear power.

- a) India
- b) France
- c) China
- d) Japan

162. Total primary energy consumption of fuel in the world is lead by _____

- a) Coal
- b) Nuclear
- c) Hydro
- d) Oil

163. India's energy consumption growth in 2016 is _____

- a) 3.6%
- b) 4.6%
- c) 2.9%
- d) 1.5%

164. _____ is the world's biggest oil consuming country?

- a) United States of America
- b) Japan
- c) India
- d) China

4.3 Energy management and Audit

1. The fundamental goal of energy management is
 - a) To produce goods and provide services with the least cost.
 - b) To produce goods and provide services
 - c) To sell goods only
 - d) To give services only
2. _____ is the Objective of the energy management from the following :-
 - a) To give each product a label
 - b) To evolve minimum energy consumption
 - c) To minimize environmental effects
 - d) To achieve optimum energy procurement.
3. Energy Efficiency rating in BTU/hr/W is equal to
 - a) 4.413 W/W
 - b) 2.413 W/W
 - c) 3.413 W/W
 - d) none of the above
4. On which Product is Labeling mandatory
 - a) Colour TV
 - b) LPG stoves
 - c) Ballast
 - d) Office Equipments
5. On which products is Labeling Voluntary
 - a) Direct cool Refrigerator
 - b) Ceiling fans
 - c) Colour TV
 - d) Tubular Florescent Lamps
6. The standards and labelings scheme (S&L) is one of the major thrust areas of _____.

- a) BEE
 - b) ISEER
 - c) HVAC
 - d) ISO
7. _____ gives the consumers the necessary information to make informed purchase.
- a) Barcodes
 - b) QR codes
 - c) Labels
 - d) Serial numbers
8. _____ is the one time Company Registration fee for large scale industries ?
- a) 50000/-
 - b) 100000/-
 - c) 150000/-
 - d) None of the above
9. Salient feature of Energy Conservation Act 2001 is
- (a) establishment of BEE
 - (b) to prescribe energy conservation building codes for all buildings
 - (c) to specify energy consumption
 - (d) both (b) & (c)
10. The Act which is proposed to bring the qualitative transformation of the electricity sector is
- (a) Regulatory Commission Act, 1998
 - (b) Indian Electricity Act, 1910
 - (c) Electricity Act, 2003
 - (d) Supply Act, 1948
11. The energy sources that are either found or stored in nature are
- a) Secondary Energy Sources
 - b) Primary Energy Sources
 - c) both (a) and (b)
 - d) none of the above
12. _____ is commercial energy source.
- a) Electricity
 - b) Coal
 - c) Oil
 - d) All the above
13. Inexhaustible energy sources are known as
- a) commercial Energy
 - b) renewable Energy
 - c) primary energy
 - d) secondary energy
14. _____ country has the largest share of the global coal reserves?
- a) Russia
 - b) China
 - c) USA
 - d) India
15. Infrared thermometer is used to measure
- a) Surface temperature
 - b) Flame temperature
 - c) Flue gas temperature
 - d) Hot water temperature
16. The objective of energy management includes

- a) Minimising energy costs
 - b) Minimising waste
 - c) Minimising environmental degradation
 - d) All the above
17. The various types of the instruments, which requires during audit need to be
- a) Easy to carry
 - b) Easy to operate
 - c) Inexpensive
 - d) All above
18. For a cement plant the parameter, “kWh/MT of clinker “indicates
- a) Energy Index parameter
 - b) Utility factor
 - c) Production factor
 - d) Load factor
18. Energy manger should be well versed with
- a) Manufacturing and processing skills
 - b) Managerial and technical skills
 - c) Technical and marketing skills
 - d) Managerial and commercial skills
19. An energy policy does not include
- a) Target energy consumption reduction
 - b) Time period for reduction
 - c) Declaration of top management commitment
 - d) Future production projection
20. CO₂ measurement of Fyrite kit is based on
- a) Weight basis (dry)
 - b) Volume basis (dry)
 - c) Weight basis (wet)
 - d) Volume basis (wet)
21. Non-contact speed measurements can be carried out by
- a) Tachometer
 - b) Stroboscope
 - c) Oscilloscope
 - d) Speedometer
22. The tool used for performance assessment and logical evaluation of avenues for improvement in Energy management and audit is
- a) Fuel substitution
 - b) Monitoring and verification
 - c) Energy pricing
 - d) Bench marking
23. Infrared thermometer is used to measure
- a) Surface temperature
 - b) Flame temperature
 - c) Flue gas temperature
 - d) Hot water temperature
24. Find out the ‘odd’ among the following choices for fuel substitution for industrial sector of India.
- a) LDO with LSHS

- b) Coal with rice husk
 - c) Natural gas for fertilizer plant
 - d) LPG for soft coke
25. The various types of the instruments, which requires during audit need to be
- a) Easy to carry
 - b) Easy to operate
 - c) Inexpensive
 - d) All (a) to (c)
26. Air velocity in ducts can be measured by using ___ and manometer
- a) Orifice meter
 - b) Borden gauge
 - c) Pitot tube
 - d) Anemometer
27. “The judicious and effective use of energy to maximise profits and enhance competitive positions”. This can be the definition of:
- a) Energy conservation
 - b) Energy management
 - c) Energy policy
 - d) Energy Audit
28. The energy management function is generally vested in –
- (a) Senior Management
 - (b) One energy manager or co-ordinator
 - (c) Distributed among number of middle manager
 - (d) (b) & (c) together
29. The objective of energy management includes
- a) Minimising energy costs
 - b) Minimising waste
 - c) Minimising environmental degradation
 - d) All the above
30. The ratio of current year’s production to the reference year’s production is called as
- a) Demand factor
 - b) Production factor
 - c) Utilisation factor
 - d) Load factor
31. Replacement of steam based hot water generation by solar system is an example of
- a) Matching energy usage to the requirement
 - b) Maximising system efficiency
 - c) Energy substitution
 - d) Performance improvement
32. One unit of electricity is equivalent to ___ kcal heat units.
- a) 800
 - b) 860
 - c) 400
 - d) 680
33. The benchmarking parameter for air conditioning equipment is
- a) kW/Ton of Refrigeration
 - b) kW/ kg of refrigerant handled

- c) kcal/m³ of chilled water
 d) Differential temperature across chiller
34. The percentage of energy saved at the current rate of use, compared to the reference year rate of use, is called
- a) Energy Utilization
 b) Energy Performance
 c) Energy Efficiency
 d) None
35. _____ instrument is used to monitor O₂, CO in flue gas (EA)
- a) Combustion analyzer
 b) Power analyzer
 c) Pyrometer
 d) Fyrite
36. Lux meter is used to measure.....
- a) Illumination level
 b) Sound intensity and illumination level
 c) Harmonics
 d) Speed
37. Why is a food web more realistic way of portraying an ecosystem than a food chain?
- a) Because it shows the relation of organisms with each other in a habitat
 b) Because food chains use only a small sampling of organisms
 c) Because it doesn't shows the relation of organisms with each other in a habitat
 d) Because it compares the number of consumers to the number of micro-organisms.
38. ____ is called for an organism that helps to define an entire ecosystem.
- a) Super species c) Dominant species
 b) Keystone species d) Precious species
39. ____ is called for the diagram that shows how food chain linked together into more complex feeding relationship.
- a) Food web c) Food circle
 b) Food chain d) Food triangle
40. Find condition is true for food web
- a) A food web only follows just one path c) A food web starts with a consumer
 b) A food web ends with a producer d) A food web shoes many paths plants and animals connected
41. _____ one of the the major difference between food web and food chain.
- a) Food chain and food web are linear pathway
 b) Food chain and food web are interconnected pathway
 c) Food chain is a single linear pathway and food web is interconnected pathway
 d) Food chain is interconnected pathway through which food web is single linear pathway
42. Food webs derive their energy from sunlight.
- a) True
 b) False
43. In which of the following we can have more than one source of organisms for energy
- a) Food chain c) Food circle
 b) Food web d) Food rotation
44. _____ following is the highest trophic level organism in grassland food web.
- a) Grass c) Lizard
 b) Grasshopper d) Hawk

45. _____ following is correct order of food web for aquatic food web.
- a) Diatoms->pteropods->lantern fish->squid->marlin b) Diatoms->lantern fish->squid->marlin->pteropods
c) Lantern fish-> diatoms-> squid-> marlin->pteropods d) Lantern fish-> diatoms-> squid-> pteropods-> marlin
46. Large sharks remain in the highest trophic level in the aquatic food web.
- a) Because large sharks are predators c) Because large sharks are phytoplankton
b) Because large sharks are top predators d) Because large sharks are zooplankton
47. Minimum EER of 5-star rating is
- a. 3.50 c) 3.99
b. 4.00 d) 4.50
48. Bureau of Energy Efficiency was founded on
- c. 1 March 2001 c) 1 March 2002
d. 4 March 2001 d) 4 March 2002
49. Higher the number of stars, lower will be the Efficiency.
- e. True b) False
50. Labeling is mandatory on product
- f. Frost Free Refrigerator c) Colour TV
g. Room Air-conditioners d) All of the above
51. Manufacturers claim up to savings on inverter tech AC
- h. 50% c) 55%
i. 60% d) 65%
52. Which of the following food item has been exempted from labeling?
- i. On the spot food like bakery items
ii. Ready to eat food
iii. Food served on plane/ vending machine
iv. All of the mentioned
53. Generally the ‘% Daily Value’ is based on a 2000 – 2500 cal diet.
- v. True
vi. False
54. According to CODEX standards, which of the following food item is hypersensitive?
- j. a) Cereals. c) Milk Products
k. b) Nuts. d) All of the above
55. Nutrition claim means _____
- i. A food has certain nutritional properties including but not limited to the energy value
ii. A food has certain limitations
iii. All of the mentioned
iv. None of the mentioned
56. Which among the following claims is prohibited?
- l. a) Substantiated Claims. c) All of the above
m. b) Claims of Veg/non- veg. d) none of the above
57. Freon group of refrigerants are
- n. a) Inflammable. c) Non-inflammable and toxic
o. b) Toxic. d) Nontoxic and non-inflammable
58. The boiling point of ammonia is
- i. a) -10.5°C. c) -33.3°C

- p. b) -30°C . d) -77.7°C
59. For obtaining high COP, the pressure range of compressor should be
- q. a) High. c) Optimum
- r. b) Low. d) Any value
60. Which of the given reasons, is NOT a valid reason for packaging of food items?
- a) Security and portion control. c) Marketing and convenience
- b) Protection and information transmission. d) None of the mentioned
61. Which of the following is a must in food labeling?
- a) All of the mentioned. c) Standard Specification
- b) Place of Origin. d) Name
62. Which of the following need not be in the same vision of field?
- a) Product name. c) Place of Origin
- b) Date mark. d) Quantity
63. Food Authenticity means _____
- a) The food should match the description. b) The food should taste good
- c) It should be cheap. d) None of the mentioned
64. Which of the following is a form of mis-description?
- a) Incorrect Origin. c) All of the mentioned
- b) Extending the food. d) Incorrect Quantitative Description
65. Indian S&L Programme launched on which day .
- s. 18th May 2016. c) 16 May 2016
- t. 26th March 2005. d) 25th August 2006
66. Which of the following are NOT key constraints of the food processing industry?
- a) Inadequate quality control. c) High packaging cost
- b) Low demand. d) Poor infrastructure as in no cold storage
67. Which of the following comes under grain processing in India?
- a) Oil seed processing . c) Wheat processing
- b) Oil seed & Wheat processing. d) None of the mentioned
68. Which year energy conservation act enacted.
- u. 2001. C) 2010
- v. 2005 d) 2005
69. Full form of HVCA.....
- w. Hazard Vulnerability Capacity Assessment
- x. Human Vulnerability Capacity Assessment
- y. Hazard Vulnerability Capacity Agreement
- z. Human Vulnerability capacity Agreement
70. BEE is under the provision of Act.
- aa. EC Act , 2000. C) EC Act , 2002

- bb. EC Act ,2001. D) None of the above
71. BEE scheme was launched in.....
- May , 2004. C) May ,2006
 - April ,2006. D) April , 2004
72. Product on which labelling is mandatory.....
- Electric Geysers. B) LPG Stoves
 - Ballast. D) Colour TV
73. Product of which labelling is voluntary
- Frost Free Refrigerator. C) Colour TV
 - Ceiling Fans D) Distribution Transformer
74. EER in BTU/HR/W=.....
- 3.432 * ERR in KW/W. C) 3.413 * ERR in W/W
 - 3.134 * ERR in KW / W. D) 3.413. * ERR in KW/ W
75. According to star rating ,the 5 star gives minimum ERR....
- 4.20 C) 3.90
 - 4.70 D) 4.50
76. Product with small label....
- Refrigerator c) Geyser
 - Computer D) Air – conditioner
77. “The inspection, survey and analysis of energy flow for energy conservation in a building, process or system to reduce the amount of energy input into the system without negatively affecting the output(s)”. Is the definition of?
- Energy conservation b. Energy management
 - Energy policy d. Energy Audit
78. The Objective of Energy Management includes
- Minimising Energy Costs b. Minimising Environmental Degradation
 - Minimising waste d. All of the above
79. One unit of electricity is equivalent to ___ kcal heat units.
- 800 b) 860
 - 400 d) 680
80. The benchmarking parameter for air conditioning equipment is
- kW/Ton of Refrigeration b) kW/ kg of refrigerant handled
 - kcal/m³ of chilled water d) Differential temperature across chiller
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84. The various types of the instruments, which requires during audit need to be
- Easy to carry b) Easy to operate
 - Inexpensive d) All (a) to (c)
85. For a cement plant the parameter, “kWh/MT of clinker “indicates
- Energy Index parameter b) Utility factor

- d) Thermometer and humidity meter.
- 95) _____ measures oxygen and temperature of the flue gas.
- Fuel efficiency monitor.
 - Combustion analyzer.
 - Contact thermometer.
 - Infrared thermometer.
- 96) _____ is a non-contact type measurement which when directed at a heat source directly gives the temperature read out.
- Thermocouples.
 - Contact thermometers.
 - Humidity.
 - Infrared thermometers.
- 97) An energy audit is an _____
- inspection.
 - survey.
 - analysis of energy.
 - All of the above.
- 98) Energy audit is the first step towards _____ for conservation of energy.
- systematic effort.
 - building.
 - process.
 - only b.
- 99) Energy audit involves _____ and _____ of energy related data on regular basis and in a methodological manner.
- collection.
 - Analysis.
 - Both a&b.
 - Only a.
- 100) _____ are portable devices capable of estimating the combustion efficiency of furnaces, boilers, or other fossil fuel burning machines.
- Sound analyzer.
 - Light analyzer.
 - Combustion analyzer.
 - Temperature analyzer.
- 101) _____ is the measure of whether a plant is now using more or less energy to manufacture its product than it did in the past.
- Total Dissolved Solids (TDS).
 - Revolutions Per Minute (RPM)
 - Plant Energy Performance (PEP)
 - Option (a) and (b)
- 102) In any industry, the three top operating expenses are often found to be energy
- electrical & thermal.
 - labour and materials.
 - none
 - option a & b
- 103) A _____ is an inspection, survey and analysis of energy flows for energy conservation in a building, process and system.
- Energy audit.
 - Bank audit.
 - Wave audit
 - None of the above.
- 104) _____ is a non-contact type measurement which when directed at a heat source directly gives the temperature read out.
- Thermocouples.
 - Humidity.
 - Contact thermometers.
 - Infrared thermometers.
- 105) Energy audit can be classified as.
- Preliminary audit.
 - Both (a) and (b).
 - Detailed audit.
 - Only option (a).
- 106) The most basic measuring device needed is the _____.
- Thermometer.
 - Wattmeter.
 - Voltmeter.
 - Tape measures.

107. ____ is the key to a systematic approach for decision making in the area of energy management.
- a) Energy Audit c) Energy management
b) Efficiency d) None of the above
108. The Bureau of Energy Efficiency launched
- a) 2005 c) 2006
b) 2010 d) 2007
109. "To minimize energy cost " is an objective of which of the following
- a) Bureau of energy efficiency (BEE)
b) Standard and labelling standard (HVAC)
c) Energy Management
d) None of the above
110. ____ is type of Label allows consumers to compare the energy consumption of similar products.
- a) Comparative label
b) Endorsement label
c) Both a & b
d) None of the above
111. Which of the following products on which labelling is not mandatory
- a) Frost free c) LPG stoves
b) AC d) Laptops
112. On which Following products is labelling not Voluntary
- a) Colour TV c) Ceiling fans
b) Ballast d) Induction motors
113. The prime importance of these _____ is to educate and inform consumers about how energy efficient each product is ?
- a) Efficiency chart c) Both a & b
b) Star Rating d) None of the above
114. The following is not an element of M & T system
- a) Recording b) Analyzing
c) Controlling d) Complaining
115. The M & T system stand for
- a) Market and Trading system
b) Monitoring and Targeting system
c) Market and Targeting System
d) None of the above
116. Which one of the major inputs for the economical developement of any country.
- A) management. B) Energy. C) Power. D) planning.
117. Energy is one of the major inputs for the ___ of any country.
- A) Environmental developement. B) political development.
C) Economical developement. D) None of the above.
118. The fundamental goal of energy management is to produce goods and provide services with ___
- A) least cost and least environmental effect. B) high cost and least environmental effect.
C) least cost and least environmental effect. D) none of the above.
119. The fundamental goal of energy management is to produce ___ .
- A) least cost and least environmental effect. B) economical management.
C) goods and services. D) none of the above.
120. Definition of energy management given by ___ .
- A) Cape hart B) Turner
C) Kennedy. D) All of the above.

121. ___ is the key to a systematic approach for decision making in the area of energy management.
 A) Energy audit. B) Energy management.
 C) Management. D) Planning.
122. Energy audit is the key to a systematic approach for decision making in the area of ___
 A) Energy audit. B) Energy management.
 C) Management. D) All of the above.
123. Energy is one of the ___ for the economic development of any country.
 A) minor input. B) major input.
 C) none of the above. D) all of the above.
124. Energy is one of the major input for the economic development of any country.
 A) true B) false
125. Fundamental goal of ___ is to produce goods and provide services.
 A) Energy audit. B) Management.
 C) Energy management. D) None of the above.

Chapter5: Agriculture equipment and Post-harvest Technology

- 1) Mechanized agriculture is the process of using agricultural machinery to.....
 - a) Mechanize the work of agriculture
 - b) Automate the work of agriculture
 - c) Develop the work of agriculture
 - d) none of the above
- 2) In modern times,..... has replaced many farm jobs formally carried out by man.
 - a) Trucks
 - b) Powered machinery
 - c) Electric cars
 - d) None of the above.
- 3) Need of farm mechanization is.....
 - a) to increase the productivity
 - b) to reduce human effort in the farm
 - c) Both A and B are correct
 - d) none of the above
- 4) Mechanization in Indian agriculture started with.....
 - a) Land reclamation
 - b) Development
 - c) Central tractor organization
 - d) none of the above
- 5) The production of irrigation pumps and diesel engines started during.....
 - a) 1950s
 - b) 1930s
 - c) 1940s
 - d) 2000s
- 6) The production of tractors and power tillers started in
 - a) 1950
 - b) 1940
 - c) 1960
 - d) 2001

- 7) The following is not a farm machinery
- Combine harvester
 - Power tiller
 - Fresher
 - Dumper trucks
- 8) Farm mechanization has helped in..... of agriculture from conventional to commercial crops
- Transformation
 - Diversification
 - Transport
 - None of the above
- 9) there has been a rising trend in production and sale of farm machinery.
- From 1986 to 2000
 - From 1920 to 2005
 - From 1935 to 2000
 - None of the above
- 10) The leading manufacturer of farm equipment or agriculture equipment in India are
- Mahindra and Mahindra
 - Sonalika
 - Force
 - All of the above
11. It is quite true that the farmers with low earnings per capita because of low per hectare they get from holdings are.....
- Indian farmers
 - American farmers
 - Australian farmers
 - all of the above
12. Mechanisation in india at various levels can be done in following ways...
- by introducing the improved agricultural implements on small scale holding to be operated by bullocks.
 - by using small tractors, tractor drawn machines and power tillers on medium holdings to supplement source.
 - by using large scale tractor and machines on remaining holding to supplement animal power source.
 - All of the above
13. The step towards development of an appropriate agricultural technique in india is working towards the motto of saving.....
- labour
 - cost
 - surplus labour
 - all of the above
14. Indian agriculture is undergoing a gradual shift from dependence on human power and animal power to.....
- mechanical power
 - solar power
 - thermal power
 - all of the above
15. The machinery which enables the farmers to raise a second crop or multi crop attractive and way of life by becoming a commercial subsistence is....
- efficient machinery
 - agriculture machinery
 - affective machinery
 - all of the above
16. At present the farm power availability as per hectare is....
- 1.84KW/ HA
 - 1.85KW/HA
 - 2.04KW/ HA
 - 2.06KW/ HA
17. Benefits of mechanization of agriculture is.....
- it increases production
 - low cost of work
 - it increases efficiency
 - all of the above
18. Need of farm mechanisation is to...

- a) for timely operations of agriculture activities
 b) to increase the production and productivity of food grains.
 c) efficient utilisation of inputs, water and other natural resources.
 d) all of the above
19. Advantages of mechanisation is.....
 a) substitute for labour. c) amenity reasons
 b) attract or retain farm staff d) all of the above
20. Agriculture machinery can be divided into following groups they are....
 a) farm machinery c) drain engineering
 b) irrigation engineering d) all of the above
21. Agricultural in India is _____ characteristics.
 A) Important. C) unique
 B) Base. D) None of the above.
22. The extant of area under the command of draught animals is about _____.
 A) 51% C) 50%
 B) 49% D) 57%
23. The production of tractor is commenced during 1961-62 ,turning out _____ them
 A) 880. C) 540
 B) 860. D) 800
24. Mechanical and Electrical sources increased from _____ -
 A) 40 to 83 % C) 30 to 93 %
 B) 35 to 87 % D) None of the above.
25. The traditional processing equipment used by Farmers include _____.
 A) Supa. C) Chalni
 B) Chakiya. D) All of the above.
26. Coking need of villages are mostly met by the burning of _____.
 A) Biomass. C) Hydroelectric
 B) Crude oil. D) Neutral gas.
27. Solar photovoltaic devices encouraged their use for water _____.
 A) Pumping. C) Lighting
 B) Both A & C. D) None of the above.
28. Biomass is obtained For mixture of _____ gas.
 A) Corban monoxide. C) Hydrogen.
 B) Both A & C. D) None of the above.
29. Farmers also adopted sprinkaler system for _____ purpose.
 A) Commercial. C) Domestic
 B) Industrial. D) All of the above.
30. A general-purpose or row-crop tractor is _____ machines
 A. Single use C. Both A & B
 B. Universal D. None of Above
31. The most common use of the term "tractor" is for the vehicles used on _____.
 A. Farm C. Medicinal Purpose
 B. Production Industry D. None of above
32. A _____ is a track-type tractor with a blade attached in the front
 A. Car C. Bulldozer
 B. Truck D. Buses
33. A compact utility tractor (CUT) is a _____ version of an agricultural tractor
 A. Smaller C. Medium
 B. Larger D. Extreme
34. The earliest tractors were called " _____ " tractors
 A. Basic C. Common

- B. Standard
D. Moderate
35. Space technology has been incorporated into agriculture in the form of _____ devices
A. ISP
B. GPS
C. GST
D. None of above
36. Bulldozers are very powerful tractors and have excellent ground-hold
A. Design
B. Rate
C. Ground Hold capacity
D. Carrying capacity
37. One example is that loader tractors were created by _____ - the blade
A. Removing
B. Adding
C. Both A & B
D. None of Above
38. The most common variation of the classic farm tractor is the _____
A. HOE
B. BOE
C. TOE
D. None of Above
39. Farm tractor hoe is also called as a _____
A. Hoe remover
B. Hoe Loader
C. Hoe weight loader
D. Hoe Weight remover
40. The most common type of equipment used in farms include balers, plows, mowers and _____
A. Tractor.
B. Cycle.
C. Car
D. All of above
41. The primary benefit of the three-point hitch system is to transfer the _____ and resistance
A. Arm.
B. Body
C. Volume
D. Weight
42. One of the most common tasks on the farm is _____
A. Hitching
B. Non hitching.
C. Both A & B
D. None A & B
43. _____ position in tractor is allows you to rest the bucket on the ground without down pressure or lift
A. Boat.
B. Float.
C. Draft control
D. None of the above
44. Power tiller is also known as the hand tractor or _____
A. Standing
B. Walking type
C. Clearing
D. Running type
45. History indicates that the process of mechanization is dynamic with no ultimate ____
A. Goal
B. Design
C. obtain
D. Sign
46. Each manufactures must improve his _____ to maintain a profitable position
A. Reputation
B. Product
C. Control
D. Customer
47. A tractor is an engineering vehicle specifically designed to deliver a high torque at _____ speeds
A. High
B. Extreme High
C. Slow
D. Medium
48. The word tractor was taken from _____
A. French
B. Latin
B. Sanskrit
D. Japanese
49. Tractors can be generally classified by number of _____ or wheels
A. Axles
B. Double wheel
C. Single Wheel
D. None of above
50. Tillage is normally classified astillage.
A. Primary.
B. Secondary.
C) Primary or secondary
D) Tertiary
51. purpose of the tillage is to restrict water movement from the surface layers.

- A. Primary. C) Secondary
B. Primary or secondary. D) Tertiary.
52. Primary purpose is to restrict movement from the surface layers.
A. Air. C) Sunlight.
B. Water. D) Dust.
53. Primary tillage is the soil tillage after the last harvest.
A. First. C) Second
B. Third. D) Fourth
54. When there is sufficient power available some soil types are ploughed
A. Wet. C) Dry
B. Moisture. D) Non of the above.
55. In clay soils, the fields often have to be fully saturatedtillage can be undertaken.
A. Before. C) After
B. Beginning. D) Middle.
56. In lighter texture soils such as, tillage can be undertaken at moisture levels below field capacity.
A. Loam. C) Loam or sand
B. Sand. D) Non of the above
57. The disc is usually the preferred system as it takes and can handle obstacles much easier.
A. Less power. C) More power
B. Moderate power. D) None of the above.
58. plows are preferable in the upland systems but as yet not widely available in Asia.
A. Disk. C) Chisel
B. Tined. D) Sub soiling
59. plows are rows of concave steel discs that revolve as they are pulled.
A. Disk. C) Chisel
B. Tined. D) Sub soiling
60. _____is the following is not a secondary tillage tool
A. Disc plough C. Mould board
B. Disc harrow D. None of the above
61. Power tillers operate most satisfactory with?
A. Rotary tillage C. Plough
B. Transport carts D. Reapers
62. Vertical section of plough influences
A. Pulverization C. Width of cut
B. Depth of cut D. Direction of pull
63. Following is not a hand tool
A. Mould board C. Shovel
B. Spade D. Momaunty
64. _____plough is used to break through and shatter compacted or otherwise impermeable soil layers.
A. Disc plough C. Chisel plough
B. Sub-soil plough D. None of the above
65. Finner operation performed for seedbed preparation is :-
A. Primary tillage C. Strip tillage
B. Secondary tillage D. Rotary tillage
66. _____ are the primary tillage implements.
A. Chisel plough and sub soiler C. Disc plough and disc harrow
B. Chisel plough and disc harrow D. Leveler and clad crusher
67. Ploughing is done to :-

- A. Improve soil aeration
B. Destroy weeds
C. Increase water holding capacity
D. All are correct
68. Jointer and coulter are the parts of :-
A. Disc plough
B. Harrow plough
C. Indigenous plough
D. MB plough
69. Standard disc plough diameter size is _____
A. 40 to 60 cm
B. 60 to 90 cm
C. 70 to 90 cm
D. 50 to 70 cm
70. The power tillage is most suitable for:
a) Stationary operation
b) Rotary operation
c) Deep ploughing
d) All are correct
71. A Vertical disc plough is also termed as:
a) Wheat plough
b) Both (a) & (b)
c) Harrow plough
d) None of these
72. In disc harrow, the penetration of disc improves by:
a) Increasing disc angle
b) Regulating optimum speed
c) Lowering hitch point
d) All are correct
73. The gang angle of disc harrow is adjusted in the range of:
a) 0-30
b) 60-90
c) 30-60
d) Above 90
74. _____ is not a tractor drawn tillage tool:
a) Cultivator
b) Harrow
c) Augar plough
d) Plank
75. _____ farming is a replacement of human and animal power by mechanical power for different farm operation:
a) Mechanized farming
b) Both of these
c) Mixed farming
d) None of these
76. An implement that pulled and guided by single hitch point of a tractor is:
a) Trailed implement
b) Semi mounted implements
c) Mounted implement
d) All are correct
77. The plough bottom as combined unit consist of:
a) None of these
b) Beam , handle and MB
c) Coulter , jointer and frog
d) Share, landside , frog and MB
78. The draft requirement in MB plough compared to disc plough for same depth of ploughing is:
a) Less
b) Equal
c) More
d) None of these
79. The hitching of plough is done by placing the plough:
a) Few centimeter below ground level
b) On the ground level
c) Few centimeter above ground level
d) None of these
80. The seed rate required in broadcasting method in comparison to drilling is:
A. More
B. Less
C. Equal
D. All are correct
81. The dibbling is mostly used for sowing:
A. Cereal grains
B. Vegetables
C. Plantation crop
D. All are correct
82. The dropping of seeds in furrow lines in continuous flow is:
A. Drilling
B. Planting
C. Dibbling
D. Hill dropping
83. Dibbler is a:
A. Seed drill
B. Planter
C. Trans planter
D. None of these

84. The equipment used for dropping seeds in a continuous stream and the spacing between plant to plant in a row is not constant is:

- A. Seed drill
- B. Planter
- C. Trans planter
- D. All are correct

85. The method of planting in which row-to-row as well as plant-to-plant distance is uniform is:

- A. Drilling
- B. Hill dropping
- C. Check row planting
- D. All are correct

86. The precision planter is:

- A. Seed drill
- B. Broadcaster
- C. Dibbler
- D. Dofaan

87. Seed drill is used for sowing:

- A. Small seeds
- B. Bolder seeds
- C. Seedlings
- D. Plants

88. Planters are used for sowing:

- A. Small seeds
- B. Bolder seeds
- C. Seedlings
- D. Plants

89. The dibbling method of sowing reduces seed rate by:

- A. 1/2nd
- B. 1/3rd
- C. 1/5th
- D. 2/3rd

90. _____ different types of crops are grown in India.

- a) 230
- b) 260
- c) 250
- d) 220

91. In 1951 there were _____ no of tractors present in India.

- a) 8635
- b) 8000
- c) 5000
- d) 200

92. _____ has highest average farm power intensity.

- a) Karnataka
- b) Maharashtra
- c) Haryana
- d) Punjab

93. India receives _____ amount of solar energy

- a) 5×10^{15} kwh/year
- b) 5×10^{10} kwh/year
- c) 5×10^{12} kwh/year
- d) none of the above

94. Solar energy in India can be used for _____ number of days.

- a) 365
- b) 200
- c) 100
- d) 150

95. Production of tractors, motor, engines and process equipment is domain of organised

- a) Unorganised sector
- b) Organised sector
- c) Both of the above
- d) None of above

96. The extent of area under the command of draught animals is about

- a) 55%
- b) 54%
- c) 57%
- d) 60%

97. _____ gas is the mixture mainly consisting of carbon monoxide and hydrogen in specially designed apparatus.

- a) CNG
- b) LPG
- c) Biomass
- d) None of the above

98. Anaerobic fermentation of animal excreta leads to generation of _____

- a) Petrol
- b) Diesel
- c) Natural gas
- d) Methane

99. cooking needs of the village are mostly met by the burning of _____

- a) Biomass
- b) Petrol
- c) Diesel
- d) None of the above

100. Mechanization helps in _____

- a) Dairying
c) Animal husbandry
- b) Fisheries
d) All of the above
101. The level of farm mechanization in _____ is 90%
a) US
c) Brazil
- b) China
d) Japan
102. The level of farm mechanization in _____ is 75%
a) US
c) Brazil
- b) China
d) Japan
103. The level of farm mechanization in _____ is 57%
a) US
c) Brazil
- b) China
d) Japan
104. Use of improved implements has potential to increase productivity up to _____
a) 10%
c) 20%
- b) 30%
d) 15%
105. Use of improved implements has potential to reduce the cost of cultivation up to _____
a) 10%
c) 20%
- b) 30%
d) 15%
106. _____ seeding and planting operation are mechanized in India
a) 40%
c) 37%
- b) 60%
d) 29%
107. _____ operation are mechanized in India
a) seeding and planting
c) irrigation
- b) soil working
d) plant protection
108. _____ seed bed preparation are mechanized in India
a) 40%
c) 37%
- b) 60%
d) 29%
109. _____ plant protection operation are mechanized in India
a) 40%
c) 37%
- b) 34%
d) 29%
110. Tractor is an important machine used formechanization.
A) Factory
C) Industrial
- B) Farm
D) Commercial
111. Practice population has increased from..... to about 1.04 million during last 40 years
A) 1000
C) 9000
- B) 5000
D) 7000
112.models of tractor are being produce in India in different HP ranges.
A) 39
C) 50
- B) 40
D) 45
113. More than _____ farmers depend upon animal drawn implements.
A) 50%
C) 45%
- B) 60%
D) 80%
114. Use of improved implements has potential to _____ productivity up to 30% and reduce the cost of cultivation up to 20%
A) Increase
C) Improve
- B) Decrease
D) Up
115. Though agriculture contribute only 17.4 % to the country's gross value added for the year....
A) 15.4%
C) 18.4%
- B) 17.4%
D) 20.4%
116. History indicates that the process of mechanization iswith no ultimate goal in sight.
A) Dynamic
C) Statics
- B) Motion
D) None of the above

117. _____ is a self-propelled power unit having wheels for tracks for operating agriculture implements and machines including trailers.
- A) Car
B) Tractor
C) Motorcycle
D) Truck
118. Post harvest Technology deserve special attention.
- A) True
B) False
119. Most grain and seed crops are harvested with combined harvest threshers, commonly known as.....
- A) Combines
B) Different
C) Crops
D) None of above
120. India is the largest producer of tractors in the world.
- A) True
B) False
121. Safety, comfort and _____ fir the operator will continue the great deal of attention.
- A. Inconvenience
C. Difficulties
B. Convenience.
D. None of the above
122. Mechanical harvest of fruits and vegetables are difficult because_____
- A. Different characteristics.
C. Machinery
B. Operator
D. All of the above
123. Tractor is a _____ power unit.
- A. Self-propelled.
C. Propelled
B. Impelled
D. None of the above
124. Tractor engine is used as_____
- A. General purpose
C. Special purpose
B. Prime mover.
D. None of the above
125. _____ tractor us used for major operation such as ploughing, harrowing, sowing, harvesting and transporting work.
- A. Row crop Tractor
C. Special purpose tractor
B. Crawler tractor
D. General purpose tractor.
126. Four wheel tractors are most _____ everywhere.
- A. Popular.
C. Non popular
B. Best
D. Worst
127. How many HP for tractor is suitable suitable for 20 hectares farm?
- A. 10-15
C. 20-25.
B. 30-35
D. 40-45
128. A tractor with fewer wheels Base, higher ground clearance may work successful in which soil
- A. Heavier
C. Black cotton soil
B. Wet soil
D. Lighter soil
129. Tractors with less specific fuel consumption should be preferred because.....
- A. High efficiency
C. Good output
B. Good for field
D. Less cost.
130. Air cooled engine is preferred in which condition?
- A. Cool condition
C. Humid condition
B. Hot zone.
D. None of the above
131. _____ is the prime mover in which the direction of travel and its control for field operation is performed by the operator walking behind it.
- A. Power tiller
C. Tillage
B. Disc plough
D. Rotary tiller
132. The concept of power tillage came in the world in the year _____.
- A. 1910
C. 1920
B. 1945
D. 1932
133. _____ is the first country to use power tiller on large scale.
- A. India
C. China.

- C. Japan
D. Nepal.
134. Power tiller was first introduced in India in the year _____.
A. 1963
B. 1950
C. 1953
D. 1945
135. Power tiller may be called a _____ walking type tractor.
A. Double axle
B. Triple axle
C. Single axle
D. None of the above
136. _____ is pulled and guided from single hitch point but its weight is not supported by the tractor.
A. Trailed type implement
B. Mounted type implement
C. Semi mounted type implement
D. Automatic implement
137. For operation of power tiller, the power is obtained from the _____.
A. Batteries
B. SI engine
C. IC engine
D. All of the above
138. _____ is the mechanical manipulation of soil to provide favorable condition for crop production.
A. Power tiller
B. Tillage
C. Rotary tiller
D. Disc plough
139. Production of power tiller rapidly increased during the year _____.
A. 1950-1970
B. 1960-1975
C. 1970-1980
D. 1950-1965
140. _____ is used to transmit power from the engine to the main clutch.
A. V-Belt
B. cross belt
C. open belt drive
D. flat belt
141. _____ part is attached to the shoe which helps to penetrate into soil
a) shoe
b) beam
c) saddle
d) hammer
142. _____ connects the main body to the plough to the Yoke
a) beam
b) saddle
c) stool
d) hammer
143. The size of the plough is represented by the _____ of the body
a) width
b) breath
c) length
d) height
144. _____ tillage are proper for seeding and planting operations a secondary
a) Primary
b) Basic
c) Medium
d) None of these
145. The following tillage is not a type of a tillage
a) maximum
b) minimum
c) strip
d) rotary
146. _____ tillage utilizes two or more different types of tools to simplify fields
a) combined
b) basic

- c) strip
 - d) rotary
147. _____ is a individual working element such as a disk or shovel
- a) tool
 - b) machine
 - c) stripped
 - d) rotary
148. The following operation is not carried out by an plough
- a) sowing seeds
 - b) breaking the clods
 - c) crushing the soil
 - d) hammering the soil
149. _____ operation is used to cut and mix the soil
- e) rotary
 - f) mlutch
 - g) strip
 - h) none of these
150. The steel mainly contains how much percentage of carbon
- a) 0.70 to 0.80%
 - b) to 0.3 %
 - c) 0.5 to 0.1 %
151. _____ is the function of mold board plough.
- a) Cutting the furrow slice
 - b) Lifting the soil
 - c) Pulverizing the soil
 - d) All of the above
152. _____ is the component of mold board plough.
- a) Land side
 - b) Soil
 - c) Both a & b
 - d) None
153. _____ component is penetrates into soil and make a horizontal cut below the soil surface.
- a) Frog
 - b) Land side
 - c) Share
 - d) None
154. Share is a _____ components.
- a) Sharp
 - b) Polished
 - c) Pointed
 - d) All of above
155. Shares are make of _____
- a) Chilled cast iron
 - b) Steel
 - c) Both
 - d) None
156. _____ to _____ manganese besides other minor elements.
- a) 0.10 to 0.50%
 - b) 0.20 to 0.60%
 - c) 0.40 to 0.80%
 - d) 0.50 to 0.80%

157. _____ are the types of moldboards.
- General purpose
 - Stubble
 - Slat
 - All of above
158. _____ is the general purpose lying.
- Between stubble and sod
 - Between soil and mud
 - Between man and machine
 - None
159. _____ turns the furrow slice used in stubble soils.
- Stubble type
 - Slat type
 - Share
 - Jointer
160. _____ is used in tough soil of grasses.
- Soil
 - Sod & Breaker type
 - Slat type
 - Plough
161. _____ have gaps between the slats.
- Share
 - Soil
 - Slat type
 - None
162. There are a few accessories necessary for plough are _____.
- Jointer
 - Coulter
 - Land wheel
 - All of above
163. _____ is the wheel of the plough, which runs on the plough land.
- Gauge wheel
 - Land wheel
 - Furrow wheel
 - None
164. Disc plough is more useful for _____
- Shallow ploughing
 - Fast ploughing
 - Deep ploughing
 - Slow ploughing
165. Disc plough works in loose soil also without much clogging.
- True
 - False
166. Standard disc plough contains steel disc of _____ diameter.
- 10-30cm
 - 30-60cm
 - 60-90cm
 - 90-120cm
167. The components of disc plough are _____.
- Frame extension
 - Top link connection
 - Furrow wheel
 - All of the above
168. The disc is made from _____ of 5mm-10mm thickness.
- Heat treated steel
 - Case hardened steel
 - Stainless steel
 - High speed steel
169. It can be used in _____ soil without much danger of breakage.

- a) Soft
 - b) Dry
 - c) Stumpy and Stony
 - d) Wet
170. The disc angle of a good plough varies between_____.
- a) 25°-30°
 - b) 10°-15°
 - c) 18°-24°
 - d) 42°-45°
171. The function of scraper is to_____.
- a) Remove soil stuck to the disc
 - b) Provide support to the disc
 - c) Used for holding plough
 - d) None of the above
172. The number of tynes varies from_____.
- a) 3-4
 - b) 18-23
 - c) 79-90
 - d) 28-54
173. Blade that works well in trashy conditions_____.
- a) Twisted blade
 - b) Straight blade
 - c) L type
 - d) None of the above
174. Ploughs used to break through shatter compacted or imperable soil layers.
- a) Disc plough
 - b) Mold board plough
 - c) Chisel plough
 - d) Country plough

175. The hp required to operate subsoil plough _____.
- 10-20hp
 - 20-30hp
 - 60-100hp
 - 140-200hp
176. Secondary tillage consists of conditioning the ____ to meet the different tillage objectives of the farm
- Weather.
 - Soil.
 - Atmosphere
 - All of the above
177. Lighter and final operations performed on the soil after _____ tillage operations.
- Primary.
 - Secondary
 - Tertiary
 - None
178. Secondary tillage implements are _____ and _____.
- Hammer and screwdriver.
 - Lathe and drilling machines.
 - Tractor and bullock
 - All of the above
179. Harrow is secondary tillage implement used to cut soil to shallow depth for _____ and _____
- smoothing.
 - pulverizing.
 - none of the above
 - both
180. _____ harrow consist of two gangs placed end to end.
- Single action disc harrow
 - Double action disc harrow
 - Triple action disc harrow
 - None above
181. Types of double action disc harrow
- Tandem disc harrow.
 - Off-set disc harrow.
 - None
 - Both A and B
182. Each set of disc mounted on common shaft is called as _____
- Arbor bolts.
 - Spool.
 - Gang
 - Bearing
183. _____ operates gang mechanisms.
- Gang.
 - Gang bolt
 - Spool
 - Gang control lever
184. The lateral movement of disc on shaft is called as _____
- Spool.
 - Bearing
 - Gang
 - Gear
185. _____ is essential to counter act the end thrust of gang due to soil thrust..
- Spool.
 - Bearing.
 - Gang
 - Gang bolt
186. _____ it is a harrow with peg shaped teeth of diamond cross section to a Rectangular frame.
- Spike tooth harrow
 - Acme harrow
 - Spring tooth harrow
 - Triangular harrow.
187. _____ it is made of wooden plank used for smoothing the soil and crushing the Weeds .
- Triangular harrow
 - Patela
 - Blade harrow
 - Guntaka
188. _____ is used for making bunds or ridges by collecting the soil .
- Ridger
 - puddler
 - leveller
 - Bund former
189. The ridger generally has _____ shaped shares fitted to the frog .
- V shaped
 - Both A and C
 - U shaped
 - None of the these
190. _____ harrow which consist of one or more blades attached to the beam

Or frame, used for shallow working of the soil.

A Spike tooth harrow

C Spring tooth harrow

B Acme harrow

D Blade harrow

191. The weight of the puddler is _____.

A 10-20 kg

C 20-30 kg

B 30-40 kg

D 45-55 kg

192. Puddling is done in standing water of _____ depth.

A. 10-15 cm

C 20-25 cm

B. 5-10 cm

D 15-20 cm

193. _____ is known as ridging plough and double mould board plough.

A. Bund former.

C Puddler

B. Leveller.

D Ridger

194. _____ it's consists of former board , beam and handle.

A. Ridger.

C Cultivator

B. Puddler.

D Bund former

195. _____ it is a Cultivator with tines or blades mounted on a power driven horizontal shaft.

A. Disc cultivator.

C Rotary cultivator

B. Tine cultivator.

D Trailed type cultivator

196. _____ is not a tractor drawn tillage tool

A. Cultivator

B. Augar plough

C. Narrow

D. Plank

197. _____ is not a secondary tillage.

A. Disc plough

B. Plough

C. Mould board

D. None of these

198. _____ is not a hand tool.

A. Mould board.

B. Shovel

C. Spade

D. Mamounty

199. Power tillage operate most satisfactory with _____

A. Rotary tillage

B. Plough

C. Transport carts

D. Reapers

200. Vertical section of plough influence _____

A. Pulverisation

B. Depth of cut

C. Width of cut.

D. Direction of pull

201. Dead furrow is made by _____

A. One way MB plough.

B. 2 way MB plough

C. Ridger.

D. Disc harrow

202. The mowers are designed to cut _____

A. Wheat

B. Poddy

C. Mustard.

D. Grasses

203. The thresher caused Mon seed damage if _____

A. Speed is increases

B. Clearance is increase

C. Feed rate is reduced.

D. Speed is reduced

204. The two primary tillage equipment's are _____

A. MB and disc harrow

B. Disc plough and disc harrow

C. Disc harrow and cultivator.

D. MB and. Subscriber

205. weight transfer in a tractor in a tractor implement system is caused by _____

A. Application of Paul.

B. Tractor force

C. Tractor slip.

D. Weight of operator

206. The power tiller harrow is a _____ mounted reciprocating comb type.

A. Rear. C. Right

B. Front. D. None of the above

207. It has Staggered pegs in two rows at ____ Spacing.

A. 100 mm.

C. 400 mm

- B. 200 mm D. 50 mm
208. The frequency of operation is ____ per minute
 A. 600 cycles C. 400 cycles
 B. 100 cycles. D. 200 cycles
209. Bund former is used for making bunds or ridges by collecting ____
 A. Mud C. Water
 B. Soil. D. All of the above
210. ____ are used to hold water in the soil.
 A. Bunds. C. Harrow
 B. Ridger. D. None of the above
211. The ____ is also used for forming field or channels.
 A. Bunds. C. Ridger
 B. Harrow. D. None of the above.
212. The ridger has— Shaped or —— shaped share fitted to the frog
 A. V, Wedge. C. U, wedge
 B. None of the above D. Both A and C
213. —— is important for churning of the soil with water
 A. Levelers. C. Bunds
 B. Ridger. D. Puddler
214. Puddling is done in standing water of —— depth
 A. 5-10 cm. C. 1-10 cm
 B. 0-5 cm. D. 10-15 cm
215. The weight of the puddler is ——
 A. 150-200 kg. C. 100-150 kg
 B. 30-40 kg D. 200-250 kg
216. ____ consists of preparing seedlings in nursery and then planting these seeds in the prepared field.
- Hill dropping
 - Transplanting
 - Seed dropping behind the plough
 - Check row planting
217. Name the method which is not a sowing method
- Broadcasting
 - Hill dropping
 - Dibbling
 - Hitching
218. ____ is useful for uprooting and burying weeds between standing rows of rice crops in wetlands
- Sweep
 - Engine operated weeder
 - Cono weeder for paddy
 - Dry land weeder
219. Below is not a function of seed drill
- To meter the seeds
 - To carry the seeds
 - To remove the seeds
 - To place the seeds in furrow
220. _____ is a component of seed drill
- Transport wheel
 - Storage box
 - Cultivator
 - Driller
221. Weeds can compete with productive crops or pasture or convert productive land to unusable scrub
- True
 - False
222. _____ weeder is useful for weeding crops like tapioca ,cotton ,sugarcane, tomato and pulses

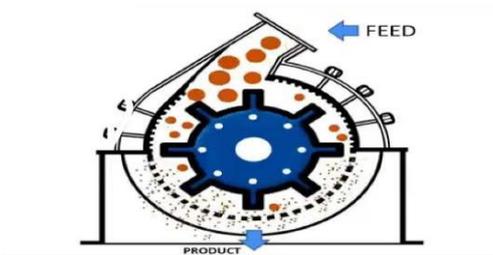
- a) Engine operated weeder
 - b) Sweep
 - c) Cono weeder for paddy
 - d) Junior hoe
223. _____ has a long handled tool and a 120 mm diameter star wheel
- a) Engine operated weeder
 - b) Cono weeder for paddy
 - c) Dry land weeder
 - d) Sweep
224. Junior hoe consist of _____ and _____ attached to the framework with hinge arrangement
- a) Reversible showers, nozzle body
 - b) Reversible shovels, curved tyres
 - c) Reversible shovels, curved tyres
 - d) Pressure regulator, spray lance
225. In junior hoe the coverage is _____ ha per day
- a) 1.5
 - b) 2.5
 - c) 1.7
 - d) 3.0
226. Very common sowing methods used in villages.
- a. Broadcasting
 - b. Dibbling
 - c. Drilling
 - d. Seed dropping behind the plough
227. Transplanting method is generally used in nursery.
- a. True
 - b. False
228. _____ method used for planting in row to row and plant to plant distance is uniform.
- c. Transplanting
 - d. Hill dropping
 - e. Check row planting
 - f. Drilling
229. Functions of seed drill machine _____.
- g. To carry the seeds
 - h. To open furrow to an uniform depth
 - i. To cover the seeds and compact the soil around the seed
 - j. All of the above
230. Components of seed drill.
- a. Frame
 - b. Seed box
 - c. Transport wheels
 - d. All of the above
231. In dry land weeder coverage is ___ha/day
- a. 0.05
 - b. 0.07
 - c. 0.1
 - d. 0.18
232. The Sweep coverage is ___ to ___ ha/day.
- a. 1.75 to 2.5
 - b. 1.95 to 3.5
 - c. 1.35 to 2.3
233. Basic components of sprayer.
- a. Nozzle body
 - b. Nozzle boss
 - c. Filter

- d. Spray gun
 - e. All of the above
234. Broadcasting is the process of random scattering of seed on the surface of seed beds.
- a. True
 - b. False
235. _____ methods consists of dropping the seeds in furrow lines in a continuous flow and covering them with soil.
- a. Dibbling
 - b. Transplanting
 - c. Drilling
 - d. Seed dropping behind the plough
236. _____ equipment is used for weeding in between rows of standing crops.
- a) Engine operated weeder
 - b) Cono weeder for puddy
 - c) Junior how
 - d) Dry land weeder
237. _____ is not the component of spare.
- a) Swirl plate
 - b) Filter
 - c) Cut-off valve
 - d) Pump
238. _____ machine is used for placing the seeds in continuous furrows at uniform rate.
- a) Dry land weeder
 - b) Junior home
 - c) Seed drill
 - d) Engine operated weeder.
239. _____ is not the function of seed drill
- a) To carry seeds
 - b) To increase size of seed
 - c) To meter the seeds
 - d) Two places in furrows in acceptable form.
240. _____ is not component of seed drill.
- a) Pressure regulator
 - b) Frame
 - c) Seed box
 - d) Transport wheel
241. Which equipment is used for weeding in Row crops in rain fed.
- a) Puddy cono weeder
 - b) Engine operated weeder
 - c) Dry land weeder
 - d) Seed drill
242. Paddy Kana weeder is useful for.
- a) Weeding between rows of crops like cotton for sugarcane.
 - b) For uprooting and burying weeds in between standing rows of rice crops in in wetland.
 - c) For weeding in raw crops in rain fed.
 - d) For placing seed in continuous flow.
243. _____ is the type of seed metering mechanism.
- a) Fluted feed type
 - b) Cup feed type
 - c) Brush feed mechanism
 - d) All of above
244. Which component of seed drill is used for transmit power to operate seed dropping mechanism.
- a) Frame
 - b) Transport wheel
 - c) Seed box
 - d) Covering device
245. _____ is the application of sprayer.
- a) To break the liquid droplet of effective size
 - b) To distribute them uniformly event plants
 - c) To regulate amount of liquid to avoid excessive application.
 - d) All above them
246. _____ the capacity of ultra-low volume spray
- a) less than 5 litres/hector
 - b) more than 5 litres/ hector
 - c) 5 to 400 litres/hector
 - d) More than 400 litres/hector
247. Knapsack hand compression sprayer develops pressure between
- a) 2 to 3.5 kg/cm
 - b) 3 to 12 kg/cm
 - c) 12 to 35 kg/cm

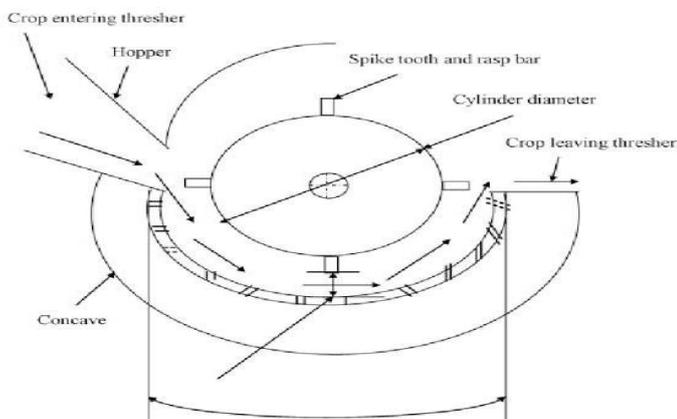
- d) None of the above
248. _____ sprayer do not require a separate tank
- Hand compression sprayer
 - Knapsack hand compression sprayer
 - Rocker sprayer
 - Power sprayer
249. _____ is the types of nozzle used in sprayers
- Hollow cone type of nozzle
 - Solid cone type nozzle
 - Fan type nozzle
 - All of the above
250. _____ is not a type of spray
- High volume spray
 - Medium volume spray
 - Low volume spray
 - Ultra low volume spray
251. _____ are the application of pedal sprayer
- Row crops
 - Vegetables
 - Nursery stocks
 - Tall crops
252. Harvesting can be done by
- Manully operated tools
 - Animal drawn machines
 - Mechanically operated machines
 - All of the above
253. _____ is the minimum pressure required for operating a nozzle in desirable condition
- 1 kg/cm
 - 1.5kg/cm
 - 2 kg/cm
 - 2.5kg/cm
254. Nozzle consists of _____ components
- Washer
 - Vortex plate
 - Strainer
 - All of the above
255. The power developed in prime mover of power operated sprayer is_____
- 1 to 5 HP
 - 5 to 10 HP
 - 10 to 20 HP
 - None of the above
256. Junior hoe cover ha per day.
- 2.5.
 - 1.5.
 - 3.5
 - 1.0
257. Application of Herbicides to remove
- Weeds
 - Pest.
 - Disease
 - Plant
258. Application of insecticides to control
- Weeds
 - Insect Pest
 - Disease
 - Plant
259.Component to remove suspended matter large than a predetermined size from fluid.
- Relief valve.
 - Spray gun.
 - Filter
 - Nozzle

260. Device to control the pressure of fluid and gases within range of settings.
- Relief valve.
 - Spray gun.
 - Filter
 - Pressure regulator
261. Fan type nozzle capacity is to litres.
- 0.5 to 3.5.
 - 0.6 to 4.
 - 0.6 to 3.5
 - 0.8 to 6
262. Motorized knapsack sprayer blade rotation at about To rev/min.
- 200 to 300.
 - 120 to 400.
 - 100 to 120
 - 150 to 300
263. In battery operated sprayer fit Volta rechargeable battery.
- 3
 - 5.
 - 4
 - 6
264. Foot or pedal sprayer developed Kg/cm³ Pressure.
- 17-21.
 - 17- 28.
 - 18-25
 - 20-25
265. Nozzle diameter of hand atomizer is between to
- 0.7 – 1.5.
 - 0.6 – 1.6.
 - 1.1- 1.5
 - 0.8 to 1.8
266. Equipment used primary for wedding is _____
- Spray Lance
 - Nozzle cap
 - Intercultural
 - Nozzle tip
267. A _____ and _____ are fixed to the framework for guiding.
- Nozeel cap , disc
 - Handle, beam
 - Spray boom, filter
 - Shovel can, framework
268. Basic components of sprayer is
- Nozzle body
 - Spray boom
 - Nozzle cap
 - All of the above
269. _____ nozzle which forms narrow elliptical spray pattern.
- Hollow cone nozzle
 - Hard cone nozzle
 - Solid cone nozzle
 - Fan nozzle
270. Han optimizer sprayer has container of _____ to _____ litres capacity.
- 0.5 to 4.5
 - 0.1 to 3.4
 - 0.5 to 3.5
 - None of the above
271. _____ Sprayer are versatile and simple power operated machines.
- Foot pedal sprayer
 - Motorized knapsack sprayer
 - Hand optimizer
 - All of the above
272. Motorized knapsack sprayer are powered by _____ - _____ HP petrol engine.
- 1.2 to 3.2
 - 2.2 to 3.4
 - 0.2 to 3.2
 - 1.2 to 3.0
273. A Power sprayer essentially consists of:-

- a) Tank
 - a) Agitator
 - b) Pressure Gauge
 - c) All of the above
274. Motoried knapsack duster is commonly in_____
- a) America
 - b) India
 - c) France
 - d) None of the above
275. _____ is a machine to cut herbage crops and leave the them in swath.
- a) Wind rower
 - b) Sickle mower
 - c) Fail mower
 - d) Gang mower
276. It consists of beats mounted on a shaft which rotates inside a closed casing and concave.
- a) Dummy type
 - c) Spike-tooth type
 - c) Hummer type
 - d) Axial flow type
277. It consists of spike tooth cylinder, woven- wire mesh concave and upper casing provided with helical concave.
- a) Dummy type
 - c) Spike-tooth type
 - b) Hummer type
 - d) Axial flow type
278. _____are mounted on the Periphery of a cylinder that rotates inside a closed casing and concave.
- a) Dummy type
 - c) spike-tooth type
 - b) Hummer type
 - d) Axial flow type
279. Identify the picture.



- a) Hummer mill type
 - b) Spike-tooth type
 - c) Dummy type
 - d) Axial flow type
280. Identify the picture.



- a) Concave clearance
- b) Sieve clearance
- c) Concave units
- d) Grain sieve

281. Machine factors which affecting thresher preformation.
- a) Variety of crop, Moisture in crop material b) Feeding chute angle, cylinder type
c) Cylinder speed, feed rate d) Cylinder type ,feed rate
282. Operational factors which affecting thresher preformation.
- a) Variety of crop, Moisture in crop material b) Feeding chute angle, cylinder type
c) Cylinder speed, feed rate d) Cylinder type ,feed rate
283. Crop factors which affecting thresher preformation.
- a) Variety of crop, Moisture in crop material b) Feeding chute angle, cylinder types
c) Cylinder speed, feed rate d) Cylinder type, feed rate
284. _____ machine designed for harvesting, threshing , cleaning and collecting grains while moving through standing crops.
- a) Combine b) Self operated VCR
c) Power roller thresher d) Post harvesting technology
285. The _____ takes place between the cylinder and concave units of the combine.
- a) Threshing b) Feeding drum
c) Straw spreader d) Separating
286. _____ is an assembly comparing of fingers, knife guides on wearing plates and shoe.
- a) Cutter bar b) Knife section
c) Pitman d) Shoe
287. _____ are the applications of cutting bar.
- a) Cutting metal sheets. b) Cutting glass type materials.
c) Cutting grasses and forage. d) None of these.
288. Knife clips are placed with wearing plates spaced ___to___ apart
- a) 20 to 30 b) 45 to 60
c) 20 to 35 d) 30 to 40
289. _____ type of connecting rod which is pinned to the crankshaft with the help of a pin, which helps to transmit the cut material.
- a) Pitman b) Cutter bat
c) Shoe d) Wearing plate
290. _____ is a common troubles in the operation of Mower.
- a) Knives get twisted. b) Knives get melted.
c) Knives gets rusted. d) Knives gets break.
291. At what degree does the cutter bar is set for achieving the object ?
- a) 96 b) 88
c) 69 and half. d) 105
292. _____ is the length of cutter bar which is recommended as per the standard of design of it.
- a) 4cm b) 6cm
c) 2cm d) 3cm
293. Cutter bar is made up of which material_____
- a) High grade steel. b) Low carbon alloy steel.
c) Platinum. d) High speed tool steel.
294. How much of lead degree is given if the cutter is set at 88 degree?
- a) 2-degree b) 4 degree
c) 3-degree d) 5 degree
295. _____ are the labelling of cutter bar.
- a) Shoe, ledger plate, wearing plate, knife, knife section, etc.
b) Star wheel, engine, cage wheel, etc.
c) both A & B
d) Conveyor belt, cutter bar, rivers, etc.
296. In vertical conveyor reaper, the crop to be harvested are guided by
- a) Star wheel b) Reel

- (a) Fixed (c) Programmable
(b) Flexible (d) Both B & C
315. Performs tasks that are beyond human ____
(a) Size (c) Weight
(b) Speed (d) All
316. Post harvest Technology optimum in ____
(a) Losses in handling (c) Cost reduction
(b) Losses in packaging (d) All
317. Post harvest technology has potential to create ____
(a) Rural industries (c) Urban industries
(b) Small scale ind. (d) Large scale ind.
318. In India, ____ people live in village and ____ of them depend on agriculture
(a) 50%,50% (c) 60%,80%
(b) 80%,70% (d) 70%,70%
319. In which process, Purification of raw materials by removing foreign matter
(a) Harvesting (c) Primary
(b) Secondary (d) Tertiary
320. In which process, processing of primary processing raw material into product
(a) Harvesting (c) Secondary
(b) Tertiary (d) None
321. RTC means ____ in consumer preferences in food processing sector.
(a) Ready to cook (c) Ready to eat
(b) Ready to cut (d) none
322. India is the world 2nd largest producer of ____ & ____
(a) Car, bike (c) Education, industries
(b) Both a & c (d) Fruit, vegetable
323. ____ production has traditionally been rural level cottage industrial activity
(a) Pickles (c) Rice
(b) Both a & d (d) Chutneys
324. Important vegetable exported are ____
(a) Carrot (c) Onions
(b) Root (d) Other
325. The main purpose of agricultural processing ____
(a) Increase production (c) Reduce labour
(b) Increase speed of working (d) None

326. Knife clips are placed with wearing plates spaced from ____ cm apart.

- A) 10-20cm
B) 60-90cm
C) 15-25cm
D) 30-30cm

327. Play in bearings and worn knife head holders caused due to ____ in cutter bar.

- A) Pitman
B) Breaking of knives.
C) Knife head.
D) Grass board.

328. Capacity of vertical conveyor reaper is

- A) 0.1-0.9 ha/h
B) 10-20 ha/h
C) 0.4-0.6 ha/h
D) 1-2 ha/h

329. ____ is not well register, there is unbalance load, uneven harvesting and excessive clogging of crops on the knife

- A) Vertical conveyor reaper
B) MOVER

- C) Reaper binder
 - D) Potato digger elevator.
330. Different parts of Thresher are
- A) Feeding device
 - B) Threshing cylinder
 - C) Concave
 - D) All of the above.
331. Major type of Thresher commercially available
- A) Dummy
 - B) Raspbar
 - C) Concave
 - D) Elevator Canvas
332. To separate grains from the harvested crop and provide clean grain without much loss and damage which called as _____
- A) Potato digger elevator
 - B) Groundnut digger shaker
 - C) Reaper binder
 - D) Threshing
333. Post harvest technology has to develop in consonance with the needs of each society to
- A) Self-propelled type
 - B) Improve nutrition
 - C) PTO driven type
 - D) Conveyors
334. In threshers what are mounted on the periphery of the cylinder
- A) Spike tooth type
 - B) Raspbar type
 - C) Syndicator type
 - D) Wire loob type.
335. Is hammer mill is similar to dummy type, but it is provided with aspirator for cleaning grains.
- A) True
 - B) False
336. _____ is part of the Cutter bar is shaped in Triangular shape with two cutting edges
- a) Knife head
 - b) Knife back
 - c) Grass board
 - d) Knife Section
337. Cutter Bar made of _____
- a) Copper
 - b) High Grade Steel
 - c) Cast iron
 - d) None of the above
338. The conventional type of Mower consists of which of the following
- a) Wearing Plate
 - b) Nozzle
 - c) Air Chamber
 - d) None of the above
339. Steel Tank in the power sprayer is used to avoid
- a) Moisturisation
 - b) Corrosion
 - c) Leakages
 - d) Stability
340. The reaper in a tractor can be raised or lowered by
- a) Mechanically
 - b) Pneumatic system
 - c) Hydraulic system

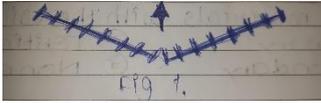
- d) Electric system
341. _____ is the range of capacity of Vertical Conveyer reaper
- 0.1- 0.5 ha/h
 - 0.4-0.6 ha/h
 - 10-15 ha/h
 - None of the above
342. A potato digger elevator can be mounted to a tractor with _____ hp.
- 10-15 hp
 - 20-25 hp
 - 50-70 hp
 - None of the above
343. ____ is the limit percentage for grain loss in India.
- 1.5 %
 - 5 %
 - 15%
 - 7.26 %
344. ____ machine is used for "Threshing , Harvesting , Separating , Cleaning and Collecting grains "
- Lathe
 - Milling
 - Combine
 - Forklift
345. By which dimensional cut is the COMBINE indicated
- Length
 - Width
 - Diameter
 - Diagonal
345. A tractor of 20-25hp is suitable for hectares farm.
- a) 15
 - b) 25
 - c) 20
 - d) 30
346. V-Belt has efficiency and its works as a Shock absorber.
- Low
 - Very low
 - High
 - Very High
347. General purpose tractor is used for
- Major farm operations
 - Crop cultivation
 - Definite jobs
 - All of the above
348. The first successful model of power tiller was designed in the year?
- 1920
 - 1947
 - 1963
 - 1950
349. Special purpose tractor is used for
- Major purpose operations
 - Crop cultivation
 - Definite jobs
 - None of the above
350. A tractor of 30-35hp is suitable for hectare farm
- 20
 - 25
 - 30
 - 35
351. tractors are almost used in the current generation.
- Petrol
 - CNG
 - Electric
 - Diesel
352. Walking Type Tractor is also called as
- Wheel tractor
 - Power tiller
 - Crawler tractor
 - Both a and b
353. Tractor having three of four pneumatic wheels are called as
- Wheel tractor
 - Crawler tractor
 - Walking tractor
 - Power tiller
354. Production of power tiller rapidly increased during year
- 1920 to 1930
 - 1935 to 1945
 - 1950 to 1965
 - 1960 to 1975
355. It is a..... of soil to provide favorable condition for crop production.
- Chemical manipulation.
 - Mechanical manipulation
 - Mechanical & chemical manipulation
 - none of the above
356. Objectives of Tillage

- a. To destroy the prevent weeds. c) both A & B
 b. To reduce soil and erosion d) increase the output of work per unit time
357. Types of Tillage
 a. Minimum Tillage. c) secondary Tillage
 b. Primary Tillage. d) All of the above
358. Components of mold board plough
 a. Share. c) forg
 b. Mould board. d) All of the above
359. Find the odd mean out
 a. Share. c) body
 b. Shoe. d) Landside
360. Functions of mold board plough
 a. Cutting the furrow slice. c) body to yoke
 b. Increase the depth of operation. d) length of the beam
361. The following types of blades are used with the rotor in rotary tiller
 a. 'L' type blade c) both A & B
 b. Twisted blade d) chisel plough
362. Standerd disc plough consist of steel dics of... to..... CM diameter.
 a. 60,90 c) 60,80
 b. 70,100. d) 70,90
363. It is employed on mulchers designed mainly for secondary Tillage
 a. 'L' type blade c) straight blade
 b. Twisted blade d) dics blade
364. The tilt angle varies form...° to..... °. For a good plough
 a. 20°,30°. c) 15°,30°
 b. 10°,30°. d) 15°,25°
365. Normal ploughing up to a depth of about ____ CM.
 i. 20 c) 15
 ii. 14 d) 24
366. Singal acting disk harrow throw the soil in ____ direction.
 i. Opposite. c) left
 ii. Backward d) right
367. ____ plate used for cutting a inverting the soil.
 i. Cooper. c) iron
 ii. Aluminium. d) steel
368. Each set of discs that are mounted on a common shaft is called as ____
 i. Spool. c) Bearing
 ii. Gang. d) Gang control
369. A set of discs are mounted on the _____
 i. Gang bolt c) Both a) and b)
 ii. Arbor bolt. d) Non of the above
370. The spacing between the discs in the gang bolt ranges ____ cm for lighy duty and ____ cm heavy -duty harrows
 i. 15-25 and 25-30 c) 40-45 and 45-50
 ii. 20-30 and 30-40. d) 15-25 and 32-36
371. A lever, which operates the gang mechanism of the disk harrow, is called the ____
 i. Spanners lever. c) spacer lever
 ii. Gang control lever. d) Bearing lever
372. ____ prevents disc from clogging.
 i. Scraper. c) slide disc
 ii. Spikal tooth. d) spring tooth
373. ____ harrow having curved knives.
 i. Spring tooth harrow. c) Acme harrow
 ii. Spikal tooth d) Spike tooth harrow
374. Blade harrow is also named as ____

- a) Crop
b) Definite jobs
c) Major farm operations
d) None of the above
393. Following is the type of tractor
a) General purpose tractor
b) Simple operation tractor
c) Row crop tractor
d) both a and b
394. Crawler tractor is also called as.....
a) Hand tractor
b) Track type tractor
c) Walking type tractor
d) Row crop tractor
395. India is unique in its characteristics, where over different crops are cultivated in region
a) 400.
b) 250
c) 350
d) 300
396. In 2000-2001 the quantum of power has rose to
a) 45.29 million kW
b) 85 million kW.
c) 170 million kW
d) 145 million kW
397. The power intensity of Indian farms increase from to kW/hectare on basis of net-cropped area.
a) 0.2 to 1.30.
b) 0.5 to 1.60.
c) 1.0 to 2.5
d) 1.3 to 2.8
398. In 2000-2001 the use of mechanical & electrical increased from
a) 20% to 45%.
b) 45 to below 83%
c) 45% to 75%
d) 43% to over 83 %
399. India receives amount of solar energy each year
a. 5×10^{10} kWh/year.
b. 4×10^{15} kWh/year.
c) 5×10^{15} kWh/year
d) 5×10^{10} kWh/year
400. From the above options which can used to convert by bio chemical processes to alcohol and esters
a. Cellulose waste and non- edible oil
b. Animal waste
c) fossil fuels
d) none of the above
401. Find odd man out
a) Fanta
b) chakiya.
c) mathani
d) tillers
402. The extent of area under the command of draught animals is about
a. 45%.
b. 75%.
c) 57%
d) 64%
403. Punjab has farm power ok intensity of
a. 200 W/ hector.
b. 3.5 kW/hector
c) 150 kW/hector
d) 3.5 W/hector
404. In 1951, the number of tractors in India was...
a. 8635.
b. 86350.
c) 8563
d) 85630
405. Harrow is a tillage implement that cuts the soil to shallow depth for smoothening and pulverizing the soil as well as to cut weeds and to mix the materials with the soil.
a. Primary.
b. Secondary.
c. Tertiary
d. None
406. Tandem disc Harrow is a disc Harrow comprising of four gangs in which each gang can be angle in..... direction.
a. Angular
b. Opposite.
c. Parallel
d. Perpendicular
407. Normal ploughing is a ploughing up to depth of.....cm.
a. 10.
b. 20.
c. 15
d. 25
408. is a method of ploughing in which the soil broken and turn along the contours.
a. Normal ploughing
b. Sub soil plough.
c. Contour ploughing
d. Disc plough

409. is a harrow which perform harrow operation by means of set or a number of sets of rotating slat each set being mounted on common shaft.
- a. Spike tooth harrow c. Triangular harrow
b. Acme harrow. d. Disc harrow

410. Identify the following figure-



- a. Offset disc harrow. c. Single action disc harrow
b. Double action disc harrow d. Tandem disc harrow
411. Each set of disk that are mounted on the common shaft is called the.....
- a. Gang control lever c. Spool
b. Gang bolt. d. Gang
412. The flanked tube mounted on the gang bold between every two disc to prevent the lateral movement of the disc on the shaft is called.....
- a. Bearing. c. Gang bolt
b. Gang. d. Spool
413. is essential to counter act the and thrust of gang due to soil thrust.
- a. Gang c. Spacer
b. Bearing. d. Gang bolt
414. is a circular concave revolving steel plate using for cutting and inverting the soil.
- a. Gang bolt. c. Disc
b. Bearing d. None
415. _____ is the process of random scattering of seed on the surface of sead beds.
- a) Broadcasting. b) Dibbling
c) Drilling. d) Transplanting
416. _____ is the process of placing seeds in holes made in seedbed and covering them.
- a) Broadcasting. b) Dibbling
c) Drilling. d) Transplanting
417. _____ consists of dropping the seeds in furrow lines in a continuous flow and covering them.
- a) Broadcasting. B) Dibbling
c) Drilling. D) Transplanting
418. _____ is very common method used in villages.
- a) Seed dropping behind the plough
b) Transplanting
c) Hill dropping
d) Check row planting
419. _____ consists of preparing seedlings in nursery and then planting these seedlings in the prepared field.
- a) Seed dropping behind the plough
b) Transplanting
c) Hill dropping
d) Check row planting
420. In _____ method, seeds are dropped at fixed spacing and not in a continuous stream.
- a) Seed dropping behind the plough
b) Transplanting
c) Hill dropping
d) Check row planting
421. In _____ method, row to row and plant to plant distance is uniform.
- a) Seed dropping behind the plough
b) Transplanting
c) Hill dropping
d) Check row planting

422. _____ is a machine for placing the seeds in a continuous flow.
- Seed drill
 - Transplanting
 - Hill dropping
 - Check row planting
423. _____ is a device to refill a furrow after seed has been placed in it.
- Seed box
 - Covering device
 - Transport wheel
 - Seed drill
424. The mechanism of a seed drill or fertilizer distributor which delivers seeds or fertilizers from the hopper at selected rates is called _____.
- Seed drill
 - Seed box
 - Seed metering mechanism
 - Covering device
425. A metering mechanism that does not required cut-off device is:
- Inclined plate
 - Vertical plate
 - Horizontal plate
 - All are correct
426. The metering mechanism used in potato planter is:
- Fluted roller
 - Brush feed type
 - Picker wheel type
 - Cell feed type
427. In cup food metering device, the seed rate is controlled by:
- Shaft rotation
 - Speed of machine
 - Size of cups
 - All are correct
428. The furrow opener used in black cotton soil is:
- Disc type
 - Shoe type
 - Reversible shovel type
 - Hoe type
429. The shovel of seed drill is made up of:
- Cast iron
 - Mild steel
 - White metal
 - Carbon steel
430. Blower is part of:
- Planter.
 - Zero till drill
 - Pneumatic seed drill
 - Till plant machine
431. Pneumatic seed drills are suitable for sowing:
- Small seeds
 - Bolder seeds
 - Both (a) & (b)
 - None of these
432. The fluted roller of seed drill is made of:
- Aluminum
 - Cast iron
 - Plastic
 - All are correct
433. For sowing of wheat seed, a suitable metering mechanism is:
- Cup feed
 - Cell feed
 - Fluted roller
 - Brush feed
434. A zero till seed-cum-fertilizer drill is designed for sowing:
- Paddy
 - Wheat
 - Potato.
 - Vegetable
435. Bucket type sprayer consist of:
- Single and double acting pump
 - Centrifugal pump
 - Plunger type pump
 - All are correct
436. The pump is mostly made of:
- Aluminium
 - Copper
 - Brass
 - Plastic
437. A tank capacity of knapsack sprayer is about:
- 5-10 litres
 - 8-10 litres
 - 9-22.5 litres
 - 10-25.5 litres

438. Area that one man can spray in a day is:
 A. 0.1 ha B. 0.2 ha
 C. 0.3 ha. D. 9.4 ha
439. Amount of liquid that a man can spray in a day is:
 A. 60 litres liquid B. 70 litres liquid
 C. 80 litres liquid D. 90 litres liquid
440. Tank capacity of compression sprayer is:
 A. 10 litres B. 12 litres
 C. 14 litres D. 20 litres
441. Hand atomizer is used for spraying in:
 A. Nursery B. Orchard
 C. Field crop D. None of these
442. The pump is used in power-operated sprayer is:
 A. Plunger type B. Diaphragm type
 C. Gear type D. Piston type
443. The pump used in airplane sprayers:
 A. Dentrifugal and gear pump B. Gear and Diaphragm pump
 C. Diaphragm and centrifugal pump D. Plunger and centrifugal pump
444. In power-operated sprayer, the pump works at a pressure of:
 A. 2-5 Kg/cm² B. 3-8.5 Kg/cm²
 C. 4-12 Kg/cm². D. 5-15 Kg/cm²
445. Bucket type sprayer consist of:
 i) Single and double acting pump c) Plunger type pump
 j) Centrifugal pump d) All are correct
446. The pump is mostly made of:
 e) Aluminium c) Brass
 f) Copper d) Plastic
447. A tank capacity of knapsack sprayer is about:
 a. 5-10 litres c) 9-22.5 litres
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 f) Gear and Diaphragm pump d) Plunger and centrifugal pump
454. In power-operated sprayer, the pump works at a pressure of:
 a) 2-5 Kg/cm² c) 4-12 Kg/cm²
 b) 3-8.5 Kg/cm² d) 5-15 Kg/cm²
455. is an important machine used for farm machinisation.
 a) Tractor c) truck.
 b) Pump. d) Motor
- 456.... Increase the output of work per unit time

- c) Automatic tool. c) manual tool
d) Implement tool. d) matching tool
457. More than Farmers depend upon animal drawn implements.
a. 80%. c) 40%
b. 90%. d) 10%.
458. The productions of indigenous tractors started in india
a. 1961. c) 1956
b. 1987. d) 1990
459. The penetration of powered machines in various farm activities is assede in the range of .. to ..
a. 40,30. c) 20,40
b. 50,10. d) 40,45
460. Increase in human power in agriculture is quite ...
a. Slow. c) medium
b. Fast. d) very slow
461. The extent area under the command of draught animals is about
a. 57%. c) 67%
b. 78%. d) 89%
462. Unit power is available for crop production is abouthp/ha
a. .54. c) .78
b. .89. d) .9
463. Agriculture contribute only .. to the country GVA.
a. 17.4%. c) 18.9%
b. 13.9%. d) 89.4%
464. World Bank estimate half of indian population would be in ..
a. 2020. c) 2015
b. 2060. d)2050
465. Full form of NCCD is
A. National center for cold chain development C. National chain college department
B. National center of coal department D. None of the above
466. To recommend standards and protocols for cold chain infrastructure is the main objective of elements of cold chain?
A. True B. false
467. Which is correct order of cold chain
A. Farming, production, packing sales, warehousing, shopping mall, consumer.
B. Farming, packing sales, consumer, shopping mall, production, warehouses.
C. Farming, warehousing, shopping mall, consumer, production, packing sales.
D. All of the above.
468. Full form of NCAP is
A. National cooling action performance C. National coal academy
B. National cooling action plan D. None of the above.
469. In India cold chain is applied successfully in _____
A. Dairy products C. Various meats products
B. Frozen goods D. All of the above
470. _____ percent of food grain use modern storage facilities in India
A. 55% C. 10%
B. 25% D. 90%
471. The atmosphere operational controlled stores in 2005 are located at
A. Mumbai, Delhi, Bangalore C. Mumbai Chennai
B. Mumbai, Pune D. Kolkata
472. VMI stands for
A. Vendor materials inventory C. Variable material inventory
B. Vendors manage inventory D. Valuable material inventory
473. Product layout is preferably used for

- A. Repetitive processes
B. Intermittent processing
474. Inspection, scrap and repair are example of
A. Internal cost
B. External cost
478. The production of irrigation pumps and diesel engines started during.....
e) 1950s
f) 1930s
g) 1940s
h) 2000s
479. The production of tractors and power tillers started in
a. 1950
b. 1940
c. 1960
d. 2001
480. The following is not a farm machinery
a. Combine harvester
b. Power tiller
c. Fresher
d. Dumper trucks
481. The leading manufacturer of farm equipment or agriculture equipment it in India are
a. Mahindra and Mahindra
b. Sonalika
c. Force
d. All of the abov
482. It is quite true that the farmers with low earnings per capita because of low per hectare they get from holdings are.....
a) Indian farmers
b) American farmers
c) Australian farmers
d) all of the above
483. The step towards development of an appropriate agricultural technique in india is working towards the motto of saving.....
a) labour
b) cost
c) surplus labour
d) all of the above
484. The machinery which enables the farmers to raise a second crop or multi crop attractive and way of life. By becoming a commercial subsistence is....
a) efficient machinery
b) agriculture machinery
c) affective machinery
d) all of the above
485. At present the farm power availability as per hectare is....
a) 1.84KW/ HA
b)2.04KW/ HA
c)1.85KW/HA
d)2.06KW/ HA
486. Advantages of mechanization is.....
a) substitute for labour.
b) attract or retain farm staff
c) amenity reasons
d) all of the above
487. A general-purpose or row-crop tractor is _____ machines
a) Single use
b) Universal
c) Both A & B
d) None of Above
488. For which reason post harvesting disciplinary Science and Technology for
a. Protection
b. Conservation
c. Processing
d. All of the above
489. Factors of post-harvest loss reduction technology encompasses with
a. Transportation and storage with Morden infra-structure
- C. Both a and b
D. Neither a nor b
C. Cost of the dissatisfaction
D. Societal cost

- b. Processing and protection
- c. Packaging and distribution
- d. Distribution and marketing

490. Purpose for developing post harvesting technology is to improve inter-disciplinary and multi-dimensional approach

- a. True
- b. False

491. How many peoples are depends on agricultural of our villages population.

- a. 80% c. 70%
- b. 83% d. 65%

492. It is possible to evolve appropriate technologies which can be establish agricultural based industry.

- a. Small scale c. Urban
- b. Rural d. Medium scale

493. Adoption of these techniques can make

- a. High productivity b. Less wastage
- c. Large quantity d. Large quantities

494. The process used for initial cultivation to loosen or turn the soil in preparation for sowing seed and planting is called as_____.

- a) Kneading. b) Cropping.
- c) Ploughing. d) None of the above.

495. _____ is a secondary tillage that cuts the soil to a shallow depth for smoothening and pulverizing the soil as well as to cut the weeds and to mix the materials with the soil.

- b) Normal ploughing. b) Harrow.
- c) Contour ploughing d) None of the above.

496. _____ harrow performs the harrowing operations by means of a set, or a number of sets of rotating flat disc, each set being mounted on a common shaft.

- c) Disc harrow. b) Blade Harrow.
- c) Acme harrow. d) Guntaka.

497. The two types of Disc Harrow are:

- 1) Single action disc harrow.
- 2) Double action disc harrow.
- d) True. b) False.

498. The two types of Double action disc harrow are:

- e) Tandem & Off-set. b) tandem & Master.
- c) None of the above. d) both A & B.

499. _____ harrow is used to break the clod, stir the soil, uproot the weeds, level the ground, break the soil and cover the seeds.

- a) Spring tooth harrow. b) Acme harrow.
- c) Spike tooth harrow. d) None of the above.

500. _____ harrow is suitable to work in hard and stony soils consists of tough flexible teeth.

- a) Patela. b) Spring tooth harrow.
- c) Triangular harrow. d) None of the above.

501. _____ consists of one or more blades attached to the frame or beam which is used for shallow working of the soil with the minimum soil inversion.

- a) Guntaka. b) Patella.
- c) Ridger. d) Puddler.

502. The amplitude of vibration in a Reciprocating power harrow is 200mm.

- a) True. b) False.

503. The frequency of operation in a reciprocating power harrow is _____.

- a) 250 cycles per minute. b) 400 cycles per minute.
- c) 175 cycles per minute. d) None of the above

504. The process of loosening and turning the soil is called

- A. Broadcasting
- B. Irrigation

C. Ploughing

D. Levelling

505. The organic substance obtained from dead plants and animal wastes is

A. Manure

B. Fertilizer

C. Irrigation

D. Agriculture

506. The process of separating grain from chaff is called

A. Threshing

B. Weeding

C. Sowing

D. Winnowing

507. The conversion of nitrogen into nitrates is known as

A. Nitrogen fixation

B. Ammonification

C. Nitrate Assimilation

D. Nitrogen cycle

508. Raising of fish in inland waters and coastal waters are called

A. Fishery

B. Pisciculture

C. fish culture

D. harvesting

509. Most abundant water pollutant is

A. Detergents

B. Pesticide

C. Industrial wastes

D. Ammonia

510. Air pollution effects are usually found on

A. Flowers

B. Leaves

C. Stems

D. Roots

511. Green house effect is related to

A. Increased growth of green algae

B. Global warming

C. Cultivation of vegetables in houses

D. None of these

512. Examples of Corm include

A. Gloriosa

B. Canna

C. Lallang

D. Ginger

513. Animals like horse, donkey that carries load are called

A. Drought species

B. Load carrying Animals

C. Dairy Animals

D. Draught Animal

514. _____ provided with the knife guard, on which the knife moves.

a) Wearing plate

c) grass board

b) Ledger plate

d) pitman

515. Knife clips are placed with wearing plates spaced _____ apart .

a) 10-15cm

c) 10-20cm

b) 5-10cm

d) 20-30 cm

516. _____ portion of knife is connected to pitman.

a) Knife section

c) Knife back

- b) Knife head
517. _____ is part defines a Pitman
a) Crank
b) Connecting rod
- d) Shoe
c) Slider
d) Piston
518. _____ is an Important cause for breaking the knife.
a) Power Transmission
b) Over load
c) Non- Alignment
d) None of the above
519. The cutter bar is set at ____ angle to the direction of the motion.
a) 95
b) 78
c) 88
d) 27
520. _____ is not a part of the mechanical Thresher
a) Feeding device
b) Threshing cylinder
c) Concave (punched sheets / welded square bars)
d) Water Pump
521. _____ is not an operational Factor.
a) Cylinder speed
b) Feed rate
c) Depth of cut
d) Machine adjustment
522. Post harvest technology is inter-disciplinary _____ and _____ applied to agricultural produce.
a) Science and technology
b) Science and arts
c) Science and technique
d) Science and machinery
523. Processing of primary processed raw material into product which is suitable for food uses or consumption after cooking, roasting, frying etc is called as:
a) Primary processing
b) Secondary processing
c) Combined processing
d) Tertiary processing
524. The full form of NCAP is:
c) National condensing action plan
d) National capital action plan
c) National cooling action plan
d) National compression action plan
525. NCCD stands for:
e) National centre for cold chain development
f) National centre for condensing chain development
g) National centre for compressing chain development
h) National centre for capital chain development
526. The full form of RTC is
a) Real estate tax commission.
b) Rising tax charge
c) Road travel commission
d) Ready to cook
527. India is the _____ largest producer of fruits and vegetables.
i) Second
j) Third
c) fourth
d) fifth
528. India is the largest producer and exporter of
k) Coffee
l) Green tea
c) black tea
d) Gur
529. India ranks ____ in the world cattle production.
m) Third
n) First
c) fourth
d) second
530. India ranks ____ in the world in both poultry and egg processing units.

- o) First
p) Third
531. The total milk production in India is
- q) 100 million tonnes
r) 50 million tonnes
- c) fourth
d) fifth
- c) 75 million tonnes
d) 25 million tonnes