

PROFESSOR JAYASHANKAR TELANGANA STATE AGRICULTURAL UNIVERSITY
AGRIENGGCET – 2022
Diploma in Agricultural Engineering

1. “The archers played a decisive part in the victory”. Choose the synonym of underlined word ? (D)
A Insignificant B Jolly
C Parched D Conclusive
2. Antonym of “Hapless” ? (D)
A Consistent B Cheerful
C Shapely D Fortunate
3. The following is a example of multitasking operating system (B)
A Cobol B Linux
C Java D Tally
4. Expand IoT (A)
A Internet of things B Internet outside territory
C Inside-outside Taskbar D Internet outside tape drive
5. Both ionic and covalent bonds present in (D)
A H₂O B NaCl
C HCl D NaOH
6. In an electrolytic cell (A)
A Electrical energy converts into chemical energy B Chemical energy converts into electrical energy
C Potential energy decrease D Kinetic energy decrease

14. National Institute of Disaster Management (NIDM) located at (D)
A Mumbai B Hyderabad
C Tirupati D New Delhi
15. World's forest day is celebrated every year on (A)
A March 21st B June 5th
C December 23rd D April 5th
16. "Hidden hunger" is caused due to the deficiency of (C)
A Nitrogen B Phosphorus
C Potassium D Calcium
17. Rainfed farming is cultivation of crops in regions receiving annual rainfall (mm) (D)
A < 500 B <750
C >750 D >1150
18. The commonly used dispersing agent in mechanical analysis of soil is ____ (A)
A Sodium hexa meta phosphate B Lactic acid
C Hydrogen peroxide D Hydrochloric acid
19. The pH value of alkali soils is (A)
A >8.5 B >7.5 and <8.5
C <6.0 D >6.0 and <7.5
20. The irrigation method which does not require land levelling is (C)
A Furrow B Border
C Sprinkler D Check basin

21. The most common method of irrigation in India is (B)
A Border irrigation B Check basin irrigation
C Furrow irrigation D Contour irrigation
22. The type of filter selection in micro irrigation system will depend upon (D)
A Soil type B Crop type
C Water source only D Water source and quality of water
23. In a sprinkler system, the flush valve should be provided at the end of every (C)
A Lateral B Motor
C Sub main D Pump
24. The uniformity coefficient of a sprinkler irrigation system is proposed by (A)
A Christiansen's B Pillsbury
C Darcy D Cavazza
25. 1 horsepower is equal to ___ kilowatts (A)
A 0.746 B 10
C 746 D 1000
26. Archimedes' screw is a form of positive-displacement pump, it is categorised as a device (A)
A Low head water lifting B Medium head water lifting
C High head water lifting D Very high head water lifting
27. The unit used to measure the discharge of a stream is (A)
A m^3/s B m/s
C m^2/s D cm/s
28. A unit hydrograph has one unit of (B)
A Peak discharge B Direct runoff
C Rainfall duration D Time base of direct runoff

29. The 'Indian Institute of Soil and Water Conservation (IISWC)' Research Institute is located at (A)
A Dehradun B Ooty
C New Delhi D Hyderabad
30. The standard instrument for the measurement of rainfall is (B)
A Thermometer B Rain gauge
C Planimeter D Evaporimeter
31. Bench terraces have the shape of (C)
A Ridge B Channel
C Platform D Concave
32. The diameter of the rainfall collector in a symon's rain gauge is (C)
A 8 cm B 13.5 cm
C 12.7 cm D 35.0 cm
33. The study of fluid at motion when external forces are considered (B)
A Fluid kinematics B Fluid dynamics
C Fluid statics D Fluid flow
34. The stream of liquid which flows out through the orifice is known as (A)
A Jet of water B Discharge
C Vena contract D Velocity
35. In a metric chain the 'tallies' are fixed at every ____ m in 20m chain. (B)
A 3 m B 5 m
C 10 m D 20 m

36. The angle between two mirrors in optical square is (A)
A 45° B 30°
C 90° D 60°
37. The direction of seepage in soil is always (C)
A Parallel to equipotential line B Perpendicular to stream line
C Perpendicular to equipotential line D Above the phreatic line
38. What is horizontal axis of a theodolite is called? (D)
A Transition B Bed plate
C Foot screw D Trunnion axis
39. The bubble tube in theodolite is also known as (A)
A Plate levels B Spindle
C Levelling head D Flouiring screw
40. The cam and follower without a spring forms a (C)
A Lower pair B Higher pair
C Self-closed pair D Force closed pair
41. The ratio of shear stress to the corresponding shear strain within the elastic limit is known as (B)
A Poisson's ratio B Modulus of rigidity
C Modulus of elasticity D Hooke's law
42. The weight of water vapour per unit weight of dry air is (A)
A Humidity ratio B Per camp humidity
C Specific volume D Humid heat

43. The speed of belt in a belt conveyor is (A)
A 2.5 to 2.8 m/s B 1.5 to 2 m/s
C 0.8 to 2.4 m/s D 4 to 8 m/s
44. Attrition mills are known as (D)
A Stone mills B Hammer mills
C Ball mills D Burr mills
45. The gelatinization temperature of the paddy is (C)
A 20 - 45⁰C B 600 - 700⁰C
C 68 - 70⁰C D 80 - 100⁰C
46. Separating small impurities or chips from the milled rice is called (D)
A De-storing B Grading
C Sorting D Sifting
47. Number of sets of break rolls used in wheat milling are (D)
A 1 B 2
C 3 D 4
48. Scalping is also known as (B)
A Fine cleaning B Rough cleaning
C Washing D Conditioning
49. Which of the following is not a physical property of grain (D)
A Size B Shape
C Volume D Elasticity

50. Porosity is a measure of (D)
A Liquid B Solids
C Components D Voids
51. The diameter of pit silo is usually (C)
A 2 m B 3 m
C 6 m D 10 m
52. Pusa bin storage structure is made of (B)
A Concrete B Mud
C Plastic D Steel
53. Saw tooth greenhouses are similar to which type greenhouse (D)
A Lean type B Even span
C Uneven span D Ridge and furrow
54. Active summer cooling is achieved by which cooling process (D)
A Droplet cooling process B Condensation cooling process
C Transpiration cooling process D Evaporative cooling process
55. The structural member that is running throughout the length of greenhouse is (A)
A Purlin B Column
C Hoop D Side post
56. The voltage across each resistor within a parallel combination is (C)
A Increase B Decrease
C Same D Rapidly decrease

57. If two resistors are connected in series then the current in second resistor is (A)
A Equal to first resistor B Less than first resistor
C More than first resistor D Zero
58. The suitable method of converting salt water into drinking water is (A)
A Solar still B Solar cabinet dryer
C Solar heater D Solar cooker
59. In vertical axis wind mills, the axis of the rotation is (B)
A Horizontal B Vertical
C Perpendicular D Slanted
60. WECS stand for (B)
A Water energy conversion system B Wind energy conversion system
C Water electricity conversion system D Wind energy control system
61. Which of the following is an aerobic process (B)
A Land fill B Composting
C Bio gas D Pyrolysis process
62. The size of mould board plough is expressed by (A)
A Width of cut of the soil B Length of furrow
C Depth of furrow D Thickness of furrow
63. In a mounted disc plough, the side thrust is taken by (A)
A Wheels of tractor B Scraper
C Jointer D Coulter

64. The method of planting in which row to row and plant to plant distance is uniform is known as (C)
- | | |
|----------------------|-----------------|
| A Hill dropping | B Transplanting |
| C Check row planting | D Drilling |
65. Blades of hand driven chaff cutter are usually manufactured by (D)
- | | |
|---------------------|--------------------------|
| A Drop forged steel | B Aluminium |
| C Cast steel | D Blanking rolled sheets |
66. The mower with high speed swinging knives, which operate either in horizontal plane or around a horizontal cylinder is (D)
- | | |
|---------------------------|-----------------------|
| A Cylinder mower | B Reciprocating mower |
| C Horizontal rotary mower | D Flail mower |
67. In hold & twist type fruit harvester the jaws are made of (D)
- | | |
|---------------------|---------------------|
| A 20 gauge MS sheet | B 30 gauge MS sheet |
| C 25 gauge MS sheet | D 14 gauge MS sheet |
68. The angle between the centreline of the kingpin of the tractor and the vertical line is known as (C)
- | | |
|----------------|----------------|
| A Toe-in | B Toe-out |
| C Caster angle | D Camber angle |
69. In tractor hydraulic system, the oil pressure in the hydraulic pump varies from (C)
- | | |
|---------------------------------|---------------------------------|
| A 50 to 100 kg/cm ² | B 1 to 5 kg/cm ² |
| C 150 to 200 kg/cm ² | D 250 to 300 kg/cm ² |
70. The type of clutch used in power tillers is (B)
- | | |
|------------------|---------------------|
| A Collar clutch | B Dog clutch |
| C Fluid coupling | D Multi disc clutch |

71. In Otto cycle, the heat is taken in at one constant volume & rejected at another (A)
A Constant volume B Constant pressure
C Constant area D Constant temperature
72. The heat liberated by combustion of a fuel is known as (A)
A Calorific value B Pre-ignition
C Knocking D C number
73. The compression ratio of diesel engine varies from (A)
A 14:1 to 22 : 1 B 5:1 to 8:1
C 140 :1 to 200 : 1 D 3:1 to 4:1
74. The instrument is used for marking and testing of any angle between 0 to 180⁰ is (A)
A Bevel square B Square
C Mitre square D Combination square
75. The joint which is used as substitute of mortise and tenon joint is (C)
A Dovetail joint B Mitre joint
C Dowel joint D Halving joint
76. Angle plate is made of (A)
A Grey cast iron B Aluminium
C Steel D Copper
77. The pattern must be made oversize to compensate for contraction of liquid metal on cooling is (D)
A Machining allowance B Draft allowance
C Distortion allowance D Shrinkage allowance

78. The size of a lathe is specified by (C)
A Tail stock B Base
C Length of bed D Tool carriage
79. The machining operation in which excess material is removed by rotating the work piece against a cutting tool is (B)
A Centering B Turning
C Knurling D Thread cutting
80. The size of shaper is specified by (A)
A Maximum length of stroke of ram B Size of ram
C Position of ram D Driving mechanism
81. The type of chuck used in setting up heavy and irregular shaped articles is (D)
A Mandrel B 3 Jaw chuck
C Collets D 4 Jaw chuck
82. Among the following, which is a water and citrate insoluble phosphorous (C)
A Di calcium phosphate B Single super phosphate
C Rock phosphate D Ammonium phosphate
83. Who introduced the term “Natural Farming”? (C)
A Sir Albert Howard B Padmasri Subash Palekar
C Masanobu Fukuoka D Padmabhushan Anna Hazare
84. Who is the present Director General of ICAR, New Delhi ? (B)
A Dr. Trilochan Mohapatra B Dr. Himanshu Pathak
C Dr. S. Ayyappan D Dr. P.K. Rout

85. World Pulses Day is observed on (D)
A 1st February B 10th March
C 1st March D 10th February
86. An economically crucial polyphagous insect pest native to tropical and subtropical regions of America invaded Maize crop in India during May, 2018 ? (C)
A Stem borer B Shoot fly
C Fall Army Worm D American Boll Worm
87. Select non-selective herbicide from the following? (C)
A Topremozone B Halosulfuron
C Glufosinate Ammonium D Atrazine
88. Present chairperson of NITI Aayog (A)
A Sri Narendra Modi B Sri Indrajeeth Singh
C Sri Suman Bery D Sri Arvind Panagariya
89. Crops of different height being cultivated on the same piece of land at same time is known as (A)
A Multi storied cropping B Mixed cropping
C Inter cropping D Sequential Cropping
90. Calculate the plant population of Maize per hectare with a spacing of 60 cm between rows and 20 cm between plants in a row (C)
A 73,333 B 33,333
C 83,333 D 53,333
91. The following amendment is used for acid soil reclamation (D)
A Urea B Green manures
C Potassium chloride D Basic slag

92. The layer which separates troposphere from stratosphere (D)
- | | | | |
|---|-------------|---|------------|
| A | Gastropause | B | Hestopause |
| C | Stratopause | D | Tropopause |
93. All round development of Rural people was the main objective of which project (B)
- | | | | |
|---|----------------------|---|----------------------|
| A | Etawah pilot project | B | Shri Niketan project |
| C | Mazdoormanzil | D | Marthandam project |
94. Yellow revolution is related to (A)
- | | | | |
|---|-------------|---|-------------|
| A | Edible oils | B | Fish |
| C | Milk | D | Agriculture |
95. Who proposed the classification of extension teaching methods ? (D)
- | | | | |
|---|------------|---|-------------------|
| A | G.L. Ray | B | Paul leagans |
| C | E.M. Rogen | D | Wilson and Gallup |
96. Chemical used to reduce the offensive odour in urban composting (B)
- | | | | |
|---|-----------|----|-------------------|
| A | Bone meal | B. | Copper Sulphate |
| C | Lime | D. | Ammonium Sulphate |
97. In acid soils (B)
- | | | | |
|---|------------------------------|---|---|
| A | Co availability will be high | B | Fe, Mn, Cu, Zn availability will be low |
| C | P availability will be high | D | Mo availability will be high |
98. Ability of cation to flocculate soil colloids is in order of (C)
- | | | | |
|---|--|---|--|
| A | $Al^{3+} = Ca^{+2} > H^{+} > Mg^{+2} > K^{+} > Na^{+}$ | B | $Al^{3+} > Ca^{2+} > H^{+} > Mg^{2+} > K^{+} > Na^{+}$ |
| C | $Al^{+3} > Ca^{+2}$ and $H^{+} > Mg^{+2} > K^{+} > Na^{+}$ | D | $Al^{3+} = Ca^{+2} = H^{+} > Mg^{+2} > K^{+} > Na^{+}$ |

99 *Rhizobium meliloti* inoculant is specific to which crop (C)

A Pillipesara

B. Soybean

C Berseem

D. Blackgram

100. Green manure crops suitable for fodder purpose are (B)

A Daincha and sesbania

B. Sun hemp and Pillipesara

C Indigo and Horse gram

D. Ipomea and Glyricidia