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AGRIENGGCET
Agricultural Engineering

1. The phenomenon of increase in the ambient temperature due to the formation of the blanket of carbon dioxide is known as (a)
a) Green house effect b) Greenery effect
c) Glass home effect d) Glossary effect
2. Percentage of photo synthetically active radiation transmitted by a UV stabilized polyethylene sheet is (b)
a) 80 % b) 87 %
c) 83 % d) 85 %
3. The process of a mechanically pressing liquid out of solid containing liquid is called (b)
a) Extraction b) Expression
c) Leaching d) Filtration
4. Wet milling of pulse is mostly practiced in (c)
a) Central India b) Northern India
c) Southern India d) Western India
5. The process of separating grain from a mixture of grain, chaff and other impurities in an air stream from a natural or artificial source is called (b)
a) Separating b) Winnowing
c) Cleaning d) Dehusking
6. The branch of dynamics which deals with the bodies in motion without any reference to the forces which are responsible for the motion is called (c)
a) Statics b) Dynamics
c) Kinematics d) Kinetics
7. “<https://www.google.com.pk>” is an example of (d)
a) Web browser b) Web server
c) Search engine d) URL
8. Binary code contains (a)
a) 0 and 1 b) 0
c) 1 d) 1 and 2
9. Which of the following is a popular programming language for developing multi media webpages (b)
a) COBOL b) JAVA
c) BASIC d) ASSEMBLER

- 10 Mass of water vapor (kg) present in one kilogram of dry air under a given set of conditions is called (a)
 a) Absolute humidity b) Percentage humidity
 c) Relative humidity d) Humid heat
- 11 The fineness modulus indicates (b)
 a) Particle size b) Uniformity of grind
 c) Separation percentage d) Number of weight fractions
- 12 A liquid in which the relationship between shear stress and shear rate is linear is known as (c)
 a) Non – Newtonian liquid b) Pseudo plastic
 c) Newtonian liquid d) Dilatant liquid
- 13 The shape character for a solid relative to that of a sphere of the same volume is known as (b)
 a) Roundness b) Sphericity
 c) Porosity d) Circularity
- 14 3 R of waste management (b)
 a) Restore – Repair -Reuse b) Reduce – Reuse – Recycle
 c) Rent - Return – Rebuilt d) Rust – Rumble – Reduce
- 15 The process of applying pressure to a mass of particles with or without binder and converting it into a compact agglomerate is known as (b)
 a) Extruding b) Briquetting
 c) Sizing d) Shredding
- 16 Plant matter created by the process of photosynthesis is known as (a)
 a) Bio mass b) Bio fuel
 c) Bio diesel d) Bio gas
- 17 The farm structure used to store and protect the animal fodder so that it is preserved in an ideal condition for the farm animal is known as (a)
 a) Silo b) Silage
 c) Barn d) Pusa bin
- 18 Hole in a semiconductor is defined as (b)
 a) A free electron b) The incomplete part of an electron paired
 c) A free proton d) A free neutron
- 19 One micro farad is (a)
 a) 10^{-6} farad b) 10^{-12} farad
 c) 1 F d) 10^{-9} farad

- 20 S.I unit of plane angle is (b)
 a) Tesla b) Radian
 c) Kelvin d) Candela
- 21 If the mass of a body is reduced to half and the velocity is doubled what is its kinetic energy? (c)
 a) Halved b) Unchanged
 c) Doubled d) Tripled
- 22 “Provocation” Antonym (b)
 a) Vocation b) Pacification
 c) Peace d) Prodding
- 23 Synonym of “Copious” (d)
 a) Less b) Sparse
 c) Discourage d) Plenty
- 24 Water hardness measured by (a)
 a) ppm b) cm
 c) cm/s d) kg
- 25 If all the elements, except the principal diagonal, in a square matrix, are zero, it is called as (c)
 a) Square matrix b) Unit matrix
 c) Diagonal matrix d) Lower triangle matrix
- 26 Differentiation formula for $\frac{d}{dt}(S_i)$ (b)
 a) S b) C
 c) T d) C
- 27 Darcy’s law is valid in soil for (c)
 a) Water vapor movement b) Irrotational flow
 c) Saturation & Unsaturated flow d) Open channel flow
- 28 A vertical section of soil which is showing all its horizons is called (b)
 a) Watershed b) Soil profile
 c) Organic matter d) Flow
- 29 World water day is celebrated every year on (a)
 a) 22nd March b) 14th November
 c) 1st January d) 15 October
- 30 The water removed by installation of surface agricultural drainage is (a)
 a) Gravitational water b) Capillary water
 c) Hygroscopic water d) Groundwater

- 31 Drainage coefficient is the amount of surplus water to be removed from agricultural land in ____ hours (b)
 a) 48 b) 24
 c) 12 d) 36
- 32 The size of tile drain pipe is determined using which formula (b)
 a) Rational formula b) Manning's formula
 c) Francis formula d) Darcy's formula
- 33 The field application efficiency of surface irrigation is (c)
 a) 100 % b) 80 – 90 %
 c) 40 – 50 % d) < 10 %
- 34 The range of uniform coefficient of sprinkler irrigation system is (c)
 a) 200 b) 150 only
 c) 0 to 100 d) More than 100
- 35 The formula for uniform coefficient of sprinkler irrigation system is (a)
 a) $C_u = 100 \left(1 - \frac{\sum X}{mn} \right)$ b) $C_u = 100 \left(1 + \frac{\sum X}{mn} \right)$
 c) $C_u = 100 \left(1 + \frac{\sum m \times}{X} \right)$ d) $C_u = 100 \left(1 - \frac{\sum X}{m + n} \right)$
- 36 Arrange the water distribution system in sequence for applying the water in drip irrigation system for cleaning the main, sub-main and lateral pipes (a)
 a) Water source-main line-submain-laterals-emitters
 b) Water source-laterals-emitters-submain line-main line
 c) Water source-submains line-main line-emitters
 d) Mainline-water source-emitters-submain line
- 37 It is the one of the most important component or part of sprinkler irrigation system (b)
 a) Gate stand b) Riser
 c) Dripper d) Wetting area
- 38 According to the USDA, the land capability classification (LCC) has divided in how many groups? (c)
 a) 4 b) 12
 c) 2 d) 10
- 39 For an area of 4 ha, the received rainfall (P) was 10 cm, the runoff was 8 cm. For the area the loss or infiltration ____ mm (a)
 a) 20 mm a) 2 mm
 c) 0.3 mm c) 2 m

- 40 Major crops of Telangana State are (d)
 a) Rice, Maize, Groundnut b) Cotton, Green gram, Groundnut
 c) Red gram, Groundnut, Maize d) Rice, Cotton, Red gram
- 41 In USLE, for estimation of soil erosion, the values of soil conservation factor (P) and cropping management factor (C) ranges from (a)
 a) 0 to 1 b) 10 to 20
 c) 50 to 100 d) > 100
- 42 Formulae for measuring the average velocities at two different depths ($V_{0.2}$), ($V_{0.8}$) for moderately deep streams by the current meter is, (a)
 a) $\frac{V_{0.2} + V_{0.8}}{2}$ b) $\frac{V_{0.2} - V_{0.8}}{2}$
 c) $V_{0.2} + V_{0.8}$ d) $V_{0.2} - V_{0.8}$
- 43 A unit hydrograph has one unit of (b)
 a) Peak discharge b) Rainfall excess
 c) Direct runoff d) Base flow
- 44 1 cm of effective rainfall over a catchment area of 1 km² produces how much runoff (b)
 a) 100 m³ b) 10,000 m³
 c) 10 m³ d) 50 m³
- 45 In the orographic precipitation for mountain ranges, the windward slope receive _____ precipitation as compared to leeward slope is (a)
 a) Heavy b) Low
 c) No d) Medium
- 46 100 hectares is equals to (a)
 a) 1 km² b) 10 km²
 c) 100 km² d) 1000 km²
- 47 An imaginary straight line joining the intersection of the cross-hairs at diaphragm to the optical centre of object glass and its continuation is called (c)
 a) Axis of bubble tube b) Axis of telescope
 c) Line of collimation d) Vertical axis
- 48 The bearing of a line always measured clockwise from north point of the reference meridian towards the line right round the circle is (a)
 a) Whole circle system b) Quadrantal system
 c) Forward d) Backward
- 49 The staff reading taken on a point of known elevation, as on bench mark or a change point is (c)
 a) Fore sight b) Intermediate sight
 c) Back sight d) Chang point

- 50 The process of connecting a series of straight lines successively at established points along the route of a survey is known as (c)
 a) Contouring b) Levelling
 c) Traversing d) Contour interpolation
- 51 The most intricate and accurate instrument used for measurement of horizontal and vertical angles (d)
 a) Dumpy level b) Current meter
 c) Levelling staff d) Theodolite
- 52 How many GPS satellites are there in India as on today? (b)
 a) 4 b) 8
 c) 12 d) 0
- 53 The branch of leveling in which the relative elevations of different stations are determined from the observed vertical angles and known horizontal or geodetic distance (a)
 a) Trigonometrical leveling b) Trigonometrical distance
 c) Trigonometrical area d) Trigonometrical surveying
- 54 The process of filling water upto the top of the pump casing to initiate pumping is called (c)
 a) Scavenging b) Water hammering
 c) Priming d) Recharging
- 55 The wells are used for obtaining only fresh water when the well have salt water and fresh water by up-conning is called as (b)
 a) Artesian well b) Skimming well
 c) Deep well d) Unlined well
- 56 The dimensions of dynamic viscosity are (a)
 a) $ML^{-1}T^{-1}$ b) $ML^{-2}T^{-2}$
 c) MLT d) $ML^{-2}T^{-1}$
- 57 A type of flow in which the fluid particles move along well defined path or stream line and all stream lines are straight and parallels is called as (b)
 a) Turbulent flow b) Laminar flow
 c) Spatial flow d) Non uniform flow
- 58 The ratio of a actual discharge through an orifice to the theoretical discharge from orifice is known as (b)
 a) Coefficient of velocity b) Coefficient of discharge
 c) Coefficient of contraction d) Coefficient of resistance
- 59 The Chezy's formula for velocity measurement in open channel is (a)
 a) $V = C\sqrt{m}$ d) $C = V\sqrt{m}$
 c) $V = C\sqrt{m}$ b) $Q = V\sqrt{m}$

- 60 The branch of civil engineering that concerns the applications of the principles of the mechanics, hydraulics to engineering problems related to soil is called (c)
 a) Fluid mechanics b) Engineering mechanics
 c) Soil mechanics d) Soil chemistry
- 61 Rakine's theory is related to (a)
 a) Earth pressure b) Seepage analysis
 c) Compaction d) Consolidation
- 62 The resistance per unit area to deformation is known as (a)
 a) Stress b) Strain
 c) Elongation d) Pressure
- 63 The ratio of shear stress to shear strain is called (c)
 a) Poisson's ratio b) Bulk modulus
 c) Modulus of rigidity d) Modulus of elasticity
- 64 Which of the following is a band saw (b)
 a) Cold saw b) Friction blade
 c) Abrasive disc d) Friction disc
- 65 The movement of lathe tool relative for work is termed as (d)
 a) Saddle b) Compound rest
 c) Apron d) Feed
- 66 In a flat drill, the relief angle at the cutting edge is (b)
 a) 1° to 2° b) 3° to 8°
 c) 10° to 15° d) 90° to 120°
- 67 The operation of producing a hole by removing metal along the circumference of a hallow cutting tool is (b)
 a) Tapping b) Trepanning
 c) Countersinking d) Spot facing
- 68 The chain drive used for higher speeds and higher loads (c)
 a) Pintel chain b) Hook link chain
 c) Roller chain d) V-belt drive
- 69 Angle between centerline of tyre and vertical line is called (d)
 a) Tilt angle b) Disc angle
 c) Caster angle d) Camber angle
- 70 Center of gravity of track type tractor is determined by (b)
 a) Suspension method b) Balancing method
 c) Weighing method d) Suction method

- 71 In tractors brake test, the stopping distance for cold brake should not exceed (c)
 a) 1.3 m b) 2.3 m
 c) 7.6 m d) 9.5 m
- 72 The part of a cone nozzle which imparts rotation to the liquid passing through it (b)
 a) Filler b) Swirl plate
 c) Lance d) Cut off value
- 73 In a pump, suction volume is 30 liters/min and the pump efficiency is 80 %. (c)
 Calculate the shaft power at a pressure of 25 kg/cm²
 a) 1.67 kW b) 1.71 kW
 c) 1.53 kW d) 1.43 kW
- 74 The pressure of hand operated sprayer is (c)
 a) 0.1 - 0.7 kg / cm² b) 10 - 15 kg / cm²
 c) 1 - 7 kg / cm² d) 20 - 28 kg / cm²
- 75 Compression ratio of Otto engines is (b)
 a) 14:1 to 22:1 b) 5:1 to 8:1
 c) 35:1 to 45:1 d) 50:1 to 80:1
- 76 The specific gravity level for fully charged battery is (c)
 a) 1.15 b) 1.20
 c) 1.28 d) 1.22
- 77 The instrument used for testing the specific gravity of oil is (b)
 a) Specific meter b) Hydrometer
 c) Hygrometer d) Infiltrimeter
- 78 In turrent lathe, the turrent is mounted on (d)
 a) Slide b) Ram
 c) Lathe bed d) Saddle
- 79 Planning machine is developed by (c)
 a) Fenman b) James Nasnyth
 c) Richard Roberts d) Smith and Jones
- 80 The mechanism used in shaper machine is (c)
 a) Wobbling mechanism
 b) Oldham's coupling
 c) Whitworth quick return mechanism
 d) Scotch yoke mechanism

- 81 The machine which duplicates the full size of the template attached to the machine is (a)
 a) Profiling machine b) Pantograph milling machine
 c) Planetary milling machine d) Drum milling machine
- 82 In milling machine, gear cutting operation is performed by using a (a)
 a) Form relieved cutter b) Cam
 c) Thread d) Spindle
- 83 The value of solar constant is (b)
 a) 421 Btu per square meter b) 1353 watt per square meter
 c) 116 K cal per square meter d) 1035 watt per square meter
- 84 The wind mill works on the principle of converting kinetic energy into (b)
 a) Potential energy b) Mechanical energy
 c) Heat energy d) Gaseous energy
- 85 Energy conversion devices used to convert sunlight to electricity by the use of the photovoltaic effect are called (d)
 a) Electric cell b) Kinetic cell
 c) Aircell d) Solar cell
- 86 Planter differs from seed drill in respect of (d)
 a) Depth of furrow b) Width of operation
 c) Furrow openers d) Metering mechanism
- 87 The tilt angle of disc plough varies between (d)
 a) $42-45^0$ b) $5-10^0$
 c) $30-42^0$ d) $15-25^0$
- 88 Ridger is also known as (b)
 a) Bund former b) Furrower
 c) Khurpa d) Kodali
- 89 The method of planting in which row to row & plant to plant distance is uniform (a)
 a) Check row planting b) Transplanting
 c) Hill dropped d) Seed drop behind the plough
- 90 The size of the ball peen hammer varies from (d)
 a) 1-3 kg a) 11 - 90 kg
 c) 4-5 kg c) 0.11 – 0.91kg
- 91 The tool used for sharpening the gouges (b)
 a) Saw set b) Oilstone slip
 c) Oil stone d) Pincer

- 92 The most abundant metallic element in the earth's crust is (b)
 a) Iron b) Aluminium
 c) Calcium d) Sodium
- 93 Which among the following is NOT a liming material (b)
 a) CaO b) CaSO₄
 c) Ca(OH)₂ d) CaCO₃
- 94 Visual characteristic symptoms of Bluish green foliage with waxy coating is associated with _____ soils (c)
 a) Acid soils b) Alkali soils
 c) Saline soils d) Forest soils
- 95 Commercially available paddy transplanters row to row spacing is (b)
 a) 25 m b) 30 cm
 c) 28 mm d) 35 m
- 96 Which of the following metering mechanism is used for 2-row semi-automatic turmeric raised bed planters (b)
 a) Fluted roller metering device
 b) Revolving magazine (ring) and picker wheel type metering device
 c) Inclined plate metering device d) Vertical plate metering device
- 97 Which of the following implement consists of Transmitter (c)
 a) Pneumatic planter b) Reversible M.B. plough
 c) Laser guided land leveller d) Rotovator
- 98 The irrigation system that does not work well under high wind velocity (c)
 a) Flooding b) Furrow irrigation
 c) Sprinkler irrigation d) Drip irrigation
- 99 The highest water use efficiency can be obtained with (b)
 a) Furrow method b) Drip method
 c) Sprinkler method d) Check basin method
- 100 The border irrigation method is not suitable for crops like (c)
 a) Jowar b) Wheat
 c) Rice d) Cotton