

FINAL ANSWER KEY

Question Paper Code:	19/2023/OL
Category Code:	170/2021
Exam:	Manager
Medium of Question:	English
Date of Test	01-02-2023
Department	Kerala Forest Development Corporation Ltd
Alphacode	A

Question1:-The study of life history and general characteristics of forest trees and crops with particular reference to environmental factors is

- A:-Silviculture
- B:-Forestry
- C:-Silvics
- D:-Dendrology

Correct Answer:- Option-C

Question2:-_____ is an example for an evergreen tree.

- A:-Michelia champaca
- B:-Acacia catechu
- C:-Ailanthus excelsa
- D:-Terminalia tomentosa

Correct Answer:- Option-A

Question3:-A knee-shaped or spike-like projection of the roots of swamp trees, enabling the submerged roots to obtain oxygen

- A:-Prop-roots
- B:-Pneumatophore
- C:-Stilt roots
- D:-Tap roots

Correct Answer:- Option-B

Question4:-The interval between pollination and ripening of seeds i.e., seed maturation period is 6-7 months in

- A:-Ailanthus excelsa
- B:-Tectona grandis
- C:-Acacia catechu
- D:-Dalbergia sissoo

Correct Answer:- Option-D

Question5:-_____ is an example for shade demanding tree species (shade demander) in tropical moist deciduous forests.

- A:-Abies pindrow
- B:-Shorea robusta
- C:-Syzygium cumini
- D:-Mesua ferrea

Correct Answer:- Option-C

Question6:-Identify the frost hardy tree species from the following

- A:-Anogeissus latifolia
- B:-Acacia catechu
- C:-Acacia nilotica
- D:-Azadirachta indica

Correct Answer:- Option-B

Question7:-The formula to calculate rain index as given by Schmidt and Fergusson is

- A:- $P \times D / 100$
- B:- $P \times D / E$
- C:- $D \times 100 / X - D$
- D:- $P / T + 10$

Correct Answer:- Option-C

Question8:-A plant which grows wholly or partially immersed in water is called

- A:-Hygrophyte
- B:-Xerophyte
- C:-Hydrophyte
- D:-Mesophyte

Correct Answer:- Option-C

Question9:-Wet bamboo brakes in the Southern Tropical Wet Evergreen forests (1A/E₂) is an example for which one of the following types of climax succession

- A:-Edaphic climax
- B:-Biotic climax
- C:-Climatic climax
- D:-Post climax

Correct Answer:- Option-A

Question10:-The seeds of teak (*Tectona grandis*) are dispersed by

- A:-Wind
- B:-Birds
- C:-Animals
- D:-Water

Correct Answer:- Option-D

Question11:-The thinning that consists of the removal of inferior individuals of a crop, starting from the suppressed class, then from the dominated class and finally some of the inferiors in the dominant class, is termed as

- A:-Crown thinning
- B:-Ordinary thinning
- C:-Free thinning
- D:-Mechanical thinning

Correct Answer:- Option-B

Question12:-Eberhard's wedge system is a sub class of which of the following high forest Silvicultural system

- A:-Accessory systems
- B:-Clear-felling systems
- C:-Shelter wood systems
- D:-Systems of diffused regeneration

Correct Answer:- Option-C

Question13:-The Silvicultural system in which the pattern of regeneration is mainly natural, often largely assisted by artificial regeneration and the type of crop is even aged, is

- A:-The group system
- B:-The strip and group system
- C:-The shelter wood strip system
- D:-The uniform system

Correct Answer:- Option-D

Question14:-Stem form is an important characteristic feature of a tree species in forest plantations, where buttresses and flutes are undesirable characters. Identify the tree species which is known for its fluted stems, from the following

- A:-*Hardwickia binata*
- B:-*Mitragyna parviflora*
- C:-*Michelia champaca*
- D:-*Diospyros tomentosa*

Correct Answer:- Option-B

Question15:-Regarding the productivity of indigenous trees in plantations, the highest Mean Annual Increment (MAI) obtained in 10 years old teak (*Tectona grandis*) is

- A:-30 m³ /ha
- B:-10 m³ /ha
- C:-20 m³ /ha
- D:-60 m³ /ha

Correct Answer:- Option-B

Question16:-The most widely used timber for superior shoe lasts in India, is obtained from

- A:-*Salix alba*
- B:-*Celtis australis*
- C:-*Dalbergia sissoo*
- D:-*Toona ciliata*

Correct Answer:- Option-C

Question17:-The important silvicultural characters which make sal (*Shorea robusta*) as the most gregarious and aggressive species in its habitats are :

- i. Powerful coppicing ability on being cut, burnt or browsed back
- ii. Immediate germination of seed with large food reserve
- iii. Inability of the young seedlings to persist under old trees
- iv. Narrow crown and rapid growth in young stage

Choose the right combinations from the following :

- A:-i, ii and iii
- B:-i, ii and iv
- C:-ii, iii and iv
- D:-i, iii and iv

Correct Answer:- Option-B

Question18:-Forest Certification become a reality in global market by the establishment of Forest Stewardship Council (FSC) in the year

- A:-1983
- B:-1973
- C:-1993
- D:-2003

Correct Answer:- Option-C

Question19:-According to FSI State of the Forests Report 2015, the percentage of area under trees outside the forests (TOF) in Kerala is

- A:-21.20%
- B:-26.67%
- C:-28.49%
- D:-23.35%

Correct Answer:- Option-C

Question20:-According to the FSI (2015) estimate, the contribution of Neem (*Azadirachta indica*) to the total growing stock outside the ToF is

- A:-11.2%
- B:-5.4%
- C:-9.5%
- D:-7.3%

Correct Answer:- Option-D

Question21:-The physical separation of anthers and stigma in a flower is called as

- A:-Dichogamy
- B:-Herkogamy
- C:-Cleistogamy
- D:-Chasmogamy

Correct Answer:- Option-B

Question22:-An example for a hexaploid in trees

- A:-*Alnus nepalensis*
- B:-*Betula pendula*
- C:-*Sequoia sempervirens*
- D:-*Fraxinus floribunda*

Correct Answer:- Option-C

Question23:-In general, provenance variation and tree-to-tree differences account for nearly 90% of the genetic variation in tree species. The tree-to-tree variation of wood specific gravity of loblolly pine was

- A:-15%
- B:-5%
- C:-70%
- D:-10%

Correct Answer:- Option-C

Question24:-The force that reduce the variability in natural stands is

- A:-Mutation
- B:-Gene flow
- C:-Natural hybridization
- D:-Natural selection

Correct Answer:- Option-D

Question25:-A single characteristic that has continuous variation, which follows an environmental gradient and may or may not be genetically fixed is

- A:-Ecotype
- B:-Cline
- C:-Landrace
- D:-Provenance

Correct Answer:- Option-B

Question26:-Choosing individuals solely on the basis of their phenotypes, without regard to any information about performance of ancestors, siblings, offspring or other relatives, is called

- A:-Sib selection
 - B:-Family selection
 - C:-Mass selection
 - D:-Progeny testing
- Correct Answer:- Option-C

Question27:-The tree which has proven to be genetically superior by means of progeny testing is termed as

- A:-Elite tree
- B:-Plus tree
- C:-Candidate tree
- D:-Check tree

Correct Answer:- Option-A

Question28:-The first successful attempt of application of genetic engineering in tree crops was made in

- A:-Eucalyptus spp
- B:-Populus hybrid
- C:-Casuarina hybrid
- D:-Tectona grandis

Correct Answer:- Option-B

Question29:-The time taken between pollination and fertilization in *Gastrodia elata*, an orchid, is

- A:-2 months
- B:-10 months
- C:-15 days
- D:-4 days

Correct Answer:- Option-D

Question30:-According to the Convention on Biological Diversity (CBD) 1992, the access to genetic resources is dealt with in

- A:-Article 12
- B:-Article 14
- C:-Article 15
- D:-Article 17

Correct Answer:- Option-C

Question31:-Who is the father of Agroforestry in India ?

- A:-S.K. Dhyani
- B:-A.K. Handa
- C:-J. Russell Smith
- D:-P.K. Ramchandran Nair

Correct Answer:-**Question Cancelled**

Question32:-An association between two organisms in which one benefits and the other derives neither benefit nor harm is

- A:-Commensalism
- B:-Mutualism
- C:-Compatibility
- D:-Parasitism

Correct Answer:- Option-A

Question33:-In Southern India, Taungya System is called as

- A:-Podu
- B:-Kumari
- C:-Poonam
- D:-Tuckle

Correct Answer:- Option-B

Question34:-Who coined the term Allelopathy in 1937 ?

- A:-Muller
- B:-Wilken
- C:-Hans Molisch
- D:-Blanford

Correct Answer:- Option-C

Question35:-Wind-break will reduce the speed of wind for about _____ times the tree height in the downwind side.

- A:-25
- B:-15
- C:-45
- D:-35

Correct Answer:- Option-A

Question36:-Tree species example for Nitrogen fixing

- A:-Azadirachta indica
 - B:-Casuarina equisetifolia
 - C:-Eucalyptus tereticornis
 - D:-Ailanthus triphysa
- Correct Answer:- Option-B

Question37:-Grass Land and Fodder Research Institute of India is located in _____

- A:-Jorhat
 - B:-Bhopal
 - C:-Jhansi
 - D:-Lucknow
- Correct Answer:- Option-C

Question38:-The complete pruning of all branches below a prescribed point on the stem is _____

- A:-Variable-lift pruning
 - B:-Fixed-lift pruning
 - C:-Selective pruning
 - D:-Tip pruning
- Correct Answer:- Option-B

Question39:-The water table is fluctuates from the surface down to 30 to 40 cm in the ground is called as

- A:-Waterlogged Lands
 - B:-Immerged Lands
 - C:-Dry Lands
 - D:-Moist Lands
- Correct Answer:- Option-D

Question40:-When first National Agroforestry Policy in India was adopted

- A:-February 2010
 - B:-February 2004
 - C:-February 2014
 - D:-February 2018
- Correct Answer:- Option-C

Question41:-The resistance offered by the wood sample to slipping or sliding of one position upon other is

- A:-Shearing
 - B:-Tension
 - C:-Compression
 - D:-Bending
- Correct Answer:- Option-A

Question42:-Simple variation of the Full Cell process is

- A:-Tire-tube method
 - B:-Boucherie's revised Process
 - C:-Double Vacuum Process
 - D:-Lowery Process
- Correct Answer:- Option-C

Question43:-_____ is a specialized woodworking machine used to cut square or rectangular holes in a piece of lumber.

- A:-Spindle moulder
 - B:-Mortiser
 - C:-Turning Lathe
 - D:-Router
- Correct Answer:- Option-B

Question44:-_____ is the common filler used in paper making process.

- A:-Calcium hypochlorite
 - B:-Chlorine dioxide
 - C:-Sodium sulphide
 - D:-Titanium dioxide
- Correct Answer:- Option-D

Question45:-Built up product made of wood layers is called as

- A:-Grooved wood
- B:-Gluelam
- C:-Laminae
- D:-Sandwich

Correct Answer:- Option-B

Question46:-Carbohydrates in wood can be converted into simple sugars by chemical treatment and fermented to yield alcohol is called as

- A:-Saccharification of wood
- B:-Destructive distillation of wood
- C:-Biomass gasification
- D:-Biochar production

Correct Answer:- Option-A

Question47:-Kittul fibre is obtained from

- A:-Sterculia villosa
- B:-Pandanus tectorius
- C:-Caryota urens
- D:-Agave americana

Correct Answer:- Option-C

Question48:-Bamboo species present in semi evergreen forests of Andamans is

- A:-Bambusa tulda
- B:-Gigantochloa rostrata
- C:-Melocanna bacciferrum
- D:-Bambusa bamboo

Correct Answer:- Option-B

Question49:-Chief constituent extracted from *Cymbopogon flexuosus* is

- A:-Santalal
- B:-Santalol
- C:-Geraniol
- D:-Citral

Correct Answer:- Option-D

Question50:-_____ is the method used for production of biodiesel from plant oils.

- A:-Steam distillation
- B:-Transesterification
- C:-Expression
- D:-Solvent extraction

Correct Answer:- Option-B

Question51:-A forest area forming the whole or part of a working circle is called as

- A:-Felling series
- B:-Coupe
- C:-Cutting section
- D:-Periodic blocks

Correct Answer:- Option-A

Question52:-A sub-division of a Felling Series formed with the object of regulating cutting in some special manner is called as

- A:-Working Circle
- B:-Cutting section
- C:-Felling series
- D:-Coupe

Correct Answer:- Option-B

Question53:-The material that a forest can yield annually or periodically in perpetuity is called as

- A:-Progressive yield
- B:-Intermittent yield
- C:-Sustained yield
- D:-Periodic yield

Correct Answer:- Option-C

Question54:-_____ is the rotation, which coincide with the natural lease of life of a species on given site.

- A:-Financial rotation
- B:-Silvicultural rotation
- C:-Technical rotation
- D:-Physical rotation

Correct Answer:- Option-D

Question55:-A written scheme of management aiming at continuity of policy, controlling the treatment of forest is

- A:-Management Plan

- B:-Working Plan
- C:-Regeneration Plan
- D:-Development Plan
- Correct Answer:- Option-B

Question56:-In National Commission on Agriculture, Chapter 42 indicates

- A:-Protection and Urban Forestry
- B:-Production and Agroforestry
- C:-Protection and Reserve Forestry
- D:-Production and Social Forestry
- Correct Answer:- Option-D

Question57:-Who coined the word "Social Forestry" ?

- A:-Westoby
- B:-Shah
- C:-J.W. Gregor
- D:-Odum
- Correct Answer:- Option-A

Question58:-Which exotic tree species majorly used in tank bed planting under social forestry programme ?

- A:-Acacia leucophloea
- B:-Acacia nilotica
- C:-Prosopis juliflora
- D:-Eucalyptus tereticornis
- Correct Answer:- Option-B

Question59:-In India, JFM concept was initiated by

- A:-A.K. Mugarjee
- B:-A.K. Westoby
- C:-A.K. Banerjee
- D:-M.K. Williamson
- Correct Answer:- Option-C

Question60:-Protection and reforestation of degraded forests with the involvement of local people is

- A:-Sustainable Forest Management
- B:-Community Forestry
- C:-Social Forestry
- D:-Joint Forest Management
- Correct Answer:- Option-D

Question61:-In the Wildlife Protection Act, 1972 Nilgiri Tahr (*Hemitragus hylccrius*) comes under which of the following schedule

- A:-Schedule I Part I
- B:-Schedule I Part II
- C:-Schedule II Part II
- D:-Schedule III
- Correct Answer:- Option-A

Question62:-Rhino usually produces one calf after a gestation period of how many months ?

- A:-12 months
- B:-15 months
- C:-18 months
- D:-24 months
- Correct Answer:-**Question Cancelled**

Question63:-In which biogeographical realm does most part of the Asian continent fall ?

- A:-Oriental realm
- B:-Neotropical realm
- C:-Palaeartic realm
- D:-Nearctic realm
- Correct Answer:- Option-C

Question64:-The process of enrichment of a water body by the input of organic material or surface runoff containing nitrates and phosphates which controls the growth of algae and aquatic plants is called

- A:-Niche
- B:-Range of Tolerance
- C:-Biological oxygen demand
- D:-Eutrophication

Correct Answer:- Option-D

Question65:-Secondary sex ratio at birth or hatching is usually in the ratio of

- A:-25:75
- B:-50:50
- C:-75:25
- D:-30:70

Correct Answer:- Option-B

Question66:-The area which is a mainly undisturbed natural area and dedicated to the conservation of biological diversity and genetic integrity of both flora and fauna and their scientific study is known as

- A:-Biosphere reserve
- B:-Sanctuary
- C:-National park
- D:-Cultural landscape

Correct Answer:- Option-A

Question67:-The Government notified the large geographical extent of Sasan Gir as a wildlife sanctuary on `18^(th)` September 1965 in order to conserve which of the following animal

- A:-Asiatic Lion
- B:-Elephant
- C:-Royal Bengal tiger
- D:-Blackbuck

Correct Answer:- Option-A

Question68:-Panthera tigris is mainly found in which of the following habitat

- A:-Open thorn scrub and dry deciduous forest
- B:-Moist deciduous bamboo breaks
- C:-Dry deciduous sal forest
- D:-Meadows

Correct Answer:-**Question Cancelled**

Question69:-Special game is included in which of the schedule of Wildlife Protection Act, 1972

- A:-Schedule I
- B:-Schedule II
- C:-Schedule III
- D:-Schedule IV

Correct Answer:- Option-B

Question70:-Project tiger reserves in India is going on which of the following National Park/Sanctuary ?

- A:-Bandhavgarh NP
- B:-Debrigarh Sanctuary
- C:-Corbett NP
- D:-Kaziranga NP

Correct Answer:-**Question Cancelled**

Question71:-In India the concept of Joint Forest Management and planning was `1^(st)` `` initiated in which of the following States

- A:-West Bengal
- B:-Kerala
- C:-Tamil Nadu
- D:-None of the above

Correct Answer:- Option-A

Question72:-The initiation of Forest policy was formulated based on the recommendation given by

- A:-Dr. Brandis
- B:-Dr. Voelcker
- C:-Mr. Watson
- D:-None of the above

Correct Answer:- Option-B

Question73:-Which of the following act mentioned that no State Government or any other agency can make an order to divert forest land for non-forest use without the prior approval of the Central Government ?

- A:-Indian Forest Act, 1927
- B:-Wildlife Protection Act, 1972
- C:-Forest Right Act, 2006
- D:-Forest Conservation Act, 1980

Correct Answer:- Option-D

Question74:-Conservation of ecological fragile ecosystems and preservation of biological diversity in terms of flora and fauna was emphasized in

- A:-Forest Policy, 1984
 - B:-National Forest Policy, 1952
 - C:-National Forest Policy, 1988
 - D:-National Agroforestry Policy, 2014
- Correct Answer:- Option-C

Question75:-The forests are brought on the concurrent list by the `42^(nd)` amendment to the constitution in which of the following mentioned year

- A:-1976
- B:-1980
- C:-1988
- D:-2006

Correct Answer:- Option-A

Question76:-The Indian Penal Code (IPC) is a comprehensive criminal law effective since in which of the following year

- A:-1862
- B:-1980
- C:-1927
- D:-1988

Correct Answer:- Option-A

Question77:-In which article of the constitution of India mentioned that "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures" ?

- A:-Article 49A
- B:-Article 51A
- C:-Article 52A
- D:-Article 48A

Correct Answer:- Option-B

Question78:-Which of the following has been accepted as the standard height for diameter or girth measurement ?

- A:-Breast height
- B:-The base of tree
- C:-Top canopy
- D:-Crown diameter

Correct Answer:- Option-A

Question79:-Which of the following formula is the most accurate one for the calculation of the volume of logs ?

- A:-Smalian's formula
- B:-Huber's formula
- C:-Quarter girth formula
- D:-Newton's formula

Correct Answer:- Option-D

Question80:-Which of the following variables is part of form class volume tables ?

- A:-Diameter and height
- B:-Height and form quotient
- C:-Diameter alone
- D:-Diameter, height and form quotient

Correct Answer:- Option-D

Question81:-Cull percent is usually very high for which of the following species are found in India

- A:-Abies pindrow and Picea smithiana
- B:-Tectona grandis and Shorea robusta
- C:-Mangifera indica and Syzygium cumini
- D:-Acacia mangium and Santalum album

Correct Answer:- Option-A

Question82:-Measurement of the single annual ring or ring groups with the naked eye is possible only for which type of species where annual rings are far apart and clearly visible

- A:-Fast-growing species
- B:-Slow-growing species
- C:-Long rotation crops
- D:-Short rotation crops

Correct Answer:- Option-A

Question83:-Which instruments used for measuring the height of the tree based on trigonometrical principles ?

- A:-Smythies' hypsometer
 - B:-Christen's hypsometer
 - C:-Improvised callipers
 - D:-Brandis hypsometer
- Correct Answer:- Option-D

Question84:-In which of the following sampling procedures samples are selected from the area without dividing it into homogeneous block ?

- A:-Simple random sampling
 - B:-Stratified sampling
 - C:-Multistage sampling
 - D:-Multiphase sampling
- Correct Answer:- Option-A

Question85:-Which factors are taken into consideration when there is the selection between complete and sample enumeration ?

- A:-Extent of the area to be covered and funds available
 - B:-Variation in composition and density
 - C:-Intensity of management and degree of accuracy
 - D:-All of the above
- Correct Answer:- Option-D

Question86:-Which of the following size generally used for survey of circular plots for enumeration in India ?

- A:-0.01ha and 0.05ha
 - B:-0.05ha and 0.1ha
 - C:-0.05ha and 0.05ha
 - D:-0.1ha and 1ha
- Correct Answer:- Option-B

Question87:-Which of the following factors is very useful in checking borderline trees during the sampling procedure ?

- A:-Basal area Factor
 - B:-Plot Radius Factor
 - C:-Diopter
 - D:-Calibration distance factor
- Correct Answer:- Option-B

Question88:-In which of the following height and diameter measuring instrument, edge of the scale appears as a sharp horizontal line for single-standing trees ?

- A:-Wide-scale Relaskop
 - B:-Range finder
 - C:-Tele Relaskop
 - D:-Spiegel Relaskop
- Correct Answer:- Option-C

Question89:-Out of the following options which is used to show the distribution of stems by diameter class for each of the series of crop diameter ?

- A:-Money yield table
 - B:-Stand table
 - C:-Yield table
 - D:-Stand volume table
- Correct Answer:- Option-B

Question90:-Which of the following wavelength band is used for vegetational studies in forest survey ?

- A:-Visible only
 - B:-Visible and IR
 - C:-UV and IR
 - D:-Infrared only
- Correct Answer:- Option-B

Question91:-Destructive Insects and Pests Act of India (DIPA) was passed on which year to prevent any insect and pest introduction in India and transport from one State to another

- A:-1914
- B:-1912
- C:-1917
- D:-1972

Correct Answer:- Option-A

Question92:-Gmelina arborea defoliator beetles feed on which part of the plants

A:-Leaves and young buds

B:-Shoots

C:-Leaves, young buds and shoots

D:-Fleshes of fruits

Correct Answer:- Option-C

Question93:-The measures which regulate the numbers of the insect by use of their natural enemies are generally called as

A:-Biological control

B:-Chemical control

C:-Mechanical control

D:-Cultural control

Correct Answer:- Option-A

Question94:-Deodar (Cedrus deodar) is attacked by which of the defoliator in North West Himalayas ?

A:-Hyblaea puera

B:-Hapalia machaeralis

C:-Ectropis deodare

D:-Plecoptera reflexa

Correct Answer:- Option-C

Question95:-Which of the following insect kill the seedlings by the destruction of rootlets or removal of the bark of taproot ?

A:-Cockchafers

B:-Cutworms

C:-Termite

D:-Cricket

Correct Answer:- Option-A

Question96:-In which of the following symptoms abnormal cell division or cell size is generally found ?

A:-Necrotic symptoms

B:-Hypertrophic symptoms

C:-Atrophic symptoms

D:-Decay

Correct Answer:- Option-B

Question97:-Which pathogen is responsible for wilt disease in Dalbergia sissoo ?

A:-Rhizoctonia solani

B:-Fomes annosus

C:-Armillaria mellea

D:-Fusarium solani

Correct Answer:- Option-D

Question98:-In which of the following process lifting of seedlings or small plants above their normal soil level by expansion of soil mass and finally seedlings die ?

A:-Frost Heaving

B:-Frost cracks

C:-Canker

D:-Shading

Correct Answer:- Option-A

Question99:-Corticium salmonicolor causes which disease in teak in the high rainfall areas of Kerala and Karnataka

A:-Black disease

B:-Blue disease

C:-Pink disease

D:-Yellow disease

Correct Answer:- Option-C

Question100:-When the plant showed the partial resistance against all the races of pathogen, it is called as

A:-Horizontal resistance

B:-Vertical resistance

C:-Adult plant resistance

D:-Induced resistance

Correct Answer:- Option-A