## **FINAL ANSWER KEY**

Question Paper Code: 3/2018/OL
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Department Kerala Vocational Higher Secondary Education

Alphacode A

Question1:-Who was commemorated in the book 'Vyazhavatta Smaranakal' by B. Kalyanikkutty Amma?

A:-Ayyankali

B:-Swadesabhimani Ramakrishna Pillai

C:-Mannathu Pathmanabhan

D:-K. Korunakaran

Correct Answer:- Option-B

Question2:-The Travancore ruler who arrested Vaikunta Swamikal and sent to Singarathoppu Prison?

A:-Ayilyam Thirunal

B:-Sri Moolam Thirunal

C:-Chithira Thirunal

D:-Swathi Thirunal

Correct Answer:- Option-D

Question3:-Who was the first Malayalee nominated to Rajyasabha and later become the ambassador of China?

A:-Sardar K. M. Panikker

B:-Panambally Govinda Menon

C:-Barister G. P. Pillai

D:-Pattom Thanu Pillai

Correct Answer:- Option-A

Question4:-The English school at Travancore was started in the year

A:-1830

B:-1834

C:-1835

D:-1840

Correct Answer:- Option-B

Question5:-Who was the author of 'Matha Sidhantha Samgraham'?

A:-Sahodaran Ayyappan

B:-Brahmananda Sivayogi

C:-Swami Agamananda

D:-Vakkom Abdul Khader Moulavi

Correct Answer:- Option-D

Question6:-On `14^(th)` April 2016 U. N. observed the birth anniversary of which social reformist?

A:-Raja Ram Mohan Roy

B:-Swami Vivekananda

C:-Dr. B. R. Ambedkar

D:-Mahatma Jyothi Rao Phule

Correct Answer:- Option-C

Question7:-India's first Mars Orbit Mission Space Craft Mangalyan was launched on

A:-November 5, 2013

B:-August 15, 2013

C:-August 15, 2014

D:-November 5, 2014

Correct Answer:- Option-A

Question8:-Which article of Indian Constitution deals with Right to Education?

A:-Article 21(A)

B:-Article 22(A)

C:-Article 21(B)

D:-Article 22(B)

Correct Answer:- Option-A

Question9:-When was 'Make in India', an international marketing strategy started by Prime Minister at Delhi?

A:-August 2014 B:-September 2014 C:-August 2015 D:-September 2015 Correct Answer:- Option-B Question10:-The theme of World Cancer Day 2016 was A:-Not beyond us B:-We can I can C:-Better measures better health D:-On fight against cancer Correct Answer:- Option-B Question11:-Scientific method of education implies A:-Inductive thinking B:-Deductive thinking C:-Both inductive and deductive thinking D:-Intuitive thinking Correct Answer:- Option-C Question12:-When a research problem is related to heterogenic population, the most suitable is A:-Cluster sampling B:-Stratified sampling C:-Convenient sampling D:-Purposive sampling Correct Answer:- Option-B Question13:-In research, parametric data tend to be derived from A:-Opinionnaires B:-Experiments and tests C:-Interviews D:-All of the above Correct Answer:- Option-B Question14:-In hypothesis testing Type 1 error occurs when one A:-Does not support the null hypothesis when it is in fact true B:-Supports the null hypothesis when it is in fact not true C:-Supports the null hypothesis when it is in fact true D:-Both 2 and 3 Correct Answer: - Option-A Question15:-Factor analysis is A:-A test of difference B:-A test of variance C:-Method of grouping together variables D:-A test of correlation Correct Answer:- Option-C Question16:-"Education should always aim at creation of new values from active experiences". Which philosophy propagates this idea? A:-Idealism B:-Naturalism C:-Realism D:-Pragmatism Correct Answer:- Option-D

Question17:-Reflective practice in teaching implies

A:-Portfolio management

B:-Journal writing

C:-Peer evaluation

D:-All of the above

Correct Answer:- Option-D

Question18:-The test made to compare the performance of student with other students is called

A:-Criterion reference

B:-Norm reference

C:-Achievement

D:-Diagnostic

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Correct Answer:- Option-B
Question19:-The essential characteristic of cooperative learning is
     A:-Effective learning
     B:-Positive interdependence
     C:-Cooperation
     D:-Division of labour
     Correct Answer:- Option-B
Question 20:- Which of the following is assessed by Chronbachs alpha?
     A:-Concurrent validity
     B:-Construct validity
     C:-Content validity
     D:-Internal consistency
     Correct Answer:- Option-D
Question21:-Identify non-justiciable right under the Constitution of India?
     A:-Right to freedom of speech and expression
     B:-Freedom of conscience and free profession, practice and propagation of religion
     C:-Right to property
     D:-Right of minorities to establish and administer educational institutions
     Correct Answer:- Option-C
Question22:-Which of the following is not a 'basic structure' of the Constitution of India?
     A:-Secular
     B:-Federal
    C:-Parliamentary
     D:-Monarchical
     Correct Answer:- Option-D
Question23:-Invoking which of the following article, Financial Emergency can be declared in India?
    A:-352
     B:-345
     C:-360
     D:-356
     Correct Answer:- Option-C
Question24:-The residuary powers under the Indian Constitution are assigned to _____?
     A:-State Government
     B:-Union Government
     C:-Election Commission
     D:-NITI Ayog
     Correct Answer:- Option-B
Question25:-Which among the following is not a Constitution Amendment Bill?
     A:-Election of the President
     B:-Supreme Court and the High Courts
     C:-Distribution of legislative powers between the Union and States
     D:-Salaries and allowances of the members of Parliament
     Correct Answer:- Option-D
Question26:-Prime Minister Narendra Modi launched the 'Swatchh Bharat Mission' or 'Clean India Campaign' from the
Valmiki Basti in New Delhi on _____ ?
     A:-2 October, 2014
     B:-5 October 2014
     C:-30 January 2014
     D:-5 June 2014
     Correct Answer:- Option-A
Question27:-Which Prime Minister of India gave the slogan Jai Jawan Jai Kisan?
     A:-Narendra Modi
     B:-Indira Gandhi
     C:-Lal Bahadur Shastri
     D:-V. P. Singh
     Correct Answer:- Option-C
Question28:-Which year National Green Tribunal has been established?
     A:-2010
     B:-1978
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C:-1991 D:-1998 Correct Answer: - Option-A Question29:-The Committee on the status of women in India recommended the setting up of A:-National Commission for Women **B:-National Commission for Backward Classes** C:-Human Rights Commission D:-Scheduled Tribes Commission Correct Answer: - Option-A Question 30:- To ameliorate the conditions of the urban slum dwellers living below the poverty line without adequate shelter, the government launched which of the following programme in 2001? A:-Rajiv Awas Yojana B:-Valmiki Ambedkar Awas Yojana C:-Housing for All by 2022 D:-Indira Awas Yojana Correct Answer: - Option-B Question31:-Who among the following evolutionary biologist got Indian citizenship? A:-Charles Darwin B:-J. B. S. Haldane C:-Fransisco Redi D:-Spallanzani Correct Answer:- Option-B Question32:-Bread moulds are classified under which division? A:-Basidiomycotina B:-Zygomycotina C:-Chtridiomycotina D:-Ascomycotina Correct Answer:- Option-B Question33:-Which is also known as ballistospores? A:-Ascospores **B:-Oospores** C:-Basidiospores D:-Zygospores Correct Answer:- Option-C Question34:-Which is the first 3-carbon compound formed in C3-cycle? A:-3-phospho glyceric acid B:-3-phosphoglyceraldehyde C:-Phosphoenol pyruvic acid D:-Malic acid Correct Answer:- Option-A Question35:-Algae used by Melvin Calvin and co-workers to study photosynthesis is A:-Polysiphonia B:-Spirogyra C:-Chlorella D:-Gelidium Correct Answer:- Option-C Question36:-Pink disease of rubber is caused by A:-Xanthomonas citri B:-Pythium aphanidermatum C:-Phytoplasma D:-Corticium salmonicolor Correct Answer:- Option-D Question37:-How many centers of origin were proposed by Nikoloai Vavilov? A:-11 B:-13 C:-14 D:-12 Correct Answer:- Option-D Question38:-Who among the following is a famous Indian Bryologist?

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A:-K. Thothathri
     B:-P. Maheswari
     C:-M. Sanjappa
     D:-D. K. Singh
     Correct Answer:- Option-D
Question39:-What is the meaning of the term protandrous?
     A:-Ovule absent
     B:-Gynoecium matures first
     C:-Androecium matures first
     D:-Androecium absent
     Correct Answer:- Option-C
Question40:-In Pteridophytes, gametes are produced in
    A:-Prothallus
     B:-Fronds
     C:-Upper surface of leaves
     D:-Sporophyte
     Correct Answer: - Option-A
Question41:-Most primitive water conducting structures known as hydroids are found in
    A:-Psilotum
     B:-Sphagnum
     C:-Lycopodium
     D:-Water lilies
     Correct Answer:- Option-B
Question42:-Which among the following algae gives iodine?
     A:-Ectocarpus
     B:-Oedogonium
     C:-Nostoc
     D:-Laminaria
     Correct Answer:- Option-D
Question43:-Where we can see zygotic meiosis?
     A:-Bryophytes
     B:-Pteridophytes
     C:-Algae
     D:-Fungi
     Correct Answer:- Option-C
Question44:-Which is the most common amino acid seen in the beta bend?
    A:-Glycine
    B:-Alanine
     C:-Threonine
     D:-Asparagine
     Correct Answer: - Option-A
Question45:-Lipids are the most important constituents in
    A:-Nucleus
     B:-Ribosomes
     C:-Lysosomes
     D:-Biological membranes
     Correct Answer:- Option-D
Question46:-Cardiolipin is characteristic to
     A:-Mitochondria
     B:-Endoplasmic reticulum
     C:-Golgibodies
     D:-Nucleus
     Correct Answer: - Option-A
Question47:-The atmosphere of primitive earth is
     A:-`CO (2)` rich
     B:-`O_(2)` rich
     C:-both 1 and 2
     D:-`CO_(2)` rich and `O_(2)` free
     Correct Answer:- Option-D
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Question48:-Which among the following is a common isoform of glucose transporter?
    A:-GLUT1
     B:-GLUT3
     C:-GLUT4
     D:-GLUT2
     Correct Answer:- Option-C
Question49:-Which is the `21^(st)` aminoacid recognized?
     A:-Proline
     B:-Selenocysteine
     C:-Hydroxy proline
     D:-Citrulline
     Correct Answer:- Option-B
Question50:-The lowest level of chromosome organization is
     A:-Nucleosomes
     B:-Histones
     C:-Lampbrush chromosomes
     D:-Solenoid model
     Correct Answer:- Option-A
Question51:-How many subfamilies are there under Leguminosae as per the latest Legume classification?
    A:-5
     B:-6
     C:-3
     D:-7
     Correct Answer:- Option-B
Question52:-Petals are absent in
    A:-Caesalpinia pulcherrima
     B:-Neolamarckia cadamba
    C:-Saraca asoca
     D:-Spathoglottis plicata
     Correct Answer:- Option-C
Question53:-Which is acting as extracellular messenger and intracellular communicator?
    A:-cAMP
     B:-NO
    C:-`H (2)``S`
     D:-cGMP
     Correct Answer:- Option-C
Question54:-Who proposed Chemi-osmotic theory of ATP formation?
    A:-P. Mitchel
     B:-M. Calvin
     C:-Andrew Benson
     D:-L. Pauling
     Correct Answer: - Option-A
Question55:-Inheritance that is not encoded in DNA is known as
     A:-Epigenetic
     B:-Phylogenetic
     C:-Paraphyletic
     D:-Polyphyletic
     Correct Answer:- Option-A
Question56:-Which statistical tool is used to test if the standard deviations of two populations are equal ?
    A:-T-Test
    B:-ANOVA
    C:-F-Test
     D:-Chi-square
     Correct Answer:- Option-C
Question57:-Anomalous secondary thickening is shown by
     A:-Chromalaena
     B:-Dracaena
     C:-Centella
     D:-Cocos
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Correct Answer:- Option-B
Question58:-What is the binomial of chick pea ?
A:-Lablab purpureus
B:-Cicer areitinum
C:-Phaseolus aureus
D:-Vigna minima
Correct Answer:- Option-B
Question59:-G2/M check point in mammalian cell cycle is mainly regulated by
A:-Cyclin B/A + Cdk1
B:-Cyclin A + Cdk2
C:-Cyclin E + Cdk 2
D:-Cyclin D's + Cdk 4 and Cdk 6
Correct Answer:- Option-A
Question60:-Which enzyme deficiency is responsible for Neimann-Pick disease ?
A:-Ceramidase
B:-Spingomyelinase
C:-Galactocerebrosidase
D:-Hexosaminidase A
Correct Answer:- Option-B
Question61:-The typical $\Delta G$ value during ATP hydrolysis in the cell is
A:12 kcal/mol
B:7.3 kcal/mol
C:14 kcal/mol
D:-18 kcal/mol
Correct Answer:- Option-A
Question62:-Who is the founder of Celera genomics ?
A:-Melvin Calvin
B:-Alec Jeffrey
C:-Craig Venter
D:-James Watson
Correct Answer:- Option-C
Question63:-Which among the following is a plant systematic journal published from India ?
A:-Cell
B:-Taxon
C:-Candollea
D:-Rheedea
Correct Answer:- Option-D
Question64:-How many conformational changes occurs to ribosomes, coupled with GTP hydrolysis during each cycle of cha
elongation in translation ?
A:-Zero
B:-One
C:-Two
D:-Three
Correct Answer:- Option-C
Question65:-Which of the following is not semelparous ?
A:-Annona
B:-Bamboo
C:-Corypha
D:-Cicada
Correct Answer:- Option-A
Question66:-The evolution of one population in response to the evolution of another population and vice-verse is called
A:-Convergent evolution
B:-Co evolution
C:-Divergent evolution
D:-Parallel evolution
Correct Answer:- Option-B
Question67:-Intestinal gas is the product of
A:-Undigested meat
B:-Vitamin fermentation

	C:-Intestinal bacteria
	D:-Intestinal villi
	Correct Answer:- Option-C
Que	stion68:-Which of the following animals has no need for gall bladder ?
•	A:-Human
	B:-Dog
	C:-Lion
	D:-Horse
	Correct Answer:- Option-D
Que	stion69:-Osteomalasia is a disease condition caused by the deficiency of
•	A:-Isoleucine
	B:-Vitamin D
	C:-Methionine
	D:-Vitamin C
	Correct Answer:- Option-B
Que	stion70:-Breathing rate in mammals is controlled by a part of the brain called the
	A:-Hypothalamus
	B:-Thalamus
	C:-Medulla oblongata
	D:-Cerebellum
	Correct Answer:- Option-C
Que	stion71:-The moulting hormone in insects is
	A:-Ecdysone
	B:-Thyroxine
	C:-Pheremone
	D:-Juvenile hormone
	Correct Answer:- Option-A
Que	stion72:-The symptoms of an allergic reaction develop in response to
	A:-Compliment proteins
	B:-Interleukins
	C:-Interferon
	D:-Histamine
	Correct Answer:- Option-D
Que	stion73:-Name the scientist who discovered the DNA
	A:-Freidrich Meischer
	B:-James Watson
	C:-Avery
	D:-Griffith
	Correct Answer:- Option-A
Que	stion74:-The most abundant lipid in a cell membrane is
	A:-Cutin
	B:-Glycolipid
	C:-Steroid
	D:-Phospholipid
	Correct Answer:- Option-D
Que	stion75:-Which of the following is a type of intercellular junction in animal cell
	A:-Desmosomes
	B:-Glycocalyx
	C:-Plasmodesmata
	D:-Middle lamella
	Correct Answer:- Option-A
Que	stion76:-The syndrome in which an individual's somatic cells will contain the three sex chromosome XXY is called
	A:-Turner
	B:-Down
	C:-Klinefelter
	D:-Edward
	Correct Answer:- Option-C
Que	stion77:-The scientist who won "Nobel Prize" for the work in the field of entomology
	A:-Ivan Pavlov

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B:-Karl von Frisch
     C:-Moses Kinby
     D:-Konrad Lorenz
     Correct Answer:- Option-B
Question78:-Menstruation is triggered by an abrupt decline in the amount of
    A:-Lutenizing hormone
     B:-Follicle stimulating hormone
     C:-Estrogen
     D:-Progesterone
     Correct Answer:- Option-D
Question79:-Photochemical fog always contain
     A:-Aluminium ion
     B:-Ozone
     C:-Methane
     D:-Phosphorus
     Correct Answer:- Option-B
Question80:-First national park in India is
    A:-Jim Corbet National Park
     B:-Satpura National Park
     C:-Panna National Park
     D:-Kaziranga National Park
     Correct Answer:- Option-A
Question81:-What percent of ultra violet radiation increases with subsequent reduction of 1% ozone?
     A:-8%
     B:-10%
    C:-2%
     D:-6%
     Correct Answer:- Option-C
Question82:-Computational genomics and their analysis include
     A:-DNA
     B:-RNA
     C:-Both DNA and RNA
     D:-None of the above
     Correct Answer:- Option-C
Question83:-Continuous variables are represented by
    A:-Histogram
     B:-Bar-diagram
    C:-Pie-chart
     D:-Line diagram
     Correct Answer:- Option-A
Question84:-Which is the first secondary database to be developed?
    A:-PRINTS
    B:-ROSITE
    C:-P farm
     D:-BLOCKS
     Correct Answer:- Option-B
Question85:-A computer or software system that communicate information via internet to a client
     A:-Windows
     B:-URL
    C:-UNIX
     D:-Server
     Correct Answer:- Option-D
Question86:-First functional electron microscope was developed by
     A:-Knowl and Ruska
     B:-Daniel Nathans
     C:-Robert Hook
     D:-None of the above
     Correct Answer: - Option-A
Question87:-Beer-Lambert law is applied in
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A:-Electrophoresis
    B:-Chromatography
    C:-Colorimetry
    D:-Centrifugation
    Correct Answer:- Option-C
Question88:-Wild Life Protection Act was enacted in
    A:-1972
    B:-1960
    C:-2001
    D:-1968
    Correct Answer:- Option-A
Question89:-Mutation theory was proposed by
    A:-T. H. Morgan
    B:-Hugo Devries
    C:-Lamarck
    D:-Carl Correns
    Correct Answer:- Option-B
Question90:-The first restriction endonuclease enzyme discovered was
    A:-Hind II
    B:-Eco R I
    C:-Pst I
    D:-Sat I
    Correct Answer: - Option-A
Question91:-Which of the following is considered as the leader of Chipko Movement?
    A:-Baba Amte
    B:-Medha Padkar
    C:-Sunderlal Bahuguna
    D:-Kiran Bedi
    Correct Answer:- Option-C
Question92:-Headquarters of UNEP is at _____
    A:-Switzerland
    B:-USA
    C:-France
    D:-Nairobi
    Correct Answer:- Option-D
Question93:-Which of the following is an ecotone?
    A:-Estuary
    B:-Pond
    C:-Lake
    D:-River
    Correct Answer: - Option-A
Question94:-Point out mangrove vegetation
    A:-Rhiopoda
    B:-Rhinozoa
    C:-Rhinoceros
    D:-Rhizophora
    Correct Answer:- Option-D
Question95:-The chromosome theory of heredity was proposed by
    A:-Sutton and Bovery
    B:-Jacob and Monod
    C:-Bateson and Punnet
    D:-Correns and Tschermark
    Correct Answer: - Option-A
Question96:-The crossing over take place during
    A:-Zygotene
    B:-Diplotene
    C:-Pachytene
    D:-Diakinesis
    Correct Answer:- Option-C
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Question97:-What is "black water fever"? A:-Leishmaniasis B:-Falciparum malaria C:-Hepatitis D:-Plague Correct Answer:- Option-B Question98:-Which type of infectious disease is known as "Thursh"? A:-Giardiasis B:-Cholera C:-Sporotrichosis D:-Candidosis Correct Answer:- Option-D Question99:-The enzyme gyrase is associated with A:-Transcription B:-DNA repair C:-Translation D:-None of the above Correct Answer:- Option-D Question100:-Which of the following method is used for studying/detecting gene expression? A:-Subtractive hybridization B:-Microarray hybridization C:-Southern hybridization

D:-Differential display PCR Correct Answer:- Option-C