कर्मचय कामासाठी जागा / SPACE FOR ROUGH WORK
1. A pair of mobile jointed appendages articulated with head in front of or between eyes are called antennae. They are wanting in all
   (1) Collembola  (2) Diplura
   (3) Protura  (4) Coleoptera

2. Two lateral lobes of Hypopharynx in Apterygota, Larval Ephemeroptera and Dermaptera are called
   (1) Ligula  (2) Superior Linguae
   (3) Salivarium  (4) Labrum Hypopharynx

3. The outermost layer of insect cuticle is called
   (1) Exocuticle  (2) Endocuticle
   (3) Epicuticle  (4) Procuticle

4. In which of the following insects head positions the long axis is horizontal or slightly inclined ventrally and the mouthparts are anterior in position?
   (1) Hypognathous  (2) Prognathous
   (3) Opisthognathous  (4) None of the above

5. The internal surface area of the insect midgut is increased by the development of sac-like diverticula known as gastric or enteric caeca. In cockroaches, they are ________ in number.
   (1) Two  (2) Eight  (3) Numerous  (4) Absent

6. Which of the following is formed by the fused ganglia of the antennal segment of the head?
   (1) Deutocerebrum  (2) Tritocerebrum
   (3) Protocerebrum  (4) None of the above

7. Johnston’s organ is a chordotonal organ lying in the _______ segment of the antenna.
   (1) First  (2) Second  (3) Third  (4) Terminal
8. Directorate of Plant Protection, Quarantine and Storage is located at
   (1) New Delhi  (2) Faridabad, Haryana
   (3) Bengaluru  (4) Chennai

9. A silk produced by *Antheraea mylitta* is called
   (1) Tasar silk  (2) Muga silk
   (3) Pure Silk  (4) Eri silk

10. *'Systema Naturae'* was published during 1758. This contains earlier record of 28 species of Indian insects by scientist
    (1) Carl Linnaeus  (2) J.C. Fabricius
    (3) J.G. Koenig  (4) Maxwell Lefroy

11. In India, the varieties of apple used in diseases resistant breeding against apple scab are
    (1) Sir Prize and Prima  (2) Priscilla and Macfree
    (3) Coop-12 and Red Free  (4) Nova Easygro and Liberty

12. Which statement from the following is *false* in relation to viroids?
    (1) It was discovered by Diener.
    (2) It is naked circular molecule of infectious nucleic acid.
    (3) The nucleic acid present is double standard DNA.
    (4) It causes diseases in plants.

13. From the following scientists, who were *not* responsible in proving the role of fungi in the cause of plant disease.
    a. Micheli and Tillet
    b. Prevost and Anton de Bary
    c. Burrill and Smith
    d. Woronin and Adolf Meyer

   **Answer Options:**
   (1) Only a and b  (2) Only c and d
   (3) Only a and c  (4) Only b and d
14. Which of the following pair is correct?

A  
- Plasmogamy  
- Oogonium  
- Oospore  
- Spermatia

B  
- Union of cytoplasmic content  
- Fruiting body of fungus  
- Asexual spore  
- Male structure

**Answer Options:**

1. Only a  
2. Only b  
3. Only a and d  
4. Only c

15. From the following list of toxins produced by fungi, which group of toxin is host specific?

1. Alternaric acid, Zinniol, Alternariol  
2. Cercosporin, Fusaric acid, Oxalic acid  
3. ATC-toxin, AB-toxin, AM-toxin  
4. Tabtoxin, Tentoxin, Pyricularin

16. Identify the mismatch regarding penetration of pathogen.

1. Stomata → *Phytophthora infestans*  
2. Lenticels → *Spongospora subterranea*  
3. Nectaries → *Uromyces appendiculates*  
4. Wounds → *Penicillium expansum*

17. The adjuvant material in fungicides which reduces the surface tension of particles is termed as

1. Wetting agents  
2. Spreaders  
3. Adhesives  
4. Defloculating agents
18. Which is the repeating stage of brown rust of wheat in India?
   a. Pycnial stage
   b. Aecial stage
   c. Uredial stage

   \textbf{Answer Options}:
   
   (1) Only a
   (2) Only a and b
   (3) Only c
   (4) Only b and c

19. An example of dsDNA virus is
   
   (1) Cauliflower mosaic virus
   (2) Wound tumor virus
   (3) Maize streak virus
   (4) Cowpea mosaic virus

20. Identify plant pathogen on the basis of following characters:
   a. Sensitive to tetracycline antibiotics
   b. Transmission of leaf and plant hoppers
   c. Acquired by nymph
   d. Long incubation period

   \textbf{Answer Options}:
   
   (1) Bacteria
   (2) Fungi
   (3) Phytoplasma
   (4) Virusoid
21. If grape is grown under high humid condition, it is observed that
   (1) Vines put forth vegetative growth at the expense of fruiting
   (2) Berries do not ripe properly
   (3) Disease incidence is high
   (4) All of the above

22. Allahabad Surkha is a variety of
   (1) Pomegranate
   (2) Guava
   (3) Grape
   (4) Mango

23. Bael fruit contains which of the following active ingredient?
   (1) Marmelosin
   (2) Cucurbitacin
   (3) Galactomanin
   (4) Quercetin

24. In which physiological disorder of citrus, the juice sacs become hard and elongated?
   (1) Greening
   (2) Decline
   (3) Granulation
   (4) None of the above

25. Which of the following is the hybrid variety of mandarin?
   (1) Coorg mandarin
   (2) Khasi mandarin
   (3) Kinnow mandarin
   (4) Nagpur mandarin
26. 'Sylvia' is the edible podded cultivar of
(1) Broad bean  (2) Garden pea
(3) French bean  (4) Lima bean

27. The most common method of propagation of ber is
(1) Chip budding
(2) I or T budding
(3) Micro budding
(4) Shoot-tip grafting

28. Potato is cool season crop and requires
(1) Long day condition with high temperature for both vegetative and tuber growth.
(2) Short day condition with low temperature for both vegetative and tuber growth.
(3) Long day with high temperature for vegetative growth and short day with low temperature for tuber formation.
(4) Day neutral for both vegetative and tuber growth.

29. Which rose species is widely used for gulkand preparation?
(1) *Rosa eglanteria*
(2) *Rosa bourboniana*
(3) *Rosa involucrata*
(4) *Rosa clinophylla*

30. *Pusa anupam* is a variety of
(1) Okra
(2) Brinjal
(3) Tomato
(4) Onion
31. The knobs of which crop are harvested by cutting the stem just below it?
   (1) Cabbage
   (2) Cauliflower
   (3) Knol-Khol
   (4) None of the above

32. Goldenrod (Solidago) is commercially propagated by
   (1) Grafting
   (2) Budding
   (3) Suckers
   (4) Air layers

33. In chrysanthemum, disbudding is a practice of removing immature flower bud to provide
   (1) Small number of large flowers
   (2) Large number of small flowers
   (3) Small number of large flowers or large number of small flowers
   (4) Delayed flowering

34. Corm dormancy in gladiolus is due to accumulation of
   (1) NAA
   (2) IBA
   (3) ABA
   (4) GA

35. Most anthurium blooms are harvested at about _________ maturity.
   (1) 1/4
   (2) 1/2
   (3) 3/4
   (4) Full

36. The hormone associated with induction of parthenocarpy is
   (1) GA3 (2) AVG (3) BA (4) CCC

37. In cucumber, foliar application of ______ is used for inducing staminate flowers in gynoecious lines.
   (1) GA3 (2) Silver nitrate (3) MAA (4) Both (1) and (2)

38. Certain food products are subjected to cryogenic freezing, means freezing of food products at very low temperature below
   (1) (-) 0°C (2) (-) 30°C (3) (-) 60°C (4) (-) 80°C

39. The total soluble solids (TSS) of fruit squash should be ______ percent.
   (1) 10 – 20 (2) 20 – 30 (3) 30 – 40 (4) 40 – 50

40. Fruit firmness is measured by
   (1) Penetrometer (2) Refractometer (3) Hardness tester (4) Tenderometer

41. In the broadest sense judging of the value of something is called
   (1) Evaluation (2) Monitoring (3) Planning (4) Management

42. According to Ensminger (1962) the philosophy of extension can be expressed in the following lines:
   a. Extension is “helping people to help themselves”.
   b. Extension is “learning by doing”.
   c. Extension is a two-way channel.
   d. Extension is a continuous, educational process.

   Answer Options:
   (1) Only a and b (2) Only b, c and d (3) Only a (4) All of the above
43. The process by which an individual, through one's own efforts and abilities changes the behaviour is called

(1) Teaching  
(2) Learning  
(3) Communication  
(4) Social change

44. As per the classification of extension teaching methods, the following are the examples of individual contact methods:

a. Office call  
b. Farm and Home visit  
c. Leaflets  
d. Tours

Answer Options:

(1) Only a and b  
(2) Only c and d  
(3) Only c  
(4) All of the above

45. Which of the following determines group life?

(1) We feeling  
(2) Feeling of unity  
(3) Common purpose  
(4) All of the above

46. Village Panchayat or Gram Panchayat is headed by

(1) Gram Sevak  
(2) Gram Sabha  
(3) Sabhapati  
(4) Sarpanch

47. According to Allport (1935), It is a mental state of readiness, organised through experience, exerting a directive and dynamic influence upon the individual's response to all objects and situations with which it is related. It refers to

(1) Interests  
(2) Emotions  
(3) Wishes  
(4) Attitudes

48. Which of the following factors influence the selection of extension teaching methods and aids?

(1) Audience  
(2) Teaching objectives  
(3) Subject matter  
(4) All of the above
49. Which of the following is an example of instinct?
   (1) Inspiration from the teacher or extension worker and the method of teaching followed by them to create love for a particular subject.
   (2) Love of a mother for her child, suckling of a baby.
   (3) Failure is likely to induce a gloomy, resentful mood.
   (4) Child afraid of dog.

50. A family in which determination of descent and property inheritance take place along the female line is
   (1) Patrilineal family  (2) Matrilocal family
   (3) Matrilineal family  (4) Patrilocal family

51. Which is a special type of communication, where the messages are concerned with new ideas?
   (1) Diffusion
   (2) Innovation
   (3) Learning
   (4) Teaching

52. The first Chairman of National Planning Committee was
   (1) Dr. Babasaheb Ambedkar  (2) Dr. Rajendra Prasad
   (3) Pt. Jawaharlal Nehru  (4) Mahatma Gandhi

53. The communication process according to Schramm (1961) involves
   (1) Communicator – Message – Channel – Treatment – Audience – Response
   (2) Source – Message – Channel – Receiver – Effects
   (3) Source – Encoder – Signal – Decoder – Destination
   (4) Source – Transmitter – Signal – Receiver – Destination

54. The first step in extension programme planning is
   (1) Collect facts
   (2) Identify problems
   (3) Develop plan of work
   (4) Decide an objective
55. Which of the following qualities is/are essential for local leaders?
   a. Mental ability
   b. Sense of purpose
   c. Love for people
   d. None of the above
   **Answer Options:**
   (1) Only a and b
   (2) Only a, b and c
   (3) Only c
   (4) Only d

56. The amount of money available with the private individuals to spend is known as
   (1) Disposable income
   (2) Personal income
   (3) Private income
   (4) National income

57. If Y is a product (output) and X is an input, then MP is equal to
   (1) \( \frac{X}{Y} \)
   (2) \( \frac{Y}{X} \)
   (3) \( \frac{\Delta X}{\Delta Y} \)
   (4) \( \frac{\Delta Y}{\Delta X} \)

58. Market ______ refers to the market situation that is likely to prevail in the near future.
   (1) News
   (2) Intelligence
   (3) Outlook
   (4) Agent

59. Those middlemen who take title to the product with a view to making a profit on it are called _______ middlemen.
   (1) Facilitative
   (2) Merchant
   (3) Speculative
   (4) Agent

60. The Wants-Efforts- _______ sums up the subject matter of economics.
   (1) Money
   (2) Satisfaction
   (3) Returns
   (4) None of the above
61. In the 12th Five Year Plan (FYP), the percentage of agriculture and allied sectors to total outlays was ________ percent.
   (1) 20.5
   (2) 19.7
   (3) 17.30
   (4) 15.00

62. Consumer's ________ is what we are prepared to pay minus what we actually pay.
   (1) Behaviour
   (2) Habit
   (3) Surplus
   (4) Willingness

63. The quantity of produce that farmers actually sell in the market is termed as
   (1) Marketable surplus
   (2) Marketed surplus
   (3) Consumer's surplus
   (4) None of the above

64. As on July 2016, the total number of members in the body of WTO were
   (1) 164
   (2) 154
   (3) 174
   (4) 184

65. Under Uruguay Round (UR) agreement in 1994, price support was considered trade distorting and was classified under ________ Box subsidies.
   (1) Amber
   (2) Blue
   (3) Green
   (4) Yellow
66. Amongst all the vitamins, vitamin ________ and vitamin ________ are water soluble vitamins and others are fat-soluble.

(1) A, B  
(2) B, C  
(3) C, D  
(4) D, E

67. Dark stained rod like or rounded bodies visible under microscope in the nucleus of the cell during metaphase stage of cell division is called

(1) Gene  
(2) Chiasma  
(3) Allel  
(4) Chromosome

68. Which of the following sentences are related to Sangamneri Goats?
   a. They are found in Ahmadnagar district of Maharashtra.
   b. They are also known as Tellicherry.
   c. They are jet black in colour.
   d. The colour varies from white, black and brown with spots of other colours.

   Answer Options:
   (1) Only a and b  
   (2) Only b and c  
   (3) Only a and d  
   (4) Only a and c
69. The commonly used energy and protein source in Poultry diets are _______ and _______ in our country.
   (1) Jowar, Fish meal
   (2) Maize, Soybean meal
   (3) Oats, Groundnut meal
   (4) Rice, Rapeseed meal

70. Commercial layer birds are produced by ________, whereas, the commercial broiler birds are produced by ________.
   (1) Inbreeding, Mass selection
   (2) Outbreeding, Strain crossing
   (3) Cross breeding, Strain crossing
   (4) Strain crossing, Cross breeding

71. Caprylic acid is
   (1) Essential amino acid
   (2) Saturated fatty acid
   (3) Unsaturated fatty acid
   (4) Fat soluble vitamin

72. The milk is fermented into Dahi with the help of the following bacteria:
   a. *Streptococcus thermophilus*
   b. *Lactobacillus bulgaricus*
   c. *Saccharomyces cerevisiae*
   d. *Aspergillus niger*

   Which of the options given above is/are correct?
   (1) Only a and b
   (2) Only b, c and d
   (3) Only a
   (4) Only a and d
73. Which of the following is the practice of breeding sire of a given breed to non-descript female and their offspring for generation after generation?

(1) Criss crossing
(2) Grading up
(3) Top crossing
(4) Back crossing

74. Very good quality silage should have pH between

(1) 3.5 to 4.2
(2) 1.5 to 2.5
(3) 5.5 to 6.5
(4) 4.5 to 4.8

75. The acidity and pH of fresh milk varies with
   a. Breed
   b. Species
   c. Stage of lactation
   d. Health of the animal

Which of the options given above is/are correct?

(1) Only a
(2) Only b and c
(3) Only a and d
(4) All of the above
76. Sodium nitrate is a/an
   a. Anticaking agent
   b. Antioxidant
   c. Curing agent
   d. Colorant

   **Answer Options:**
   (1) Only a
   (2) Only a and b
   (3) Only c
   (4) Only a and d

77. Substances added to fats or fat containing foods to retard the oxidative breakdown of fatty acids during storage are known as
   a. Antifoaming agents
   b. Antiageing agents
   c. Antihazing agents
   d. Antioxidants

   **Answer Options:**
   (1) Only a and b
   (2) Only b
   (3) Only b and c
   (4) Only d
78. Which of the following is biodegradable plastic?

a. Polypropylene
b. Polyhydroxybutyrate
c. HDPE
d. LDPE

**Answer Options:**

(1) Only a  
(2) Only b  
(3) Only a and c  
(4) Only d

79. In preservation of fruits and vegetable products, potassium metabisulphite is used as a stable source of

(1) Sulphur dioxide  
(2) Carbon dioxide  
(3) Sodium benzoate  
(4) All of the above

80. Fruits and vegetables turn brown when bruised or cut due to

(1) Caramelization  
(2) Enzymatic Browning  
(3) Sulfating  
(4) Dehydration
81. It is maturation of male and female structures of flower in plant at different times to reduce chances of self-fertilization and enhance outcrossing.

(1) Dichasium  (2) Diastase
(3) Dichogamy  (4) Dicliny

82. The interpretation of Mendelian genetics is based on

a. Frequencies  

b. Assumptions

c. Genetic ratios  

d. Mean values

Answer Options:

(1) Only a and c  

(2) Only d

(3) Only a and d  

(4) Only b

83. DNA is a polymer of

a. Nucleotides  

b. Amino acids

c. Nucleosides  

d. None of the above

Answer Options:

(1) Only c  

(2) Only a and b

(3) Only a and c  

(4) Only a

84. It is a sequence of three nucleotides that can code for one specific amino acid in a polypeptide chain.

(1) Codon  

(2) Anticodon

(3) Cistron  

(4) Cofactor

85. The progeny of single homozygous plant of a self-pollinated species and variation within it is

(1) Pureline heritable  

(2) Pureline non-heritable

(3) Multiline heritable  

(4) Multiline non-heritable

86. Certified foundation seed is the progeny of breeder seed with which colour tag?

(1) White  

(2) Blue

(3) Yellow  

(4) Brown

कक्ष्या कामासाठी जागा / SPACE FOR ROUGH WORK
87. Manga Bamboo is commercially cultivated in _______ district of Maharashtra.
   a. Gondia
   b. Sindhndurg
   c. Nashik
   d. Osmanabad

   Answer Options:
   (1) Only a
   (2) Only b
   (3) Only a and b
   (4) All of the above

88. Plant variety should have _______ eligibility criteria for registration of plant variety under PPVFRA, 2001.
   a. Novel
   b. Unifrom and Stable
   c. Distinct
   d. All of the above

   Answer Options:
   (1) Only a and b
   (2) Only b and c
   (3) Only c and d
   (4) Only d

89. The total of all the chemical reactions that takes place in an organism is called
   a. Catabolism
   b. Anabolism
   c. Metabolism
   d. None of the above

   Answer Options:
   (1) Only d
   (2) Only a and c
   (3) Only c
   (4) Only b
90. Light phase of photosynthesis takes place in
   a. Vacuole     b. Grana
   c. Stroma      d. None of the above
   **Answer Options:**
   (1) Only a     (2) Only d
   (3) Only b     (4) Only b and c

91. A stimulated cell will often release calcium ions from its
   a. Nucleus     b. Mitochondria
   c. Endoplasmic reticulum d. Lysosomes
   **Answer Options:**
   (1) Only c     (2) Only d
   (3) Only a and d (4) Only c and d

92. Which is the maintainer line used in production of hybrid seeds?
   (1) A line     (2) R line     (3) B line     (4) P line

93. Which method is useful for recovering virus-free plants from virus-infected plants?
   (1) Embryo culture (2) Pollen culture
   (3) Root culture   (4) Meristem culture

94. For humans, _______ is a statistical tool used to test for possible linkage between two genetic loci.
   a. Chi square     b. Lod score method
   c. Student test   d. ANOVA
   **Answer Options:**
   (1) Only a and c (2) Only b
   (3) Only c and b (4) Only d

95. The stomata closed in water stressed plants due to accumulation of ABA is in
   (1) Mesophyll cells (2) Subsidiary cells
   (3) Guard cells    (4) All of the above
96. The development of embryo without fertilization is known as
   a. Apogamy
   b. Adnogamy
   c. Parthenogenesis
   d. Apospory

   **Answer Options:**
   (1) Only a and c
   (2) Only b
   (3) Only a
   (4) Only a, c and d

97. In photosynthesis, dark reaction or Blackman's reaction is
   (1) Enzymatic and occurs in the absence of light
   (2) Non enzymatic and occurs in the absence of light
   (3) Enzymatic and independent of light
   (4) Non-enzymatic and occurs in the presence of light

98. Desirable linkage can be broken more effectively by
   a. Pedigree method
   b. Diallel selective mating
   c. Backcross method
   d. Bulk method

   **Answer Options:**
   (1) Only b
   (2) Only a and c
   (3) Only d
   (4) Only c

99. Recalcitrant seeds are also known as
   (1) Desiccation tolerant seeds
   (2) Desiccation sensitive seeds
   (3) Orthodox seeds
   (4) Long lived seeds

100. ________ is a vector of rice grassy stunt virus.
    (1) *Nilaparvata lugens*
    (2) *Leptocorisa acuta*
    (3) *Stenchaetothrips biformis*
    (4) *Cnaphalocrosis medinalis*
I congratulate you your grand success.

Q.No. 201. I congratulate you __________ your grand success.

(1) for  (2) at

(3) on  (4) about

Pr. Kr. 201.

201

Rough Work Area