

Total No. of Printed Pages : 13

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU  
ARE ASKED TO DO SO)

**CPG-EE-2018 (Life Sciences)-(SET-Y)**

10889



Sr. No. ....

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

Roll No. (in figures) \_\_\_\_\_ (in words) \_\_\_\_\_

Candidate's Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Father's Name \_\_\_\_\_ Mother's Name \_\_\_\_\_

Date of Exam : \_\_\_\_\_

\_\_\_\_\_  
(Signature of the Candidate)

\_\_\_\_\_  
(Signature of the Invigilator)

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CPG-EE-2018(Life Sciences)-(SET-Y)/(A)

1. Viruses are :
  - (1) Non-infective microorganisms
  - (2) Infective microorganisms
  - (3) Dead cells
  - (4) None of the above
2. Algae grows :
  - (1) In water
  - (2) On damp soil
  - (3) as epiphytes
  - (4) All of the above
3. The electron transport system of bacteria is located in :
  - (1) The plasma membrane
  - (2) Mitochondria
  - (3) Cristae
  - (4) All of the above
4. The male branch in *Aspergillus* is called :
  - (1) Archicarp
  - (2) Mycelium
  - (3) Young ascus
  - (4) Peridium
5. Which of the following are not types of lysosome ?
  - (1) Primary lysosome
  - (2) Residual bodies
  - (3) Tertiary lysosomes
  - (4) Autophagic vacuoles
6. In which of the mitotic phases cytokinesis begins :
  - (1) Late metaphase
  - (2) Late anaphase
  - (3) Early telophase
  - (4) Late telophase
7. Which endoplasmic reticulum plays important role in detoxification of liver ?
  - (1) smooth
  - (2) rough
  - (3) sarcoplasmic
  - (4) All of the above
8. Centriole with cilium or flagellum is called :
  - (1) Basal body
  - (2) Residual body
  - (3) Corpuscle
  - (4) All of the above
9. Cells in which meiosis takes place are called :
  - (1) Germ cells
  - (2) Somatic cells
  - (3) Ageing cells
  - (4) Meiocytes

10. Synthesis of two strands of DNA takes place in :
- (1) 5' to 3' direction (2) 3' to 5' direction  
(3) 3' to 3' direction (4) 5' to 5' direction
11. In woody tissues the middle lamella is commonly :
- (1) Cutinized (2) Lignified  
(3) Suberized (4) All of the above
12. In a pine tree, the resin canals are :
- (1) Vertical and horizontal (2) Vertical  
(3) Horizontal (4) Not in a particular plane
13. Pyrenoid is present in the chloroplast of :
- (1) Riccia (2) Marchantia  
(3) Polystrichum (4) Anthoceros
14. Seed named 'Chilgoza' used as dry fruit belongs to :
- (1) *Zamia* (2) *Pinus longifolia*  
(3) *Cedrus deodara* (4) *Pinus gerardiana*
15. Elators found in Marchantia sp. capsule are helpful in :
- (1) Nutrition of spores (2) Dispersal of spores  
(3) Protection of spores (4) None of the above
16. The phenotypic ratio expressed in a dihybrid cross is :
- (1) 1 : 2 : 2 : 1 (2) 9 : 1 : 3 : 3  
(3) 9 : 3 : 3 : 1 (4) 2 : 1 : 1 : 2
17. Law of purity of gametes also known as :
- (1) Law of dominance (2) Reciprocal cross  
(3) Law of segregation (4) Law of Independent Assortment

18. The movement of chiasmata after crossing over is called as :  
(1) Synapsis (2) Terminalisation  
(3) Duplication (4) Shifting
19. Turner's syndrome is caused by the absence of one 'X' chromosome in :  
(1) Female (2) Male  
(3) Both female and male (4) None of the above
20. Which of the following not a kind of nuclear enzyme that act on DNA ?  
(1) Nucleases (2) Polyhexases  
(3) Ligases (4) Polymerases
21. The presence of 'Rh' blood factor in both man and rhesus monkey is a kind of :  
(1) Point mutation (2) Somatic mutation  
(3) Parallel mutation (4) Gene mutation
22. In which stage of the cell cycle in humans the sex chromatins are visible ?  
(1) Throughout cell cycle (2) Late telophase  
(3) Early Interphase (4) Late Interphase
23. Sometimes a gene masks the expression of another gene at a different locus. This phenomenon is :  
(1) Co-dominance (2) Epistasis  
(3) Incomplete dominance (4) None of the above
24. The smallest unit of DNA capable of recombination is called :  
(1) Cistron (2) Allele (3) Recon (4) Muton
25. The sex linked lethals of man are the genes of :  
(1) Juvenile Glaucoma (2) Red-green blindness  
(3) Haemophilia (4) All of the above
26. Repair replication of DNA is :  
(1) Semiconservative (2) Conservative  
(3) Non Conservative (4) Dispersive

27. Which process has a purpose to conserve the entire Genome for next generation ?
- (1) Transcription (2) Translation  
(3) Replication (4) None of the above
28. Alimentary canal is absent in :
- (1) Trematoda (2) Cestoda  
(3) Both of above (4) None of above (1) and (2)
29. The nervous system is without a brain in :
- (1) Annelida (2) Arthropoda  
(3) Echinodermata (4) Hemichordata
30. Excretion in *Balanoglossus* occurs through :
- (1) Skin  
(2) Flame cells  
(3) Single glomerulus situated in the proboscis  
(4) Kidneys
31. Volatile oils are characteristic of the family :
- (1) Labiatae (2) Papaveraceae  
(3) Cyperaceae (4) Rosaceae
32. Which of the following plants do not flower in response to gibberellins ?
- (1) Long-day plants with rosette in form  
(2) Long-short-day plants  
(3) Long-day plants but not rosette in form  
(4) All of the above
33. Response of *Mimosa pudica* to touch shows :
- (1) Thigmotropism (2) Seismonasty  
(3) Nyctinasty (4) Geotropism

34. Dormancy phytohormone is :  
(1) Ascorbic acid (2) Abscisic acid  
(3) Indole acetic acid (4) Gibberellic acid
35. An edible inflorescence is :  
(1) *Raphanus sativus* (2) *Brassica oleracea*  
(3) *Brassica rapa* (4) Mustard
36. A characteristic of angiosperms is :  
(1) Flower (2) Root (3) Seed (4) All of the above
37. Double fertilization is the character of :  
(1) Gymnosperms (2) Dicots  
(3) Ferns (4) None of these
38. Which among the following are pollinated by bat ?  
(1) *Saliva* (2) *Ophrys*  
(3) *Kigellia* (4) *Brassica*
39. The fibres present in the xylem of stem and roots are known as :  
(1) Surface fibres (2) Wood fibres  
(3) Bast fibres (4) Extraxylary fibres
40. The central cells in the stem that are enclosed by the ring meristem are designated as :  
(1) Protocortex (2) Protoderm  
(3) Protopith (4) Protophloem
41. The fruit produced from the entire hypanthodium inflorescence is known as :  
(1) Syconus (2) Amphisarca  
(3) Pepo (4) Hesperidium
42. Germination of seeds within the fruit while still attach to mother plant is :  
(1) Ovipary (2) Vivipary  
(3) After ripening (4) Xenia

43. Which of the following is an Amniota ?  
(1) Aves (2) Mammalia  
(3) Reptilia (4) All of the above
44. Herpetology is the study of :  
(1) Amphibians (2) Reptiles  
(3) Birds (4) Mammals
45. Notochord is confined to proboscis in :  
(1) Urochordata (2) Hemichordata  
(3) Cephalochordata (4) Chordata
46. Living fossil of reptiles is :  
(1) Chelonia (2) Sphenodon  
(3) Matamata (4) Draco volans
47. Which is not a poisonous snake ?  
(1) Kobra (2) Kraits  
(3) Crotalus (4) Python
48. Vertebrae of birds are :  
(1) Amphicoelous (2) Heterocoelous  
(3) Platycoelous (4) Gastrocoelous
49. Oviparous mammal is :  
(1) Ornithorhynchus (2) Opposum  
(3) Otter (4) Kangaroo
50. Gnawing mammals are characterised by the absence of :  
(1) Premolars (2) Incisors  
(3) Canines (4) Molars
51. Non-protein part of conjugated enzymes is called :  
(1) Holoenzyme (2) Apoenzyme (3) Coenzyme (4) Prosthetic group

52. Fats are absorbed in the intestine :
- (1) As such (2) After hydrolysis  
(3) After digestion (4) After emulsification
53. Liquid which collects in cavity of Bowman's capsule is :
- (1) Concentrated urine (2) Plasma minus blood proteins  
(3) Glycogen and water (4) Water
54. Respiration is controlled by :
- (1) Cerebellum (2) Cerebrum (3) Medulla (4) Spinal cord
55. Vitamin K is essential for the formation of :
- (1) Fibrinogen (2) Prothrombin  
(3) Accelerin (4) All of the above
56. Atrioventricular valve open towards :
- (1) Atria  
(2) Ventricles  
(3) Atria and close towards the ventricles  
(4) Ventricles and close towards the atria
57. Rapid rise of depolarisation wave and rapid fall of repolarisation wave are called :
- (1) Negative after potential (2) Positive after potential  
(3) Spike potential (4) Action potential
58. Follicle cells are derived from :
- (1) Zona pellucida (2) Germinal epithelium  
(3) Vitelline membrane (4) Oocyte
59. What is the effect of pH if it is high, on the sperms ?
- (1) Higher activity leading to early death  
(2) Sluggish, longer life  
(3) Higher activity, longer life  
(4) No effect



60. Balance of calcium in the body controlled by :
- |                |                       |
|----------------|-----------------------|
| (1) Thyroxine  | (2) Calmodulin        |
| (3) Calcitonin | (4) None of the above |
61. Intracellularly, photorespiration occurs in which of the organelles in association with chloroplast and mitochondria ?
- |                     |                 |
|---------------------|-----------------|
| (1) Lysosomes       | (2) Vacuoles    |
| (3) Golgi apparatus | (4) Peroxisomes |
62. Usually plants show high rate of photosynthesis in :
- |                        |                         |
|------------------------|-------------------------|
| (1) Blue & green light | (2) Blue & yellow light |
| (3) Green & red light  | (4) Blue & red light    |
63. Total amount of soil water available to plant is :
- |             |                      |
|-------------|----------------------|
| (1) Holard  | (2) Echard           |
| (3) Chesard | (4) Both (1) and (2) |
64. Rhizobia produce the plant hormone :
- |                   |                        |
|-------------------|------------------------|
| (1) Abscisic Acid | (2) Indole acetic acid |
| (3) Glyceric acid | (4) All of the above   |
65. Sporangia are well protected by :
- |               |                      |
|---------------|----------------------|
| (1) Peristome | (2) Strobilus        |
| (3) Indusium  | (4) All of the above |
66. Cyclosis in a plant cell is :
- |                      |                          |
|----------------------|--------------------------|
| (1) Induced movement | (2) Spontaneous movement |
| (3) Growth movement  | (4) None of the above    |
67. Which of the following are O<sub>2</sub> derivatives of carotenes containing 1-8 oxygen atoms ?
- |                    |                 |
|--------------------|-----------------|
| (1) Phycocyanins   | (2) Xanthophils |
| (3) Phycoerythrins | (4) Phycobilins |

68. Dark reactions occur in the stroma of chloroplasts where the product of light reaction are used to :
- (1) Incorporate C from  $\text{CO}_2$  to carbohydrate
  - (2) Incorporate H from  $\text{H}_2\text{O}$  to carbohydrate
  - (3) Incorporate  $\text{O}_2$  from  $\text{CO}_2$  to carbohydrate
  - (4) All of the above
69.  $\text{C}_4$  cycle is energy expensive and requires :
- (1) 18 ATP for synthesis of one glucose molecule
  - (2) 20 ATP for synthesis of one glucose molecule
  - (3) 30 ATP for synthesis of one glucose molecule
  - (4) 40 ATP for synthesis of one glucose molecule
70. The most mobile mineral in the plant body is :
- |              |                 |
|--------------|-----------------|
| (1) Nitrogen | (2) Carbon      |
| (3) Iron     | (4) Phosphorous |
71. Which of the following theories is also called as steady - state theory ?
- (1) Theory of catastrophism
  - (2) Cosmozoic theory
  - (3) Theory of spontaneous generation/eternity of life
  - (4) Theory of naturalism
72. Common food chain among grassland & aquatic ecosystems is :
- |                          |                         |
|--------------------------|-------------------------|
| (1) Grassland food chain | (2) Organic food chain  |
| (3) Grazing food chain   | (4) Detritus food chain |
73. Which of the following is a biotic community ?
- |                         |                      |
|-------------------------|----------------------|
| (1) Microbial community | (2) Plant community  |
| (3) Animal community    | (4) All of the above |
74. Pollutant that directly affects the nervous system is :
- |             |                        |
|-------------|------------------------|
| (1) D.D.T.  | (2) Aldrin             |
| (3) Lindane | (4) Organic Phosphates |

75. Niche of a species is :
- (1) Place of living (2) Specific functions & competitive power  
(3) Habitat & specific functions (4) None of the above
76. Tropical forests are dense due to :
- (1) Wild animals (2) High temperature and less rain  
(3) Low temperature & excess rain (4) High temperature & excess rain
77. Which of the following is not a prosthetic group ?
- (1) NAD (2) Heme  
(3) Flavin (4) Biotin
78. Which of the following is not a phase of cell respiration ?
- (1) Glycolysis (2) Oxidation of pyruvic acid  
(3) Reductive phosphorylation (4) TCA cycle
79. Compound lipids are :
- (1) Natural fats (2) Steroids  
(3) Beeswax (4) Cholesterol
80. Plant tissue culture generally grow best at :
- (1) Constant temperature & high light intensity  
(2) Constant light intensity & low temperature  
(3) High light intensity & high temperature  
(4) Constant temperature & low light intensity
81. First tissue to be cultured as a callus in plant tissue culture history came from hybrid :
- (1) Wheat plant (2) Tobacco plant  
(3) Maize plant (4) Rice plant
82. Protoplasts from different varieties or species can be fused with the help of :
- (1) Electrofusion (2) Polyethyl glycol  
(3) Sodium chloride (4) Both (1) and (2)

83. A major application of embryo culture is :
- (1) Embryoids production (2) Overcoming hybridization barriers  
(3) Induction of somaclonal variations (4) Clonal propagation
84. Obtaining genetically engineered plant by introducing gene from some other genera is called :
- (1) Transgenes (2) Transgenesis  
(3) Recombinant DNA technology (4) None of these
85. In tissue culture medium, the embryoids formed from pollen grains is due to :
- (1) Cellular totipotency (2) Organogenesis  
(3) Double fertilization (4) Test tube culture
86. Patented invention or technique of production can be used by the :
- (1) Patentee (2) Source Country  
(3) Both (1) & (2) (4) Patentee & Licence
87. Science of improving the human race is :
- (1) Eugenics (2) Euthenics  
(3) Epigenesis (4) None of these
88. Grafting between two members of the same species is :
- (1) Autograft (2) Allograft  
(3) Xenograft (4) None of the above
89. First genetically engineered human insulin was launched in :
- (1) America (2) India (3) U.K. (4) China
90. Autoantibody fingerprinting protocol involves :
- (1) Preparation of antigen (2) Antibody fingerprint assay  
(3) Extraction of DNA (4) Both (1) and (2)
91. High risk of genetic disease in an embryo can be find out by :
- (1) Amniocentasis (2) Genetic engineering  
(3) Chromatography (4) Ultrasonography

92. In later stages of gastrulation in frog, the oral and pharyngeal endoderm expands so as to form :
- (1) Foregut (2) Mesenteron  
(3) Hindgut (4) Coelenteron
93. Fully developed chick gastrula consists of :
- (1) Ectoderm (2) Chordamesoderm  
(3) Endoderm (4) All of the above
94. Which of the following extra-embryonic membranes makes no direct contribution to the placenta ?
- (1) Amnion (2) Chorion (3) Yolk Sac (4) Allantois
95. Plants can be made disease resistant by :
- (1) Treatment with fungicides (2) Heat treatment of seeds  
(3) Causing mutations (4) Breeding with wild relatives
96. Progamic fertilization ususally takes place in :
- (1) Circinotropous ovule (2) Anotropous ovule  
(3) Campylotropous ovule (4) Orthotropous ovule
97. Vegetation with vertical gradient of gradually decreasing temperature from the surface is :
- (1) Thermocline (2) Metalimnion  
(3) Hypolimnion (4) Epilimnion
98. Rice weevil which grubs feed on all cereals :
- (1) *Calandra oryzae* (2) *Tribolium castaneum*  
(3) *Pyrilla* (4) None of the above
99. Fish are rich source of minerals like :
- (1) Calcium (2) Phosphorous (3) Iron (4) All of the above
100. Due to presence of which pigment the eyes of certain animals shine in the dark :
- (1) Sclerotic (2) Choroid (3) Retina (4) Lens

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**B**

10790

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Candidate's Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

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Date of Exam : \_\_\_\_\_

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(Signature of the Candidate)

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(3) as epiphytes (4) All of the above
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- (1) The plasma membrane (2) Mitochondria  
(3) Cristae (4) All of the above
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(3) Young ascus (4) Peridium
25. Which of the following are not types of lysosome ?
- (1) Primary lysosome (2) Residual bodies  
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26. In which of the mitotic phases cytokinesis begins :
- (1) Late metaphase (2) Late anaphase  
(3) Early telophase (4) Late telophase

27. Which endoplasmic reticulum plays important role in detoxification of liver ?  
(1) smooth (2) rough .  
(3) sarcoplasmic (4) All of the above
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35. Plants can be made disease resistant by :  
(1) Treatment with fungicides (2) Heat treatment of seeds  
(3) Causing mutations (4) Breeding with wild relatives

36. Progamic fertilization usually takes place in :
- (1) Circinotropous ovule (2) Anotropous ovule  
(3) Campylotropous ovule (4) Orthotropous ovule
37. Vegetation with vertical gradient of gradually decreasing temperature from the surface is :
- (1) Thermocline (2) Metalimnion  
(3) Hypolimnion (4) Epilimnion
38. Rice weevil which grubs feed on all cereals :
- (1) *Calandra oryzae* (2) *Tribolium castaneum*  
(3) *Pyrilla* (4) None of the above
39. Fish are rich source of minerals like :
- (1) Calcium (2) Phosphorous (3) Iron (4) All of the above
40. Due to presence of which pigment the eyes of certain animals shine in the dark :
- (1) Sclerotic (2) Choroid (3) Retina (4) Lens
41. Intracellularly, photorespiration occurs in which of the organelles in association with chloroplast and mitochondria ?
- (1) Lysosomes (2) Vacuoles  
(3) Golgi apparatus (4) Peroxisomes
42. Usually plants show high rate of photosynthesis in :
- (1) Blue & green light (2) Blue & yellow light  
(3) Green & red light (4) Blue & red light
43. Total amount of soil water available to plant is :
- (1) Holard (2) Echard (3) Chesard (4) Both (1) and (2)
44. Rhizobia produce the plant hormone :
- (1) Abscissic Acid (2) Indole acetic acid  
(3) Glyceric acid (4) All of the above

45. Sporangia are well protected by :
- (1) Peristome (2) Strobilus  
(3) Indusium (4) All of the above
46. Cyclosis in a plant cell is :
- (1) Induced movement (2) Spontaneous movement  
(3) Growth movement (4) None of the above
47. Which of the following are  $O_2$  derivatives of carotenes containing 1-8 oxygen atoms ?
- (1) Phycocyanins (2) Xanthophylls  
(3) Phycoerythrins (4) Phycobilins
48. Dark reactions occur in the stroma of chloroplasts where the product of light reaction are used to :
- (1) Incorporate C from  $CO_2$  to carbohydrate  
(2) Incorporate H from  $H_2O$  to carbohydrate  
(3) Incorporate  $O_2$  from  $CO_2$  to carbohydrate  
(4) All of the above
49.  $C_4$  cycle is energy expensive and requires :
- (1) 18 ATP for synthesis of one glucose molecule  
(2) 20 ATP for synthesis of one glucose molecule  
(3) 30 ATP for synthesis of one glucose molecule  
(4) 40 ATP for synthesis of one glucose molecule
50. The most mobile mineral in the plant body is :
- (1) Nitrogen (2) Carbon  
(3) Iron (4) Phosphorous
51. Volatile oils are characteristic of the family :
- (1) Labiatae (2) Papaveraceae  
(3) Cyperaceae (4) Rosaceae

52. Which of the following plants do not flower in response to gibberellins ?
- (1) Long-day plants with rosette in form
  - (2) Long-short-day plants
  - (3) Long-day plants but not rosette in form
  - (4) All of the above
53. Response of *Mimosa pudica* to touch shows :
- (1) Thigmotropism
  - (2) Seismonasty
  - (3) Nyctinasty
  - (4) Geotropism
54. Dormancy phytohormone is :
- (1) Ascrobic acid
  - (2) Abscisic acid
  - (3) Indole acetic acid
  - (4) Gibberellic acid
55. An edible inflorescence is :
- (1) *Raphanus sativus*
  - (2) *Brassica oleracea*
  - (3) *Brassica rapa*
  - (4) Mustard
56. A characteristic of angiosperms is :
- (1) Flower
  - (2) Root
  - (3) Seed
  - (4) All of the above
57. Double fertilization is the character of :
- (1) Gymnosperms
  - (2) Dicots
  - (3) Ferns
  - (4) None of these
58. Which among the following are pollinated by bat ?
- (1) *Saliva*
  - (2) *Ophrys*
  - (3) *Kigellia*
  - (4) *Brassica*
59. The fibres present in the xylem of stem and roots are known as :
- (1) Surface fibres
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- (1) Protocortex
  - (2) Protoderm
  - (3) Protopith
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61. Which of the following theories is also called as steady - state theory ?  
(1) Theory of catastrophism  
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62. Common food chain among grassland & aquatic ecosystems is :  
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68. Which of the following is not a phase of cell respiration ?  
(1) Glycolysis (2) Oxidation of pyruvic acid  
(3) Reductive phosphorylation (4) TCA cycle

69. Compound lipids are :
- (1) Natural fats (2) Steroids  
(3) Beeswax (4) Cholesterol
70. Plant tissue culture generally grow best at :
- (1) Constant temperature & high light intensity  
(2) Constant light intensity & low temperature  
(3) High light intensity & high temperature  
(4) Constant temperature & low light intensity
71. First tissue to be cultured as a callus in plant tissue culture history came from hybrid :
- (1) Wheat plant (2) Tobacco plant  
(3) Maize plant (4) Rice plant
72. Protoplasts from different varieties or species can be fused with the help of :
- (1) Electrofusion (2) Polyethyl glycol  
(3) Sodium chloride (4) Both (1) and (2)
73. A major application of embryo culture is :
- (1) Embryoids production (2) Overcoming hybridization barriers  
(3) Induction of somaclonal variations (4) Clonal propagation
74. Obtaining genetically engineered plant by introducing gene from some other genera is called :
- (1) Transgenes (2) Transgenesis  
(3) Recombinant DNA technology (4) None of these
75. In tissue culture medium, the embryoids formed from pollen grains is due to :
- (1) Cellular totipotency (2) Organogenesis  
(3) Double fertilization (4) Test tube culture
76. Patented invention or technique of production can be used by the :
- (1) Patentee (2) Source Country  
(3) Both (1) & (2) (4) Patentee & Licence

77. Science of improving the human race is :  
(1) Eugenics (2) Euthenics  
(3) Epigenesis (4) None of these
78. Grafting between two members of the same species is :  
(1) Autograft (2) Allograft  
(3) Xenograft (4) None of the above
79. First genetically engineered human insulin was launched in :  
(1) America (2) India (3) U.K. (4) China
80. Autoantibody fingerprinting protocol involves :  
(1) Preparation of antigen (2) Antibody fingerprint assay  
(3) Extraction of DNA (4) Both (1) and (2)
81. In woody tissues the middle lamella is commonly :  
(1) Cutinized (2) Lignified  
(3) Suberized (4) All of the above
82. In a pine tree, the resin canals are :  
(1) Vertical and horizontal (2) Vertical  
(3) Horizontal (4) Not in a particular plane
83. Pyrenoid is present in the chloroplast of :  
(1) Riccia (2) Marchantia  
(3) Polystrichum (4) Anthoceros
84. Seed named 'Chilgoza' used as dry fruit belongs to :  
(1) *Zamia* (2) *Pinus longifolia*  
(3) *Cedrus deodara* (4) *Pinus gerardiana*
85. Elators found in *Marchantia* sp. capsule are helpful in :  
(1) Nutrition of spores (2) Dispersal of spores  
(3) Protection of spores (4) None of the above



- 86.** The phenotypic ratio expressed in a dihybrid cross is :
- (1) 1 : 2 : 2 : 1
  - (2) 9 : 1 : 3 : 3
  - (3) 9 : 3 : 3 : 1
  - (4) 2 : 1 : 1 : 2
- 87.** Law of purity of gametes also known as :
- (1) Law of dominance
  - (2) Reciprocal cross
  - (3) Law of segregation
  - (4) Law of Independent Assortment
- 88.** The movement of chiasmata after crossing over is called as :
- (1) Synapsis
  - (2) Terminalisation
  - (3) Duplication
  - (4) Shifting
- 89.** Turner's syndrome is caused by the absence of one 'X' chromosome in :
- (1) Female
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  - (3) Both female and male
  - (4) None of the above
- 90.** Which of the following not a kind of nuclear enzyme that act on DNA ?
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  - (3) Medulla
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- (1) Atria
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(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU ARE ASKED TO DO SO)

## CPG-EE-2018 (Life Sciences)-(SET-Y)



10807

Sr. No. ....

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

Roll No. (in figures) \_\_\_\_\_ (in words) \_\_\_\_\_

Candidate's Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Father's Name \_\_\_\_\_ Mother's Name \_\_\_\_\_

Date of Exam : \_\_\_\_\_

\_\_\_\_\_  
(Signature of the Candidate)

\_\_\_\_\_  
(Signature of the Invigilator)

### CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

1. All questions are **compulsory** and carry equal marks. The candidates are required to attempt all questions.
2. The candidates **must return** the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means/misbehaviour will be registered against him/her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
3. In case there is any discrepancy in any question(s) in the Question Booklet, the same may be brought to the notice of the Controller of Examinations in writing **within two hours** after the test is over. No such complaint(s) will be entertained thereafter.
4. The candidate **must not** do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers **must not** be ticked in the question booklet.
5. **Use only black or blue ball point pen of good quality in the OMR Answer-Sheet.**
6. There will be **negative** marking. Each correct answer will be awarded **one** full mark and each incorrect answer will be negatively marked for which the candidate will get ¼ discredit. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
7. *Before answering the questions, the candidates should ensure that they have been supplied correct & complete question booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.*

CPG-EE-2018(Life Sciences)-(SET-Y)/(C)

SEAL

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11. High risk of genetic disease in an embryo can be find out by :  
(1) Amniocentasis (2) Genetic engineering  
(3) Chromatography (4) Ultrasonography
12. In later stages of gastrulation in frog, the oral and pharyngeal endoderm expands so as to form :  
(1) Foregut (2) Mesenteron (3) Hindgut (4) Coelenteron
13. Fully developed chick gastrula consists of :  
(1) Ectoderm (2) Chordamesoderm  
(3) Endoderm (4) All of the above
14. Which of the following extra-embryonic membranes makes no direct contribution to the placenta ?  
(1) Amnion (2) Chorion (3) Yolk Sac (4) Allantois
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51. The presence of 'Rh' blood factor in both man and rhesus monkey is a kind of :
- (1) Point mutation (2) Somatic mutation  
(3) Parallel mutation (4) Gene mutation

52. In which stage of the cell cycle in humans the sex chromatins are visible ?  
(1) Throughout cell cycle (2) Late telophase  
(3) Early Interphase (4) Late Interphase
53. Sometimes a gene masks the expression of another gene at a different locus. This phenomenon is :  
(1) Co-dominance (2) Epistasis  
(3) Incomplete dominance (4) None of the above
54. The smallest unit of DNA capable of recombination is called :  
(1) Cistron (2) Allele  
(3) Recon (4) Muton
55. The sex linked lethals of man are the genes of :  
(1) Juvenile Glaucoma (2) Red-green blindness  
(3) Haemophilia (4) All of the above
56. Repair replication of DNA is :  
(1) Semiconservative (2) Conservative  
(3) Non Conservative (4) Dispersive
57. Which process has a purpose to conserve the entire Genome for next generation ?  
(1) Transcription (2) Translation  
(3) Replication (4) None of the above
58. Alimentary canal is absent in :  
(1) Trematoda (2) Cestoda  
(3) Both of above (4) None of above (1) and (2)
59. The nervous system is without a brain in :  
(1) Annelida (2) Arthropoda  
(3) Echinodermata (4) Hemichordata

60. Excretion in *Balanoglossus* occurs through :
- (1) Skin
  - (2) Flame cells
  - (3) Single glomerulus situated in the proboscis
  - (4) Kidneys
61. The fruit produced from the entire hypanthodium inflorescence is known as :
- (1) Syconus
  - (2) Amphisarca
  - (3) Pepo
  - (4) Hesperidium
62. Germination of seeds within the fruit while still attach to mother plant is :
- (1) Ovipary
  - (2) Vivipary
  - (3) After ripening
  - (4) Xenia
63. Which of the following is an Amniota ?
- (1) Aves
  - (2) Mammalia
  - (3) Reptilia
  - (4) All of the above
64. Herpetology is the study of :
- (1) Amphibians
  - (2) Reptiles
  - (3) Birds
  - (4) Mammals
65. Notochord is confined to proboscis in :
- (1) Urochordata
  - (2) Hemichordata
  - (3) Cephalochordata
  - (4) Chordata
66. Living fossil of reptiles is :
- (1) Chelonia
  - (2) Sphenodon
  - (3) Matamata
  - (4) Draco volans
67. Which is not a poisonous snake ?
- (1) Kobra
  - (2) Kraits
  - (3) Crotalus
  - (4) Python

68. Vertebrae of birds are :
- (1) Amphicoelous (2) Heterocoelous  
(3) Platycoelous (4) Gastrocoelous
69. Oviparous mammal is :
- (1) Ornithorhynchus (2) Opposum  
(3) Otter (4) Kangaroo
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(3) Canines (4) Molars
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(3) Incorporate  $O_2$  from  $CO_2$  to carbohydrate  
(4) All of the above
- 79.**  $C_4$  cycle is energy expensive and requires :
- (1) 18 ATP for synthesis of one glucose molecule  
(2) 20 ATP for synthesis of one glucose molecule  
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- 80.** The most mobile mineral in the plant body is :
- (1) Nitrogen (2) Carbon  
(3) Iron (4) Phosphorous
- 81.** Viruses are :
- (1) Non-infective microorganisms (2) Infective microorganisms  
(3) Dead cells (4) None of the above
- 82.** Algae grows :
- (1) In water (2) On damp soil  
(3) as epiphytes (4) All of the above

83. The electron transport system of bacteria is located in :  
(1) The plasma membrane (2) Mitochondria  
(3) Cristae (4) All of the above
84. The male branch in *Aspergillus* is called :  
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(3) Young ascus (4) Peridium
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Total No. of Printed Pages : 13

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU  
ARE ASKED TO DO SO)

## CPG-EE-2018 (Life Sciences)-(SET-Y)

**D**

10928

Sr. No. ....

Time : 1½ Hours

Total Questions : 100

Max. Marks : 100

Roll No. (in figures) \_\_\_\_\_ (in words) \_\_\_\_\_

Candidate's Name \_\_\_\_\_ Date of Birth \_\_\_\_\_

Father's Name \_\_\_\_\_ Mother's Name \_\_\_\_\_

Date of Exam : \_\_\_\_\_

\_\_\_\_\_  
(Signature of the Candidate)

\_\_\_\_\_  
(Signature of the Invigilator)

### CANDIDATES MUST READ THE FOLLOWING INFORMATION/INSTRUCTIONS BEFORE STARTING THE QUESTION PAPER.

1. All questions are **compulsory** and carry equal marks. The candidates are required to attempt all questions.
2. The candidates **must return** the question booklet as well as OMR Answer-Sheet to the Invigilator concerned before leaving the Examination Hall, failing which a case of use of unfair-means/misbehaviour will be registered against him/her, in addition to lodging of an FIR with the police. Further the answer-sheet of such a candidate will not be evaluated.
3. In case there is any discrepancy in any question(s) in the Question Booklet, the same may be brought to the notice of the Controller of Examinations in writing **within two hours** after the test is over. No such complaint(s) will be entertained thereafter.
4. The candidate **must not** do any rough work or writing in the OMR Answer-Sheet. Rough work, if any, may be done in the question booklet itself. Answers **must not** be ticked in the question booklet.
5. **Use only black or blue ball point pen of good quality in the OMR Answer-Sheet.**
6. There will be **negative** marking. Each correct answer will be awarded **one** full mark and each incorrect answer will be negatively marked for which the candidate will get ¼ discredit. Cutting, erasing, overwriting and more than one answer in OMR Answer-Sheet will be treated as incorrect answer.
7. *Before answering the questions, the candidates should ensure that they have been supplied correct & complete question booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.*

CPG-EE-2018(Life Sciences)-(SET-Y)/(D)

SEAL



1. Which of the following theories is also called as steady - state theory ?
  - (1) Theory of catastrophism
  - (2) Cosmozoic theory
  - (3) Theory of spontaneous generation/eternity of life
  - (4) Theory of naturalism
2. Common food chain among grassland & aquatic ecosystems is :
  - (1) Grassland food chain
  - (2) Organic food chain
  - (3) Grazing food chain
  - (4) Detritus food chain
3. Which of the following is a biotic community ?
  - (1) Microbial community
  - (2) Plant community
  - (3) Animal community
  - (4) All of the above
4. Pollutant that directly affects the nervous system is :
  - (1) D.D.T.
  - (2) Aldrin
  - (3) Lindane
  - (4) Organic Phosphates
5. Niche of a species is :
  - (1) Place of living
  - (2) Specific functions & competitive power
  - (3) Habitat & specific functions
  - (4) None of the above
6. Tropical forests are dense due to :
  - (1) Wild animals
  - (2) High temperature and less rain
  - (3) Low temperature & excess rain
  - (4) High temperature & excess rain
7. Which of the following is not a prosthetic group ?
  - (1) NAD
  - (2) Heme
  - (3) Flavin
  - (4) Biotin
8. Which of the following is not a phase of cell respiration ?
  - (1) Glycolysis
  - (2) Oxidation of pyruvic acid
  - (3) Reductive phosphorylation
  - (4) TCA cycle
9. Compound lipids are :
  - (1) Natural fats
  - (2) Steroids
  - (3) Beeswax
  - (4) Cholesterol

10. Plant tissue culture generally grow best at :
- (1) Constant temperature & high light intensity
  - (2) Constant light intensity & low temperature
  - (3) High light intensity & high temperature
  - (4) Constant temperature & low light intensity
11. Non-protein part of conjugated enzymes is called :
- (1) Holoenzyme
  - (2) Apoenzyme
  - (3) Coenzyme
  - (4) Prosthetic group
12. Fats are absorbed in the intestine :
- (1) As such
  - (2) After hydrolysis
  - (3) After digestion
  - (4) After emulsification
13. Liquid which collects in cavity of Bowman's capsule is :
- (1) Concentrated urine
  - (2) Plasma minus blood proteins
  - (3) Glycogen and water
  - (4) Water
14. Respiration is controlled by :
- (1) Cerebellum
  - (2) Cerebrum
  - (3) Medulla
  - (4) Spinal cord
15. Vitamin K is essential for the formation of :
- (1) Fibrinogen
  - (2) Prothrombin
  - (3) Accelerin
  - (4) All of the above
16. Atrioventricular valve open towards :
- (1) Atria
  - (2) Ventricles
  - (3) Atria and close towards the ventricles
  - (4) Ventricles and close towards the atria
17. Rapid rise of depolarisation wave and rapid fall of repolarisation wave are called :
- (1) Negative after potential
  - (2) Positive after potential
  - (3) Spike potential
  - (4) Action potential

18. Follicle cells are derived from :
- |                        |                         |
|------------------------|-------------------------|
| (1) Zona pellucida     | (2) Germinal epithelium |
| (3) Vitelline membrane | (4) Oocyte              |
19. What is the effect of pH if it is high, on the sperms ?
- (1) Higher activity leading to early death
  - (2) Sluggish, longer life
  - (3) Higher activity, longer life
  - (4) No effect
20. Balance of calcium in the body controlled by :
- |                |                       |
|----------------|-----------------------|
| (1) Thyroxine  | (2) Calmodulin        |
| (3) Calcitonin | (4) None of the above |
21. Volatile oils are characteristic of the family :
- |                |                  |
|----------------|------------------|
| (1) Labiatae   | (2) Papaveraceae |
| (3) Cyperaceae | (4) Rosaceae     |
22. Which of the following plants do not flower in response to gibberellins ?
- (1) Long-day plants with rosette in form
  - (2) Long-short-day plants
  - (3) Long-day plants but not rosette in form
  - (4) All of the above
23. Response of *Mimosa pudica* to touch shows :
- |                   |                 |
|-------------------|-----------------|
| (1) Thigmotropism | (2) Seismonasty |
| (3) Nyctinasty    | (4) Geotropism  |
24. Dormancy phytohormone is :
- |                        |                      |
|------------------------|----------------------|
| (1) Ascorbic acid      | (2) Abscisic acid    |
| (3) Indole acetic acid | (4) Gibberellic acid |

25. An edible inflorescence is :  
(1) *Raphanus sativus* (2) *Brassica oleracea*  
(3) *Brassica rapa* (4) Mustard
26. A characteristic of angiosperms is :  
(1) Flower (2) Root (3) Seed (4) All of the above
27. Double fertilization is the character of :  
(1) Gymnosperms (2) Dicots  
(3) Ferns (4) None of these
28. Which among the following are pollinated by bat ?  
(1) *Saliva* (2) *Ophrys* (3) *Kigellia* (4) *Brassica*
29. The fibres present in the xylem of stem and roots are known as :  
(1) Surface fibres (2) Wood fibres  
(3) Bast fibres (4) Extraxylary fibres
30. The central cells in the stem that are enclosed by the ring meristem are designated as :  
(1) Protocortex (2) Protoderm  
(3) Protopith (4) Protophloem
31. In woody tissues the middle lamella is commonly :  
(1) Cutinized (2) Lignified  
(3) Suberized (4) All of the above
32. In a pine tree, the resin canals are :  
(1) Vertical and horizontal (2) Vertical  
(3) Horizontal (4) Not in a particular plane
33. Pyrenoid is present in the chloroplast of :  
(1) *Riccia* (2) *Marchantia*  
(3) *Polystrichum* (4) *Anthoceros*

34. Seed named 'Chilgoza' used as dry fruit belongs to :
- (1) *Zamia* (2) *Pinus longifolia*  
(3) *Cedrus deodara* (4) *Pinus gerardiana*
35. Elators found in *Marchantia* sp. capsule are helpful in :
- (1) Nutrition of spores (2) Dispersal of spores  
(3) Protection of spores (4) None of the above
36. The phenotypic ratio expressed in a dihybrid cross is :
- (1) 1 : 2 : 2 : 1 (2) 9 : 1 : 3 : 3  
(3) 9 : 3 : 3 : 1 (4) 2 : 1 : 1 : 2
37. Law of purity of gametes also known as :
- (1) Law of dominance (2) Reciprocal cross  
(3) Law of segregation (4) Law of Independent Assortment
38. The movement of chiasmata after crossing over is called as :
- (1) Synapsis (2) Terminalisation  
(3) Duplication (4) Shifting
39. Turner's syndrome is caused by the absence of one 'X' chromosome in :
- (1) Female (2) Male  
(3) Both female and male (4) None of the above
40. Which of the following not a kind of nuclear enzyme that act on DNA ?
- (1) Nucleases (2) Polyhexases  
(3) Ligases (4) Polymerases
41. High risk of genetic disease in an embryo can be find out by :
- (1) Amniocentasis (2) Genetic engineering  
(3) Chromatography (4) Ultrasonography

42. In later stages of gastrulation in frog, the oral and pharyngeal endoderm expands so as to form :
- (1) Foregut (2) Mesenteron  
(3) Hindgut (4) Coelenteron
43. Fully developed chick gastrula consists of :
- (1) Ectoderm (2) Chordamesoderm  
(3) Endoderm (4) All of the above
44. Which of the following extra-embryonic membranes makes no direct contribution to the placenta ?
- (1) Amnion (2) Chorion (3) Yolk Sac (4) Allantois
45. Plants can be made disease resistant by :
- (1) Treatment with fungicides (2) Heat treatment of seeds  
(3) Causing mutations (4) Breeding with wild relatives
46. Progamic fertilization ususally takes place in :
- (1) Circinotropous ovule (2) Anatropous ovule  
(3) Campylotropous ovule (4) Orthotropous ovule
47. Vegetation with vertical gradient of gradually decreasing temperature from the surface is :
- (1) Thermocline (2) Metalimnion  
(3) Hypolimnion (4) Epilimnion
48. Rice weevil which grubs feed on all cereals :
- (1) *Calandra oryzae* (2) *Tribolium castaneum*  
(3) *Pyrilla* (4) None of the above
49. Fish are rich source of minerals like :
- (1) Calcium (2) Phosphorous (3) Iron (4) All of the above
50. Due to presence of which pigment the eyes of certain animals shine in the dark :
- (1) Sclerotic (2) Choroid (3) Retina (4) Lens

51. Intracellularly, photorespiration occurs in which of the organelles in association with chloroplast and mitochondria ?
- (1) Lysosomes (2) Vacuoles  
(3) Golgi apparatus (4) Peroxisomes
52. Usually plants show high rate of photosynthesis in :
- (1) Blue & green light (2) Blue & yellow light  
(3) Green & red light (4) Blue & red light
53. Total amount of soil water available to plant is :
- (1) Holard (2) Echard (3) Chesard (4) Both (1) and (2)
54. Rhizobia produce the plant hormone :
- (1) Abscisic Acid (2) Indole acetic acid  
(3) Glyceric acid (4) All of the above
55. Sporangia are well protected by :
- (1) Peristome (2) Strobilus (3) Indusium (4) All of the above
56. Cyclosis in a plant cell is :
- (1) Induced movement (2) Spontaneous movement  
(3) Growth movement (4) None of the above
57. Which of the following are O<sub>2</sub> derivatives of carotenes containing 1-8 oxygen atoms ?
- (1) Phycocyanins (2) Xanthophils (3) Phycoerythrins (4) Phycobilins
58. Dark reactions occur in the stroma of chloroplasts where the product of light reaction are used to :
- (1) Incorporate C from CO<sub>2</sub> to carbohydrate  
(2) Incorporate H from H<sub>2</sub>O to carbohydrate  
(3) Incorporate O<sub>2</sub> from CO<sub>2</sub> to carbohydrate  
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(3) 3' to 3' direction (4) 5' to 5' direction
- 81.** The presence of 'Rh' blood factor in both man and rhesus monkey is a kind of :
- (1) Point mutation (2) Somatic mutation  
(3) Parallel mutation (4) Gene mutation
- 82.** In which stage of the cell cycle in humans the sex chromatins are visible ?
- (1) Throughout cell cycle (2) Late telophase  
(3) Early Interphase (4) Late Interphase
- 83.** Sometimes a gene masks the expression of another gene at a different locus. This phenomenon is :
- (1) Co-dominance (2) Epistasis  
(3) Incomplete dominance (4) None of the above
- 84.** The smallest unit of DNA capable of recombination is called :
- (1) Cistron (2) Allele (3) Recon (4) Muton

85. The sex linked lethals of man are the genes of :  
(1) Juvenile Glaucoma (2) Red-green blindness  
(3) Haemophilia (4) All of the above
86. Repair replication of DNA is :  
(1) Semiconservative (2) Conservative  
(3) Non Conservative (4) Dispersive
87. Which process has a purpose to conserve the entire Genome for next generation ?  
(1) Transcription (2) Translation  
(3) Replication (4) None of the above
88. Alimentary canal is absent in :  
(1) Trematoda (2) Cestoda  
(3) Both of above (4) None of above (1) and (2)
89. The nervous system is without a brain in :  
(1) Annelida (2) Arthropoda  
(3) Echinodermata (4) Hemichordata
90. Excretion in *Balanoglossus* occurs through :  
(1) Skin  
(2) Flame cells  
(3) Single glomerulus situated in the proboscis  
(4) Kidneys
91. The fruit produced from the entire hypanthodium inflorescence is known as :  
(1) Syconus (2) Amphisarca  
(3) Pepo (4) Hesperidium
92. Germination of seeds within the fruit while still attach to mother plant is :  
(1) Ovipary (2) Vivipary  
(3) After ripening (4) Xenia

93. Which of the following is an Amniota ?
- (1) Aves (2) Mammalia  
(3) Reptilia (4) All of the above
94. Herpetology is the study of :
- (1) Amphibians (2) Reptiles  
(3) Birds (4) Mammals
95. Notochord is confined to proboscis in :
- (1) Urochordata (2) Hemichordata  
(3) Cephalochordata (4) Chordata
96. Living fossil of reptiles is :
- (1) Chelonia (2) Sphenodon  
(3) Matamata (4) Draco volans
97. Which is not a poisonous snake ?
- (1) Kobra (2) Kraits  
(3) Crotalus (4) Python
98. Vertebrae of birds are :
- (1) Amphicoelous (2) Heterocoelous  
(3) Platycoelous (4) Gastrocoelous
99. Oviparous mammal is :
- (1) Ornithorhynchus (2) Opposum  
(3) Otter (4) Kangaroo
100. Gnawing mammals are characterised by the absence of :
- (1) Premolars (2) Incisors  
(3) Canines (4) Molars

## Answer KEY of MDUCEE-2018

### (Life Science)

SR NO.	A	B	C	D
1	2 ✓	1 ✓	2 ✓	3 ✓
2	4 ✓	2 ✓	1 ✓	3 ✓
3	1 ✓	4 ✓	4 ✓	4 ✓
4	2 ✓	2 ✓	4 ✓	4 ✓
5	3 ✓	2 ✓	2 ✓	3 ✓
6	2 ✓	2 ✓	3 ✓	4 ✓
7	1 ✓	4 ✓	3 ✓	1 ✓
8	1 ✓	2 ✓	2 ✓	3 ✓
9	4 ✓	1 ✓	1 ✓	2 ✓
10	1 ✓	3 ✓	2 ✓	4 ✓
11	2 ✓	3 ✓	1 ✓	3 ✓
12	1 ✓	4 ✓	1 ✓	4 ✓
13	4 ✓	2 ✓	4 ✓	2 ✓
14	4 ✓	3 ✓	1 ✓	3 ✓
15	2 ✓	3 ✓	4 ✓	2 ✓
16	3 ✓	3 ✓	2 ✓	4 ✓
17	3 ✓	3 ✓	4 ✓	3 ✓
18	2 ✓	2 ✓	2 ✓	2 ✓
19	1 ✓	3 ✓	4 ✓	1 ✓
20	2 ✓	3 ✓	2 ✓	3 ✓
21	3 ✓	2 ✓	3 ✓	1 ✓
22	4 ✓	4 ✓	3 ✓	3 ✓
23	2 ✓	1 ✓	4 ✓	2 ✓
24	3 ✓	2 ✓	4 ✓	2 ✓
25	3 ✓	3 ✓	3 ✓	2 ✓
26	3 ✓	2 ✓	4 ✓	1 ✓
27	3 ✓	1 ✓	1 ✓	2 ✓
28	2 ✓	1 ✓	3 ✓	3 ✓
29	3 ✓	4 ✓	2 ✓	2 ✓
30	3 ✓	1 ✓	4 ✓	3 ✓
31	1 ✓	1 ✓	3 ✓	2 ✓
32	3 ✓	1 ✓	4 ✓	1 ✓
33	2 ✓	4 ✓	2 ✓	4 ✓
34	2 ✓	1 ✓	3 ✓	4 ✓
35	2 ✓	4 ✓	2 ✓	2 ✓
36	1 ✓	2 ✓	4 ✓	3 ✓
37	2 ✓	4 ✓	3 ✓	3 ✓
38	3 ✓	2 ✓	2 ✓	2 ✓
39	2 ✓	4 ✓	1 ✓	1 ✓
40	3 ✓	2 ✓	3 ✓	2 ✓
41	1 ✓	4 ✓	1 ✓	1 ✓
42	2 ✓	4 ✓	3 ✓	1 ✓
43	4 ✓	3 ✓	2 ✓	4 ✓
44	2 ✓	2 ✓	2 ✓	1 ✓
45	2 ✓	3 ✓	2 ✓	4 ✓
46	2 ✓	2 ✓	1 ✓	2 ✓

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## Answer KEY of MDUCEE-2018

### (Life Science)

SR NO.	A	B	C	D
47	4 ✓	2 ✓	2 ✓	4 ✓
48	2 ✓	1 ✓	3 ✓	2 ✓
49	1 ✓	3 ✓	2 ✓	4 ✓
50	3 ✓	4 ✓	3 ✓	2 ✓
51	3 ✓	1 ✓	3 ✓	4 ✓
52	4 ✓	3 ✓	4 ✓	4 ✓
53	2 ✓	2 ✓	2 ✓	3 ✓
54	3 ✓	2 ✓	3 ✓	2 ✓
55	2 ✓	2 ✓	3 ✓	3 ✓
56	4 ✓	1 ✓	3 ✓	2 ✓
57	3 ✓	2 ✓	3 ✓	2 ✓
58	2 ✓	3 ✓	2 ✓	1 ✓
59	1 ✓	2 ✓	3 ✓	3 ✓
60	3 ✓	3 ✓	3 ✓	4 ✓
61	4 ✓	3 ✓	1 ✓	2 ✓
62	4 ✓	3 ✓	2 ✓	2 ✓
63	3 ✓	4 ✓	4 ✓	2 ✓
64	2 ✓	4 ✓	2 ✓	1 ✓
65	3 ✓	3 ✓	2 ✓	1 ✓
66	2 ✓	4 ✓	2 ✓	4 ✓
67	2 ✓	1 ✓	4 ✓	1 ✓
68	1 ✓	3 ✓	2 ✓	2 ✓
69	3 ✓	2 ✓	1 ✓	1 ✓
70	4 ✓	4 ✓	3 ✓	4 ✓
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72	3 ✓	2 ✓	4 ✓	4 ✓
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74	4 ✓	1 ✓	2 ✓	2 ✓
75	3 ✓	1 ✓	3 ✓	3 ✓
76	4 ✓	4 ✓	2 ✓	2 ✓
77	1 ✓	1 ✓	2 ✓	1 ✓
78	3 ✓	2 ✓	1 ✓	1 ✓
79	2 ✓	1 ✓	3 ✓	4 ✓
80	4 ✓	4 ✓	4 ✓	1 ✓
81	2 ✓	2 ✓	2 ✓	3 ✓
82	2 ✓	1 ✓	4 ✓	4 ✓
83	2 ✓	4 ✓	1 ✓	2 ✓
84	1 ✓	4 ✓	2 ✓	3 ✓
85	1 ✓	2 ✓	3 ✓	3 ✓
86	4 ✓	3 ✓	2 ✓	3 ✓
87	1 ✓	3 ✓	1 ✓	3 ✓
88	2 ✓	2 ✓	1 ✓	2 ✓
89	1 ✓	1 ✓	4 ✓	3 ✓
90	4 ✓	2 ✓	1 ✓	3 ✓
91	1 ✓	3 ✓	2 ✓	1 ✓
92	1 ✓	4 ✓	2 ✓	2 ✓

*Muhim*  
27.6.18

*Syadew*  
21/6/18

*Bilal*  
*En*  
*Uy*

### Answer KEY of MDUCEE-2018

#### (Life Science)

SR NO.	A	B	C	D
93	4 ✓	2 ✓	2 ✓	4 ✓
94	1 ✓	3 ✓	1 ✓	2 ✓
95	4 ✓	2 ✓	1 ✓	2 ✓
96	2 ✓	4 ✓	4 ✓	2 ✓
97	4 ✓	3 ✓	1 ✓	4 ✓
98	2 ✓	2 ✓	2 ✓	2 ✓
99	4 ✓	1 ✓	1 ✓	1 ✓
100	2 ✓	3 ✓	4 ✓	3 ✓

*Munir*  
25.6.18

*Syadwin*  
25/6/18

*Bijl Sri*  
*unq*