

<b>95 E</b>	<b>PRE SA EXAMINATION</b>
<b>QLY</b>	<b>IX CLASS - GENERAL SCIENCE</b>
<b>ARQR</b>	<b>Paper - II (BIOLOGICAL SCIENCES)</b>
Time : 2¾ Hours] Parts A & B [Max. Marks : 40	
Name ..... Section : ..... Roll No.:.....	

**Syllabus**

~~Le : 1 to 8 ; Env. Studies : Le. 1 to 19~~


1. Identify the function of ribosome. ( )
  - (1) generates energy
  - (2) synthesis lipids
  - (3) carries genetic material
  - (4) synthesis proteins
  
2. Which cell organells is /are absent in an animal cell ? ( )
 



(1)



(2)

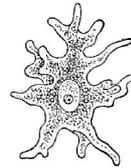


(3)



(4)
  
3. Which of the following statements are true about the nucleus of a cell ? ( )
  - (1) It is bounded by two membranes
  - (2) Controls all activities in the cell
  - (3) Contains genetic information
  - (4) All of these
  
4. Which of the following tissues includes bone and cartilage ? ( )
  - (1) Muscle tissue
  - (2) Nervous tissue
  - (3) Epithelial tissue
  - (4) Connective tissue
  
5. What are the functions of the stomata ? ( )
  - (i) take in water
  - (ii) trap sunlight
  - (iii) take in oxygen
  - (iv) give out oxygen
  - (1) (i) and (ii)
  - (2) (i) and (iii)
  - (3) (iii) and (iv)
  - (4) (ii), (iii) and (iv)

6. To which of the following phylas does the animal given below belong to ? ( )



- (1) porifera
  - (2) protozoa
  - (3) annelida
  - (4) arthropoda
  
7. Which of the following organisms has the water vascular system as a distinctive feature ? ( )
  - (1) Echinodermata
  - (2) Annelida
  - (3) Chordata
  - (4) Mollusca
  
8. Which of these is the broadest category of an organism in biological taxonomy ? ( )
  - (1) The phylum
  - (2) The class
  - (3) The kingdom
  - (4) The family
  
9. It is useful in communication among ants and grasp odour in dogs ( )
  - (1) enzymes
  - (2) pheromones
  - (3) hormones
  - (4) phyto hormones
  
10. Choose the cells which are not having haemoglobin ( )
  - (a) erythrocytes
  - (b) leucocytes
  - (c) thrombocytes
  - (d) monocytes
  - (1) a, b only
  - (2) b, c only
  - (3) a, b, c only
  - (4) b, c, d only
  
11. Observe the figure and choose the correct answer. ( )
  - (a) This bird uses leaflets for nesting-weaver bird

(b) Uses only three broad leaves - weaver bird.

- (1) both a, b are true
- (2) a true, b false
- (3) a false, b true
- (4) both a, b are false



12. Typical cell means ( )

- (1) It is present only in plants
- (2) It is present only in animal
- (3) It is present in both plants and animals
- (4) It provide away to study cells

13. Following is the base for classification of cell into prokaryotic and eukaryotic cell ( )

- (1) cell membrane
- (2) organised nucleus
- (3) ribosomes
- (4) chloroplast

14. Choose the correct matching : ( )

- |            |                    |
|------------|--------------------|
| 1. Sclera  | (a) Pupil          |
| 2. Choroid | (b) Rods and cones |
| 3. Retina  | (c) Cornea         |
- (1) 1-c, 2-a, 3-b
  - (2) 1-c, 2-b, 3-a
  - (3) 1-a, 2-b, 3-c
  - (4) 1-b, 2-a, 3-c

15. Who identified imprinting among birds in the picture shown ? ( )



- (1) Ivan Pavlov
- (2) Konard Lorenz
- (3) Jean Lamarck
- (4) Kohler

16. The main difference between plant and animal cell ( )

- (1) Animal cell lack cell wall.
- (2) Plant cell has no cell wall.
- (3) Animal cell has a rigid cell wall.
- (4) Plant cells lack cell membrane.

17. Which of these is mis-matched ? ( )

- (1) leucoplasts - store carbohydrates
- (2) chloroplasts - contain chlorophyll pigments
- (3) chromoplasts - contain coloured pigments
- (4) amyloplasts - store protein granules

18. Whether a molecule can cross the plasma membrane depends upon ( )

- (1) the size of the molecule
- (2) the shape of the molecule
- (3) the chemical properties of the molecule
- (4) all the above

19. The Golgi apparatus ( )

- (1) is found only in animals
- (2) is found in prokaryotes
- (3) is a site of rapid ATP production
- (4) modifies and package proteins

20. Which tissue is responsible for the length of the plant ? ( )

- (1) apical meristem
- (2) lateral meristem
- (3) intercalary meristem
- (4) epidermis

21. Which of the following statements is in correct ? ( )

- (1) Some tissues in plants divide through life
- (2) Cell growth in animals is more uniform as compared to plants
- (3) Animals have more dead tissues as compared to plants
- (4) There is no demarcation of dividing regions in animals

22. If the tip of sugarcane plant is removed from the field even then it keeps on growing in length. It is due to the presence of ( )

- (1) cambium
- (2) apical meristem
- (3) lateral meristem
- (4) intercalary meristem

23. Select the incorrect sentence ( )

- (1) Blood has matrix containing proteins, salts and hormones.
- (2) Two bones are connected with ligament.
- (3) Tendons are non-fibrous tissue and fragile
- (4) Cartilage is a form of connective tissue

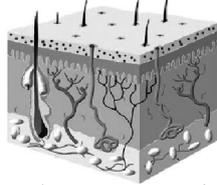
24. The muscular tissue which function throughout the life continuously without fatigue is ( )

- (1) skeletal muscle
- (2) cardiac muscle
- (3) smooth muscle
- (4) voluntary muscle

25. Which of the following is NOT a function of epithelial tissue ? ( )  
 (1) covers surfaces  
 (2) secretion and absorption  
 (3) support of the body  
 (4) lining of the digestive tract
26. Without which corpuscles blood clotting is not possible ( )  
 (1) Erythrocytes (2) Thrombocytes  
 (3) Plasmocytes (4) Leucocytes
27. Which are the four types of animal tissues ? ( )  
 (1) Epithelial, squamous, muscular, connective  
 (2) Epithelial, connective, muscular, cardiac  
 (3) Connective, muscular, epithelial, nervous  
 (4) Cuboidal, ciliated, glandular, columnar
28. The process in which water molecules leave the cell called ( )  
 (1) endosmosis (2) osmosis  
 (3) exosmosis (4) reverse osmosis
29. Choose the correct matching : ( )  
 (a) Jointed legs (1) mollusca  
 (b) Radula (2) arthropoda  
 (c) Segmentation (3) annelida  
 (1) a-3, b-1, c-2 (2) a-2, b-1, c-3  
 (3) a-2, b-3, c-1 (4) a-1, b-2, c-3
30. Sensation is a complex pathway involving ( )  
 (1) sense organs  
 (2) sense organs and nerve impulses  
 (3) sense organs, nerve impulses and brain  
 (4) brain and nerve impulses
31. Find out the true statement related to instinct behaviour ( )  
 (1) wasp build its hive on the walls by using mud.  
 (2) beaver cut big trees by its sharp teeth to fell trees across the stream  
 (3) birds build their nests only with the leaflets  
 (4) all the above
32. Umami is a different taste. It connects with ( )  
 (1) monosodium glutamate  
 (2) disodium glutamate  
 (3) triglyceraldehyde  
 (4) sodium bicarbonate
33. What would happen if 'nucleus' is removed from the cell ? ( )  
 (a) the activities of the cell will not be controlled  
 (b) the cell will not have a regular shape  
 (c) the cell will not be able to store food and water  
 (d) the movement of substances in and out of the cell will not be controlled  
 (1) a, b only (2) a, c, d only  
 (3) All are correct (4) b, d only
34. Lakshmi wants to know more about the classification. Suggest some questions to her from the following ( )  
 (a) What is meant by classification ?  
 (b) What is genera and species ?  
 (c) What the hierarchy of classification denotes ?  
 (d) Which is the broadest category of classification ?  
 (e) What is meant by powerhouse of the cell ?  
 (1) a, b, c only (2) b, c, d only  
 (3) c, d, e only (4) a, b, c, d only
35. If areolar tissue is absent in our body what would be the consequences occur ? ( )  
 (a) skeletal system is collapsed  
 (b) absence of keeping organs in place  
 (c) holding of tissue in position  
 (d) repair of tissues not occur.  
 (1) a, b only (2) b, c only  
 (3) a, d only (4) a, b, d only
36. If plasma membrane last his permeability ( )  
 (a) collapse definite shape of the cell  
 (b) cell continuity is absent  
 (c) no control on transport  
 (1) a, b (2) b, c  
 (3) a, c (4) all
37. Ramya wants to know more about blood groups. Help her to choose the suitable questions in the following : ( )  
 (a) What is meant by blood groups ?  
 (b) How can you classify the blood groups ?  
 (c) Who are known as universal receptors?  
 (d) What are the differences between auricle and ventricles ?

- (1) a, b, c only      (2) c, d, e only  
 (3) a, b, d, e only    (4) all are correct

38. If you want to more about the diseases affecting to the organ shown in the picture. Choose the suitable questions from the following : ( )



- (a) What are the common diseases caused to this organ ?  
 (b) Is bacterias also causes the diseases. If yes what are they ?  
 (c) What is meant by leucoderma ?  
 (d) Define the plastic surgery.  
 (e) What precautions we can take to avoid from the diseases ?  
 (1) a, b, c              (2) c, d, e  
 (3) a, b, c, e          (4) all are correct

39. If the muscles of the eyeball of a person becomes non functional, What are the consequences ? ( )

- (a) The person fails to close eyes  
 (b) Feels pain in the eye  
 (c) Fails to move eye and see colours clearly  
 (d) The nerves reaching the muscles become non-functional.  
 (1) a only              (2) b only  
 (3) c only              (4) d only

40. Which question is not suitable to know about the variations ? ( )

- (1) What is meant by variations ?  
 (2) What is diversity ?  
 (3) Is classification helps mankind ?  
 (4) What is the need of variations in the nature ?

41. Human cheek cell stained in Methylene blue and mounted in glycerine were observed under a compound microscope. The components of cell which would be seen are ( )

- (1) cell wall, cytoplasm, nucleus  
 (2) plasma membrane, cytoplasm, nucleus  
 (3) plasma membrane, cytoplasm, nucleus, mitochondria  
 (4) plasma membrane, nucleus, mitochondria, lysosomes

42. Coverslip is put on the mounted material on a slide very gently to ( )

- (1) avoid oozing of stain  
 (2) avoid oozing of glycerine  
 (3) avoid entry of air bubbles  
 (4) avoid the crushing of mounted materials

43. Suma observed following observations while looking into a permanent slide

- (i) cells are long and cylindrical  
 (ii) light and dark bands are present  
 It could be a slide of ( )

- (1) straited muscle fibre  
 (2) smooth muscle fibre  
 (3) neuron  
 (4) parenchyma cells

44. Situation I : Recognise the taste by just keeping the food on tongue.

Situation II : Recognise the taste by just press the food with palate.

Which situation makes you recognise the taste ? ( )

- (1) I only              (2) II only  
 (3) I or II             (4) I and II

45. You want to prepare a semi-permeable membrane in the lab, you can do this ( )

- (a) keep the raw eggs in dil HCl for 4-5 hours  
 (b) keep the raw eggs in dil HCl for 2-3 days  
 (c) wash the eggs repeatedly under tap water  
 (d) wash the eggs with sulphuric acid  
 (1) a only              (2) b only  
 (3) c only              (4) d only

46. Anu kept a plant into a beaker of red coloured water as shown in figure A. She left it in the garden for 3 days. The stem was cut and its cross section was observed as shown in figure B.



Which labelled part in figure B turned red ? ( )

- (1) W                    (2) X  
 (3) Y                    (4) Z

47. You can observe permanent slide under the microscope to find the tissue. Which of the following statement helps to you find the characters of tissue. ( )

- (1) cells with similar structures but have different function
- (2) a diverse group of cells that perform similar functions
- (3) Cells with similar structures and functions
- (4) Cells with different structures but the same functions.

48. The picture shows that final arrangement for a particular experiment. Name the experiment. ( )

- (1) filtration
- (2) reverse osmosis
- (3) osmosis
- (4) diffusion



**Read the information and answer (49-50) questions :**

Take three beakers with one hundred ml of water in each. Add half teaspoonful of sugar to the first beaker. One teaspoonful to the second and one and half to the third.

49. The solution of which beaker will be most sugary. What is the reason ? ( )

- (1) third, due to concentration of sugar is low
- (2) second, due to concentration of sugar is very high
- (3) first, due to concentration of sugar very low
- (4) third, due to concentration of sugar is very high

50. What it means the concentration of sugar ? ( )

- (1) the amount of sugar present in the 100 ml of water
- (2) the amount of sugar present in the third beaker
- (3) the amount of water present in the first beaker
- (4) the amount of sugar present in the second beaker

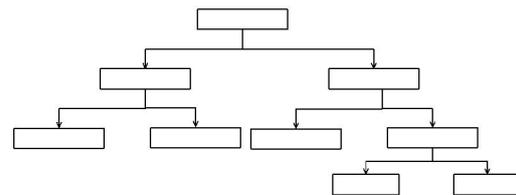
51. You have given coffee powder, crystals of  $KMnO_4$ . What concept you can prove in the lab. ( )

- (1) osmosis (2) diffusion
- (3) filtration (4) permeability

52. You want to observe stomata. What material did you use in the lab ? ( )

- (1) Rheoleaf, slide, microscope
- (2) Betel leaf, slide, microscope
- (3) Aloe vera, slide, microscope
- (4) 1 and 2 correct

**Observe the flow-chart and answer the (53- 56) questions.**



53. What is the base for classification of plant kingdom ? ( )

- (1) based on the roots
- (2) based on the flowering
- (3) based on the seed coat
- (4) based on the leaf venation

54. Based on the true or false roots and leaves which division is classified ( )

- (1) phanerogams (2) cryptogams
- (3) gymnosperms (4) plant kingdom

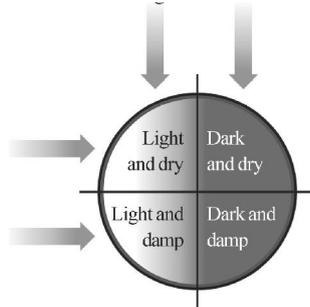
55. Observe the picture it comes under ( )

- (1) Dicot seed (2) Monocot seed
- (3) Naked seed (4) Pine seed

56. Plants have flowering and bearing of seeds which comes under ( )

- (1) Gymnosperms
- (2) Angiosperms
- (3) Phaneogams
- (4) Cryptogams

Observe the figure and answer (57-60) questions.



57. What is the purpose of this experiment ( )
- (a) to study animal behaviour under controlled conditions  
 (b) to study instinct behaviour of the animal
- (1) both a, b are true  
 (2) a true, b false  
 (3) a false, b true  
 (4) both a, b are false

58. Choose the correct conditions showing in the box. ( )


59. The cockroaches chooses the chamber of ( )
- (1) light and dry (2) dark and dry  
 (3) light and damp (4) dark and damp
60. This experiment proves the animal behaviour of ( )
- (1) conditioning (2) instinct  
 (3) imitation (4) imprinting

61. Observe the table and answer the questions.

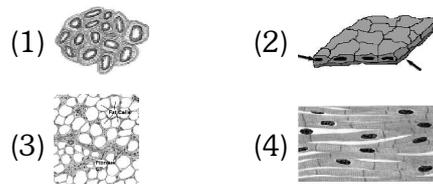

Which substance helps photosynthesis? ( )

(1) chlorophyll (2) mitochondria  
 (3) stamen (4) carpel

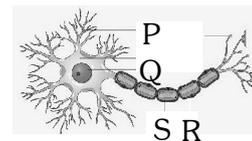
Observe the picture and answer (62-64) questions.




62. Which is not correctly matched ( )
- (1) a (2) b  
 (3) a, b (4) a, c
63. Observe a, b statements ( )
- (a) Intercalary meristems are called cambium  
 (b) It helps growth in girth
- (1) both a, b are true  
 (2) a true, b is false  
 (3) a is false, b is true  
 (4) both a, b are false
64. Meristematic tissues are helps ( )
- (1) bring about overall growth  
 (2) it helps repairs  
 (3) it helps reproduction  
 (4) 1 and 2
65. Which of these is a plant tissue? ( )



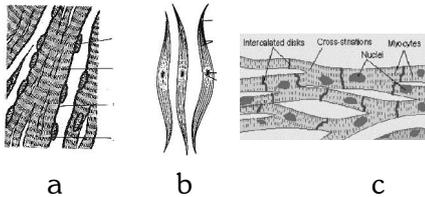
66. Which of the following labelled parts in the figure given below receives nerve impulses from other neurons? ( )
- (1) P  
 (2) Q  
 (3) R  
 (4) S



67. Identify the part and the organism from which the cell be from ( )
- (1) the feathers of the bird  
 (2) the stem of the cactus  
 (3) the wing of the bird  
 (4) the human cheek



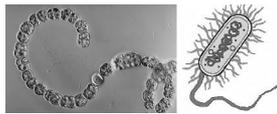
68. Identify the type of muscle in the following pictures ( )



- (1) a-straited, b - cardiac , c - non-straited  
 (2) a-non-straited, b - cardiac , c - straited  
 (3) a-straited, b - non-straited , c - cardiac  
 (4) a-cardiac, b - non-straited , c - straited

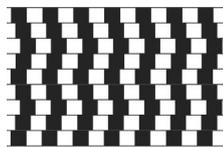
69. This organism belongs to ( )

- (1) monera  
 (2) protista  
 (3) porifera  
 (4) protozoa

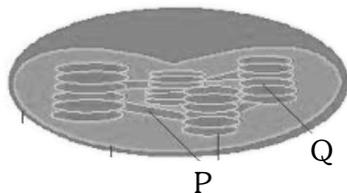


70. The picture shows ( )

- (1) Illusions  
 (2) Reflections  
 (3) Cataract  
 (4) Imitation

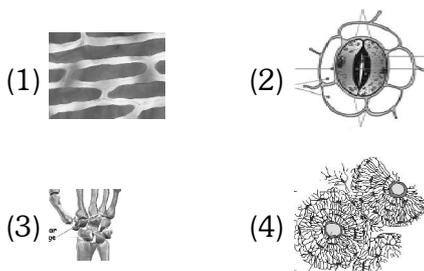


71. Identify the P, Q ( )



- (1) P - Granum, Q - Lumen  
 (2) P - Granum, Q - Thylakoids  
 (3) P - Stroma, Q - Granam  
 (4) P - Granum, Q - Stroma

72. Teacher asked the students to draw stomata. The following pictures are drawn by the students. Identify the correct one. ( )



73. Assertion (A) : Use LED bulbs instead of in candiscent bulbs

Reason (R) : LED bulbs are consume more power. ( )

- (1) both A, R are correct, R explains A  
 (2) both A, R are correct, R is not explains A  
 (3) A is correct, R is incorrect  
 (4) both A, R are incorrect

**Read the following passage and answer (74-75) questions :**

*The materials are transported across the membrane by the process called diffusion, osmosis and other methods.*

74. Find the incorrect daily life examples for diffusion ( )

- (1) air freshners (2) agarbathi  
 (3) firehouse (4) repellents

75. What process involved in water purifier ? ( )

- (1) diffusion (2) osmosis  
 (3) filtration (4) permeability

76. Choose the suitable slogans for water conservation ( )

- (a) save every drop of water  
 (b) water is our blood  
 (c) rain.....rain go away  
 (d) save water.....save future  
 (1) a, b, c (2) b, c, d  
 (3) a, b, d (4) a, d

77. Observe a, b statements ( )

- (a) Olfaction begins with chemical events in the nose.  
 (b) Odour interact with receptor  
 (1) both a, b are true  
 (2) a is true, b false  
 (3) a is false, b is true  
 (4) both a, b are false

78. Match diseases with sense organs ( )

- (a) Leucoderma (1) skin  
 (b) Myopia (2) eye  
 (c) Formation of pus (3) ear  
 (1) a-1, b-2,c-3 (2) a-2,b-1,c-3  
 (3) a-3, b-2, c-3 (4) a-1,b-3,c-2

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79. Ravi needs blood. Doctor says his friend Hari's blood does not suitable. What may the reason. ( )
- (i) both are not having same blood group
  - (ii) both are having same blood group
  - (iii) Rh factor is different in both of them
  - (iv) Rh factor is same in both bloods
- (1) i, ii only            (2) i, iii only  
(3) ii, iv only            (4) ii only
80. Oldage people and children shivers due to cold in winter season. Guess the reason. ( )
- (1) natural characteristic
  - (2) lack of adipose tissue
  - (3) less amount blood
  - (4) skin shrinks