

**BPKIHS, Dharan****Tick the best alternative****SCIENCE**

1. Green pigments capable of capturing the energy of sunlight are located within the .....
  - a. golgi complex
  - b. endoplasmic
  - c. chloroplasts
  - d. cell wall
2. Pressure on a plant cell wall caused by osmotic movement of water is called.....
  - a. osmotic pressure
  - b. turgor pressure
  - c. tonic pressure
  - d. hypertonic pressure
3. Which of the following molecule is Glucose ?
  - a.  $C_3H_6O_3$
  - b.  $C_6H_{12}O_6$
  - c.  $C_3H_5OH$
  - d.  $C_6H_{10}O_5$
4. Cell cycle को कुन चारि Phase मा DNA को प्रतिलिपि बढ्छ ?
  - a. prophase
  - b. interphase
  - c. anaphase
  - d. telophase
5. Which of the following ways of acquiring nutrients is not characteristics of fungi ?
  - a. heterotrophic
  - b. autotrophic
  - c. saprophytic
  - d. parasitic
6. विन्नाको कुन भाग बढ्छ Root hair बढ्छ ?
  - a. ground tissue
  - b. periderm
  - c. cuticle
  - d. epidermis
7. A bond formed due to the force of attraction between a shared pair of electrons of two atoms is known as.....
  - a. electrovalent bond
  - b. co-ordinate covalent bond
  - c. co-valent bond
  - d. metallic bond
8. In the given temperature, when the solute is added into the solution and if the solute is no more dissolved, then the solution is called.....
  - a. solution
  - b. saturated solution
  - c. unsaturated solution
  - d. super saturated solution
9. If in a given K and L shells of the orbits are filled with atoms , then how many electrons are there ?
  - a. 7
  - b. 8
  - c. 9
  - d. 10
10. Cell is a device which changes
  - a. chemical energy into electrical energy
  - b. Electrical energy into chemical energy
  - c. Light energy into electrical energy
  - d. Magnetic energy into chemical energy

11. In Dry cell , which one of the following is used as anode
  - a. Zinc
  - b. Carbon
  - c. Copper
  - d. Aluminium
12. Why ice floats in water
  - a. बरफ धेरै चिम्नो भएकोले
  - b. बरफको घनत्व पानीको भन्दा कम भएकोले
  - c. बरफको घनत्व पानीको भन्दा बढी भएकोले
  - d. बरफ भन्दा पानी बढि भएकोले
13. When a person swims, water is pushed back ward by his/her hand and then the person moves forward, which of the following Newton's law is applied here ?
  - a. first law
  - b. second law.
  - c. third law
  - d. none of above
14. When an object is thrown into the air, due to which force it falls down?
  - a. nuclear force
  - b. frictional force
  - c. gravitational force
  - d. mechanical force
15. Alcohol thermometer can be used at
  - a. very hot place
  - b. very cold place
  - c. ocean
  - d. desert
16. To which class of lever do a bottle opener belong?
  - a. 1<sup>st</sup> class
  - b. 2<sup>nd</sup> class
  - c. 3<sup>rd</sup> class
  - d. none
17. In which combination electric current is high ?
  - a. series combination
  - b. single combination
  - c. parallel combination
  - d. none
18. Human DNA is a
  - a. single standard structure
  - b. double standard structure
  - c. triple standard structure
  - d. multistrand structure
19. Which of the following is not a silver ore ?
  - a.  $Ag_2S$
  - b.  $AgSO_4$
  - c.  $(AgCu_2)_2$
  - d.  $AgCl$
20. Which is same as Darwin's law (अर्चिनको सिद्धान्त कुनसंग मिल्छ ?)
  - a. adaptation
  - b. heredity
  - c. evolution
  - d. mutation
21. Leaves are attached to the stem at .....
  - a. nodes
  - b. internodes
  - c. auxiliary metistems
  - d. apical meristems

22. Which one of the following is not an electrolyte?  
a. sulphuric acid  
b. ethyl alcohol  
c. hydrochloric acid  
d. Sodium hydroxide
23. Earthworm is in the phylum of  
a. Platyhelminthis  
b. Arthropoda  
c. Annelida  
d. Pogonophora
24. Root hairs are formed from extensions of the  
a. ground tissue  
b. periderm  
c. cuticle  
d. epidermis
25. What is the electronic configuration of potassium ?  
a. 2,7,8,2  
b. 2,7,7,3  
c. 2,8,8,1  
d. 1,8,8,2
26. Newton's 1<sup>st</sup> law of motion gives the concept of:  
a. force  
b. momentum  
c. work  
d. inertia

## MATHEMATICS

27. If the numbers 8 & 12 are increased by 25% and 100/3% respectively. What will be the average increment?  
a. 20%  
b. 30%  
c. 25%  
d. 35%
28. After Paying tax at the rate of 8 paisa per rupee a man has Rs. 6900 left . What was his income ?  
a. Rs. 7,500  
b. Rs. 5,500  
c. Rs. 6,500  
d. Rs. 8,500
29. What is the value of  $10^{-1/2} - 1 + 5^{-1}$  ?  
a. 5/9  
b. 9/4  
c. 9/5  
d. 6/7
30. If  $\frac{(x+1)}{x} = 3$  Find the value of  $\frac{(x^2+1)}{x^2}$   
a. 11  
b. 8  
c. 13  
d. 17
31. Find the value of :  $8\sqrt{45} - 3\sqrt{20}$   
a.  $18\sqrt{5}$   
b.  $20\sqrt{5}$   
c.  $15\sqrt{5}$   
d.  $19\sqrt{5}$

32. The factors of :  $xy + xz - (y+z)^2$  are  
a.  $(y-z)(x-y-z)$   
b.  $(y+z)(x-y-z)$   
c.  $(y+z)(x+y-z)$   
d.  $(y+z)(x+y+z)$
33. The volume of a cube is  $729\text{cm}^3$ . Find its total surface area .  
a.  $498\text{ cm}^2$   
b.  $480\text{ cm}^2$   
c.  $478\text{ cm}^2$   
d.  $486\text{ cm}^2$
34. How many lead balls of radius 1cm can be made from a solid sphere of diameter 12 cm ?  
a. 240  
b. 212  
c. 216  
d. 225
35. If 540 cm long wire is required to fence a square ground with three round . Find the area of the ground ?  
a.  $2030\text{cm}^2$   
b.  $2020\text{cm}^2$   
c.  $2035\text{ cm}^2$   
d.  $2025\text{ cm}^2$
36. If the cost of one strip of 'Decold' is Rs. 2.50 . Find the cost of one box (10 tab in one strip) of 'Decold'.  
a. Rs. 25  
b. Rs. 20  
c. Rs. 30  
d. Rs. 35
37. The value of  $0.3 \times 0.03 \times 0.003$  is :  
a.  $27 \times 10^6$   
b.  $27 \times 10^{-5}$   
c.  $27 \times 10^{-6}$   
d.  $27 \times 10^5$
38. A sum of money earn the interest at the rate of Rs. 10 per Rs. 50. In how many years would it triple itself ?  
a. 10 years  
b. 15 years  
c. 12 years  
d. 13 years
39. The Solution of x in  $4^x = 1/8$  is :  
a.  $2/3$   
b.  $-3/2$   
c.  $3/2$   
d.  $-2/3$
40. The headed Part represents the set:  
a.  $B - (A \cap C)$   
b.  $(A \cap B) \cap C$   
c.  $B - (A \cup C)$   
d. none
41. In a figure, O is the centre , XOY is the diameter of a circle and  $\angle WYZ = 132^\circ$ . Find  $\angle WXY$  :  
a.  $40^\circ$   
b.  $45^\circ$   
c.  $49^\circ$   
d.  $42^\circ$
43. Find the area of rhombus one of whose side measures 20 cm and one diagonal 24 cm.  
a.  $375\text{cm}^2$   
b.  $384\text{ cm}^2$   
c.  $365\text{ cm}^2$   
d.  $380\text{ cm}^2$

44. What number should be added to  $2a-3b+c$  to make  $-a+4b-3c$  ?  
a.  $-3a+7b-4c$   
b.  $3a-7b+4c$   
c.  $3a-7b-4c$   
d.  $-3a-7b+4c$
45. There are 45% women and 1342 men in locality. Find the population of the locality ?  
a. 2550  
b. 2440  
c. 2750  
d. 2350
46. 12 inches is equal to how many cm?  
a. 25cm  
b. 30cm  
c. 20cm  
d. 35cm
47. My father ..... in Dharan for ten years before he came to Biratnagar.  
a. taught  
b. was teaching  
c. had taught  
d. had been teaching
48. As soon as the hunter ..... the birds flew away.  
a. fired  
b. was firing  
c. had fired  
d. fires
49. Mike ..... for London tomorrow . He ..... the 5:30 pm plane to Delhi for it .  
a. leave....take  
b. leaves.....takes  
c. is living.....is taking  
d. will leave .... will take
50. I ..... the film. I am going to tell you the story.  
a. have seen  
b. see  
c. will see  
d. saw
51. Don't disturb me. I ..... my homework .  
a. do  
b. have done  
c. am doing  
d. will do
52. Sabina ..... to America because she has already got her passport and visa.  
a. is going  
b. will go  
c. goes  
d. will be going
53. When I saw Gopal , he ..... to my sister.  
a. was talking  
b. had talked  
c. talked  
d. talks
54. I am sure that Mary ..... the entrance .  
a. passes  
b. will pass  
c. has passed  
d. passed
55. By the end of this month, we ..... English for a month.  
a. will have been learning  
b. will have learnt  
c. will learn  
d. will be learning

56. Before the bell ..... the students will not go out.  
a. ring  
b. rings  
c. will ring  
d. is ringing
57. You can't pass the entrance unless you ..... hard.  
a. study  
b. will study  
c. would study  
d. would have studied
58. Had it not been for his wife, he ..... this village.  
a. will leave  
b. would leave  
c. would have left  
d. left
59. If I ..... a king, I would live in a palace.  
a. was  
b. were  
c. am  
d. had been
60. Mary ..... very happy if I helped her.  
a. is  
b. will be  
c. would be  
d. would have been
61. My shoes ..... very dirty today.  
a. is  
b. were  
c. are  
d. had been
62. The number of students ..... nowadays.  
a. is increasing  
b. are increasing  
c. was increasing  
d. was increasing
63. The students of the school ..... very intelligent.  
a. is  
b. was  
c. are  
d. were
64. Half of the rice ..... sold yesterday.  
a. is  
b. are  
c. was  
d. were
65. One of my friends ..... invited me .  
a. has  
b. have  
c. are  
d. were
66. Ten miles ..... a long distance for me .  
a. has  
b. were  
c. is  
d. are

## ZOOLOGY

67. Which protein is most abundant in the human body ?  
a. Fibrin  
b. Collagen  
c. Chondrin  
d. Elastin
68. Which is triploblastic acoelomate animal ?  
a. Earthworm  
b. Tapeworm  
c. Roundworm  
d. Ant
69. Which respiratory pigment is present in the blood of snails ?  
a. Haemocyanin  
b. Chlorophyll  
c. Chlorocruorin  
d. Haemoglobin
70. How many cells are formed when a cell meiotically divides three times?  
a. 6  
b. 8  
c. 64  
d. none
71. What happens in the metaphase of mitosis?  
a. Chromosomes become thick & short  
b. nuclear membrane begins to disappear  
c. chromosomes lie in the equatorial plate  
d. chromosomes move to the opposite poles
72. Which is a chordate ?  
a. Sea anemone  
b. sea horse  
c. sea oyster  
d. cuttle fish
73. What is the capsid made up of  
a. pectin  
b. lipid  
c. protein  
d. cellulose
74. Which arrangement in an ecosystem is correct ?  
a. zooplanktons → phytoplanktons → small fishes → large fishes  
b. small fishes → large fishes → zooplankton → phytoplanktons  
c. large fishes → phytoplanktons → small fishes → zooplanktons  
d. phytoplanktons → zooplanktons → small fishes → large fishes
75. When was the 'theory of natural selection' given?  
a. 1909  
b. 1809  
c. 1868  
d. 1858
76. What will be the parts of homozygous dwarfs in the  $F_2$ - generation?  
a. all  
b. 3  
c. 2  
d. 1
77. In which organism the mode of reproduction is sporulation?  
a. mushroom  
b. mucor  
c. Liverwort  
d. all

78. Which organ is supplied blood by phrenic artery?  
a. heart  
b. diaphragm  
c. thigh  
d. brain
79. Which component is absent in xylem?  
a. vessels  
b. wood parenchyma  
c. companion cells  
d. tracheids
80. What type of adaptation is found in a bird?  
a. aerial  
b. arboreal  
c. aquatic  
d. fossorial

#### HEALTH

81. The longest part of the large Intestine.  
a. caecum  
b. ascending colon  
c. sigmoid colon  
d. transverse colon
82. Pepsin secretes from :  
a. saliva  
b. bile  
c. gastric juice  
d. intestinal juice
83. Male genital organs, except  
a. prostate gland  
b. seminal vesicle  
c. uterine tubes  
d. testes
84. Cranial nerves are  
a. twelve  
b. twenty four  
c. thirty two  
d. nine
85. Bile secretes from :  
a. pancreas  
b. gall bladder  
c. cystic duct  
d. liver
86. The life span of RBC is  
a. 100 days  
b. 110 days  
c. 120 days  
d. 130 days
87. Minute units in the Kidney is Known as  
a. nephron  
b. capsule  
c. tubule  
d. adrenal
88. Blood is a kind of  
a. epithelial tissue  
b. muscle tissue  
c. connective tissue  
d. nervous tissue

89. Bir Hospital was established on :  
a. 1947 B.S. Shrawan  
b. 1937 B.S. Shrawan  
c. 1947 B.S, Ashwin  
d. 1937 B.S. Ashwin
90. The normal capacity of the urinary bladder  
a. 200 ml  
b. 300 ml  
c. 400 ml  
d. 500ml
91. The main function of the heart is  
a. purify the used blood  
b. pump out the blood all over the body  
c. collection of blood for future use  
d. none of above
92. The 1<sup>st</sup> branch of the artery is called  
a. coronary artery  
b. pulmonary artery  
c. renal artery  
d. hepatic artery
93. Goitre is a disease that is connected to  
a. over secretion of thyroid hormones  
b. low secretion of thyroid hormones.  
c. Inadequate amount of iodine in the body  
d. above a & c
94. The term ventilation is used for  
a. use of fan in the room  
b. process of replacement of foul air by fresh air  
c. use of beautiful windows in the room  
d. none of above
95. Diseases are caused by  
a. germ  
b. nutritional unbalance  
c. unhealthy environment  
d. all of above
96. When a disease spread through cough, sneeze, breath that is called  
a. airborne disease  
b. insect borne disease  
c. fomites borne disease  
d. vector borne disease
97. TT (tetanus toxoid) vaccine is used to prevent :  
a. whooping cough  
b. TB (tuberculosis)  
c. tetanus  
d. typhoid
98. Immediately after dog bite the wound should be :  
a. cleaned & soap/ water  
b. keep open  
c. dressing only at hospital  
d. all of above
99. A stone formed in biliary tract is known as :  
a. bladder stone  
b. renal stone  
c. gall stone  
d. none of above
100. Asthma is the condition of :  
a. narrowing bronchus  
b. collapsing trachea  
c. atrophy of oesophagus  
d. shrinkage of Larynx