

## **BCECE Bihar B.Sc Nursing 2024 Question Paper**

<b>Time Allowed :4.5 Hour</b>	<b>Maximum Marks :1200</b>	<b>Total Questions :500</b>
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### **General Instructions**

**Read the following instructions very carefully and strictly follow them:**

1. The Duration of test is 4.5 Hour.
2. The test includes Biology,Physics, Chemistry and Mathematics,Agriculture questions.
3. There will be 100 questions per subject. .

**1. When was the Human Genome Project invented?**

- (A) 1992
  - (B) 1990
  - (C) 1996
  - (D) 2003
- 

**2. Fucoxanthin pigment grants — color.**

- (A) brown
  - (B) red
  - (C) yellow
  - (D) yellow-green
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**3. The fruit is a fleshy pome.**

- (a) Apple
  - (b) Banana
  - (c) Cashew
  - (d) Fig
- 

**4. Ball and Socket Joint Present in:**

- (a) Knee
  - (b) Elbow
  - (c) Finger
  - (d) Shoulder Joint and Hip Joint
- 

**5. Protista is found in:**

- (A) Freshwater environments only
- (B) Marine environments only
- (C) A variety of environments, including freshwater, marine, soil, and decaying organic matter
- (D) Extreme environments like hot springs and acidic lakes only

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**6. Which of the following plants has a corm?**

- (A) Garlic
  - (B) Arum / Colocasia
  - (C) Banana
  - (D) Potato
- 

**7. The chemical name of Vitamin B1 is:**

- (A) Thiamine
  - (B) Riboflavin
  - (C) Niacin
  - (D) Pyridoxine
- 

**8. Sushrut first performed plastic surgery on:**

- (a) Nose
  - (b) Mouth
  - (c) Ear
  - (d) Lips
- 

**9. The amount of murein in gram-positive bacteria is:**

- (a) 50-60
  - (b) 20-40
  - (c) 10-20
  - (d) 70-80
- 

**10. AIDS spreads through:**

- (a) Food
- (b) Body fluids
- (c) Air
- (d) Water

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**11. How many layers does the epidermis have in human skin?**

- (a) 4
  - (b) 5
  - (c) 2
  - (d) 3
- 

**12. The forelimbs of birds are modified**

- (a) For walking
  - (b) For swimming
  - (c) For flying
  - (d) For grasping
- 

**13. Lysosome acts in given condition:**

- (a) Base
  - (b) Acid
  - (c) Both
  - (d) Neutral
- 

**14. Gymnosperms are classified into four classes:**

- (a) Cycadopsida (Cycads)
  - (b) Ginkgopsida (Ginkgoes)
  - (c) Pinopsida (Conifers)
  - (d) Gnetopsida (Gnetum and related genera)
- 

**15. The pollination of naked seed gymnosperm plants occurs through:**

- (A) Insects
- (B) Wind
- (C) Water
- (D) Animals

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**16. The correct statement regarding the function of amylase is:**

- (A) Breaks down proteins into amino acids
  - (B) Breaks down fats into fatty acids and glycerol
  - (C) Breaks down starch into simple sugars
  - (D) Breaks down DNA into nucleotides
- 

**17. Which is a C4 plant?**

- (a) Cotton
  - (b) Maize
  - (c) Wheat
  - (d) Rice
- 

**18. Which of the following is the largest cranial nerve?**

- (a) Cranial VI
  - (b) Cranial nerve X
  - (c) Cranial nerve VII
  - (d) Cranial nerve V (trigeminal)
- 

**19. What percent of nephron cortical is present?**

- (a) 15
  - (b) 85
  - (c) 20
  - (d) 40
- 

**20. Fusiform root is present in:**

- (a) Carrot
- (b) Radish
- (c) Turnip
- (d) Sweet potato

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**21. How many classes are there in gymnosperms?**

- (a) 2
- (b) 1
- (c) 3
- (d) 4

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**22. Bacteria have:**

- (a) Slime or Capsule
- (b) Slime layer
- (c) Capsule
- (d) Slime layer and capsule

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**23. Brown air is due to:**

- (a) CO<sub>2</sub>
- (b) SO<sub>2</sub>
- (c) CH<sub>4</sub>
- (d) NO<sub>x</sub>

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**24. The process of fusion of male and female gametes is called**

- (A) Seed formation
- (B) Reproduction
- (C) Fertilisation
- (D) Pollination

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**25. Protista are found in:**

- (a) Air
- (b) Water
- (c) Soil
- (d) Ocean

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**26. Agar is obtained from:**

- (a) Gelidium
  - (b) Gracilaria
  - (c) Both Gelidium Gracilaria
  - (d) None of these
- 

**27. Segmentation of Earth Worm is very to:**

- (a) 10-20
  - (b) 5-10
  - (c) 100-150
  - (d) 150-200
- 

**28. Which of the following is a fresh water sponge?**

- (a) Sycon
  - (b) Spongilla
  - (c) Euspongia
  - (d) Fresh water sponge i
- 

**29. Which one has an age > 100 years?**

- (a) Parrot
  - (b) Horse
  - (c) Turtle
  - (d) Banana tree
- 

**30. Who gives the idea of cell arising from pre-existing cells?**

- (a) Schwann
- (b) Hooke
- (c) Schleiden
- (d) Virchow

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**31. Who provides color to the skin?**

- (a) Melanin
- (b) Keratin
- (c) Albumin
- (d) Chitin

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**32. Hormone, interact with membrane, the secondary messenger. Which of the following is a secondary messenger?**

- (a) AMP
- (b) T3
- (c) Renin
- (d) ANF

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**33. Nucleic acid bond present:**

- (a) Disulphide
- (b) Phosphodiester
- (c) Ester
- (d) Peptide

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**34. What is the largest organ?**

- (a) Stomach
- (b) Lungs
- (c) Pancreas
- (d) Heart

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**34. RUBISCO CO acts as**

- (a) Carbonylase
- (b) Oxygenase
- (c) Both Carbonylase & Oxygenase



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**35. Product of Cyclic Pathway**

- (a) NADPH
  - (b) ATP
  - (c) H<sup>+</sup>
  - (d) H<sub>2</sub>O
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**36. Colourless blood of animal due to**

- (a) Cu
  - (b) Fe
  - (c) Hemoglobin
  - (d) None of Above
- 

**37. If parent blood group A and AB, then which is not possible blood group in progeny?**

- (a) A
  - (b) AB
  - (c) B
  - (d) O
- 

**38. Which of these is a lymphoid organ?**

- (a) Tonsill
  - (b) Spleen
  - (c) Thymus
  - (d) All of these
- 

**39. Which of the following is given to immunosuppressive patients?**

- (a) Cyclosporin-A
- (b) Statins
- (c) Drugs
- (d) Streptokinase

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**40. How many cerebral ventricles do humans have?**

- (a) 2
- (b) 3
- (c) 4
- (d) 5

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**41. Which element is present in cytochrome?**

- (a) Magnesium
- (b) Iron
- (c) Calcium
- (d) Potassium

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**42. Photolysis of water occurs in the presence of which element?**

- (a) Magnesium
- (b) Manganese
- (c) Calcium
- (d) Potassium

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**43. How many pairs of salivary glands does a rat have?**

- (a) 2
- (b) 3
- (c) 4
- (d) 5

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**44. How many chambers are there in a frog's heart?**

- (a) 2
- (b) 3
- (c) 4
- (d) 1

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**45. What percentage of animals are invertebrates?**

- (A) 50%
- (B) 70%
- (C) 85%
- (D) 95%

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**46. The primary structure of which enzyme was discovered first?**

- (A) Trypsin
- (B) Rnase A
- (C) Lysozyme
- (D) Carboxypeptidase

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**47. Which organism has the maximum number of chromosomes?**

- (A) Horse
- (B) Drosophila
- (C) Human (46)
- (D) Ascaris

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**48. If there are 20 nucleotides in a polynucleotide chain, then what is the number of phosphodiester bonds?**

- (A) 21
- (B) 20
- (C) 19
- (D) 18

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**49. Group in Auxins**

- (A) - OH
- (B) - COOH
- (C) - CO

(D) - O

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**50. Bile Juice helps in Digestion of**

- (A) Lipid
  - (B) Starch
  - (C) Protein
  - (D) Lipid and Starch
- 

**51. The beak shape and structure of a hummingbird is**

- (A) Short, stout, and conical
  - (B) Long, curved, and tubular
  - (C) Small, pointed, and hooked
  - (D) Broad, flat, and rectangular
- 

**52. Coupling is less prone to malaria?**

- (A)  $Hb^A/Hb^A$
  - (B)  $Hb^A/Hb^S$
  - (C)  $Hb^S/Hb^S$
  - (D) None of the above
- 

**53. When was the Human Genome Project invented?**

- (A) 1992
  - (B) 1990
  - (C) 1996
  - (D) 2003
- 

**54. Humans are primates.**

- (A) Class
- (B) Genus

(C) Family

(D) Order

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**55. A metal which can be cut with a knife is:**

(A) Ga

(B) Pt

(C) Pb

(D) Mg

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**56. Which of the following vitamins are water soluble?**

(A) A

(B) D

(C) C

(D) K

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**57. What is the hybridisation of  $[Ni(CN)_4]^{2-}$ ?**

(A)  $sp^3$

(B)  $sp^2d$

(C)  $dsp^2$

(D)  $sp^3d$

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**58. Thermite welding is caused by the formation of which compound?**

(A) Al

(B) Fe

(C)  $Fe_2O_3$

(D) FeO

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**59. Which is the strongest acid?**

(A)  $CH_3-CH_3$

- (B)  $\text{H}_2\text{O}$
  - (C)  $\text{CH}_2=\text{CH}_2$
  - (D)  $\text{CH}_2$
- 

**60. Gutta percha is:**

- (A) trans-Polyisoprene
  - (B) cis-Polyisoprene
  - (C) Polyethylene
  - (D) Polypropylene
- 

**61. Purple of Cassius is a colloidal solution of:**

- (A) Silver
  - (B) Lead
  - (C) Gold
  - (D) Mercury
- 

**62. Pyrolusite ore is:**

- (A)  $\text{CaSi}_3$
  - (B)  $\text{MnO}_2$
  - (C)  $\text{CuCO}_3$
  - (D)  $\text{Al}_2\text{O}_3$
- 

**63. Which of the following is a negative charge colloidal sol?**

- (A) Gold
  - (B) S
  - (C) Clay
  - (D) All of these
- 

**64. Styrene is -**

- (A) Chlorobenzene
  - (B) Vinyl benzene
  - (C) Methyl benzene
  - (D) Ethyl benzene
- 

**65. The banana bond in diborane is constituted by:**

- (A) 3-atoms and 2-electrons
  - (B) 2-atoms and 2-electrons
  - (C) 3-atoms and 3-electrons
  - (D) 2-atoms and 3-electrons
- 

**66. Formic acid on heating with concentrated  $\text{H}_2\text{SO}_4$  gives:**

- (A) CO
  - (B)  $\text{H}_2$
  - (C)  $\text{O}_2$
  - (D)  $\text{CO}_2$
- 

**67. The following amines is the product of Gabriel phthalimide synthesis:**

- (A) Secondary aliphatic amine
  - (B) Primary aliphatic amine
  - (C) Aromatic primary amine
  - (D) Tertiary aliphatic amine
- 

**68. Which type of linkage is present in nucleic acids?**

- (A) Phosphodiester linkage
  - (B) Glycosidic linkage
  - (C) Peptide linkage
  - (D) None of these
- 

**69. Which is prepared by peptisation?**

- (A) colloid
  - (B) precipitate
  - (C) peptide
  - (D) solution
- 

**70. Consider the argon atom. For how many electrons does this atom have  $m_l = 1$ ?**

- (A) 2
  - (B) 4
  - (C) 6
  - (D) 12
- 

**71. Which of the following will not show mutarotation?**

- (A) Maltose
  - (B) Lactose
  - (C) Glucose
  - (D) Sucrose
- 

**72. Aqueous solution of Mohr's salt gives a positive test for:**

- (A)  $\text{Fe}^{2+}$
  - (B)  $\text{NH}_4^+$
  - (C)  $\text{SO}_4^{2-}$
  - (D) All of these
- 

**73. Which one contains an amide bond?**

- (A) Terylene
  - (B) Cellulose
  - (C) Nylon-6
  - (D) Polystyrene
- 

**74. Heating of  $\text{Ca}(\text{NO}_3)_2$  produces:**



- (A)  $\text{NO}_2$
  - (B)  $\text{N}_2\text{O}$
  - (C)  $\text{O}_2$
  - (D)  $\text{NO}_2 + \text{O}_2$
- 

**75. Which one is acidic?**

- (A)  $\text{MnO}$
  - (B)  $\text{Mn}_2\text{O}_3$
  - (C)  $\text{MnO}_2$
  - (D)  $\text{Mn}_2\text{O}_7$
-