B.Sc. (Hons) 2014-15

SECTION I - ENGLISH

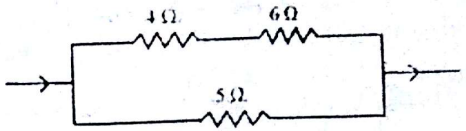
1. The cautious are not always cowards. 'Cautions' is
   (a) Noun (b) Adjective (c) Adverb (d) Verb
2. The word 'eco friendly' means
   (a) interested in economics
   (b) a room for producing echo sounds
   (c) not harming the environment (d) None of the above
3. Choose an appropriate word from the list given below to fill in the following blank.
   The word ..... is used in the sense of 'no longer existing'
   (a) acumen (b) boorish (c) boorished (d) extinct
4. his remark was ..... bad .....
   (a) of, taste (b) in, test (c) with. taste (d) in, taste
5. The trunk is as heavy as .....
   (a) lead (b) stone (c) mountain (d) tin
6. The storm blew with great .....
   (a) fairy (b) fury (c) ferry (d) merry
7. I wish I could take ..... what I said to her.
   (a) back (b) in (c) of (d) on
8. Fill in the blank with the appropriate word.
   Killing two ..... With one stone.
   (a) animals (b) birds
   (c) spiders (d) mosquitoes
9. I haven't heard from her .... Last May.
   (a) until (b) since (c) for (d) in
10. It 'rained cats and dogs' yesterday means
    (a) it rained heavily
    (b) cats and dogs fell from the sky
    (c) cats and dogs love rain
    (d) cats and dogs got wet in the rain
11. The soldiers were rewarded for ..... bravery.
    (a) their (b) there (c) its (d) it's
12. Always speak the .....
    (a) true (b) truly (c) truth (d) truthful

13. Wine is made ..... grapes.
(a) of (b) with (c) by (d) from
14. He is not only hopeful ..... Confident.
(a) but (b) and (c) but also (d) as
15. She fell ..... The well.
(a) in (b) into (c) inside (d) under
16. The girls were .....
(a) singing (b) sung (c) sang (d) sing
17. He was robbed ..... his money.
(a) off (b) of (c) from (d) by
18. He looked ..... his watch everywhere.
(a) for (b) of (c) about (d) at
19. I did not ..... you.
(a) see (b) saw (c) seen (d) will see
20. "Grey matter" stands for
(a) soil (b) intelligence (c) rocks (d) a mineral
21. I am grateful ..... him ..... his advice.
(a) for, for (b) to, for (c) at, for (d) to, with
22. This is a..... occasion.
(a) unique
(b) most unique
(c) more unique
(d) both (a) and (b)
23. Tick the correct sentence.
(a) I am interested in buying a car.
(b) I am interesting in buying a car.
(c) I am interest in buying a car.
(d) I interested in buying a car.
24. Indicate a noun in the following words.
(a) joy (b) happy
(c) glad (d) joyful
25. We all are brethren and we should respect one another.
'Brethren' means
(a) Children of same parents
(b) Members of a group
(c) A swarm of men
(d) Slaves

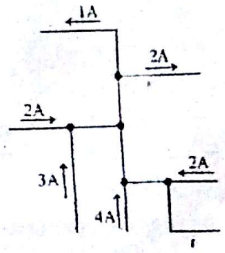
Section II- PHYSICS

Core of electromagnets are made of ferromagnetic materials which have
(a) Low retentivity (b) High retentivity
(c) Low permeability (d) Medium permeability

In the circuit shown, the heat produced in 5 Ω resistor due to current flowing in it is 10 cal/sec. The heat generated in 4Ω resistor is
(a) 1 cal/sec
(b) 2 cal/sec
(c) 3 cal/sec
(d) 4 cal/sec



The above figure shows a portion of a circuit, The magnitude and direction of the current i in the lower right-hand wire is
(a) 8 A, Leftward
(b) 8 A, Rightward
(c) 4 A, Leftward
(d) 4 A, Rightward



Two particles each of mass m and carrying charge q, are separated by some distance. If they are in equilibrium under mutual gravitational and electrostatic forces, then q/m (in coulomb/kg) is of the order of
(a) 10^{-5} (b) 10^{-10} (c) 10^{-15} (d) 10^{-20}

Kinetic energy of a particle executing SHM is 8 J when it is at its mean position. If the mass of the particle is 4 kg and its amplitude of oscillation is 25 cm, its time period is
(a) 2π s (b) $\pi/2$ s (c) $\pi/4$ s (d) $\pi/8$ s

A plane progressive wave is represented by $y = 10^{-4} \sin(60t + 2x)$ where x and y are in meters while is the time in second. This represents a wave of wavelength
(a) π meters along +x direction (b) π meters along – xdirection
(c) 2 π meters along + x direction (d) None of these

The amplitude of a simple harmonic oscillator is a. For which of the following distances from the mean position, its kinetic energy will be equal to its potential energy
(a) a/2 (b) $a/\sqrt{2}$ (c) a/3 (d) $a/\sqrt{3}$

33. The average kinetic energy per molecule in an ideal O_2 gas depends on the thermodynamic variable
(a) temperature (b) pressure (c) volume (d) specific
34. In the presence of a vibrational mode, the ratio of specific heats $r(= c_p/c_v)$ for a diatomic molecule is
(a) 5/3 (b) 7/5 (c) 9/7 (d) 7/3
35. Water rises to height of 2 cm in a capillary tube. The angle contact is zero. The tube is now depressed further so that it length above the surface of water is only 1 cm. The appare angle of contact now is
(a) 0° (b) 30° (c) 60° (d) 90°
36. The position vector of a particle is given by $\vec{r} = \hat{\imath}-2\hat{\jmath} + \hat{k}$. T torque of a force $\vec{F} = 4\hat{\imath} +3\hat{\jmath} - 2\hat{k}$ about the origin is
(a) $3\hat{\imath} + 6\hat{\jmath} - 11\hat{k}$ (b) $\hat{\imath} + 6\hat{\jmath} - 11\hat{k}$
(c) $2\hat{\imath} + 6\hat{\jmath} - 11\hat{k}$ (d) $\hat{\imath} + 6\hat{\jmath} + 11\hat{k}$
37. If the kinetic energy of an object of mass 2 kg is directly proportional to time 't', then the magnitude of the force act on this object is
(a) inversely proportional to $\sqrt{t}$ (b) directly proportional to
(c) directly proportional to t^2 (d) inversely proportional to
38. The position of a particle is given by $\vec{r} = 8t\,\hat{\imath} + 2t^2\,\hat{\jmath} + 4\,\hat{k}$, where t is in seconds are $\vec{r}$ is in metres. The magnitude and direction of velocity at t = 2.0 s is
(a) 8.0 m/s; $\theta = 30°$ with the X-axis
(b) 8.0 m/s; $\theta = 30°$ with the Y-axis
(c) $8\sqrt{2}$ m/s; $\theta = 45°$ with the X-axis
(d) $8\sqrt{2}$ m/s: $\theta = 45°$ with the Y-axis
39. Assuming the equatorial radius of the earth to be 6000 km. linear speed of a particle at the equator will be
(a) $5\pi/36$ km/s (b) $\pi/36$ km/s
(c) $\pi/72$ km/s (d) $5\pi/72$ km/s
40. Dimension of force constant is
(a) MT^{-2} (b) $ML^{-1}T^{-2}$ (c) ML^2T^{-2} (d) MLT^{-2}
41. Which of the following frequency bands corresponds to FM broadcast?
(a) 540 – 1600 KH$_z$ (b) 88 – 108 MH$_z$
(c) 840 – 935 MH$_z$ (d) 3.7 – 4.2 GH$_z$

A particle P is projected at angle 45°. Another particle Q is projected vertically upwards. Both the particles reach the same height H. The ratio of the initial kinetic energy of P to that of Q is
(a) 2 : 1 (b) 1 : 2 (c) 1 : $\sqrt{2}$ (d) $\sqrt{2}$: 1
If the forward voltage in a diode is increased, the length of depletion layer will
(a) Decrease (b) Increase
(c) Not change (d) Become zero
Which of the following nuclei has maximum binding energy per nucleon?
(a) Oxygen (b) Calcium (c) Iron (d) Lead
The wave nature of electrons was experimentally verified by
(a) Frank – Hertz (b) Stern – Gerlach
(c) Davisson – Germer (d) Rutherford
If an object is placed at the focus of a concave lens of focal length f, the image will be formed at
(a) infinity (b) focus
(c) $f/2$ (d) $2f$
What should the width of each slit be to obtain 10 maxima of the double slit pattern within the central maximum of the single slit pattern?
(a) 0.1 mm (b) 0.2
(c) 0.4 mm (d) 0.5 mm
The e.m.f. generated in a coil is 2 V when the current is changed at the rate of 4 A/s. The self inductance of the coils is
(a) 0.5 H (b) 1 H
(c) 2 H (d) 8 H
The equation $\oint \vec{B}.\vec{dl} = \mu_0 i_c + \mu_0\epsilon_0 \frac{d\phi_E}{dt}$ represents
(a) Gauss's law of electricity
(b) Gauss's law of magnetism
(c) Faraday's law
(d) Ampere-Maxwell law
A 10 Ω resistance and 0.01 H inductor are connected in series to a 220 V, 50 Hz source. The phase difference between the voltage across the source and the current in the circuit is
(a) $\tan^{-1}\left(\frac{\pi}{2}\right)$ (b) $\tan^{-1}\left(\frac{\pi}{2}\right)$ (c) $\tan^{-1}\left(\frac{\pi}{10}\right)$ (d) $\tan^{-1}(\pi)$

Section III- CHEMISTRY

51. Which of the following hydrides is the strongest reducing agent
(a) NH_3 (b) SbH_3 (c) AsH_3 (d) PH_3

52. The EDTA is a
(a) bidentate ligand
(b) tridentate ligand
(c) tetradentate ligand
(d) hexadentate ligand

53. The geometry of $[Ni(CN)_4]^{2-}$ is
(a) Tetrahedral (b) Square planar
(c) Pyramidal (d) Trigonal bipyramidal

54. Which type of isomerism is in $[Co(en(NH_3)_2Cl_2]$?
(a) optical isomerism
(b) geometrical isomerism
(c) cis-transisomerism
(d) coordination isomerism

55. Oxidation number of Ni in $[Ni(CO)_4]$ is
(a) zero (b) +1 (b) +2 (d) +3

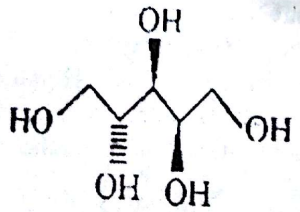
56. The Ti^{3+} ion in aqueous solutions appear
(a) purple in colour (b) blue in colour
(c) green in colour (d) colourless

57. What is 'X'?

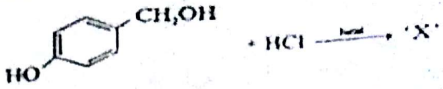
$$CH_3-C\equiv C-H \xrightarrow{Hg^2,H_2SO_4} X$$

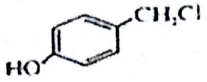
(a) CH_3CH_2CHO
(b) $CH_3-\underset{\underset{O}{\|}}{C}-CH_3$
(c) $CH_3CH_2CH_2OH$
(d) $CH_3CH=CH_2$

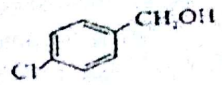
58. How many 'stereocentres' are present in the given molecul
(a) 2
(b) 3
(c) 4
(d) 5

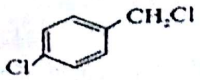


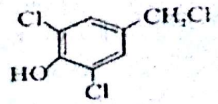
59. What is 'X' in the following reaction?



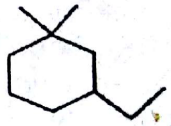
(a) 

(b) 

(c) 

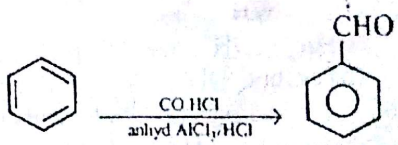
(d) 

60. The 'IUPAC' name of the following compound is
(a) 3-Ethyl-1,1-dimethylcyclohexane
(b) 1,1-Dimethyl-3-ethylcyclohexane
(c) Dimethylcyclohexylethane
(d) Dimethyl-3-ethylcyclohexane



61. The order of acidic behavior in the following compound is
(a) $HC\equiv CH>CH_3-C\equiv CH>CH_3-C\equiv C-CH_3$
(b) $CH_3-C\equiv CH>HC\equiv CH>CH_3-C\equiv C-CH_3$
(c) $HC\equiv CH>CH_3-C\equiv C-CH_3>CH_3C\equiv CH$
(d) $CH_3-C\equiv C-CH_3>CH_3-C\equiv CH>HC\equiv CH$

62. The reaction



is known as
(a) Gattermann reaction
(b) Sandmeyer's reaction
(c) Gattermann-Koch reaction
(d) Etard's reaction

63. The given reaction

$$R-CH_2-COOH \xrightarrow[ii)H_2O]{i)X_2/red\,P} R-\underset{\underset{X}{|}}{CH}-COOH \quad X = Cl, Br$$

Is known as
(a) Hofmann's reaction (b) Hell-Volhard Zelinsky reation
(c) Hunsdiecker reaction (d) Vilsmeier reaction

64. Which one of the following is aromatic compound

(a)  (b)  (c)  (d) 

65. A catalyst increases the rate of reaction by
(a) increasing activation energy
(b) decreasing activation energy
(c) increasing Gibbs energy
(d) decreasing entropy

66. By convention the standard electrode potential of hydrogen electrode is
(a) – 1 .0V (b) 1.0V (c) – 10 .0V (d) None

67. The order of acid strength is
(a) HF<HCl< HBr < HI
(b) HCl< HF<HBr < HI
(c) HBr < HCl< HI< HF
(d) HI< HBr < HCl<HF

68. In the reaction $2Cu_2O(s) + Cu_2S(s) \rightarrow 6Cu(s) + SO_2(g)$ the oxidation state of copper changes from
(a) + 1 to 0 (b) + 2 to 0 (c) + 3 to 0 (d) None

69. According to Arrhenius concept a base is a substance which
(a) gives H^+ ions
(b) gives H_3O^+ ions
(c) gives OH^- ions
(d) accepts OH^- ions

70. The enthalpies of all elements in their standard states are
(a) unity (b) zero (c) less than zero
(d) different for different elements

71. For the electrode H (aq)H_2(g), if pH is decreased by one unit 25°C, then the cell potential
(a) decreases by 59.1 mV
(b) increases by 59.1 mV
(c) remains unchanged (d) becomes zero

72. The increase in entropy is maximum in
(a) $CaCO_3(s) \rightarrow CaO(s) + CO_2(g)$
(b) $CO(g) + \frac{1}{2}O_2(g) \rightarrow CO_2(g)$
(c) $N_2(g) + 3H_2(g) \rightarrow 2NH_3(g)$ (d) $H_2(g) + I_2(g) \rightarrow 2HI(g)$

73. In X-ray diffraction pattern if the reflections from the crystal planes 100,110,210,211 are absent, the crystal lattice is
(a) primitive (simple) cubic (b) b. c. c.
(c) f. c. c. (d) None

74. Which of the following ions shows maximum magnetic moment $\mu = \sqrt{n(n+2)}$
(a) Sc^{3+} (b) Ti^{3+} (c) Mn^{2+} (d) Cr^{2+}

75. XeF_4 reacts with aqueous alkali to give
(a) HF (b) $HXeO_4^-$ (c) 4Xe (d) None

Section IV- MATHEMATICS

76. If $(1+x)^n = C_0+C_1x + \ldots\ldots + C_nx_n$, then $\frac{C_1}{C_0} + \frac{2.C_2}{C_1} + \frac{3.C_3}{C_2} + \ldots\ldots + \frac{n.C_n}{C_{n-1}}$ is
(a) $\frac{2^n}{n!}$ (b) $\frac{(n+1)^n}{n!}$ (c) $\frac{n(n-1)}{2}$ (d) $\frac{n(n+1)}{2}$

77. The number of solutions of $\sin^2\theta+3\cos\theta=3$ in the interval $[-\pi, \pi]$
(a) 4 (b) 2 (c) 0 (d) None

78. The maximum value of $\sin(x+\pi/6)\cos(x+\pi/6)$ in the interval $(0, \pi/2)$ is
(a) $\pi/6$ (b) $\pi/12$ (c) $\pi/3$ (d) $\pi/2$

79. If $\sin\theta = \frac{2t}{1+t^2}$ then $\cos\theta$ is equal to
(a) $\frac{2t}{1-t^2}$ (b) $\frac{2t}{1+t^2}$
(c) $\frac{1-t^2}{1+t^2}$ (d) $\frac{1+t^2}{1-t^2}$

80. Let $f: N \rightarrow N$ be a mapping defined by $f(x) = 2x$, $\forall x \in N$. Then f i
(a) one-one into mapping
(b) one-one and onto mapping
(c) many one into mapping
(d) many one onto mapping

81. Let A be the set of first 10 natural numbers and let R be the relation on A defined by $(a,b) \in R$ if and only if $a+2b=10$. Then
(a) R is neither reflexive nor symmetric, but transitive
(b) R is neither reflexive nor transitive, but symmetric
(c) R is neither symmetric nor transitive, but reflexive
(d) R is neither reflexive, symmetric nor transitive

82. If $A = \{x \in R : 0 < x < 3\}$ and $B = \{x \in R : 1 \le x \le 5\}$, then the symmetric difference $A \Delta B$ of A and B is
(a) $\{x \in R : 0 < x < 1 \text{ or } 3 \le x \le 5\}$.
(b) $\{x \in R : 0 < x \le 1 \text{ or } 3 < x \le 5\}$
(c) $\{x \in R : 0 < x \le 1 \text{ or } 3 \le x \le 5\}$
(d) ϕ

83. The equation of the circle inscribed in the triangle formed by the coordinate axes and the line $3x+4y = 6$ is
(a) $x^2+y^2-6x-6y+9 = 0$
(b) $4x^2+4y^2+4x+4y+1 = 0$
(c) $4x^2+4y^2-4x-4y+1 = 0$
(d) None of the above

84. The equation of a straight line parallel to $3x+2y+9=0$ and which is such that the sum of the intercepts on the axes is 5, is
(a) $3x+2y+6=0$ (b) $3x+2y-6 = 0$
(c) $3x-2y-8 = 0$ (d) $3x+2y+8 = 0$

85. A straight line passes through a fixed point (h,K). Then the locus of the feet of the perpendiculars on it from the origin, is
(a) $x^2+y^2-hn-ky = 0$
(b) $x^2-y^2-hn-ky = 0$
(c) $x^2-y^2+hn+ky = 0$
(d) $x^2+y^2+hn-ky = 0$

86. The area bounded by the curves $y = x$ and $y = x^3$ is given by
(a) $\frac{1}{4}$ sq units (b) $\frac{1}{3}$ sq units
(c) $\frac{1}{2}$ sq units (d) 2 sq units

87. $\int_0^{\pi} |cosx| dx$ is equal to
(a) 0 (b) 1
(c) 2 (d) None

88. $\int \frac{sinx-cosx}{\sqrt{1-sin\,2x}} e^{sinx} cosx\, dx$ is
(a) $e^{sinx-cosx} + C$ (b) $e^{sinx+cosx} + C$
(c) $e^{cosx-sinx} + C$ (d) $e^{sinx} + C$

89. Which of the following function is differentiable at $x = 0$?
(a) $\sin(|x|) - |x|$
(b) $\sin(|x|) + |x|$
(c) $\cos(|x|) - |x|$
(d) $\cos(|x|) + |x|$

90. If the function
$$f(x) = \begin{cases} \frac{\sin(a+1)x+\sin x}{x}, & x < 0 \\ b, & x = 0 \\ \frac{\sqrt{x+x^2}-\sqrt{x}}{x^{\frac{3}{2}}}, & x > 0 \end{cases}$$
and $f(0) = b$. Then $f(x)$ is continuous at $x = 0$ if
(a) $a = -\frac{3}{2}, b = \frac{1}{2}$ (b) $a = \frac{3}{2}, b = \frac{1}{2}$
(c) $a = \frac{3}{2}, b = -\frac{1}{2}$ (d) $a = -\frac{3}{2}, b = -\frac{1}{2}$

91. The value of $\lim_{x \to 2}[x]$ is
(a) 1 (b) 2 (c) between 1and 2 (d) does not exist

92. The 2x2 matrix B such that
$\begin{bmatrix} 2 & 5 \\ -3 & 7 \end{bmatrix} B = \begin{bmatrix} 17 & -1 \\ 47 & -13 \end{bmatrix}$ is equal to
(a) $\begin{bmatrix} -4 & 1 \\ 5 & -1 \end{bmatrix}$ (b) $\begin{bmatrix} -4 & 2 \\ 5 & -1 \end{bmatrix}$
(c) $\begin{bmatrix} 3 & 2 \\ 5 & -1 \end{bmatrix}$ (d) None of these

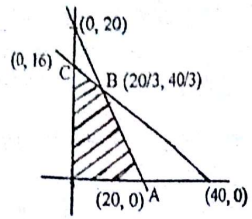
93. The rank of the matrix $\begin{bmatrix} 1 & 2 & -1 \\ 2 & 1 & 3 \\ -3 & 2 & 2 \end{bmatrix}$ is
(a) 2 (b) 3 (c) 1 (d) None of these

94. If each element of a determinant of third order with value a is multiplied by 3, then the vlue of the newly formed determinant
(a) 3a (b) 9a (c) 27a (d) None of these

95. The equation of the plane which touches the sphere $|\bar{r}| = 3$ at th point $\hat{i}+2\hat{j}+2\hat{k}$ is:
(a) $\bar{r}.(\hat{i}+2\hat{j}+2\hat{k}) = 9$ (b) $\bar{r}.(\hat{i}+2\hat{j}+2\hat{k}) = 9$
(c) $\bar{r}.(\hat{i}+\hat{j}+\hat{k}) = 9\sqrt{3}$ (d) $\bar{r}.(\hat{i}+\hat{j}+\hat{k}) = 9\sqrt{3}$

96. If for a non-zero vector $\bar{x}$, such that $\bar{x}.\bar{a} = \bar{x}.\bar{b} = \bar{x}.\bar{c} = 0$, the
(a) $[\bar{a}\,\bar{b}\,\bar{c}] = |\bar{x}|$ (b) $[\bar{a}\,\bar{b}\,\bar{c}] = |\bar{x}|^2$ (c) $[\bar{a}\,\bar{b}\,\bar{c}] = 1$ (d) $[\bar{a}\,\bar{b}\,\bar{c}] = 0$

97. Shaded region is represented by



(a) $2x+5y\geq=80,\ x+y\leq20,\ x\leq,0,y\leq0$
(b) $2x+5y\geq=80,\ x+y\geq20,\ x\geq,0,y\geq0$
(c) $2x+5y\leq=80,\ x+y\geq20,\ x\geq,0,y\geq0$
(d) $2x+5y\leq=80,\ x+y\leq20,\ x\leq,0,y\leq0$

98. Given that, for all real x, the expression $\frac{x^2-2x+4}{x^2+2x+4}$ lies between $\frac{1}{3}$ and 3.

The values between which the expression $\frac{9.3^{2x}+6.3^x+4}{9.3^{2x}-6.3^x+4}$ lies are

(a) 0 and 2 (b) -1 and 1
(c) -2 and 0 (d) 1/3 and 3

99. If cov(u,v) = 3, $\sigma_u^2 = 4.5$ $\sigma_v^2 = 5.5$ then p(u,v) is
(a) 0.121 (b) 0.603 (c) 0.07 (d) 0.347

Section V- BIOLOGY

100. The probability that atleast one of the events A and B occurs is 0.7 and they occur simultaneously with probability 0.2. Then P $(\bar{A})+P(\bar{B})=$
(a) 1.8 (b) 0.6 (c) 1.1 (d) 1.4

101. Which one of the following animals belongs to Phylum Arthropoda
(a) Sawfish (b) Starfish (c) Crayfish (d) Cuttlefish

102. Which of the following animals is correctly matched with its particular taxonomic category
(a) Apple snail – Pila, Family
(b) Earthworm – Arthropoda, Class
(c) King crab-Arthropoda, Phylum
(d) Honeybee-Apis, Order

103. The modified epidermal cells facilitating the curling of the leaf to minimise water loss are called as
(a) Trichomes (b) Subsidiary cells
(c) Guard cells (d) Bulliform cells

104. Thorns and spines are
(a) Homologous organs
(b) Analogous organs
(c) Thorn is homologous and spine is analogous
(d) Spine is homologous and thorn is analogous

105. A difference between Gram positive and Gram negative bacteria is due to
(a) Cell wall (b) Cell membrane
(c) Ribosomes (d) Cytoplasm

106. The population of any species growing exponentially under unlimited resource conditions show
(a) Sigmoid curve, with respect to time
(b) J-shaped curve, with respect to time
(c) Parabolic curve, with respect to resource
(d) Straight line between density on Y-axis and time on X-axis

107. Maximum transpiration occurs through
(a) Lenticells (b) Stomatas (c) Cuticle (d) Lenticells and cuticle

108. The first product of Calvin cycle is
(a) 3-Phosphoglyceric acid
(b) Triose-phosphate
(c) Ribulose 1`5-biphosphate (d) Sucrose

109. Which of the following is not a component of Mitochondrial Electron Transport System?
(a) Ubiquinone (b) Cytochrome B6
(c) Cytochrome C (d) Cytochrome a and a3

110. The essential mineral element required for the activity of enzyme Nitrate Reductase is
(a) Molybdenum (b) Iron (c) Zinc (d) Calcium

111. The wheat variety resistant to leaf and stripe rust and hill bund is
(a) Pusa Komal (b) Himgiri (c) Pusa A4 (d) IR-8

112. During DNA replication, the discontinuously synthesized fragments are joined by
(a) RNA Polymerase (b) DNA Polymerase
(c) RNA Primase (d) DNA Ligase

113.The blood cholesterol lowering agent is obtained from the fungus
(a) Monascus (b) Penicillium
(c) Rhizopus (d) Puccinia

114.The germ pores on the pollen grains are found on the
(a) Exine (b) Intine
(c) Both exine and intine (d) Vegetative cells

115.The chemical substance abundantly present in middle lamella is
(a) Suberin (b) Pectin (c) Cutin (d) Lignin

116.Splint is found as a vestigial organ in
(a) Man (b) Elephant
(c) Horse (d) Whale

117.The epithelial cell derived malignant tumor is known as
(a) Sarcoma (b) Carcinoma
(c) Lymphoma (d) Leukemia

118."Athlete's foot" occurs due to
(a) Fungal infection
(b) Bacterial infection
(c) Protozoan infection
(d) Helminthic infection

119.The excretory structure of flatworm are known as
(a) Malpighian tubule (b) Flame cells
(c) Green glands (d) Metanephria

120.Which of the following is the major component of honey?
(a) Levulose (b) Maltose (c) Dextrose (d) Galactose

121.A resting neuronal membrane is
(a) more permeable to sodium ion than to potassium ion
(b) more permeable to potassium ion than to sodium ion
(c) equally permeable to both sodium and potassium ion
(d) impermeable to both sodium and potassium ion

122.Which of the following carries oxygenated blood?
(a) precaval vein (b) postcaval vein
(c) pulmonary vein (d) pulmonary artery

123.The genotype for the blood group AB is
(a) I^AI^O (b) I^AI^B (c) I^BI^O (d) I^OI^O

124.Edward syndrome is characterized by
(a) Trisomy-5 (b) Trisomy-13 (c) Trisomy-18 (d) Trisomy-22

125.Aneuploidy with (2n-1) is referred to as
(a) trisomy (b) mellisomy (c) monosomy (d) tetrasomy

Section VI- HOME SCIENCE

126.The most common solvent for dry cleaning is
(a) Aviation petrol (b) Carbon tetrachloride
(c) Benzene (d) None of the above

127.During adolescence there is a significant increase in systolic blood pressure among
(a) Boys (b) Girls (c) Both boys and girls (d) None

128.Milk is a
(a) Protective and body building food
(b) Energy giving and body building food
(c) Protective and energy giving food (d) None

129.Book containing a record of credits and debits is called
(a) Cheque book (b) Pass book (c) Ledger book (d) Note book

130.The functions of communication are
(a) Information and Education
(b) Motivation and Socialization
(c) Both (a) and (b) (d) Niether (a) nor (b)

131.Silhoutte refers to the form, shape or style of the garment viewed
(a) From opposite side (b) At a distance
(c) Both (a) and (b) (d) Neither (a) nor (b)

132.Which among the following is the motor development
(a) Toilet control (b) Eruption of teeth
(c) Recognising sound (d) Babbing

133.Scrotal dermatitis is a symptom of which vitamin deficiency
(a) Thiamine (b) Riboflavin (c) Folic acid (d) Niacin

134.Which one is 'not' an element of design
(a) Balance (b) Pattern (c) Form (d) Space

135.Which among the following is not the part of three 'A's of happiness
(a) Acceptance (b) Advancement
(c) Affection (d) Achievement

136.Maternal and child health problems are generally related to
(a) Ignorance (b) Superstition (c) Poverty (d) All above

137.In national Saving Certificates, money is doubled in
(a) 2-3 yrs (b) 3-4 yrs (c) 4-5 yrs (d) 6-7 yrs

138.The complete sewing machine, without cabinet or stand is
(a) Arm (b) Head (c) Body (d) Face

139.Creches provide alternate care to children upto the age of
(a) 3 years (b) 2 years (c) 1 year (d) None

140.Pica is caused by the deficiency of
(a) Calcium (b) Phosphorus (c) Iron (d) Iodine

141.National Literary Mission (NLM) was launched in
(a) 1978 (b) 1988 (c) 1998 (d) 1999

142.Which among the following is the man-made building material
(a) Mud (b) Asbestos (c) Cement (d) Lime

143.The printing paste includes
(a) pigment (b) binder (c) fixing agent (d) all of the above

144.The average height of an Indian child at birth is
(a) 60 cm (b) 50 cm (c) 40 cm (d) 30 cm

145.Which vitamin is also known as "coagulation vitamin"
(a) Vitamin E (b) Vitamin K (c) Vitamin C (d) Vitamin A

146.Balance in a design refers to
(a) Pose (b) Steadiness (c) Security (d) All of above

147.From the end of second week to end of second year, the stage is termed as
(a) Infancy (b) Babyhood (c) Childhood (d) None

148.Boiling food in water for a short while to denature the enzymes present in it is
(a) Asepsis (b) Canning (c) Blanching (d) All the above

149.Which one of the following fuel is not obtained from petroleum
(a) Kerosine (b) Diesel (c) Coal (d) LPG

150.A bold illustration with little or no writing is a
(a) Flipchart (b) Flashcard (c) Charts (d) Poster

Answers: B.Sc.(Hons) 2014-15 – Series- A

1-a. 2-c. 3-d. 4-d. 5-a. 6-b. 7-a. 8-b. 9-b.10-a. 11-a. 12-c. 13-d. 14-c. 15-b. 16-a. 17-b. 18-a. 19-a. 20-b. 21-b. 22-a. 23-a. 24-a. 25-b. 26-a. 27-b. 28-b. 29-b. 30-c. 31-b. 32-b. 33-a. 34-c. 35-c. 36-d. 37-a. 38-c. 39-a. 40-a. 41-b. 42-a. 43-a. 44-c. 45-c. 46-c. 47-b. 48-a. 49-d. 50-c. 51-b. 52-d. 53-b. 54-a. 55-a. 56-d. 57-b. 58-a. 59-a. 60-a. 61-a. 62-c. 63-b. 64-d. 65-b. 66-d. 67-a. 68-a. 69-c. 70-b. 71-b. 72-a. 73-c. 74-c. 75-b. 76-d. 77-d. 78-b. 79-c. 80-a. 81-d. 82-a. 83-c. 84-b. 85-a. 86-c. 87-c. 88-d. 89-a. 90-a. 91-d. 92-b.93-b. 94-c. 95-a. 96-d. 97-c. 98-d. 99-b. 100-c. 101-c.102-c. 103-d. 104-b.105-a. 106-b. 107-b. 108-a. 109-b. 110-a. 111-b. 112-d. 113-a. 114-a. 115-b. 116-c. 117-b. 118-a. 119-b. 120-a. 121-b. 122-c. 123-b. 124-c. 125-c. 126-c. 127-a. 128-a. 129-b. 130-c. 131-b. 132-a. 133-b. 134-a. 135-b. 136-d. 137-d. 138-b. 139-a. 140-c. 141-b. 142-c. 143-d. 144-b. 145-b. 146-d. 147-b. 148-c. 149-c. 150-d .