



102215

**BCA/B.Sc. III Semester (CBCS) Degree Examination,  
March/April - 2022**

ಬೇಸಿಕ್ ಕನ್ನಡ

**Paper No. : III - ಸಂಕ್ರಾಂತಿ ಮತ್ತು ಕರ್ವಾಲೋ**

Time : 3 Hours

Maximum Marks : 70

ಸೂಚನೆ : ಭಾಷೆ ಮತ್ತು ಬರಹದ ಶುದ್ಧಿಗೆ ಗಮನ ಕೊಡಲಾಗುವುದು.

1. (a) ಉಷಾ ಮತ್ತು ರುದ್ರ - ಇವರ ಪ್ರೀತಿ-ಪ್ರಣಯ ಸಂಬಂಧಗಳು ದುರಂತದಲ್ಲಿ ಅಂತ್ಯಗೊಂಡ ಬಗೆಯನ್ನು ವಿವರಿಸಿ ಬರೆಯಿರಿ. 10  
ಅಥವಾ  
(b) ರುದ್ರನ ತಲೆದಂಡವಾಗಲು ಬಿಜ್ಜಳ ಮತ್ತು ಬಸವಣ್ಣನವರ ನಡುವಿನ ವಾಗ್ವಾದದ ಸ್ವರೂಪವನ್ನು ಬರೆಯಿರಿ.
2. (a) ಸಂಕ್ರಾಂತಿ ನಾಟಕದಲ್ಲಿ ಮೇಲ್ವಾತಿ ಮತ್ತು ಕೆಳಜಾತಿಗಳ ನಡುವಿನ ಸಂಘರ್ಷವನ್ನು ಕುರಿತು ಬರೆಯಿರಿ. 10  
ಅಥವಾ  
(b) ಉಜ್ಜ ಮತ್ತು ಕೆಂಚ ಬಸವಣ್ಣನವರ ಬೋಧನೆಗಳನ್ನು ನಿರಾಕರಿಸಲು ಕಾರಣವೇನು ?
3. (a) ಕರ್ವಾಲೋನ ಸಂಶೋಧನೆಗೆ ಮಂದಣ್ಣನ ಸಹಾಯವನ್ನು ಕುರಿತು ಬರೆಯಿರಿ. 10  
ಅಥವಾ  
(b) ಹಾರುವ ಓತಿಯನ್ನು ಕಂಡುಹಿಡಿಯಲು ಮಂದಣ್ಣನ ಪಾತ್ರವೇನು ? ಬರೆಯಿರಿ.
4. (a) ಮಂದಣ್ಣನ ಮೇರೇಜು ಪ್ರಸಂಗವನ್ನು ಕುರಿತು ಬರೆಯಿರಿ. 10  
ಅಥವಾ  
(b) ಕರ್ವಾಲೋ ಕಾದಂಬರಿಯ ಕೇಂದ್ರ ಆಶಯವನ್ನು ಬರೆಯಿರಿ.
5. (a) ಅಗ್ನಿರಾಜನ ಕಥೆಯನ್ನು ಕುರಿತು ಬರೆಯಿರಿ. 5  
ಅಥವಾ  
(b) ಕೇರಿಯ ಜನರನ್ನು ಶರಣರನ್ನಾಗಿಸುವ ಪ್ರಯತ್ನದಲ್ಲಿ ರುದ್ರನು ಸಫಲನಾದನೆ ? ವಿವರಿಸಿ ಬರೆಯಿರಿ.
6. (a) ಆಗಸ್ಟ್ 15 ರಂದು ಜೇನು ಎದ್ದ ಪ್ರಸಂಗವನ್ನು ಬರೆಯಿರಿ. 5  
ಅಥವಾ  
(b) ಈಚಲು ಕಾಡಿಗೆ ಸಂಶೋಧಕರ ಭೇಟಿಯ ಕುರಿತು ಬರೆಯಿರಿ.



P.T.O.

7. ಬೇಕಾದ 4 ಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

4x5=20

- (a) ಕೆಂಚ
- (b) ಪಿ. ಲಂಕೇಶ್
- (c) ಉಮಾ ರಮಾ ಸುಮಾ
- (d) ರುದ್ರ
- (e) ಪೂರ್ಣಚಂದ್ರ ತೇಜಸ್ವಿ
- (f) ಕಾಡಿನ ಕೀಟ ಸಂಪತ್ತು
- (g) ಜೇನು ಸೊಸೈಟಿ
- (h) ಕಿವಿ

- o O o -





102776

**B.Sc./B.C.A./GMT III Semester Degree Examination, March/April - 2022**

**ENGLISH (CBCS 2017-18) (New)**

**Paper No. English III - Basic English - III**

Time : 3 Hours

Maximum Marks : 70

---

**Texts :** (1) Othello - Shakespeare.

(2) Communication and analysis skills Ashan Academy.

---

**I. Annotate any two of the following :**

**2x6=12**

- (a) "I kissed thee ere I killed thee. No way but this killing myself, to die upon a kiss".
- (b) "I am not What I am".
- (c) "And, noble signior, If virtue no delighted beauty lack, your son-in-law is far more fair than black."

**II. Write short notes on any two :**

**2x6=12**

- (a) The temptation scene (Act 3, Scene 3)
- (b) Cassio
- (c) Roderigo

**III. Answer any one of the following :**

**1x10=10**

- (a) Sketch the character of Iago.
- (b) Discuss how loyalty is presented as a positive and a negative quality throughout the play.



**P.T.O.**

**IV. Answer any six of the following :**

- (a) Write an imaginary telephone conversation in which you invite your friend to your college day function.
- (b) Write a group discussion among four friends about National Educational Policy 2022.
- (c) Write an Email to Sapnabooks@gmail.com ordering 50 copies of "A Book of Plays". Orient Black Swan.
- (d) Draft a resume for the post of sales Manager at 'Golden Food Products' Bengaluru.
- (e) How do you make a public speech effective ?
- (f) Write a job application for the post of sales Manager at 'Golden Food Products' Bengaluru.
- (g) As a fresher, how do you prepare for a job interview ?
- (h) What are the points to be kept in mind while preparing for a debate ?

- o O o -





**B.Sc./BCA III Semester (CBCS) Degree Examination,  
March/April - 2022**

**HINDI BASIC**

**Paper No. III - Study Of Indian Language**

Time : 3 Hours

Maximum Marks : 70

**Instruction :** लिखावट शुद्ध और देवनागरी लिपि में हो।

पठित पुस्तकें (1) कामना नाटक (2) व्यवसायिक संप्रेषण

1. किन्हीं दो की संदर्भ सहित व्याख्या कीजिए।

2x7=14

- (a) मेरी प्यारी लीला, मान जा। कहे जाती हूँ - जिस दिन तूने उस चमकीली वस्तु के लिए हाथ पसारा, उसी दिन इस दुर्दशा का आरंभ होगा।
- (b) परंतु अब तो तुम इस द्वीप की रानी हो। रानी का क्या ब्याह करके किसी बंधन में पड़ना चाहिए।
- (c) मैं तो विलास को इस पद के उपयुक्त समझती हूँ : क्योंकि इन्हीं की कृपा और परामर्शों से हम लोगों ने बहुत उन्नति कर ली है।

2. किन्हीं दो प्रश्नों के उत्तर लिखिए।

2x10=20

- (a) कामना नाटक की कथावस्तु अपने वाक्यों में विस्तार से लिखिए।
- (b) अंग्रेजों के प्रभाव में आकर भारत की जनता, कैसी बदलती गई। कामना नाटक के आधार पर विस्तार से लिखिए।
- (c) 'विलास' पात्र का चरित्रचित्रण कीजिए।

3. किन्हीं दो प्रश्नों के उत्तर लिखिए।

2x10=20

- (a) संप्रेषण क्या है? मौखिक संप्रेषण पर विस्तार से लिखिए।
- (b) व्यवसायिक पत्रों के उद्देश्यों पर प्रकाश डालिए।
- (c) पत्र की परिभाषा देते हुए, व्यवसायिक पत्र के कार्यों पर विस्तार से लिखिए।



P.T.O.

4. किन्हीं दो पत्रों को लिखिए।

2x5=10

- (a) 'मानक हिन्दी व्याकरण' की किताबें मँगवाने हेतु 'राज कमल' प्रकाशन नयी दिल्ली को एक पत्र लिखिए।
- (b) आप, कपड़े के दुकान का शुभारंभ कर रहे हैं। कार्यक्रम में आमंत्रित करते हुए अपने मित्र को एक पत्र लिखिए।
- (c) आप, केनरा बैंक में नया खाता खुलवाने के लिए केनरा बैंक मैनेजर को एक पत्र लिखिए।

5. किन्हीं दो पर टिप्पणी लिखिए।

2x3=6

- (a) उपसर्ग
- (b) वचन
- (c) प्रत्यय

- o O o -







**B.Sc. III Semester (CBCS) Degree Examination, March/April = 2022**  
**PHYSICS**

**Paper No. III - Electricity, Vector Analysis and Electromagnetic Theory**

Time : 3 Hours

Maximum Marks : 70

**Instruction :** Write answers to **Section-A** questions in first two pages only.

**SECTION - A**

I. Answer the following :

15×1=15

1. How does capacitive reactance vary with frequency of AC ?
2. On which principle, Kirchoff's voltage law is based ?
3. State Thevenin's Theorem.
4. The RMS value of sinusoidal AC is 2A. Calculate its mean value.
5. Define quality factor of an LCR Circuit.
6. Define Wattless Current.
7. What is the function of electron gun in CRO ?
8. What is the use of vertical plates in CRO ?
9. Write one application of Ballistic Galvanometer.
10. What is simple Analog Multimeter ?
11. State Stoke's Theorem.



P.T.O.

12. Mention the value of curl of the gradient of a scalar.
13. State Gauss law in electrostatics.
14. What is Displacement Current ?
15. Define Dipole moment.

### SECTION - B

II. Answer **any five** of the following :

5x5=25

16. Explain colour coding and power ratings of a resistor.
17. State and prove maximum power transfer theorem.
18. Derive an expression for current and impedance in RL series circuit, using J-Notation.
19. Explain the working of a Helmholtz galvanometer.
20. What is low-pass filter ? Derive an expression for cut-off frequency of RC low-pass filter.
21. Derive an expression for electrostatic deflection sensitivity of a CRO.
22. Write a note on poynting vector.

### SECTION - C

III. Answer **any three** of the following :

3x10=30

23. (a) Derive an expression for self inductance of a coil using Anderson's bridge.  
(b) A circuit contains resistance of  $50\ \Omega$ , inductance of  $10\ \text{mH}$  and capacitance of  $20\ \mu\text{F}$  are connected in series to  $220\ \text{V}$ ,  $50\ \text{Hz}$  AC source. Calculate the current in the circuit. 6+4
24. (a) Show that  $\text{curl curl } \mathbf{F} = \text{grad div } \mathbf{F} - \nabla^2 \mathbf{F}$ . 6+4  
(b) Give the physical significance of divergence of a vector field function.





25. (a) Explain the procedure for finding Norton's equivalent circuit. 5+5  
(b) Explain how voltage, frequency and phase of the signals are measured using CRO.
26. (a) State and explain Ampere's circuital law. 5+5  
(b) A Helmholtz galvanometer has coils of radius 0.077 m each and the number of turns  $49\sqrt{5}$ . Calculate the current through the coils which produces a deflection of  $45^\circ$ . ( $B_H = 0.32 \times 10^{-4} \text{ T}$ )
27. (a) Write Maxwell's equations in free space and name the basic laws on which each Maxwell's equations are arrived. 5+5  
(b) Describe Hertz experiment to produce electromagnetic waves.

- o O o -



**B.Sc. III Semester (CBCS) Degree Examination, March/April - 2022**

**MATHEMATICS - V**

**Paper No. 3.1 - Algebra - III**

Time : 3 Hours

Maximum Marks : 60

**Instruction :** Answer **all** the Sections.

**SECTION - A**

Answer **any ten** of the following :

**10x2=20**

1. Define Division Ring and give an example of a commutative ring with unity.
2. In a Ring  $(R, +, \cdot) \forall a, b \in R$  then prove that  $a(-b) = (-a)b = -(ab)$ .
3. In a additive group of a ring  $R$ , is cyclic then prove that  $R$  is commutative.
4. Define Ideal of a commutative ring and give example.
5. Show that the set  $S = \left\{ \begin{pmatrix} a & 0 \\ b & c \end{pmatrix} \mid a, b, c \in \mathbb{Z} \right\}$  is a subring of the ring of  $M_2(\mathbb{Z})$  for all  $2 \times 2$  matrices over the set of integers.
6. If  $f : R \rightarrow R'$  is an isomorphism of rings then prove that isomorphic image of a commutative ring is a commutative ring.
7. Let  $R$  be a ring and  $S$  be an ideal of  $R$  let  $f : R \rightarrow R/S$  be a mapping defined by  $f(a) = S + a, \forall a \in R$  then  $f$  is homomorphism of  $R$  onto  $R/S$ .
8. Define vector space and give an example.

**P.T.O.**

9. Prove that the subset  $W = \{(xyz)/x-3y+4z=0\}$  of the vector space  $R^3$  is a sub group of  $R^3$ .
10. Determine whether the polynomial  $3x^2+x+5$ , is the linear span of the set  $S = \{x^3, x^2+2x, x^2+2, 1-x\}$  of the vector space of all polynomial over the field  $F$ .
11. Determine whether the set  $\{(1, 2, 1), (3, 4, -7), (3, 1, 5)\}$  is a basis of  $V_3(R)$ .
12. Define Rank of Linear Transformation.

### SECTION - B

Answer **any three** of the following :

**3x5=15**

13. If  $(R, +, \circ)$  is a system satisfying all the conditions of a ring with unity 1 except  $a+b=b+a$ , then  $R$  must satisfy  $a+b=b+a \forall a, b \in R$ , and hence  $R$  will be ring.
14. A non-empty subset  $S$  of a ring  $R$  is a subring of  $R$  if and only if
- (i)  $S + (-S) = S$  and
  - (ii)  $SS \subseteq S$
15. Prove that set of all matrices of the form  $\begin{bmatrix} a & 0 \\ b & 0 \end{bmatrix}$  is a left ideal of the ring of  $2 \times 2$  matrices with integral element but not a right ideal.
16. Find all the principal ideals of the ring.  $R = \{0, 1, 2, 3, 4\}$  with respect to addition modulo 5 and multiplication modulo 5.



## SECTION - C

Answer **any three** of the following :

3x5=15

17. The union of two subspaces of a vector space  $V$  over a field  $F$  is a subspace iff one is contained in the other.
18. Express the vectors  $(2, -1, -8)$  as a linear combination of the vectors  $(1, 2, 1)$ ,  $(1, 1, -1)$  and  $(4, 5, -2)$ .
19. Verify whether  $\begin{bmatrix} 3 & -1 \\ 1 & -2 \end{bmatrix}$  is in the linear span of  $\begin{bmatrix} 1 & 1 \\ 0 & -1 \end{bmatrix}$ ,  $\begin{bmatrix} 1 & 1 \\ -1 & 0 \end{bmatrix}$ ,  $\begin{bmatrix} 1 & -1 \\ 0 & 0 \end{bmatrix}$ .
20. Define Basis and Dimension of  $V(F)$  determine whether the set  $\{(1, 2, 3), (-2, 1, 3), (3, 1, 0)\}$  is a basis of  $V_3(R)$ .

## SECTION - D

Answer **any two** of the following :

2x5=10

21. Find the linear transformation  $f: R^2 \rightarrow R^2$  such that  $f(1, 1) = (0, 1)$  and  $f(-1, 1) = (3, 2)$ .
22. Find the matrix of the linear transformation  $T: V_2(R) \rightarrow V_3(R)$  defined by  $T(xy) = (2y - x, y, 3y - 3x)$  relative basis  $B_1 = \{(1, 1), (-1, 1)\}$  and  $B_2 = \{(1, 1, 1), (1, -1, 1), (0, 0, 1)\}$ .
23. Find the range space, kernel and nullity of the linear transformation  $T: V_2(R) \rightarrow V_2(R)$  defined by  $T(xy) = (x + y, x)$  also verify the Rank-nullity Theorem.

- o o o -



**B.Sc. III Semester (CBCS) Degree Examination, March/April - 2022**  
**MATHEMATICS - VI**

**Paper No. 3.2 - Differential Equations - I (NEW)**

Time : 3 Hours

Maximum Marks : 60

**Instruction :** Answer **all** Sections.

**SECTION - A**

Answer **any ten** of the following :

**10×2=20**

1. Find the order and degree of the equation  $\left[1 + \left(\frac{dy}{dx}\right)^2\right]^{3/2} = \frac{d^2y}{dx^2}$ .
2. Verify that  $y = a \cos x + b \sin x$  is the solution of the equation  $\frac{d^2y}{dx^2} + y = 0$ .
3. Solve :  $\frac{dy}{dx} + \sqrt{\frac{1-y^2}{1-x^2}} = 0$
4. Show that the differential equation  $(4x+3y+1)dx + (3x+2y+1)dy = 0$  is exact.
5. Solve :  $(D^3 - 3D^2 + 4D - 2)y = 0$
6. Find the Particular integral of  $(D^2 + 4)y = \cos 2x$ .
7. Solve :  $(D^2 + 3D - 4)y = 12e^{2x}$
8. Find the orthogonal trajectories of the family of parabola  $y^2 = 4ax$ .
9. Solve :  $p^2 - 7p + 12 = 0$

**P.T.O.**

10. Show that the  $(ax - bx^2)y'' + 2ay' + 2by = x$  is exact.
11. Find the integrating factor :  
 $(x+1)y_1 - y = e^x(x+1)^2$
12. Find the General solution of  $(x^2 - 1)p^2 - 2xyp + (y^2 - 1) = 0$ .

### SECTION - B

Answer **any three** of the following :

**3x5=15**

13. Solve :  $\frac{6x - 2y - 1}{3x - y + 4} = \frac{dy}{dx}$
14. Determine suitable integrating factor and solve :  
 $(x^2 + y^2 + x)dx + xydy = 0$ .
15. Find the general and singular solution of  $(px - y)(py + x) = a^2p$  by using  $x^2 = u$  and  $y^2 = v$ .
16. Show that family  $\frac{x^2}{a^2 + \lambda} + \frac{y^2}{b^2 + \lambda} = 1$ , where ' $\lambda$ ' is parameter is self-orthogonal.
17. Solve :  $x \cdot \frac{dy}{dx} + (1 - x)y = x^3y^2$

### SECTION - C

Answer **any three** of the following :

**3x5=15**

18. Solve :  $\frac{d^2y}{dx^2} + 3 \frac{dy}{dx} + 2y = e^{2x} \cdot \sin x$
19. Solve :  $(1+x)^2 \cdot \frac{d^2y}{dx^2} + (1+x) \frac{dy}{dx} + y = 4 \cos \log(1+x)$





20. Solve the simultaneous equations :

$$\frac{dx}{dt} = 3x - y \text{ and } \frac{dy}{dt} = x + y$$

21. Verify the condition of Integrability and solve :

$$z^2 dx + (z^2 - 2yz) dy + (2y^2 - yz - xz) dz = 0.$$

22. Solve :  $\frac{dx}{x^2 + y^2 + yz} = \frac{dy}{x^2 + y^2 - xz} = \frac{dz}{z(x+y)}$

### SECTION - D

Answer **any two** of the following :

**2x5=10**

23. Solve :

$$y'' - \cot x \cdot y' - (1 - \cot x)y = e^x \cdot \sin x \text{ by finding the part of complimentary functions.}$$

24. Verify that the equation  $x^2 y'' + 3xy' + y = \frac{1}{(1-x)^2}$ ,  $0 < x < 1$  is exact and solve it.

25. Solve :  $\frac{d^2 y}{dx^2} - 4x \cdot \frac{dy}{dx} + (4x^2 - 3)y = e^{x^2}$  by Reducing it to normal form.

26. Solve :  $x^8 \cdot \frac{d^2 y}{dx^2} + 3x^7 \cdot \frac{dy}{dx} + a^2 x^2 y = 1$  by changing Independent Variable.

- o o o -



**B.Sc. III Semester (CBCS NEW) Degree Examination, March / April - 2022****CHEMISTRY****Chemistry - III**

Time : 3 Hours

Maximum Marks : 70

- Instructions :** (i) **Section - A** contains questions from Inorganic, organic and physical chemistry.  
(ii) **Section - B** contains questions from Inorganic chemistry, **Section - C** contains questions from organic chemistry, **Section - D** contains questions from physical chemistry.  
(iii) Answer **all** Sections **A, B, C** and **D**.

**SECTION - A**Answer **any ten** of the following.**10x1=10**

1. Why copper becomes green when exposed to moist air for a long time ? **1**
2. Write the unpaired electrons in gaseous species of  $Mn^{+3}$ ,  $Cr^{+3}$  and  $V^{+3}$ . **1**
3. Which of the following products are obtained when  $Na_2CO_3$  is added to a solution of copper sulphate ? **1**
4. Which of the following element is not lanthanoid ? **1**  
(i) Er, (ii) Pu, (iii) Tm, (iv) Tb.
5. How will you distinguish alkene and alkyl halide by bromine test ? **1**
6. How will you distinguish phenol and ethyl alcohol ? **1**
7. Why ethylene glycol shows high boiling point compared to other alcohols ? **1**
8. What are aliphatic monocarboxylic acids ? Give an example. **1**
9. How does Gibbs energy change with temperature ? **1**
10. What are the factors affecting adsorption ? **1**
11. What is residual entropy ? **1**
12. Write Nernst distribution law for molecular association. **1**

**P.T.O.**

## SECTION - B

Answer **any two** of the following questions.

2x10=20

13. (a) Discuss the variation of oxidation states and ionization energies of third transition series. 6  
(b) Describe the catalytic properties of transition elements. 4
14. (a) What is lanthanide contraction ? Explain the cause and its consequence on electronegativity and basicity of oxides and hydroxides. 6  
(b) Discuss in brief variable oxidation states of actinides. 4
15. (a) Discuss Pearson - HSAB principle. 6  
(b) Write a note on symbiosis. 4

## SECTION - C

Answer **any two** of the following.

2x10=20

16. (a) Write the structural formula for all alkyl halides of the molecular formula  $C_4H_9Br$ , name each according to common and IUPAC system. 6  
(b) Write distinguish test for primary, secondary and tertiary alcohols by dichromate test. 4
17. (a) How phenol is prepared from Dow and Cumene process ? 6  
(b) Explain any three methods for the preparation of monohydric alcohols. 4
18. (a) Give any three preparation and properties of monocarboxylic acids. 6  
(b) Write a note on acidity of monocarboxylic acids. 4

## SECTION - D

Answer **any two** of the following questions.

2x10=20

19. (a) Derive Schrodinger and fundamental wave equation. 6  
(b) Explain De-Broglie hypothesis. 4
20. (a) Define third law of thermodynamics and explain the Nernst heat theorem. 6  
(b) State and explain Carnot's theorem. 4
21. (a) Explain Langmuir's Adsorption isotherm. 6  
(b) Derive the partition coefficient for the association of the solute in one of the solvents. 4

- o O o -



**B.Sc. III Semester (CBCS) Degree Examination, March/April - 2022**

**ZOOLOGY - III**

**Paper No. Z.3 - Economic Zoology and Histology**

Time : 3 Hours

Maximum Marks : 70

**Instructions :** (i) Answer **all** the questions.  
(ii) Draw labelled diagrams wherever necessary.

**SECTION - A**

Answer **any five** of the following in **one** or **two** sentences each.

**5x2=10**

1. What are dual purpose breeds ? Which cattle is known as champion of Draft breed ?
2. Define capture fishery and culture fishery.
3. What is Apiculture ? Mention two products of bee-keeping.
4. Define Instar and Voltinism.
5. What is fowl pox disease ? Name the causative agent.
6. Expand CCK and TSH.
7. What is Antrum ? Name the hormone secreted from corpus luteum.

**SECTION - B**

(A) Answer **any four** of the following.

**4x5=20**

8. Write a short note on Catlacatla and Labeo rohitha.
9. Write a note on rearing equipments of sericulture.
10. Briefly explain the modern method of bee-keeping.

**P.T.O.**

11. Give an account of nutritive values of fowls meat.
12. Write a note on utility of cattles other than milk production.
13. Write a note on Pearl culture.

(B) Answer **any two** of the following.

2x5=10

14. Explain the structure of T.S. of Thyroid gland of mammal with a neat labelled diagram.
15. Write a note on histological details of Hepatic lobule.
16. Draw a neat labelled diagram of T.S. of mammalian stomach.

#### SECTION - C

(A) Answer **any two** of the following.

2x10=20

17. Explain sting apparatus of honey-bee with a neat labelled diagram.
18. Mention the classification of fowls and give example. Add a note on diseases of poultry.
19. Describe the life cycle of Bombyx Mori with a neat labelled diagram.

(B) Answer **any one** of the following.

1x10=10

20. Describe the histology of mammalian testes with a neat labelled diagram.
21. Explain the histology of small Intestine with a neat labelled diagram.

- o O o -







**B.Sc. III Semester (CBCS) Degree Examination, March/April - 2022**

**BOTANY**

**Paper No. III - Histology, Anatomy Embryology and Palynology**

Time : 3 Hours

Maximum Marks : 70

**Instructions to Candidates :**

- (i) Answer **all** the questions.
- (ii) Draw the diagram wherever necessary.

**SECTION - A**

**I. Answer all questions :**

**15x1=15**

1. What is Aerenchyma ?
2. Define the Meristematic tissue.
3. Name the simple dead Mechanical tissue.
4. What is Pollenkit ?
5. What is Cleistogamy ?
6. Define Palynology.
7. What is Tapetum ?
8. What is Double Fertilization ?
9. What is Hypostomatic Leaf ? Give an example.
10. Who proposed the tunica-carpus theory ?
11. What is Sap Wood ?
12. Define the term tyloses.
13. What are Bulliform Cells ?
14. Define the term Periblem.
15. What is Parthenocarpy ?



**P.T.O.**



**SECTION - B**

**II.** Answer **any five** of the following :

**5x5=25**

16. Explain the Histogen theory with diagram.
17. Write the contributions of P. Maheshwari.
18. Describe the T.S of Dicot Leaf with diagram.
19. Define Ovule. Explain the types of Ovules.
20. What is simple tissue ? Explain the types of collenchyma with diagram.
21. Define Pollination. Explain the types of pollination.
22. Explain the morphology of Pollen grains.

**SECTION - C**

**III.** Answer **any three** of the following :

**3x10=30**

23. What is Vascular bundle ? Explain the kinds of vascular bundle with diagram.
24. What is Endosperm ? Describe the different types of Endosperm.
25. Explain the Anamalous secondary growth in Boerhaaviastem with neat labelled diagram.
26. Explain the Microsporogenesis with neat labelled diagram.
27. What are complex tissue ? Explain the Elements of xylem.

- o O o -





114140

**B.A./B.Com./B.Sc.(Non-Computer)/B.B.A. III Semester (CBCS)  
Degree Examination, March/April - 2022**

**COMPUTER SCIENCE**

**Fundamentals of Computer and MS-Office**

Time : 3 Hours

Maximum Marks : 70

**SECTION - A**

Answer **any ten** questions. Each question carries **2** marks.

**10x2=20**

1. Define Computer.
2. Name any two Input devices.
3. Who is the father of Computer ?
4. What is software ?
5. Name the types of Computer Language.
6. What is operating system ?
7. What is Desktop ?
8. What is Word Processor ?
9. Write short-cut keys for cut and paste.
10. What is worksheet ?
11. What is cell in excel ?
12. What is presentation ?



**P.T.O.**

**SECTION - B**

Answer **any four** questions. Each question carries **5** marks.

**4x5=20**

13. Draw a neat block diagram of computer and mention the parts.
14. Compare Compiler and Interpreter.
15. What is Folder ? Write the procedure of creating Folder.
16. Write steps to save the document in MS-Word.
17. What is chart ? Write different type of charts in MS-Excel.
18. How do you apply slide transitions ?

**SECTION - C**

Answer **any three** questions. Each question carries **10** marks.

**3x10=30**

19. Write a short note on Computer generation.
20. Explain different types of Computer Language.
21. Define the followings.
  - (a) My Computer
  - (b) My Document
  - (c) Recycle Bin
  - (d) Desktop
  - (e) File
22. Explain mail-merge in MS-Word.
23. With example explain any five functions in Excel.

- o O o -

