



|| Jai Sri Gurudev ||

BGSKH Education Trust(R.) - A unit of Sri Adichunchanagiri Shikshana Trust(R.)
BGS College Of Engineering and Technology



VTU - II Semester June/July - 2024 - Exam
Question Papers

Chemistry Cycle





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BGSKH Education Trust (R.) – A unit of Sri Adichunchanagiri Shikshana Trust(R.)
BGS College of Engineering and Technology
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(Approved by AICTE, New Delhi and Affiliated to VTU, Belagavi)

Chemistry Cycle

II Semester Question Papers June/July - 2024

Sl.No	Name of the Subject	Subject Code
1	Mathematics - II for CSE Stream	BMATS201
2	Applied Chemistry for CSE Stream	BCHES102/202
3	Introduction to Python Programming	BPLCK105B/BPLCKB105
4	Introduction to Electronics and Communication	BESCK104/BESCKC104
5	Scientific Foundations of Health	BSFHK158/BSFHK258/22BD27
6	Indian Constitution	BICOK107/207
7	Professional Writing Skills in English	BPWSK106/22BD2



CBCS SCHEME

USN

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BMATS201

Second Semester B.E./B.Tech. Degree Examination, June/July 2024 Mathematics – II for CSE Stream

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M: Marks, L: Bloom's level, C: Course outcomes.
3. VTU Hand book is permitted.*

Module - 1		M	L	C
Q.1	a. Evaluate $\int_0^a \int_0^x \int_0^{x+y} e^{(x+y+z)} dz dy dx$.	7	L2	CO1
	b. By changing the order of integration evaluate $\int_0^{4a} \int_{x^2/4a}^{2\sqrt{ax}} xy dy dx$.	7	L3	CO1
	c. With usual notation, prove that $\Gamma\left(\frac{1}{2}\right) = \sqrt{\pi}$.	6	L2	CO1
OR				
Q.2	a. Evaluate $\int_0^a \int_0^{\sqrt{a^2-y^2}} y^2 \sqrt{x^2+y^2} dx dy$ by changing into polar coordinates.	7	L3	CO1
	b. Find the area bounded between the parabolas $y^2 = 4ax$ and $x^2 = 4ay$ by double integration.	7	L2	CO1
	c. Using Mathematical tool, write the code to find the volume bounded by the sphere $x^2 + y^2 + z^2 = a^2$ by double integration.	6	L3	CO5
Module - 2				
Q.3	a. Find the directional derivative of $\phi = xy^3 + yz^3$ at the point (2, -1, 1) in the direction of the vector $\hat{i} + 2\hat{j} + 2\hat{k}$.	7	L2	CO2
	b. Verify whether the vector $\vec{F} = \frac{x\hat{i} + y\hat{j}}{x^2 + y^2}$ is both solenoidal and irrotational.	7	L2	CO2
	c. Prove that the cylindrical coordinate system is orthogonal.	6	L2	CO2
OR				
Q.4	a. If $\vec{F} = \nabla(x^3 + y^3 + z^3 - 3xyz)$ find $\text{div } \vec{F}$ and $\text{curl } \vec{F}$.	7	L2	CO2
	b. Find the angle between the normal's to the surface $x^2yz = 1$ at the points (-1, 1, 1) and (1, -1, -1).	7	L3	CO2
	c. Using mathematical tool write the code to find divergence and curl of the vector $\vec{F} = (4xy - z^3)\hat{i} + 2x^2\hat{j} - 3xz^2\hat{k}$.	6	L3	CO5



Module - 3

Q.5	a.	Let W be a subset of $V_3(\mathbb{R})$ consisting of vectors of the form (a, a^2, b) where the second component is the square of the first. Is W a subspace of $V_3(\mathbb{R})$.	7	L2	CO3
	b.	Let P_n be the vector space of real polynomial functions of degree $\leq n$. Verify that the transformation $T : P_2 \rightarrow P_1$ defined by $T(ax^2 + bx + c) = (a + b)x + c$ is linear.	7	L2	CO3
	c.	Find the Kernel and range of the linear transformation $T : \mathbb{R}^3 \rightarrow \mathbb{R}^2$ defined by $T(x, y, z) = (x + y, z)$.	6	L2	CO3

OR

Q.6	a.	Determine whether or not each of the following $x_1 = (2, 2, 1), x_2 = (1, 3, 7), x_3 = (1, 2, 3)$ forms a basis in \mathbb{R}^3 .	7	L2	CO3
	b.	Verify Rank-nullity theorem for the transformation $T : \mathbb{R}^3 \rightarrow \mathbb{R}^3$ defined by $T(x, y, z) = (x + 2y - z, y + z, x + y - 2z)$.	7	L2	CO3
	c.	The inner product of the polynomials $f(t) = t + 2, g(t) = 3t - 2$ in $p(t)$ is given by $\langle f, g \rangle = \int_0^1 f(t)g(t)dt$. Find i) $\langle f, g \rangle$ ii) $\ f\ $ iii) $\ g\ $	6	L2	CO3

Module - 4

Q.7	a.	Find an approximate root of the equation $\cos x = 3x - 1$ correct to four decimal places using Regula Falsi method between 0.5 and 0.7.	7	L2	CO4												
	b.	The area 'A' of a circle of diameter 'd' is given by the following table: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>d:</td> <td>80</td> <td>85</td> <td>90</td> <td>95</td> <td>100</td> </tr> <tr> <td>A:</td> <td>5026</td> <td>5674</td> <td>6362</td> <td>7088</td> <td>7854</td> </tr> </table> Using appropriate Newton's interpolation formula for equispaced values of x , find area of the circle corresponding to the diameter 105.	d:	80	85	90	95	100	A:	5026	5674	6362	7088	7854	7	L2	CO4
d:	80	85	90	95	100												
A:	5026	5674	6362	7088	7854												
	c.	Evaluate $I = \int_0^5 \frac{1}{4x+5} dx$ by Simpson's $1/3^{\text{rd}}$ rule by considering 10 sub intervals. Hence find an approximate value of $\log 5$.	6	L3	CO4												

OR

Q.8	a.	Find the real root of $x \log_{10} x = 1.2$ correct to four decimals that lies near 2.5 using Newton Raphson method.	7	L2	CO4												
	b.	Fit a polynomial for the following data using Newton's divided difference formula: <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x:</td> <td>-4</td> <td>-1</td> <td>0</td> <td>2</td> <td>5</td> </tr> <tr> <td>y:</td> <td>1245</td> <td>33</td> <td>5</td> <td>9</td> <td>1335</td> </tr> </table>	x:	-4	-1	0	2	5	y:	1245	33	5	9	1335	7	L2	CO4
x:	-4	-1	0	2	5												
y:	1245	33	5	9	1335												
	c.	Use trapezoidal rule to find $\int_0^{0.6} e^{-x^2} dx$ by taking seven ordinates.	6	L3	CO4												

Module - 5

Q.9	a.	Employ Taylor's series method to obtain approximate solution at $x = 0.1$ and $x = 0.2$ for the initial value problem $\frac{dy}{dx} = 2y + 3e^x$, $y(0) = 0$.	7	L2	CO4
	b.	Apply Runge-Kutta method of fourth order to find an approximate solution at $x = 0.1$ given $\frac{dy}{dx} = 3x + y/2$, $y(0) = 1$.	7	L2	CO4
	c.	Apply Milne's predictor - corrector method to solve the equation $(y^2 + 1)dy - x^2dx = 0$ at $x = 1$ given $y(0) = 1$, $y(0.25) = 1.0026$, $y(0.5) = 1.0206$, $y(0.75) = 1.0679$.	6	L2	CO4
OR					
Q.10	a.	Apply modified Euler's method to find solution at $x = 0.1$ by taking $h = 0.1$ given $y' = x^2 + y^2$, $y(0) = 0$.	7	L2	CO4
	b.	Find an approximate solution of $\frac{dy}{dx} = \frac{y^2 - x^2}{y^2 + x^2}$, $y(0) = 1$ at $x = 0.2$ using Runge-Kutta method of order four.	7	L2	CO4
	c.	Write the mathematical tool code to solve $\frac{dy}{dx} = x^2 + y$, $y(0) = 10$ using Taylor's series method at $x = 0.1(0.1)0.3$. Consider the terms upto fourth degree.	6	L3	CO5



CBCS SCHEME

BCHE102/202

USN

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2024
Applied Chemistry for CSE Stream

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
 2. VTU Formula Hand Book is permitted.
 3. M: Marks, L: Bloom's level, C: Course outcomes.*

Module - 1				M	L	C
Q.1	a.	What are electrochemical sensors? Explain the principle and working of electrochemical sensor.	07	L1	CO1	
	b.	Explain the principle, working and any two applications of optical sensor.	06	L1	CO1	
	c.	What is Quantum Dot sensitized solar cell? Explain the construction and working of Quantum Dot sensitized solar cell.	07	L1	CO1	
OR						
Q.2	a.	Explain the detection of bio-molecule ascorbic acid using disposable sensor and also write the electro oxidation reaction.	07	L1	CO1	
	b.	Explain the working principle of electrochemical gas sensors for the detection of SO _x and NO _x .	06	L1	CO1	
	c.	Explain the construction and working of Li-ion battery. Mention any two applications.	07	L1	CO1	
Module - 2						
Q.3	a.	What are memory devices? Explain the classification of electronic memory devices.	07	L2	CO2	
	b.	Define optoelectronic device. Explain the working principle of optoelectronic device.	06	L2	CO2	
	c.	What are liquid crystals? Explain the classification of liquid crystals.	07	L2	CO2	
OR						
Q.4	a.	Explain the types of organic memory devices by talking p-type and n-type semiconducting materials.	07	L2	CO2	
	b.	Explain any three properties and applications of polythiophene (P3HT) suitable for optoelectronic devices.	06	L2	CO2	
	c.	What is QLED? Mention any three properties and applications of QLED.	07	L2	CO2	
Module - 3						
Q.5	a.	Define metallic corrosion. Explain electrochemical theory of corrosion.	07	L3	CO3	
	b.	A thick steel sheet of area 400 inch ² is exposed to moist air. After 2 years of period, it was found to experience a weight lost of 375g due to corrosion if the density of steel is 7.9 g/cm ³ , calculate CPR in mpy and mmpy.	06	L1	CO3	
	c.	What are reference electrodes? Explain the construction, working and applications of calomel electrode.	07	L1	CO3	
OR						
Q.6	a.	What is galvanization? Explain galvanization of Iron. Mention its applications.	07	L1	CO3	
	b.	What are concentration cells? Calculate the cell potential of the following cell at 298 K. Ag AgNO ₃ (0.005M) AgNO ₃ (0.5M) Ag	06	L1	CO3	
	c.	Explain the principle and instruction of conductometry taking estimation of weak acid using a strong base as an example.	07	L2	CO3	



Module – 4			
Q.7	a.	In a sample of a polymer 20% molecules have molecular mass 15,000g/mol, 35% molecules have molecular mass 20000g/mol. Calculate the number average and weight average molecular mass of the polymer.	07 L3 CO4
	b.	Explain the preparation of Kevlar. Mention any four applications.	06 L2 CO4
	c.	Explain the generation of hydrogen by Alkaline water electrolysis with a neat labelled diagram.	07 L2 CO4
OR			
Q.8	a.	What are conducting polymers? Explain the conduction mechanism in polyacetylene through oxidative doping technique. Mention any two applications.	07 L3 CO4
	b.	What are PV cells? Explain the construction and working of photovoltaic cell.	06 L2 CO4
	c.	Explain the generation of hydrogen by proton exchange membrane electrolysis.	07 L2 CO4
Module – 5			
Q.9	a.	Define E-waste. Explain the sources and composition of E-waste.	07 L2 CO5
	b.	Explain the ill effects of materials used in manufacturing electrical and electronic products.	06 L2 CO5
	c.	Explain pyrometallurgical process of extraction of E-waste.	07 L2 CO5
OR			
Q.10	a.	Explain the extraction of gold from E-waste.	07 L2 CO5
	b.	Explain direct recycling of E-waste.	06 L2 CO5
	c.	Write a brief note on role of stakeholders for example, producers consumers, recyclers and statutory bodies in management of E-waste.	07 L2 CO5

CBCS SCHEME

USN

1	M	P	2	3	A	D	0	3	3
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BPLCK205B / BPLCKB205

Second Semester B.E./B.Tech. Degree Examination, June/July 2024 Introduction to Python Programming

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

Module - 1			M	L	C
Q.1	a.	Explain with example print(), input() and len().	6	L2	CO1
	b.	Explain elif, for, while statement in python with example.	6	L2	CO1
	c.	Develop a program to generate Fibonacci sequence of Length(N).Read N from the console.	8	L3	CO1
OR					
Q.2	a.	What are functions? Explain python function with parameters and return statement.	6	L2	CO1
	b.	How to handle exception in python with example.	6	L2	CO1
	c.	Explain Local and Global scope with variables for each.	8	L2	CO1
Module - 2					
Q.3	a.	Explain the use of in and not in operator in list with examples.	6	L2	CO2
	b.	Explain negative Indexing, slicing, index(), append(), remove(), pop(), insert() and sort() with suitable example.	8	L2	CO2
	c.	Write about Mutable and Immutable data type in list.	6	L2	CO2
OR					
Q.4	a.	Explain the following list methods with examples, i) index() ii) append() iii) insert() iv) sort() v) reverse() vi) List concatenation and Replication.	10	L2	CO2
	b.	Develop a program to read the student details like Name, USN and Marks in three subjects. Display the student details, total marks and percentage with suitable messages.	10	L3	CO2
Module - 3					
Q.5	a.	Illustrate with example opening of a file with open() function, reading the contents of the file with read() and writing to files with write().	10	L2	CO3
	b.	Explain how to save variable with the shelve module.	10	L2	CO3



OR					
Q.6	a.	Explain the following string methods with examples. i) isalpha() ii) isalnum() iii) isdecimal() iv) isspace() v) istitle().	10	L2	CO3
	b.	Explain about in and not in operators in string.	5	L2	CO3
	c.	Explain about pyperclip module.	5	L2	CO3
Module – 4					
Q.7	a.	What are Assertions? Write the contents of an assert statement. Explain them with examples.	10	L2	CO3
	b.	Develop a program with a function named DivExp which takes Two parameters a, b and returns a value c(c = a/b), write suitable assertion for a > 0 in function DivExp and raise an exception for when b = 0. Develop a suitable program which reads two values from the console and calls a function DivExp.	10	L3	CO3
OR					
Q.8	a.	Explain about files and folders can be copied using shutil module.	10	L2	CO3
	b.	Explain about Debug control window.	10	L2	CO3
Module – 5					
Q.9	a.	Explain about class and objects.	10	L2	CO4
	b.	Explain about pure function and modifier.	10	L2	CO4
OR					
Q.10	a.	Explain the concept of prototyping Vs planning.	10	L2	CO4
	b.	Explain _init_ and _str_ methods with examples.	10	L2	CO4

CBCS SCHEME

USN

1	M	P	2	3	A	T	0	0	8
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BESCK204C/BESCKC204

Second Semester B.E./B.Tech. Degree Examination, June/July 2024 Introduction to Electronics and Communication

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks, L: Bloom's level, C: Course outcomes.*

Module - 1			M	L	C
Q.1	a.	Draw the block diagram of Regulated power supply and mention the function of each block.	8	L2	CO1
	b.	With the use of circuit diagram and waveforms, explain the working of Half wave rectifier with capacitor filter.	8	L2	CO1
	c.	Mention advantages of -ve feedback.	4	L1	CO1
OR					
Q.2	a.	List out and explain the various types of amplifiers.	8	L1	CO1
	b.	With neat diagram, explain the concept of negative feedback amplifier.	7	L2	CO1
	c.	Write a note on Multistage amplifiers.	5	L1	CO1
Module - 2					
Q.3	a.	Explain the working of RC- ladder network oscillator.	6	L2	CO2
	b.	Define Multivibrators. Explain the working of single stage astable multivibrator with diagram.	8	L1	CO2
	c.	Explain its working of Weinbridge Oscillator with diagram.	6	L2	CO2
OR					
Q.4	a.	Define the following terms with respect to the Op_Amp : i) CMRR ii) Slew rate iii) Supply voltage rejection ratio iv) Input offset voltage v) Input offset current.	10	L1	CO2
	b.	Explain how Op_Amp can be used as i) Voltage follower ii) Integrator.	10	L2	CO2
Module - 3					
Q.5	a.	Convert i) $(3568)_{10} = (?)_2$ ii) $(3FD)_{16} = (?)_2$ iii) $(110111)_2 = (?)_{10}$ iv) $(1234)_{10} = (?)_8$ v) $(5678)_{10} = (?)_{16}$.	10	L2	CO3
	b.	Write any four Boolean theorems and Identities.	10	L1	CO3
OR					
Q.6	a.	Simplify the following Boolean functions : i) $Y = A\bar{B} + AB$ ii) $F = B[(A + \bar{B})(B + C)]$ iii) $Z = B(A + C) + C$.	8	L3	CO3



	b.	Explain Half adder circuit with truth table, Realize the circuit for sum and carry using basic gates.	8	L2	CO3
	c.	Write the Symbol and Truth Table of AND and OR – Gate.	4	L1	CO3
Module – 4					
Q.7	a.	Define Embedded system and explain the classification of Embedded system based on Complexity and Deterministic behavior.	10	L2	CO4
	b.	Compare Embedded system and General computing system.	6	L1	CO4
	c.	List out the major applications areas of Embedded system.	4	L1	CO4
OR					
Q.8	a.	With the use of diagram, explain the core of an Embedded system.	8	L2	CO4
	b.	Compare RISC and CISC.	6	L1	CO4
	c.	Write a short notes on Sensors and 7 – segment LED displays.	6	L2	CO4
Module – 5					
Q.9	a.	With the help of block diagram, explain the basic Communication system.	10	L2	CO5
	b.	Define Noise and explain the various kinds of noises.	10	L2	CO5
OR					
Q.10	a.	Define Multiplexing and explain types of Communication systems.	8	L2	CO5
	b.	Classify and explain the Multiple Access Techniques.	8	L2	CO5
	c.	Mention the Need for Modulation.	4	L1	CO5

CBCS SCHEME

BSFHK158/BSFHK258/22BD27

USN

Question Paper Version : C

First/Second Semester B.E./B.Tech./B.Design Degree Examination,
June/July 2024

Scientific Foundations of Health

[Max. Marks: 50

Time: 1 hr.]

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the fifty questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.
4. Darkening two circles for the same question makes the answer invalid.
5. Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.

1. Factors leading to addiction
a) Environment
b) Both a and b
c) Drug
d) Genes
2. Which of the following is not a type of addiction?
a) Drug
b) Alcohol
c) Behavioural
d) Yoga practicing
3. Symptoms of substance use disorder
a) Impaired control
b) Social problem
c) Having intense usage for the drug
d) All of these
4. Recognizing the addictions
a) Problems at work
b) Physical health issue
c) Changes in behavior
d) All of these
5. Which of the following is a protective factor of addictive people?
a) Good self control
b) Parental monitoring and support
c) Positive relationships
d) All of these
6. Which is an example of health hazard?
a) Cardiovascular disease
b) Cancer
c) Stroke
d) All of these

BSFHK158/BSFHK258/22BD27

7. What are the different sources of infection?
a) Patients
b) Health care workers
c) Visitors and Household workers
d) All of these
8. Which one is a type of infective agent?
a) Bacteria
b) Virus
c) Both a and b
d) None of these
9. How to reduce risk for good health?
a) Be a non-smoker
b) Be physically active every day
c) Achieve a healthy weight
d) All of these
10. Which is not the risk factor for addictive people?
a) Aggressive behavior in childhood
b) Lack of parental supervision
c) Good social skills
d) Poor social skills
11. According to WHO, what is health?
a) Health is a state of complete physical, mental and social well being and not the absence of disease.
b) Health is not a state of complete physical, mental and not the absence of disease.
c) Complete physical, mental and social well being and not the presence of disease
d) None of these
12. Advantages of good health
a) Reduces confidence
b) Improves brain health and confidence
c) Increased stress
d) Reduces performance
13. What is balanced nutrition?
a) A healthy nutrition diet provides the body with non essential nutrition.
b) A healthy nutrition diet provides the body with essential nutrition: fluid, macronutrients such as protein, vitamins, adequate fibre and food energy.
c) Nutrition is adequate fibre and food energy.
d) None of these
14. What are the examples of positive attitude?
a) Teasing others
b) Looking at the glass half full
c) Looking at the glass half empty
d) None of these
15. The only disability in life is a _____.
a) Bad attitude
b) Positive attitude
c) Commenting on life
d) Making fun on others
16. What factors influencing Good Health?
a) State of our environment and genetics
b) Income and education
c) Relationship with friends and family
d) All of these
17. What is the key to having a positive attitude?
a) Always do your best
b) Do only what you think you can
c) Think you can't do anything
d) Believe in yourself
18. Individual personality is influenced by
a) Experiences
b) Environment
c) Inherited characteristics
d) All of these

Version - C - 1 of 5



19. Well being also involved reducing the risk of an injury or health issue by
- Minimizing hazards in the work place
 - Using contraceptive when having sex
 - Avoiding the use of tobacco, alcohol and illegal drug
 - All of these
20. How does personality affect health?
- Failure in handle stress
 - Failure in activity level
 - Avoiding bad habits
 - None of these
21. Which is an example for acute health change condition?
- Heart disease
 - Cancer
 - Diabetes
 - Cold and cough
22. Health is _____
- Money
 - Wealth
 - Gold
 - Diamond
23. Which of the following are not major health issues?
- Malnutrition
 - Obesity
 - Anaemia
 - Fever
24. Preventive measures against disease for good health
- Avoid touching your face
 - Stay home if you are sick
 - Avoid contaminated food and water
 - All of these
25. Who proposed the biopsychosocial model?
- Freud
 - Sonntag
 - Engel
 - None of these
26. Which of the following charters defined health promotion as "the process of enabling people to increase control over and to improve their health"?
- Charter of United Nations (1945)
 - Tokyo Charter (1946)
 - Ottawa Charter (1986)
 - None of these
27. HIV is a retrovirus that infects and colonizes cells in the _____
- Immune system
 - Immune system and central nervous system
 - Endocrine system
 - Immune system and Endocrine system
28. In 2015, the global prevalence of HIV infection was _____
- 0.2%
 - 0.4%
 - 0.6%
 - 0.8%
29. In H.J. Eysenck's twentieth - century theory of personality, how did he reinterpret the classical phlegmatic temperament?
- Stable extrovert
 - Stable introvert
 - Unstable extrovert
 - Unstable introvert
30. In which year WHO did the first express "the right to health" as a fundamental human right?
- 1946
 - 1952
 - 1987
 - 2000

Version - C - 3 of 5

31. How many minutes should an average person walk a day?
- 30 minutes
 - 40 minutes
 - 20 minutes
 - 60 minutes
32. What is the recommended daily water intake?
- 0.5 litre
 - 1 litre
 - 2 litres
 - 4 litres
33. Oral communication ensures _____ and _____
- Fluency and speed
 - Adequate response and immediate response
 - Speedy interaction and speed response
 - Fast and attention
34. The primary goal of communication is to
- To create barriers
 - To create noise
 - To effect a change
 - None of these
35. Body language play a important role in _____
- Communication
 - Judgment
 - Both A and B
 - None of these
36. Ways to improve the communication skill:
- Active listening skill
 - Passive listening skill
 - Both A and B
 - None of these
37. Which of the following is not a communication skill?
- Listening
 - Feedback
 - Conversation
 - Playing game
38. Which of the following is barrier of communication?
- No interest in conversation
 - Ability to listen
 - Transparency and Trust
 - None of these
39. What is not a basic instincts of Human life?
- Self-perserverance
 - Sexual instinct
 - Social instinct
 - Making wealth and property all time
40. Which of the following social engineering changes the Health behaviours?
- Banning the use of certain drugs
 - Providing purified water to people
 - Legalizations can be passed to make environment healthier
 - All of these
41. The source of antioxidant and minerals
- Vegetables and fruit
 - Coke and pizza
 - Mutton and meat
 - Baked foods
42. Which of the following is whole grain food?
- Brown rice and wild rice
 - Oat's meal
 - Ragi, ball and Barley malt
 - All of these

Version - C - 4 of 5

BSFH1K158/BSFH1K258/22BD27

43. Excessive intake of food leads to _____
a) Obesity
b) Fit body
c) Over smartness
d) Lowest body caloric
44. Which of the following components are major nutrients in our food?
a) Carbohydrates
b) Lipids and proteins
c) Vitamins and Minerals
d) All of these
45. Egg is a rich source of _____
a) Proteins
b) Vitamins
c) Minerals
d) None of these
46. Potatoes, beans, pulses and oats are rich in _____
a) Proteins
b) Vitamins
c) Minerals
d) Carbohydrates
47. Which of the following food items provides dietary fibre?
a) Pulses
b) Whole grain
c) fruits and vegetables
d) Pizza
48. Which of the following food components are rich in fat?
a) Rice and Maize
b) Milk, egg and beans
c) Butter, cheese and oil
d) None of these
49. Which of the following vitamin helps in blood clotting
a) Vitamin - A
b) Vitamin - C
c) Vitamin - D
d) Vitamin - K
50. Guava, Lemon, Orange and Tomato are rich in _____
a) Vitamin - A
b) Vitamin - B
c) Vitamin - C
d) Vitamin - D



22. A proclamation of emergency issued under Article 352 must be approached by the Parliament within
 a) 3 Months b) 2 Months c) 1 Month d) 6 Weeks
23. The President's Rule in a state means that the state is ruled by
 a) A caretaker Government
 b) The Chief Minister nominated by President
 c) The Governor of the state
 d) The President directly
24. The control of the preparation of electoral rolls for parliament and legislature rests with the
 a) President b) Election Commission
 c) Cabinet d) Prime Minister
25. In India, Political parties are given recognition by
 a) Election Commission b) Speaker of Lok Sabha
 c) President d) Law Commission
26. Which article deals with Constitutional amendment procedures in India
 a) A 370 b) A 368 c) A 350 d) A 320
27. Center can declare Constitutional emergency in a state under article
 a) A 152 b) A 365 c) A 360 d) A 356
28. The Lengthiest Constitutional amendment in India was
 a) 44th amendment b) 49th amendment
 c) 42nd amendment d) 92nd amendment
29. Election Commission conducts the election as per
 a) People's Representative Act b) Parliament act
 c) Judicial act d) All of these
30. In terms of election laws of India, electioneering ceases in a constituency at least _____ hours before the commencement of the polling.
 a) 48 b) 36 c) 24 d) 12
31. "Equal pay for Equal work" is
 a) Gandhian principle b) Sonolastic principle
 c) Liberal principle d) All of these
32. Article 22 of the Indian Constitution protects:
 a) Senior citizens b) Women
 c) Children d) Rights of arrested persons.
33. This is not a Fundamental Duty
 a) To develop scientific temper b) To protect natural environment
 c) Not to indulge in corrupt practice d) To abide by the constitution
34. Which one of the following directive principles can be described as Gandhian in nature?
 a) Providing equal pay for equal work for both men and women.
 b) Worker's participation in management.
 c) Organization of village panchayats as units of self-government.
 d) Separation of Judiciary from the executive.
35. Directive principles of state policies are
 a) Non-Judiciable b) Justiciable
 c) Only some are Justiciable d) None of these

Version - C - 3 of 4

36. The president gives his resignation to the
 a) Chief Justice b) Parliament c) Vice President d) Prime Minister
37. The governor of a state is appointed by the president on the advice of the
 a) Prime Minister b) Vice-President c) Chief Minister d) Chief Justice
38. Who appoints the Prime Minister of India?
 a) Lok Sabha b) President c) Parliament d) Citizens of India
39. Minimum age required to contest for office of the president
 a) 23 yrs b) 21 yrs c) 35 yrs d) 30 yrs
40. Who among the following, has the right to sanction the expenditure of public money in India?
 a) Speaker b) President c) Prime Minister d) Parliament
41. The Fundamental Rights granted by the Constitution of India to its citizens cannot be suspended.
 a) Except by an order of the Supreme Court
 b) Under any circumstances
 c) Except by an order of the president during National Emergency
 d) Except through an order of the President during war.
42. Our Constitution grants to the citizens _____ fundamental rights.
 a) Six b) Five c) Ten d) Seven
43. The fundamental duties of Indian citizen are contained in
 a) Part III of Constitution b) Part IV of Constitution
 c) The seventh schedule of the Constitution d) Part IV (a) of the Constitution
44. Preamble declares the objectives of Constitution as
 a) Secularism b) Justice, Liberty, Equality and Fraternity
 c) Democratic Socialist d) Liberalism
45. Secularism means
 a) Absence of State Religion b) Right of religious freedom
 c) Equality of all religions d) All of these
46. Free legal assistance for economically backward people is a _____
 a) Fundamental Right b) Fundamental duty
 c) Directive principles of state policy d) Special provision
47. Indian Constitution has
 a) 12 schedules b) 7 schedules c) 9 schedules d) 10 schedules
48. Which is not a Fundamental Right
 a) Right to freedom b) Right to Equality
 c) Right to Constitutional Remedies d) Right to property.
49. Three types of Justice referred in our preamble are.
 a) Social, Economic and Political b) Economic, International and Political
 c) Economic, Religious and Social d) Religious, Social and Political
50. The preamble of the Constitution of India has been amended so far
 a) Four times b) Three c) Twice d) Once

Version - C - 4 of 4

Directions : Rearrange the sentence :

21. defined as a place (a) where man is passive (b) and the rest of the nature is active (c) a sanctuary may be (d)
 a) a, b, c, d
 b) d, c, a, b
 c) b, c, d, a
 d) d, a, b, c
22. are simply at a loss (a) of 500 and 1000 rupee notes (b) all the corrupt politicians and their cronies (c) after the demonetization (d)
 a) c, a, d, b
 b) b, a, c, d
 c) d, c, b, a
 d) b, c, a, d
23. Which among the following are barriers to listening?
 a) Forged attention
 b) Poor interpersonal relations
 c) Premature evaluation
 d) All of these
24. Which among the following should not be implemented for effective listening?
 a) Having an open mind
 b) Not being prejudiced
 c) Employing critical thinking
 d) Asking irrelevant questions
25. A business letter must be.
 a) written in proper format
 b) short and concise
 c) polite in tone
 d) All of these
26. The date on a business letter should appear after the salutation.
 a) True
 b) False
27. This format of the letter has the heading, dateline, complimentary closure and signature right aligned.
 a) Block format
 b) Informal format
 c) Modified block format
 d) None of these
28. Which among the following is not to be mentioned in a resume?
 a) Educational qualification
 b) Work experience
 c) Strengths
 d) Weaknesses
29. The _____ format of resume lists your work history with dates, with your most recent employer and job title listed first.
 a) Historical
 b) Functional
 c) Chronological
 d) All of these
30. BCC in an email refers to :
 a) British council careers
 b) Blind carbon copy
 c) Booked carbon copy
 d) None of these
31. The cover letter is written.
 a) To introduce oneself as the suitable candidate for the job.
 b) To give biographical details of the candidate.
 c) To try for the job
 d) To let the employer know of our writing skills

Ver D - 3 of 5

32. _____ communication is a direct, written or oral communication that occurs between two or more persons
 a) Interpersonal
 b) Extra-personal
 c) Intrapersonal
 d) None of these
33. In a group discussion one must communicate with.
 a) Hostility
 b) Arrogance
 c) Long sentences
 d) Knowledge
34. Which among the following should not be followed while appearing for an interview?
 a) Arriving late to the venue
 b) Knowing your resume
 c) Being formally dressed
 d) Knowledge of the company
35. When giving a presentation in front of an audience you should do all of the following except :
 a) Speak loud and clear
 b) Provide handouts if needed
 c) Dress professionally
 d) Lack of eye contact with the audience
36. A group discussion checks and monitors,
 a) Leadership skills
 b) Listening ability
 c) Confidence
 d) All of these
37. Communication helps to make accurate decisions and influence organizational performance positively.
 a) True
 b) False
- Directions : Choose a suitable verb to complete the sentence :
 38. One of our employees _____ retiring today.
 a) are
 b) is
 c) were
 d) none of these
39. Either the teacher or the student _____ to be blamed for his performance in the final exam.
 a) are
 b) is
 c) were
 d) none of these
- Directions : Fill in the blanks with suitable phrasal verbs :
 40. His arrogance _____ his ruin.
 a) brought in
 b) brought up
 c) brought about
 d) none of these
41. Henry _____ the magazine quickly.
 a) Looked through
 b) Looked up
 c) Looked in
 d) None of these
- Directions : Fill in the Blanks :
 42. What actually scared us _____ the fact that there was no one around to help us.
 a) were
 b) was
 c) with
 d) all of these

Ver D - 4 of 5

43. He was the man _____ they thought was dead.
a) of _____ b) who _____ c) whom _____ d) all of these _____
44. The flowers smell _____.
a) Sweet _____ b) Sweetly _____ c) Sweeter _____ d) Sweetest _____
45. The Guptas are travelling _____ plane.
a) at _____ b) in _____ c) on _____ d) by _____
46. Which of the following sentence does not contain misplaced modifier?
a) Tired after a long day at work, Rita napped with her cat.
b) Happy that school was over, the afternoon was quite relaxing
c) We glued together the vase we broke quietly
d) My uncle had to see a doctor with indigestion

Directions : Fill in the blanks with suitable tenses :

47. Suddenly she gave a loud scream and _____ to the ground.
a) had fallen _____ b) has fallen _____ c) fell _____ d) none of these _____
48. The room _____ but the police failed to find anything suspicious.
a) Searched _____ b) was searched _____ c) had searched _____ d) none of these _____

Directions : Change the voice of the following sentences :

49. You need to clean your shoes properly.
a) Your shoes are needed to clean properly.
b) You are needed to clean your shoes properly.
c) Your shoes need to be cleaned properly.
d) Your shoes are needed by you to clean properly
50. James watt discovered the energy of steam.
a) The energy of steam discovered James watt
b) The energy of steam was discovered by James watt
c) James watt discovering the energy of steam
d) James watt had been discovered energy by the steam

