Sub. Code 301NM1

# B.Voc. DEGREE EXAMINATION, NOVEMBER – 2024 Fashion Technology

## NME: FUNDAMENTALS OF APPAREL DESIGNING

(CBCS - 2022 onwards)

Time: 3 Hours		Maximum : 75 Marks				
	Part A	$(10 \times 1 = 10)$				
Answer all the following objective questions by choosing						

1. Recall the term that refers to a particular look or characteristic in apparel (CO1, K1)

the correct option.

- (a) Chic
- (b) Fad
- (c) Fashion
- (d) Style
- 2. Applied design is also called

(CO1, K1)

- (a) Conventional
- (b) Structural
- (c) Naturalistic
- (d) Decorative

3. Which of the following creates a center of interest by focusing the attention on a specific area of a garment (CO2, K1)

- (a) Unity
- (b) Harmony
- (c) Emphasis
- (d) Proportion

4. Which of the following is three dimensional? (CO2, K1)

- (a) Shape
- (b) Texture
- (c) Form
- (d) Line

5.	Nan beer	f cloth or clothing v	which has (CO3, K1)		
	(a)	Seam	(b)	Seam finish	
	(c)	Hem	(d)	Pleat	
6.	Reco	ognize the seam th	at ca	nnot be used on thi	ck fabrics (CO3, K1)
	(a)	Plain	(b)	French	
	(c)	Pinked seam edge	e (d)	Top stitched	
7.	forn		_	a shaped pattern p d provides support	
	(a)	Collar	(b)	Sleeve	
	(c)	Yoke	(d)	Seam	
8.	Whi		ıg is	bodice and sleeve	combined (CO4, K1)
	(a)	Circular sleeve	(b)	Raglon	
	(c)	Magyar	(d)	Cap sleeve	
9.	Mea	asurements are use	d for	•	(CO5, K1)
	(a)	Fitting	(b)	Drafting	
	(c)	Standardization	(d)	All the above	
10.		requires a	lot of	fabric.	(CO5, K1)
	(a)	Drafting			
	(b)	Draping			
	(c)	Flat pattern desig	gning		
	(d)	All the above			
			2		R2309

**Part B**  $(5 \times 5 = 25)$ 

Answer all the questions not more than 500 words each.

11. (a) Explain about types of design. (CO1, K2)

Or

- (b) List the requirements of a good structural design. (CO1, K2)
- 12. (a) How can you bring balance in a child's frock? Illustrate. (CO2, K3)

Or

- (b) Explain about Line as an element of Design. (CO2, K2)
- 13. (a) Write about seam finishes and its importance. (CO3, K2)

Or

- (b) Explain about cutting tools. (CO3, K2)
- 14. (a) Describe the characteristics of a good placket. (CO4, K3)

Or

- (b) Illustrate three different types of skirts. (CO4, K3)
- 15. (a) Explain the importance of body measurements. (CO5, K2)

Or

(b) Explain about the principles of pattern drafting. (CO5, K3)

R2309

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Illustrate and explain fashion cycle. (CO1, K4)

Or

- (b) Summarize about any four fashion designers. (CO1, K4)
- 17. (a) Explain about elements of design. (CO2, K3)

Or

- (b) Discuss about rhythm and its types. (CO2, K3)
- 18. (a) Explain about types of fullness. (CO3, K3)

Or

- (b) Define hems and explain its types. (CO3, K3)
- 19. (a) Elaborate on the types of collars. (CO4, K4)

Or

- (b) Outline about how variations can be created in Yokes. (CO4, K4)
- 20. (a) Describe the steps in preparing the fabric for cutting. (CO5 K3)

Or

(b) Explain the methods of pattern making. (CO5, K3)

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R2309

Sub. Code 302NM1

# B.Voc. DEGREE EXAMINATION, NOVEMBER - 2024

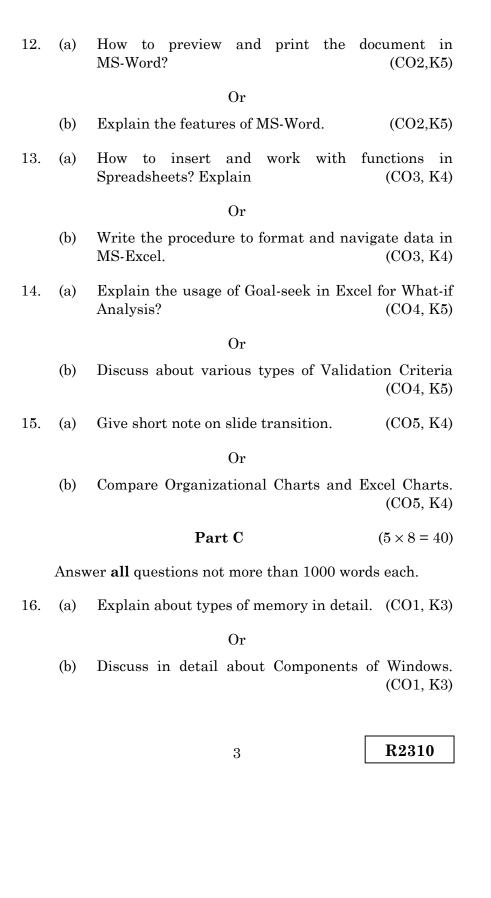
# **Software Development**

NME: OFFICE AUTOMATION

(CBCS – 2022 onwards)

(CDCS = 2022					onwarus)					
Time: 3 Hours					Ma	aximu	m:7	5 Ma	rks	
Part A			rt A				(10	× 1 =	10)	
swer a	<b>all</b> the f					_	stions	by ch	noosii	ng
_		Circuit	ts	used	in	whic	ch g			
(a)	First (	Generat	ion	(b)	Seco	ond G	enera	tion		
(c)	Third	Generat	tion	(d)	Fou	rth G	enera	tion		
		_ is not	t the	e cha	racte	ristic	s of t		_	
(a)	Diliger	nce		(b)	I.Q					
(c)	Accura	асу		(d)	Vers	satilit	ty			
MS-V	Word is	used fo	r			_•		((	CO2,	K5)
(a)	Design	n Pictur	es	(b)	Desi	ign V	ideos			
(c)	Paint			(d)	Desi	ign T	exts			
Dete	ct sp	elling ——	and	l gr	amm	ıar	error			_
(a)	Shifi+	F7		(b)	F7					
(c)	Ctrl+F	77		(d)	Alt+	-F7				
	Integration (a) (a) (c)  (a) (c)  MS-V (a) (c)  Determination (a)	Integrated computer?  (a) First (c) Third  (a) Diliger (c) Accura  MS-Word is (a) Design (c) Paint  Detect sp  (a) Shifi+	e: 3 Hours  swer all the following th  Integrated Circuit computer?  (a) First Generat (c) Third Generat is not  (a) Diligence (c) Accuracy  MS-Word is used for (a) Design Pictur (c) Paint  Detect spelling  (a) Shifi+F7	Pareswer all the following object the construction of the construc	Part A  wer all the following objective the correct of the correct	Part A  swer all the following objective type the correct option  Integrated Circuits used in computer?  (a) First Generation (b) Secon (c) Third Generation (d) Four is not the characte  (a) Diligence (b) I.Q (c) Accuracy (d) Vers  MS-Word is used for  (a) Design Pictures (b) Design (c) Paint (d) Design  Detect spelling and gramm  (a) Shifi+F7 (b) F7	Part A  Swer all the following objective type quenthe correct option.  Integrated Circuits used in whice computer?  (a) First Generation (b) Second Generation (d) Fourth Generation (d) Fourth Generation (d) Fourth Generation (d) Versatility (e) Accuracy (d) Versatility (e) Accuracy (d) Versatility (e) Paint (d) Design Versation (d) Design To Detect spelling and grammar (e) Shifi+F7 (b) F7	Part A  swer all the following objective type questions the correct option.  Integrated Circuits used in which go computer?  (a) First Generation (b) Second General (c) Third Generation (d) Fourth General is not the characteristics of to the characteristics of the computer (d) Versatility  MS-Word is used for	Part A (10 sewer all the following objective type questions by characteristics of the computer? (C)  (a) First Generation (b) Second Generation (c) Third Generation (d) Fourth Generation  ———————————————————————————————————	Part A (10 × 1 = 6 wer all the following objective type questions by choosing the correct option.  Integrated Circuits used in which generation computer? (CO1, 2)  (a) First Generation (b) Second Generation (c) Third Generation (d) Fourth Generation  ———————————————————————————————————

5. The intersection of a column and a row in a called					worksheet is (CO3, K4)
	(a)	Column	(b)	Value	
	(c)	Address	(d)	Cell	
6.	Exce	el formula start wi	th —		(CO3, K4)
	(a)	/	(b)	$\mathbf{f}$	
	(c)	=	(d)	_	
7.	Wha	at can be used or	ıly wi	th one variable	input value? (CO4, K5)
	(a)	Scenario	(b)	Goal Seek	
	(c)	Data Table	(d)	Sort	
8.	In w	which tab. Sort and	Filter	option is presen	t? (CO4, K5)
	(a)	Home	(b)	Data	
	(c)	both (a) and (b)	(d)	Formulas	
9.	Wha pres	at is the defau sentation in version			PowerPoint (CO5, K4)
	(a)	.pptx	(b)	.msppt	
	(c)	.xsl	(d)	.ppt	
10.	MS-	Powerpoint. is	used	to insert a h	nyperlink in (CO5, K4)
	(a)	Tab+K	(b)	Shift+K	
	(c)	Ctrl+K	(d)	Alt+K	
		Pa	art B		$(5 \times 5 = 25)$
A	Answe	er all the question	s not r	nore than 500 wo	ords each.
11.	(a)	Describe about A	rithm	etic Logic Unit.	(CO1, K3)
			Or		
	(b)	How to activate	windo	ws? Explain.	(CO1, K3)
			2		R2310



17. (a) How to create and set macros in MS-Word? Explain. (CO2, K6)

Or

- (b) Write a detailed note on mail-merge operations with example. (CO2, K6)
- 18. (a) Write the step by step procedure to create Pivot table in Excel. (CO3, K5)

Or

- (b) Illustrate in detail about the working procedure of any two chart types in spreadsheets. (CO3, K5)
- 19. (a) Explain the tools of What-if Analysis in detail. (CO4, K6)

Or

- (b) Explain the steps to filter the data in detail. (CO4, K6)
- 20. (a) How to create animation with custom effects for slideshow in PowerPoint? (CO5, K6)

Or

(b) Write the procedure to apply Layering Art Objects in PowerPoint presentation in detail. (CO5, K6)

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Sub. Code 303NM2

### M.Voc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Fashion Technology**

#### NME: APPAREL MERCHANDISING

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer all the questions by choosing the correct answer.

- 1. Which department in the apparel industry ensures that the finished garments meet the specified quality standards? (CO1, K2)
  - (a) Production Department
  - (b) Quality Control Department'
  - (c) Merchandising Department
  - (d) Packaging Department
- 2. The department that manages the scheduling and coordination of production activities is: (CO1, K2)
  - (a) Design Department
  - (b) Merchandising Department
  - (c) Production Planning Department
  - (d) Quality Assurance Department

- 3. What is the primary role of an apparel exporter?(CO2, K1)
  (a) Designing garments
  (b) Manufacturing garments
  (c) Selling garments to retailers
- 4. What is the primary role of an apparel buyer in the fashion industry? (CO2, K1)
  - (a) Manufacturing garments

(d)

(b) Selling garments to consumers

Purchasing raw materials

- (c) Purchasing garments from suppliers
- (d) Designing new collections
- 5. What is the primary goal of an apparel merchandiser during the production process? (CO3, K4)
  - (a) Maximizing profits
  - (b) Meeting quality standards
  - (c) Reducing lead times
  - (d) Reducing production costs
- 6. In the context of apparel merchandising, what does the term "Lead Time" refer to? (CO4, K4)
  - (a) The time it takes to sell garments
  - (b) The time it takes to manufacture
  - (c) The time it takes for an order to be delivered
  - (d) The time it takes to design

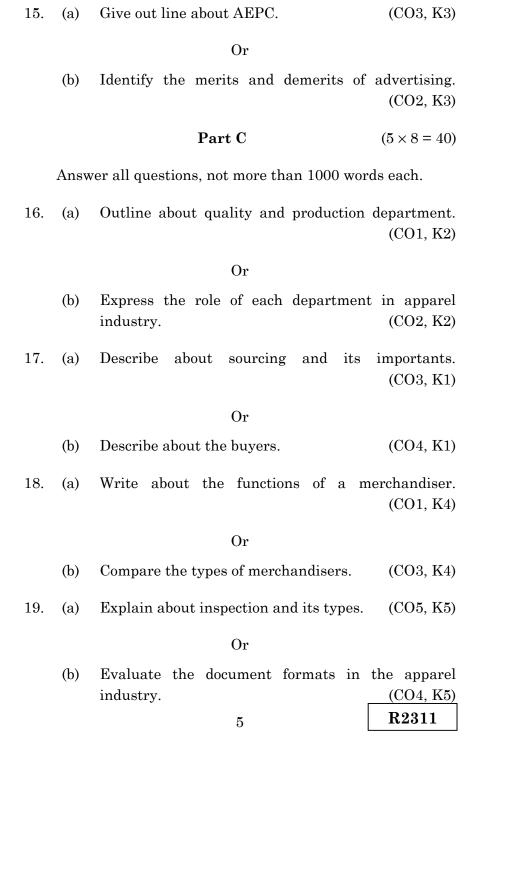
R2311

7.		denotes the first production garments quality
	para	meters are verified and when an apparel buyer
	place	es an order with a supplier, what is the document
	that	outlines the order details and specifications?
		(CO5, K5)
	(a)	Invoice (b) Purchase Order
	(c)	Packing List (d) Bill of Lading
8.	Wha	t is the primary goal of apparel testing before
	garn	nents are mass-produced? (CO6, K5)
	(a)	To identify defects in the final product
	(b)	To estimate production costs
	(c)	To ensure garments safety and quality standards
	(d)	To determine the market price
9.	Wha	t is the term for the exchange of goods and services
	betw	reen countries? (CO4, K3)
	(a)	Domestic trade
	(b)	International trade
	(c)	Wholesale trade
	(d)	Retail trade

3

R2311

10.		ich international organization promotes fair trade and s rules for global trade agreements? (CO3, K3)							
	(a)	(a) United Nations							
	(b)	World Trade Organization (WTO)							
	(c)	International Monetary Fund (IMF)							
	(d)	World Bank							
		Part B	$(5 \times 5 = 25)$						
	Ans	wer <b>all</b> questions not more than 500 words	s each.						
11.	(a)	Give outline about apparel industry.	(CO2, K2)						
		$\operatorname{Or}$							
	(b)	Give outline about finishing department	. (CO1, K2)						
12.	(a)	Describe about distribution.	(CO3, K1)						
		$\operatorname{Or}$							
	(b)	Describe about grading of export house.	(CO4, K1)						
13.	(a)	Explain the Six Rights.	(CO4, K4)						
		$\operatorname{Or}$							
	(b)	Generate the company profile and	its content. (CO5, K4)						
14.	(a)	Explain about the order sheet.	(CO6, K5)						
		$\operatorname{Or}$							
	(b)	Explain about the Assortment.	(CO4, K5)						
		4	R2311						



20. (a) Develop advertising and its various forms. (CO3, K3)

Or

(b) What strategies can companies discover to enhance their sales promotion? (CO4, K3)

Sub. Code 304NM2

# $\textbf{M.Voc.} \ \textbf{DEGREE} \ \textbf{EXAMINATION, NOVEMBER} - \textbf{2024}$

# **Software Development**

## NME: PRINCIPLES OF DIGITIAL MARKETING

(CBCS - 2022 onwards)

		(CDCD 2	1022 (	on warus)	
Time	e:3 E	Iours		Maximum : 75 Marl	KS
		Par	t A	$(10 \times 1 = 1$	0)
Ans	swer a	<b>all</b> the following obj the cor		e type questions by choosing option.	ŗ
1.		ch of the following keting?	is the	e correct depiction of Digit (CO1, K	
	(a)	E-mail Marketing	(b)	Social Media Marketing	
	(c)	Web Marketing	(d)	All of the above	
2.		includes dig	gital 1	marketing. (CO1, K	2)
	(a)	TV	(b)	Billboard	
	(c)	Radio	(d)	E-mail marketing	
3.	Whi	ch of the following	g com	nes under email marketing (CO2, K	_
	(a)	Email newsletters	(b)	Lead Nurturing	
	(c)	Digests	(d)	All of the above	
4.		is not a n	netric	e to track email marketin (CO2, K	
	(a)	CTR	(b)	Open rate	
	(c)	Click rate	(d)	Stop rate	

5.	Wha	t is the	primary	goal	of	Public	Rela		(PR)? )3, K4)
	(a)	Increase	e sales and	d reve	nue				
	(b) Create engaging advertisements								
	(c)	Build ar	nd mainta	in a p	ositi	ve imag	ge and	d repu	tation
	(d)	Conduct	t market r	esear	ch				
6.			civity invo				nedia		nels of 03, K4)
	(a)	Media o	utreach	(b)	Eve	ent plan	ning		
	(c)	Media n	nonitoring	(d)	Sta	keholde	er eng	gagem	ent
7.	Unif	ied Payı	ment Int —	erface	e (U	PI) wa	as de		ed by D4, K1)
	(a)	Nationa	l Paymen	t Corp	orat	ion of I	ndia		
	(b)	Reserve	Bank						
	(c)	Ministr	y of Finan	ce					
	(d)	State Ba	ank of Ind	ia					
8.	Payt	m is traı	nsferring i	its e-v	valle	et busin	ess to		)4, K1)
	(a)	Airtel		(b)	Its	own Pa	vmen	`	, ,
	(c)	Vodafor	ie	(d)		ne of the			-
9.			_ is used customers	with	the	objecti	ive of	f iden o art	tifying iculate 05, K6)
	(a)	Mind m	apping						
	(b)	Experie	nce mappi	ing					
	(c)	Story To	elling						
	(d)	Rapid C	oncept De	velop	men	t			
10.	Whic	ch of the	following	is no	ot a	tool of	desig		nking? 05, K6)
	(a)	co-creat	ion	(b)	pro	totyping	g		
	(c)	mind m	apping	(d)	onl	ine mar	ketin	$\mathbf{g}$	
							Г		
				2				R2	312

Part B

 $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) Write a note on advertising through the ages. (CO1, K2)

Or

- (b) Discuss the lifecycle of ARPANET to Internet. (CO1, K2)
- 12. (a) What are the components of E-mail marketing? Explain. (CO2, K5)

Or

- (b) Describe about the concept of CRM. (CO2, K5)
- 13. (a) Discuss about Online Public Relation. (CO3, K4)

Or

- (b) Write a note on Affiliate Marketing. (CO3, K4)
- 14. (a) Differentiate Online and Offline Payment Systems. (CO4, K2)

Or

- (b) Discuss about Customer Satisfaction and Loyalty. (CO4, K2)
- 15. (a) Explain the concept of Creativity. (CO5, K6)

Or

(b) Discuss about Design and Innovation. (CO5, K6)

R2312

Part C

 $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Explain about technologies of Digital Marketing in detail. (CO1, K2)

Or

- (b) Discuss the Digital Marketing strategies in detail. (CO1, K2)
- 17. (a) Explain different forms of social media in detail. (CO2, K5)

Or

- (b) How to measure the success of E-mail marketing? Explain. (CO2, K5)
- 18. (a) Discuss the strategies and challenges to promote business through online channels. (CO3, K4)

Or

- (b) Describe the concept of strategic partnership in detail. (CO3, K4)
- 19. (a) What are the different forms of E-payment systems? Explain. (CO4, K2)

Or

- (b) Discuss about social, ethical and legal aspects of E-payment system. (CO4, K2)
- 20. (a) Illustrate the ideas to develop marketing work effectively in organization. (CO5, K6)

Or

(b) Explain the concept of Design Thinking for Innovation. (CO5, K6)

R2312

Sub. Code 311NM1

# B.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

# Catering Science and Hotel Management

NME: BASIC CATERING SERVICES

(CBCS – 2022 onwards)								
Time	e:3 H	Iours		Maximum: 75 Marks				
		Par	rt A	$(10 \times 1 = 10)$				
An	swer		jectiv ect op	ve questions by choosing the otion.				
1.	Supe	ervisor in kitchen is	s knov	wn as — (CO1, K1)				
	(a)	Commis	(b)	Executive Chef				
	(c)	Chefde partie	(d)	Butcher				
2.	The	program that cert	ifies s	safe and hygiene practices is (CO1, K1)				
	(a)	HRACC	(b)	HACCP				
	(c)	SIHRA	(d)	CDC				
3.	The	temperature main	ntain	ed in hotel refrigerators is (CO2, K2)				
	(a)	0 to 2 degree	(b)	-5 to $-12$ degree				
	(c)	1–4 degree	(d)	more than 5 degree				
4.	Malt	tise is an example o	of ——	(CO2, K2)				
	(a)	Salad	(b)	Dessert				
	(c)	Stock	(d)	Soup				

5.		dized rates is (CO3, K1)							
	(a)	Industrial Caterin	g						
	(b)	Restaurant							
	(c)	Fast food centers							
	(d)	Flight Catering							
6.	The	example of prima	ary c	catering establi	shments are (CO3, K1)				
	(a)	Bars	(b)	Restaurants					
	(c)	Outdoor catering	(d)	All the above					
7.	Who	is the head of	Fano	dB production	department? (CO3, K2)				
	(a)	Boulanger	(b)	Chefde cuisine					
	(c)	Tournant	(d)	Garde Manger					
8.		ghly trained members of in–house guest			xes care of all (CO4, K1)				
	(a)	Captain	(b)	Sommelier					
	(c)	Butler	(d)	Waiter					
9.	The	other name for depa	arture	e is	(CO5, K1)				
	(a)	Check-out	(b)	Arrival					
	(c)	Pre-arrival	(d)	None of these					
10.		est who leaves the	e hot	el without mak	ing the final (CO5, K1)				
	(a)	Thief	(b)	Porter					
	(c)	Busboy	(d)	Skipper					
			2		R2313				

Part B

 $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) Draw the Layout of kitchen in a large category hotel. (CO1, K2)

Or

- (b) Explain about the qualities required for a chef. (CO1, K2)
- 12. (a) What do you mean by special cooking methods? Give suitable examples. (CO2, K1)

Or

- (b) Describe the classification of soups. (CO2, K1)
- 13. (a) What is called leisure linked catering? (CO3, K2)

Or

- (b) Examine the following: Welfare catering and Outdoor catering. (CO3, K1)
- 14. (a) Describe the coordination of FandB service with kitchen department. (CO4, K4)

Or

- (b) Write the role of Commis de rang in service department. (CO4, K2)
- 15. (a) Difference between: Occupancy and Discrepancy reports (CO5, K1)

Or

(b) What is the importance of front office department in a hotel? (CO5, K4)

R2313

Answer all questions not more than 1000 words each.

16. (a) Explain about the role of executive chef in detail. (CO1, K1)

Or

- (b) Write about the importance of personal hygiene of culinary professionals. (CO1, K1)
- 17. (a) Outline the concept of basic mother sauces with derivatives. (CO2, K2)

Or

- (b) Describe the characteristics of raw materials used in cooking food. (CO2, K2)
- 18. (a) Classify the types of catering establishments in food industry. (CO3, K4)

Or

(b) Explain the types of bar

(CO3, K2)

19. (a) Describe the various outlets in FandB service department (CO4, K6)

Or

- (b) Explain about the attributes required for F and B personnel. (CO4, K6)
- 20. (a) Draw a neat diagram of the organizational structure of housekeeping in large category hotels. (CO5, K2)

Or

(b) Explain the duties and responsibilities of front office manager. (CO5, K1)

4

R2313

Sub. Code 316NM2

# M.A. DEGREE EXAMINATION, NOVEMBER – 2024

#### **Gender Studies**

#### NME: KEY CONCEPTS IN GENDER STUDIES

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

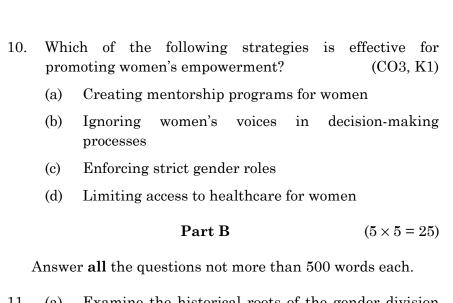
- 1. Which of the following is an example of a gender stereotype? (CO1, K1)
  - (a) Women are better at multitasking
  - (b) Men and women have equal cognitive abilities
  - (c) All individuals should be treated equally
  - (d) Gender roles do not exist in modern society
- 2. How do gender roles typically differ for men and women? (CO1, K2)
  - (a) Men are generally expected to be nurturing caregivers
  - (b) Both men and women are expected to perform the same roles
  - (c) Women are often expected to take on domestic responsibilities
  - (d) Gender roles are not influenced by society

- 3. What is the primary goal of gender analysis? (CO2, K1)
  - (a) To promote gender stereotypes
  - (b) To assess how gender affects individuals' experiences and outcomes
  - (c) To evaluate the effectiveness of a product
  - (d) To increase the salary of male employees
- 4. How does gender sensitization contribute to reducing gender-based violence? (CO2, K2)
  - (a) By ignoring the problem
  - (b) By blaming one gender for violence
  - (c) By reinforcing stereotypes
  - (d) By promoting understanding and respect among genders
- 5. What is one implication of adopting a deterministic view in gender studies? (CO3, K2)
  - (a) Justifying inequalities based on perceived natural differences
  - (b) Recognizing the fluidity of gender identities
  - (c) Encouraging a more nuanced understanding of gender
  - (d) Emphasizing the importance of personal choice
- 6. Which of the following is a common criticism of reductionism in gender studies? (CO3, K2)
  - (a) It helps in identifying specific causes of behaviour
  - (b) It adequately considers social and cultural influences
  - (c) It promotes a comprehensive understanding of issues
  - (d) It may overlook the interactions between different social factors

R2314

- 7. What is the primary purpose of the Gender Empowerment Measure (GEM)? (CO4, K2)
  - (a) To analyse healthcare disparities
  - (b) To measure gender-based violence rates
  - (c) To assess women's participation in economic and political life
  - (d) To evaluate educational attainment among genders
- 8. Which of the following statements reflects gender equality? (CO5, K2)
  - (a) Gender equality is achieved when individuals can choose their paths without discrimination
  - (b) Women should only occupy caregiving roles in society
  - (c) Men and women should have different educational opportunities based on their gender
  - (d) Gender equality is only about achieving equal pay for women.
- 9. What role does economic empowerment play in women's empowerment? (CO5, K2)
  - (a) It reinforces existing gender inequalities
  - (b) It restricts women's ability to pursue careers
  - (c) It allows women to become financially independent and make autonomous decisions
  - (d) It has no significant impact on women's overall empowerment

R2314



11. (a) Examine the historical roots of the gender division of labour in traditional societies. How have cultural and economic factors shaped gender roles in the workforce? (CO1, K4)

Or

- (b) How can the concept of patriarchy be used to understand family structures in contemporary society? Explain. (CO1, K3)
- 12. (a) Describe the key components of a gender training program. (CO2, K2)

Or

(b) Explain Gender audit.

(CO2, K2)

13. (a) Evaluate the impact of feminist movements on the understanding of femininities. (CO3, K5)

Or

(b) Analyse the role of socialization in perpetuating social inequalities. (CO3, K5)

R2314

14.	(a)	Differentiate between equality and equity.(CO4, K2)	
		$\operatorname{Or}$	
	(b)	Write a short not on GEM. (CO4, K2)	
15.	(a)	Analyse the role of education in promoting women empowerment. (CO5, K4)	
		Or	
	(b)	Describe the barriers to women empowerment in developing countries. (CO5, K2)	
		Part C $(5 \times 8 = 40)$	
A	nswer	all the questions not more than 1000 words each.	
16.	(a)	Analyse the relationship between gender discrimination and other forms of discrimination, such as race or class. (CO1, K4)	
		Or	
	(b)	How can an understanding of gender ideology be applied to analyse contemporary gender issues? Explain. (CO1, K4)	
17.	(a)	Explain the causes of gender-based violence in society. (CO2, K2)	
		Or	
	(b)	Describe the process involved in conducting a gender audit. (CO2, K2)	
18.	(a)	How can the concept of masculinities be applied to analyse male behaviour in different social settings? (CO3, K3)	
		$\operatorname{Or}$	
	(b)	Write a short not on Dualism. (CO3, K2)	
		5 <b>R2314</b>	

19. (a) Explain HDI and GDI.

(CO4, K2)

Or

- (b) Evaluate the success of gender equality policies in India over the past decade. (CO4, K5)
- 20. (a) Explain the key areas where women empowerment is essential. (CO5, K2)

Or

(b) Explain the importance of women empowerment in achieving gender equality. (CO5, K2)

(இ) தாளிகை

Sub. Code 411NM2

# M.A. DEGREE EXAMINATION, NOVEMBER – 2024

தமிழ்

NME – இதழியல் மற்றும் தகவல் தொடர்பியல்

(CBCS - 2022 onwards)Time: 3 Hours Maximum: 75 Marks பகுதி அ  $(10 \times 1 = 10)$ அனைத்து வினாக்களுக்கும் விடை தருக. உலகின் மிகப் பழைய இதழ் எது? (CO1, K1) 1. (அ) பீகிங் நியூஸ் (ஆ) இலண்டன் டைம்ஸ் (இ) வங்காள கெஜட் போஸ்ட் பாய் ( FF) 2. உலகின் முதல் அச்சிதழ் எது? (CO1, K1) (அ) உறவு (ஆ) மலர் (FF) (இ) தலைப்பு தந்தி டி.எஸ். சொக்கலிங்கம் நடத்திய இதழ் எது? 3. (CO1, K1) (அ) காந்தி (ஆ) சுதேசமித்திரன் (இ) குயில் (FF) குடியரசு 4. Journalism என்ற ஆங்கிலக் கலைச் சொல் எந்த மொழிச் சொல்லில் பிறந்தது? (CO1, K1) (ஆ) கிரேக்கம் (அ) இலத்தீன் (இ) பிரெஞ்சு ஹீப்ரு (FF) 5. தமிழில் முதலில் என்ற சொல் கையாளப்பட்டது? (CO1, K1) (அ) பத்திரிகை (ஆ) முடங்கள்

மலர்

(FF)

			2		R2315
	(ஆ)	இதழ்களின் வகைகவ	•		(CO1, K1)
		<u>ہے</u> )	அல்லது	)	
11.	(의)	இதழ்களின் பணிக விளம்புக.	Бөт	மற்றும் கடமை	கள் குறித்து (CO1, K1)
11		<b>் எ</b> ர்க்களுக்கு விடை	யளிக்க	கவும்.	
		பகுத்			$(5 \times 5 = 25)$
	( <b>(</b> ))	ஆலன் சாக்லே	(正)	எர்ஸ்கைம் சைவ்	)டாஸ
		கிறிஸ்டினா ஓகன்			
10.		பாட்டு இதழியல்	·		(CO4, K4)
	( <b>(</b> ))	பிரெடரிக் கோனிக்	(正)	மார்க்கோனி	
		கூட்டன்பர்க்	_	நிகோலஸன்	
9.	அச்சு	பொறியைக் கண்டுபி			(CO4, K4)
	((	The Hindu	(正)	Daily Mashriq	
	(괵)	Daily Thanthi	(ஆ)	Daily Current	
8.	உலகி	ில் வெளியிடப்பட்ட (	முதல்	செய்தி தாள்	(CO1, K1)
	(இ)	போஸ்ட் பாய்	(FF)	வங்காள கெஜட்	
	(എ)	இலண்டன் டைம்ஸ்	(ஆ)	தினச்செய்தி	
7.	இந்தி	யாவின் முதல் இதழ்			(CO1, K1)
	(இ)	தினமணி	(FF)	தினச்செய்தி	
	(의)	வங்காள கெஜட்	(ஆ)	இலண்டன் டைப	ம்ஸ்
6.	முதல்	) ஆங்கில வார இதழ்			(CO1, K1)

12. (அ) இதழ்கள் தொடங்குவதற்குரிய வழிமுறைகளை இயம்புக. ( ${
m CO4,\,K4}$ )

#### (அல்லது)

- (ஆ) தலையங்கத்தின் சிறப்பினைப் பகர்க. (CO4, K4)
- 13. (அ) தேசிய வளர்ச்சியில் பத்திரிக்கைகளின் பங்கு குறித்து எடுத்தியம்புக. (CO1, K1)

#### (அல்லது)

- (ஆ) கருத்துப் படங்களின் பணியைக் குறிப்பிடுக. (CO1, K1)
- 14. (அ) 'இன்றைய வானொலி நிகழ்ச்சிகளின் தாக்கம்' விளம்புக. (CO1, K1)

#### (அல்லது)

- (ஆ) வானொலியின் தனித்தன்மைகளை இயம்புக. (CO1, K1)
- 15. (அ) தொலைக்காட்சி மெகா தொடர்களின் தாக்கம் குறித்து எழுதுக. (CO4, K4)

#### (அல்லது)

(ஆ) அச்சுக் கோக்கும் முறைமைகளை எடுத்தியம்புக. (CO4, K4)

### பகுதி இ $(5 \times 8 = 40)$

அனைத்து வினாக்களுக்கும் 1000 சொற்களுக்கு மிகாமல் விடையளிக்கவும்.

16. (அ) இதழியலின் தோற்றமும் வளர்ச்சியும் குறித்து விவரிக்க. (CO1, K1)

#### (அல்லது)

(ஆ) இன்றைய தமிழ் நாளிதழ்களின் போக்குகளைத் தொகுத்துரைக்க. (CO1, K1)

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17. (அ) இதழ்களின் அமைப்பு முறையினைத் தொகுத்துரைக்க. ( $CO4,\,K4$ )

### (அல்லது)

- (ஆ) இதழ்களின் சுதந்திரம் குறித்து எடுத்துரைக்க. (CO4, K4)
- 18. (அ) மின்னணுச் சாதனங்கள் குறித்து கட்டுரை வரைக. ( ${
  m CO1,\,K1}$ )

#### (அல்லது)

- (ஆ) தகவல் மேலாண்மையில் கணினியின் பங்களிப்பினை எடுத்துரைக்க. (CO1, K1)
- 19. (அ) 'இந்திய வானொலி வரலாறு' கட்டுரைக்க. (CO1, K1) (அல்லத)
  - (ஆ) இணையத்தின் பயன்கள் குறித்து விளக்கியுரைக்க. (CO1, K4)
- 20. (அ) தொலைக்காட்சி வரலாற்றினைத் தொகுத்துரைக்க.  $({
  m CO4, K4})$

## (அல்லது)

(ஆ) 'சமுதாயத்தில் அலைபேசி ஏற்படுத்திய தாக்கம்' கட்டுரை வரைக.  $({
m CO4, K4})$ 

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Sub. Code 414NM2

### M.A. DEGREE EXAMINATION, NOVEMBER - 2024

### Theatre and Film Studies

NME: MIME AND CHOREOGRAPHY

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

Section A  $(10 \times 1 = 10)$ 

Answer all the questions by choosing the correct option.

- 1. What is the key characteristic of mime performance? (CO1, K1)
  - (a) Speaking loudly (b) Using props
  - (c) Silence (d) Singing
- 2. What does choreography involve? (CO1, K2)
  - (a) Acting
  - (b) Group Discussion
  - (c) Composing music
  - (d) Creating dance movements and sequences
- 3. In free movement mime, what is emphasized the most? (CO2, K1)
  - (a) Precise imitation of real animal
  - (b) Expressive and exaggerated gestures
  - (c) Speaking in rhythm with the movements
  - (d) Use of real animal sounds

4.	Why	is free movement important in Mime? (CO2, K2)		
	(a)	It relies on strict choreography		
	(b)	It allows for creative expression and spontaneity		
	(c)	It eliminates the need for facial expression		
	(d)	It focuses solely on imitating animals		
5.		Modern mime often incorporates which of the following elements? (CO3, K1)		
	(a)	Spoken words		
	(b)	Digital effects and multimedia		
	(c)	Only black and white costumes		
	(d)	Classical Music		
6.	Who	is credited with popularizing traditional mime? (CO3, K2)		
	(a)	Charlie Chaplin (b) Lucille Ball		
	(c)	Harold Lloyd (d) Marcel Marceau		
7.	. What is an essential component of flexibility to advanced performers?			
	(a)	Consistency and progression		
	(b)	Short, intense sessions		
	(c)	Focusing only on muscle group		
	(d)	Avoiding rest periods		
		2 <b>R2316</b>		

	(a)	Side lunges		
	(b)	Push-ups		
	(c)	Jump rope		
	(d)	Pull-ups		
9.		do choreographers use stylized moveme tions in dance?	nts to convey (CO5, K2)	
	(a)	By incorporating face and erratic mover	ments only	
	(b)	By focusing on fluid and deliberate more evoke specific feelings	vements that	
	(c)	Through the use of verbal explana performance	tions during	
	(d)	By reducing movement increasing facia	l expressions	
10.	Wha perfo	t role does "exaggeration" plays ormances?	in Mime (CO5, K1)	
	(a)	To create realistic and subtle body move	ements	
	(b)	To distract audience from the storyline		
	(c)	To make gestures more visible and understandable to the audience		
	(d) To avoid attention to the movement details			
		3	R2316	

What exercise can enhance hip flexibility for complex

(CO4, K2)

8.

dance movements?

Answer all the questions not more than 500 words each.

11. (a) How do you create new movement patterns in mime and choreography? (CO1, K2)

Or

- (b) Explain the importance of creative dance in choreography. (CO2, K2)
- 12. (a) State the animal modern movement-imitation help in mime through free movement. (CO2, K2)

Or

- (b) List the importance of studying body anatomy in choreography. (CO2, K3)
- 13. (a) Indian aesthetics help to express emotions through choreography Justify. (CO3, K4)

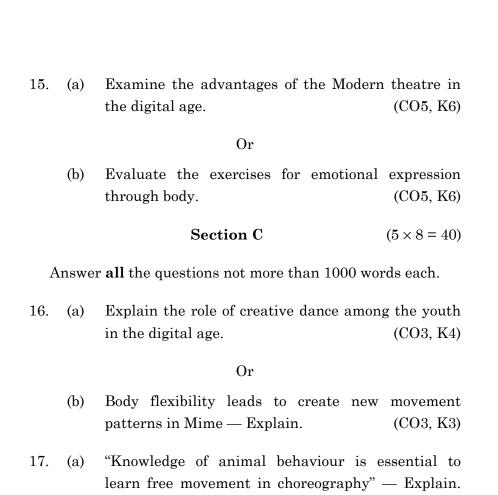
Or

- (b) Knowledge of body rhythm will enhance the stylized movements in choreography Explain. (CO3, K4)
- 14. (a) Through simple exercises we can attain Body flexibility Justify. (CO4, K5)

Or

(b) Differentiate the symmetry and asymmetry in body exercises with examples. (CO4, K4)

R2316



Or

- (b) Understanding the body anatomy is good for the choreography Justify. (CO3, K4)
- 18. (a) List the advantages of Pantomime to communicate social theme among the youth. (CO4, K4)

Or

(b) Examine the role of Indian aesthetics in mime and choreography. (CO3, K4)

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(CO3, K4)

19. (a) Complex body movements can be attaining through flexibility - Justify. (CO4, K5)

Or

- (b) Art of composition in dance leads to creative expressions Explain. (CO4, K5)
- 20. (a) Analyse the role of stylized movements in choreography. (CO5, K5)

Or

(b) Compare the Traditional Theatre and Modern Theatre. (CO5, K5)

Sub. Code 415NM2

# M.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### History

#### NME – CULTURAL HERITAGE OF INDIA

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

 $\mathbf{Part} \mathbf{A} \qquad (10 \times 1 = 10)$ 

Answer **all** the following objective type questions by choosing the correct option.

- 1. Which of the following best defines culture? (CO1, K2)
  - (a) A system of government
  - (b) A way of life including customs, traditions, and values
  - (c) An economic system
  - (d) A scientific discovery
- 2. Which component is NOT part of the definition of culture? (CO1, K2)
  - (a) Language
- (b) Religion
- (c) Weather
- (d) Art
- 3. The impact of cultural heritage in India can be seen in (CO2, K1)
  - (a) Modern technology
  - (b) Religious festivals
  - (c) Political systems
  - (d) Economic policies

		ısider	ed part of India'	s pilgrimage (CO2, K1)
(a)	Sanchi	(b)	Rameswaram	
(c)	Eiffel Tower	(d)	Lumbini	
		ated	with the enligh	ntenment of (CO3, K2)
(a)	Badrinath	(b)	Rishikesh	
(c)	Sarnath	(d)	Nagore	
Mou	nt Abu is famou	us fo	or which type	of heritage? (CO3, K2)
(a)	Hindu temples			
(b)	Jain temples			
(c)	Christian churche	es		
(d)	Islamic mosques			
Whi	ch is NOT a perfor	ming	art of India?	(CO4, K2)
(a)	Bharatanatyam	(b)	Kathak	
(c)	Opera	(d)	Odissi	
Whi	ch craft village is k	nown	for its traditiona	ll textiles? (CO4, K2)
(a)	Jaipur	(b)	Hyderabad	
(c)	Shantiniketan	(d)	Kanchipuram	
		2		R2317
	heri (a) (c) White Bud (a) (c) Mout (a) (b) (c) (d) White (a) (c) White (a)	heritage?  (a) Sanchi (c) Eiffel Tower  Which site is associate Buddha?  (a) Badrinath (c) Sarnath  Mount Abu is famout  (a) Hindu temples (b) Jain temples (c) Christian churche (d) Islamic mosques  Which is NOT a perform  (a) Bharatanatyam (c) Opera  Which craft village is keep to the second se	heritage?  (a) Sanchi (b)  (c) Eiffel Tower (d)  Which site is associated Buddha?  (a) Badrinath (b)  (c) Sarnath (d)  Mount Abu is famous for the second standard st	(a) Sanchi (b) Rameswaram (c) Eiffel Tower (d) Lumbini  Which site is associated with the enlight Buddha?  (a) Badrinath (b) Rishikesh (c) Sarnath (d) Nagore  Mount Abu is famous for which type (a) Hindu temples (b) Jain temples (c) Christian churches (d) Islamic mosques  Which is NOT a performing art of India? (a) Bharatanatyam (b) Kathak (c) Opera (d) Odissi  Which craft village is known for its traditional (a) Jaipur (b) Hyderabad (c) Shantiniketan (d) Kanchipuram

9.	The	Pushkar Fair is far	nous i	for trading wh	at? (CO5, K2)
	(a)	Textiles	(b)	Livestock	
	(c)	Spices	(d)	Jewelry	
10.		ch festival marks Sikh calendar?	the b	eginning of th	ne new year in (CO5, K2)
	(a)	Diwali	(b)	Baisakhi	
	(c)	Holi	(d)	Eid	
		Pa	rt B		$(5 \times 5 = 25)$
	Ansv	wer <b>all</b> questions n	ot mo	re than 500 w	ords each.
11.	(a)	Define culture importance.	and	explain its	nature and (CO1, K2)
			Or		
	(b)	What are the corbriefly.	npone	ents of culture	? Discuss each (CO1, K2)
12.	(a)	What does India meaning and defin		-	ss? Provide its (CO2, K2)
			Or		
	(b)	Discuss the featu	ıres o	f cultural her	ritage in India. (CO2, K2)
13.	(a)	Name and descr India.	ibe a	ny four pilgr	image sites in (CO3, K2)
			Or		
	(b)	Why are sites Sravanabelagola heritage?		*	Nalanda, and ndian cultural (CO3, K2)
			3		R2317

14. (a) Discuss the evolution of architecture in India, focusing on forts and palaces. (CO4, K6)

Or

- (b) Describe the significance of Indian paintings in the context of cultural heritage. (CO4, K6)
- 15. (a) What is the significance of festivals like Kumbh Mela and Pushkar Fair in Indian culture? (CO5, K2)

Or

(b) Four national festivals celebrated in India. Describe the importance of each. (CO5, K2)

**Part C**  $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Define culture and discuss its nature and importance. How does culture shape societal values and behaviors in India? (CO2, K2)

Or

(b) Identify and explain the components of culture. How do these components contribute to the richness of Indian cultural diversity? (CO2, K2)

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17. (a) What are the characteristics that define Indian culture? Provide a comprehensive definition and discuss its significance in contemporary society.

(CO2, K5)

Or

- (b) Explore the features of cultural heritage in India. How has India's cultural heritage been Preserved and promoted? (CO2, K5)
- 18. (a) Discuss the cultural significance of pilgrimage sites such as Varanasi, Kailash-Manasarovar and Rameswaram. How do these sites reflect India's spiritual and cultural heritage? (CO3, K4)

Or

- (b) Examine the historical and architectural importance of sites like Badrinath, Sanchi, and Sravanabelagola in Indian cultural heritage. What do these sites reveal about ancient Indian civilizations? (CO3, K4)
- 19. (a) Trace the evolution of Indian architecture, highlighting major architectural styles, forts, and palaces. How has Indian architecture evolved over different historical periods? (CO4, K2)

Or

(b) Discuss the significance of Indian paintings in reflecting cultural themes and narratives. How have different painting styles contributed to India's artistic heritage? (CO4, K2)

R2317

20. (a) Explain the significance of major Indian festivals such as Kumbh Mela, Diwali and Eid-ul-Fitr in celebrating cultural diversity and fostering communal harmony. How do these festivals contribute to social cohesion in India? (CO5, K2)

Or

(b) Discuss the cultural importance of regional festivals like Pongal, Baisakhi and Durga Puja. How are these festivals celebrated and what do they signify? (CO5, K2)

Sub. Code 452NM2

# M.S.W. DEGREE EXAMINATION, NOVEMBER – 2024

#### **Social Work**

### NME: CORPORATE SOCIAL RESPONSIBILITY

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

 $\mathbf{Part} \mathbf{A} \qquad (10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. CSR primarily involves which of the following? (CO1, K2)
  - (a) Maximizing profits
  - (b) Stakeholder engagement
  - (c) Avoiding tax
  - (d) Environmental exploitation
- 2. Which of the following organizations recognizes CSR with global standards? (CO2, K1)
  - (a) ISO 14000
- (b) FIFA
- (c) World Bank
- (d) Red Cross
- 3. Stakeholders in CSR include all the following except: (CO2, K2)
  - (a) Shareholders
- (b) Environment
- (c) Competitors
- (d) Customers
- 4. The supply chain responsibility is part of which CSR domain? (CO1, K2)
  - (a) Environmental responsibility
  - (b) Social responsibility
  - (c) Economic responsibility
  - (d) All of the above

5.		ch of the following is a key factor influencing CSR cy in an organization? (CO3, K1)
	(a)	Market trends
	` ,	Stakeholder pressure
	(c)	-
	(d)	All of the above
6.		TATA Council for Community Initiatives is best wn for: (CO5, K2)
	(a)	Product marketing
	(b)	CSR implementation
	(c)	Employee training
	(d)	None of the above
7.	CSR	in the marketplace focuses on: (CO4, K1)
	(a)	Product safety
	(b)	Employee welfare
	(c)	Environmental protection
	(d)	Community development
8.	Whi	ch is NOT a tool of CSR? (CO2, K1)
	(a)	Social audits
	(b)	Sustainability reporting
	(c)	Sales forecasting
	(d)	Environmental impact assessment
9.		Companies Act, 2013 mandates CSR spending for panies with: (CO5, K2)
	(a)	Revenue over ₹ 1 crore
	(b)	Net worth over ₹ 500 crore
	(c)	Net profit over ₹ 10 lakh
	(d)	Revenue over ₹ 100 crore
		2 <b>R2318</b>

10.	Socia (a) (b) (c) (d)	ally responsible investing (SRI) aims to: Maximize short-term profits Achieve social and environmental benef Focus solely on economic returns None of the above	
		Part B	$(5 \times 5 = 25)$
A	Answe	r all the questions not more than 500 wo	ords each.
11.	(a)	Trace the evolution of CSR in a glo	obal context. (CO1, K3)
		$\operatorname{Or}$	
	(b)	Explain the role of public-private par CSR.	tnerships in (CO1, K3)
12.	(a)	Who are the key stakeholders in CSR, their interests align?  Or	and how do (CO2, K2)
	(1-)		f CCD
	(b)	Illustrate how businesses benefit initiatives.	from CSR (CO2, K3)
13.	(a)	What are the key factors to consider what a CSR policy?	ile designing (CO3, K3)
		$\operatorname{Or}$	
	(b)	Explain the role of HR professionals CSR within an organization.	in managing (CO3, K3)
14.	(a)	Specify the CSR case study of ITC venture.	Co3, K3)
	<i>a</i> >	Or	
	(b)	Explain the implementation of CSR in tenvironment with examples.	
15.	(a)	Summarize the CSR provisions Companies Act, 2013.	under the (CO5, K3)
		$\operatorname{Or}$	
	(b)	Bring out the TATA model of CSR.	(CO5, K4)
		3	R2318

Answer all the questions not more than 1000 words each.

16. (a) Describe the concept of sustainability and its role in CSR. (CO3, K4)

Or

- (b) Discuss how corporations can engage with stakeholders for effective CSR outcomes. (CO4, K4)
- 17. (a) Discuss the various tools used to measure and evaluate CSR efforts in businesses. (CO2, K5)

Or

- (b) Describe the benefits of socially responsible investing (SRI) (CO2, K4)
- 18. (a) Design a CSR policy for a multinational corporation focusing on environment sustainability. (CO3, K6)

Or

- (b) Discuss the global recognitions of CSR, such as ISO 14000 and SA 8000. (CO3, K5)
- 19. (a) Evaluate the role of CSR in community development with a focus on real-world examples. (CO4, K6)

Or

- (b) Analyse the CSR case study of Lifebuoy soaps' "Swasthya Chetna" campaign. (CO4, K6)
- 20. (a) Elucidate the role of social workers in CSR initiatives in India. (CO5, K5)

Or

(b) Discuss the successes and challenges of CSR initiatives at TISS Mumbai. (CO5, K5)

R2318

Sub. Code 455NM2

# M.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Economics**

#### NME - STATISTICS FOR DECISION MAKING

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

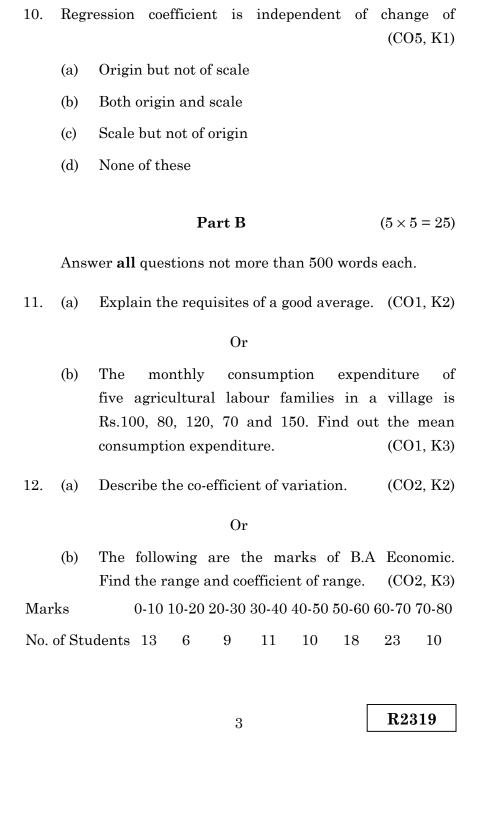
Answer **all** the following objective type questions by choosing the correct option.

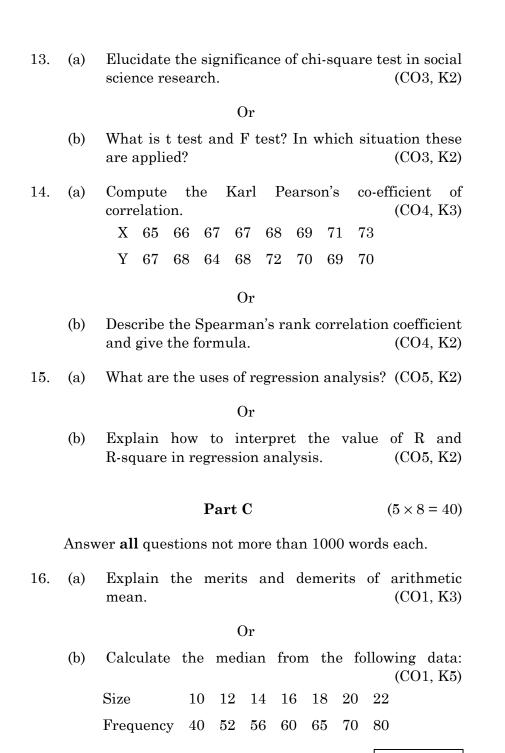
- 1. Which measure of central tendency includes the magnitude of scores? (CO1, K1)
  - (a) Mean
- (b) Mode
- (c) Median
- (d) Range
- 2. The most unstable average is

(CO1, K1)

- (a) Arithmetic Mean (b)
  - (b) Harmonic mean
- (c) Median
- (d) Mode
- 3. The difference between the maximum value and minimum value of a series is know as (CO2, K2)
  - (a) Standard Deviation
  - (b) Mean Deviation
  - (c) Range
  - (d) Median

	- <b>-</b>		0 1	(CO2, K1)
(a)	Ogive curve	(b)	Lorenz curve	
(c)	Normal curve	(d)	None	
An e	vent in the probabi	lity t	hat will never be h	appened is (CO3, K2)
(a)	Unsure event	(b)	Sure event	
(c)	Possible event	(d)	Impossible event	
F tes	t also called as —			(CO3, K1)
(a)	Variance ratio tes	t (b)	Standard error te	st
(c)	Z test	(d)	None of the above	)
		value	es of two variables	moving in (CO4, K1)
(a)	No correlation	(b)	Positive	
(c)	Negative	(d)	Perfect Negative	
Karl	Pearson's co-effic	eient	of correlation lie	s between (CO4, K1)
(a)	−2 to +2	(b)	0 to 1	
(c)	-1 to +1	(d)	0 to −1	
Who	introduced the terr	n 'reg	gression'?	(CO5, K2)
(a)	Karl Pearson	(b)	R.A Fischer	
(c)	Francis Galton	(d)	Croxton and Cow	den
		2		R2319
	(c) An e  (a) (c) F tes (a) (c) The c the s (a) (c) Who (a)	(c) Normal curve  An event in the probability  (a) Unsure event  (c) Possible event  F test also called as—  (a) Variance ratio test  (c) Z test  The correlation for the the same direction is  (a) No correlation  (c) Negative  Karl Pearson's co-efficient  (a) -2 to +2  (c) -1 to +1  Who introduced the term  (a) Karl Pearson	(c) Normal curve (d)  An event in the probability to (a) Unsure event (b)  (c) Possible event (d)  F test also called as————————————————————————————————————	(c) Normal curve (d) None  An event in the probability that will never be here  (a) Unsure event (b) Sure event  (c) Possible event (d) Impossible event  F test also called as  (a) Variance ratio test (b) Standard error tectorical event  (c) Z test (d) None of the above the same direction is  (a) No correlation (b) Positive  (c) Negative (d) Perfect Negative  Karl Pearson's co-efficient of correlation lies  (a) -2 to +2 (b) 0 to 1  (c) -1 to +1 (d) 0 to -1  Who introduced the term 'regression'?  (a) Karl Pearson (b) R.A Fischer  (c) Francis Galton (d) Croxton and Cow





4

R2319

17. (a) Discuss the different measures of dispersion and point out their utility. (CO2, K2)

Or

(b) Compute the Standard deviation of the following distribution: (CO2, K5)

Class (X) 0-10 10-20 20-30 30-40 40-50 50-60 60-70

Frequency (Y) 8 12 17 14 9 7 4

18. (a) Briefly explain the importance of probability in managerial decision making. (CO3, K4)

Or

- (b) Illustrate the binominal distribution with the help of an example. (CO3, K3)
- 19. (a) Interpret the difference between correlation and regression analyses. (CO4, K2)

Or

(b) Calculate correlation coefficient of concurrent deviation from the following data: (CO4, K4)

Price 368 384 385 361 347 384 395 403 400 385

Imports 22 21 24 20 22 26 24 29 28 27

R2319

20. (a) Construct two regression equations from the data given below: (CO5, K4)

X 9 6 5 7 8 30Y 20 15 25 30 35 100

Or

(b) Define Average Annual Growth Rate (AAGR) and Compound Annual Growth Rate (GAGR). What are its usefulness? (CO5, K3)

Sub. Code 458NM2

# M.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Gender Studies**

#### NME - LIFE SKILL EDUCATION

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. What is the most effective way to manage time? (CO1, K1)
  - (a) Procrastinating tasks until the last minute
  - (b) Multitasking as much as possible
  - (c) Ignoring deadlines and working at your own pace
  - (d) Creating a schedule and prioritizing tasks
- 2. What is a good strategy for effective goal setting? (CO1, K1)
  - (a) Setting specific, measurable, achievable, relevant, and time-bound (SMART) goals
  - (b) Setting vague and broad goals
  - (c) Setting unrealistic and high-pressure goals
  - (d) Not setting any goals and going with the flow

- 3. How does a good leader handle mistakes made by team members? (CO2, K1)
  - (a) Punishing them harshly
  - (b) Ignoring the mistakes
  - (c) Publicly criticizing them
  - (d) Providing constructive feedback and support
- 4. Which of the following best describes the role of a good leader in team development? (CO2, K1)
  - (a) Mentoring and guiding team members to reach their potential
  - (b) Focusing solely on their own advancement
  - (c) Encouraging competition among team members
  - (d) Micromanaging every aspect of the team's work
- 5. What is a key characteristic of creative thinking? (CO3, K2)
  - (a) Following established rules strictly
  - (b) Generating novel and original ideas
  - (c) Relying solely on logical reasoning
  - (d) Avoiding risks and uncertainty
- 6. Which of the following best describes critical thinking? (CO3, K1)
  - (a) Accepting information at face value
  - (b) Focusing only on imaginative ideas
  - (c) Analyzing and evaluating information to form a reasoned judgment
  - (d) Ignoring evidence that contradicts personal beliefs

R2320

7.	Whie deve	ch habit is essential for effective personal elopment? (CO4, K2)
	(a)	Avoiding feedback from others
	(b)	Setting and achieving personal goals
	(c)	Relying solely on past successes
	(d)	Maintaining a fixed mind-set
8.		t is a key benefit of lifelong learning for personal dopment? (CO4, K1)
	(a)	It helps you stay competitive and adaptable in a changing world
	(b)	It keeps you occupied without any real benefits
	(c)	It only benefits your professional life
	(d)	It ensures you never have free time
9.	Whie relat	ch dimension of advocacy focuses on building cionships with stakeholders and allies? (CO5, K1)
	(a)	Resource management
	(b)	Coalition building

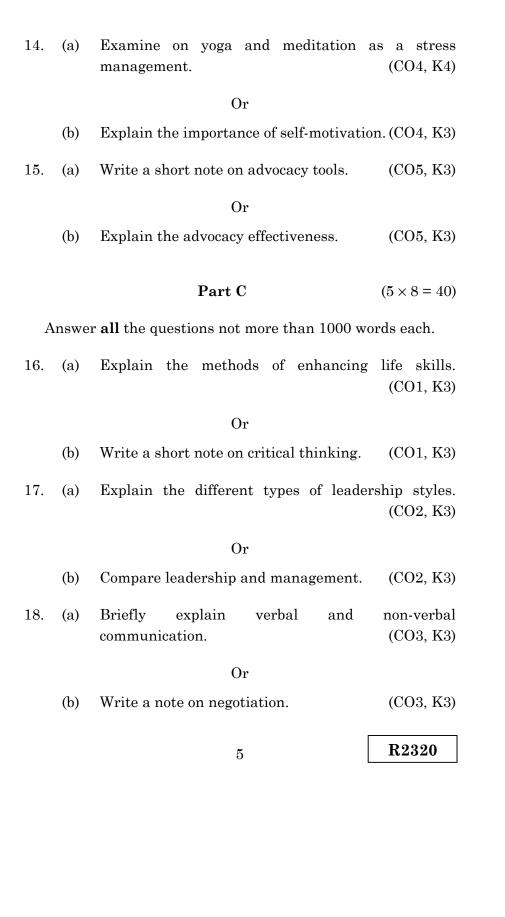
(c)

(d)

Time management

Policy analysis

It is irrelevant to most advocacy efforts  It is only necessary for large-scale campaigns  It should be avoided to maintain privacy  It helps mobilize public support and influence decision-makers
It should be avoided to maintain privacy  It helps mobilize public support and influence decision-makers
It helps mobilize public support and influence decision-makers
decision-makers
Part B $(5 \times 5 = 25)$
er all the questions not more than 500 words each.
Write a short note self-awareness. (CO1, K3)
Or
Explain problem solving. (CO1, K3)
Briefly explain the skills of a good leader. (CO2, K3)
$\operatorname{Or}$
Explain the essentials of effective speaking. (CO2, K3)
Analyse the importance of problem solving in leadership. (CO3, K4)
$\operatorname{Or}$
Examine the strength of team building. (CO3, K4)
4 R2320



19. (a) Write a short note on presentation skills. (CO4, K4)

Or

(b) Explain any two personal development skills. (CO4, K3)

20. (a) Explain any two dimensions of advocacy. (CO5, K3)

Or

(b) Explain different forms of advocacy. (CO5, K3)

\_\_\_\_\_

R2320

(c)

(d)

Glacial

Gravity

Sub. Code 461NM2

# M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024 Oceanography and Coastal Area Studies NME – MARINE RESOURCES

		(CBCS – 2022 ony	vards)	
Time	e:3 H	lours	Maximum	ı : 75 Marks
		Part A	(	$(10 \times 1 = 10)$
Ans	swer a	all the following objective ty the correct opti		y choosing
1.		is located between	n continental	break and
	abys	sal rise.		(CO1, K2)
	(a)	Continental shelf		
	(b)	Continental slope		
	(c)	Coast		
	(d)	Abyssal plain		
2.		ch is the major transport sits?	agent of the	terrigenous (CO1, K2)
	(a)	Water		
	(b)	Wind		

	(b) (c)	Apatite Muscovite	
	(d)	Calcite	
4.	The	Manganese nodules are found in —	(CO2, K3)
	(a)	Continental shelf	
	(b)	Continental slope	
	(c)	Coast	
	(d)	Abyssal plain	
5.	How	long extended EEZ from the shore?	(CO3, K3)
	(a)	200 nautical miles	
	(b)	240 nautical miles	
	(c)	270 nautical miles	
	(d)	300 nautical miles	
6.	Whi	ch of the following is used to catch the pe	lagic fishes? (CO3, K3)
	(a)	Hand line boat	
	(b)	Trolling vessel	
	(c)	Motorized boat	
	(d)	Trawlers	
		2	R2321

	(a)	Antipyretics	(b)	Cytarabine	
	(c)	Analgesics	(d)	Sedatives	
8.		ch of the following bolite from marine	_		of bioactive (CO4, K4)
	(a)	Brominated pheno	ols		
	(b)	Oxygen heterocycl	lics		
	(c)	Prostaglandins			
	(d)	Nitrogen heterocy	dlics	Parasitism	
9.	poiso	ch of the following	inge	stion of seafood?	
	(a)	Paralytic shellfish	•		
	(b)	Amnesic shellfish	poiso	ning	
	(c)	Ciguatera			
	(d)	Diarrheic shellfish	n pois	oning	
10.	Wha	t is the color ala car	roten	oid?	(CO5, K2)
	(a)	Yellow	(b)	Black	
	(c)	Blue	(d)	Green	
		Par	rt B		$(5 \times 5 = 25)$
A	answe	r all the questions	not n	nore than 500 wo	ords each.
11.	(a)	Draw neat sketch	on o	cean topography	with names. (CO1, K2)
			Or		
	(b)	Differentiate terri examples.	genoi	us and biogenies	deposit with (CO1, K2)
			3		R2321

Which of the following marine drug is used for cancer

(CO4, K4)

7.

treatment:

12. Write short notes on mineral richness in Black sea. (a) (CO2, K3) Or(b) Why manganese nodules are important and write about their exploration (CO2, K3) 13. State that how EEZ useful for fishing in coastal (a) (CO3, K3) countries. OrCategoriesthe gears which are used for fishing (b) methods. (CO3, K3) 14. Pivot the importance of marine drugs and give some (a) organism name to extract marine drugs. OrIllustrate the bioactive compound extracted from (b)

- (b) Illustrate the bioactive compound extracted from the marine living organisms. (CO4, K4)
- 15. (a) Analyze the potential consequences marine organisms venom. (CO5, K4)

Or

(b) Explain the importance of marine living resources in Pharmacological. (CO5, K4)

R2321

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Outline the mineral deposits along the continental shelf and slope region of the ocean topography.

(CO1, K2)

Or

- (b) Explain in details about the allogenic and antigenic. (CO1, K2)
- 17. (a) Distinguish Marine phosphorites and Marine Sulfide. (CO2, K2)

Or

- (b) Interpret the role of different methods in the exploration of seafloor minerals deposits. (CO2, K2)
- 18. (a) Articulate the concept of Profitable vessel management and requirement. (CO3, K3)

Or

- (b) Write about the different modern craft used in India for marine fishing. (CO3 K3)
- 19. (a) Analyze how the marine drugs used for Indian economy development. (CO4, K4)

Or

(b) Explain the bioactive compounds and antibiotic compounds from marine organisms. (CO4, K4)

R2321

20. (a) Categorize the different Toxin from marine animals. (CO5, K4)

Or

(b) Explain the concept of Pharmacological and toxicological properties from marine organisms provide example. (CO5, K4)

Sub. Code 464NM2

# M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

# **Applied Geology**

# NME – REMOTE SENSING AND GEOGRPHIC INFORMATION SYSTEMS

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

 $\mathbf{Part}\,\mathbf{A} \qquad (10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. Which property of aerial photos involves the accuracy of the spatial relationship between objects? (CO2, K2)
  - (a) Contrast
  - (b) Color balance
  - (c) Resolution
  - (d) Geometric fidelity
- 2. The photographic scale of an aerial photo is primarily determined by: (CO2, K2)
  - (a) Aircraft altitude
  - (b) Camera focal length
  - (c) Sun angle
  - (d) Weather conditions

3.	Wha	at is remote sensin	g prin	narily used for?	(CO1, K1)
	(a)	Direct measurem	ent		
	(b)	Physical samplin	g		
	(c)	Indirect observat	ion		
	(d)	Manual surveyin	g		
4.	Wha	at does EMR stand	for in	remote sensing?	(CO1, K1)
	(a)	Electromagnetic	Range	e	
	(b)	Electromagnetic	Reflec	etance	
	(c)	Electromagnetic	Radia	tion	
	(d)	Electromechanic	al Res	onance	
5.	Whi mul	ich satellite se tispectral data for	ries earth	is known for observation?	providing (CO1, K1)
	(a)	GPS	(b)	LANDSAT	
	(c)	GLONASS	(d)	GOES	
6.		at type of resolutio inguish between			
	(a)	Spectral	(b)	Radiometric	
	(c)	Spatial	(d)	Temporal	
7.	Wha	at does GIS stand f	or?		(CO1, K1)
	(a)	Geographic Infor	matio	n System	
	(b)	Geographic Integ	rated	System	
	(c)	General Informa	tion S	ystem	
	(d)	Global Informati	on Sys	stem	
			2		R2322

	(c)	Data visualization	
	(d)	All of the above	
9.	Wha	t does DEM stand for in geographic	data analysis? (CO2, K2)
	(a)	Digital Estimation Model	
	(b)	Data Evaluation Method	
	(c)	Digital Elevation Model	
	(d)	Digital Environment Map	
10.		ch analysis involves calculating the visecific point in a DEM?	ible area from (CO1, K1)
	(a)	Line of sight	
	(b)	Contour	
	(c)	Volume estimation	
	(d)	Slope	
		Part B	$(5 \times 5 = 25)$
A	answe	er <b>all</b> the questions not more than 500 v	vords each.
11.	(a)	Assess the importance of photog modern mapping and surveying.	grammetry in (CO2, K2)
		$\operatorname{Or}$	
	(b)	Choose and explain two types of aeria and their specific applications.	al photographs (CO3, K3)
		3	R2322

following is a basic component of GIS?

(CO1, K1)

8.

Which of the

(a)

(b)

Data storage

Data analysis

12. (a) Compare the spectral signatures of soil and vegetation. How are they different and why? (CO3, K4)

Or

- (b) Determine how atmospheric windows influence remote sensing data collection. (CO5, K5)
- 13. (a) Assess the significance of spectral resolution in satellite data acquisition and its impact on data quality. (CO6, K6)

Or

- (b) Determine the advancements in remote sensing technology with the development of high-resolution satellites like IKONOS and QuickBird. (CO5, K5)
- 14. (a) Assess the importance of GIS in modern geographic studies and decision-making processes. (CO4, K4)

Or

- (b) Choose and explain the differences between raster and vector data structures in GIS. (CO4, K4)
- 15. (a) Compare Digital Elevation Models (DEM) and Digital Terrain Models (DTM) in terms of their data content and applications. (CO2, K3)

Or

(b) Determine the advantages of Real-Time Kinematic (RTK) navigation systems over traditional GPS mapping techniques. (CO4, K4)

R2322

Answer all the questions not more than 1000 words each.

16. (a) Evaluate the role of flight planning in ensuring accurate and effective aerial photography. Discuss the key components involved. (CO3, K3)

Or

- (b) Explain the concept of parallax relief displacement and vertical exaggeration in stereoscopy. How do they contribute to the interpretation of aerial photographs? (CO5, K5)
- 17. (a) Interpret the key elements and interpretation keys used in remote sensing image analysis. Discuss their importance in accurate data interpretation. (CO4, K4)

Or

- (b) Justify the use of specific spectral signatures in remote sensing for environmental monitoring and land cover classification. (CO4, K4)
- 18. (a) Evaluate the development of remote sensing technology in India, focusing on the contributions of the IRS series of satellites. (CO5, K5)

Or

- (b) Explain the principles and applications of thermal, near-infrared and microwave remote sensing. (CO3, K3)
- 19. (a) Evaluate the components of GIS and their roles in the functioning of a in Agricultural area. (CO3, K3)

Or

(b) Explain the processes of data conversion between raster and vector formats. Discuss the challenges and considerations involved in these conversions.

(CO3, K3)

R2322

20. (a) Interpret the significance of differential GPS and Real-Time Kinematic (RTK) navigation systems in modern surveying and mapping. (CO3, K3)

Or

(b) Justify the use of drainage analysis and line-of-sight studies in terrain analysis using DEMs. (CO4, K4)

Sub. Code 508NM2

### M.Sc. DEGREE EXAMINATION, NOVEMBER – 2024

#### **Biomedical Sciences**

### NME: MOLECULAR ADVANCED DIAGNOSTICS

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

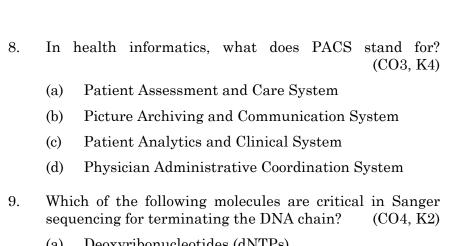
**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. Which of the following is a zoonotic viral disease? (CO1, K2)
  - (a) Influenza
- (b) Cholera
- (c) Rabies
- (d) Dengue
- 2. Maple syrup urine disease is caused by a defect in the metabolism of which of the following? (CO1, K2)
  - (a) Fatty acids
  - (b) Branched-chain amino acids
  - (c) Nucleic acids
  - (d) Sugars
- 3. Metagenomics is a technique used in culture-independent bacterial analysis that focuses on : (CO4, K2)
  - (a) Growing all bacteria in a given environment
  - (b) Sequencing entire microbial genomes in a sample
  - (c) Identifying protein expression in bacterial colonies
  - (d) Analyzing bacteria using microscopy

- 4. Which type of microarray is commonly used for the detection of copy number variations (CNVs) in the genome? (CO2, K4)
  - (a) Expression microarray
  - (b) SNP microarray
  - (c) Array Comparative Genomic Hybridization (aCGH)
  - (d) Protein microarray
- 5. The antigen retrieval step in IHC is used to: (CO5, K5)
  - (a) Inactivate endogenous peroxidases
  - (b) Cross-link proteins to prevent diffusion
  - (c) Unmask antigenic epitopes that may be hidden due to fixation
  - (d) Detect nonspecific binding
- 6. What is the typical application of microarrays in prenatal cytogenetic screening? (CO2, K4)
  - (a) Screening for balanced chromosomal translocations
  - (b) Detecting whole genome aneuploidies
  - (c) Detecting submicroscopic copy number variations
  - (d) Analyzing mitochondrial DNA mutations
- 7. In DCGE, the migration of DNA through the gel is dependent on: (CO4, K2)
  - (a) The size of the DNA fragments only
  - (b) The GC content and sequence of the DNA fragments
  - (c) The presence of restriction enzymes
  - (d) The total length of the DNA molecule

R2323



- Deoxyribonucleotides (dNTPs) (a)
- (b) Dideoxyribonucleotides (ddNTPs)
- Ribosomal RNA (c)
- (d) Primase
- In a competitive immunoassay, the signal intensity is 10. inversely proportional to the concentration of the analyte. This means: (CO<sub>5</sub>, K<sub>5</sub>)
  - (a) The higher the analyte concentration, the stronger the signal
  - (b) The higher the analyte concentration, the weaker the signal
  - (c) Signal intensity isnot affected by analyte concentration
  - The signal decreases linearly with time (d)

Part B  $(5 \times 5 = 25)$ 

Answer all the questions not more than 500 words each.

Write a note on factors predisposing to microbial 11. (a) pathogenicity. (CO1, K2)

Or

Discuss in detail about (b) fluorescent in situ hybridization. (CO2, K4)

R2323

12. (a) Explain the principle of MLPA and its application in detecting copy number variations (CNVs). (CO2, K4)

Or

- (b) Explain the significance of the threshold cycle (Ct) value in Real-time PCR and its application in quantifying the nucleic acids. (CO2, K4)
- 13. (a) How are SNPs detected and genotyped using molecular techniques? (CO2, K4)

Or

- (b) Describe the principle of Single-Strand Conformation Polymorphism (SSCP) analysis and how it is used to detect mutations. (CO2, K4)
- 14. (a) Discuss in detail about Ethics in medical informatics. (CO3, K4)

Or

- (b) Describe the principle of western blotting and outline the major steps involved in the process. (CO4, K2)
- 15. (a) Describe the methods used for HLA typing. (CO5, K5)

Or

(b) Describe the difference between direct and indirect methods of detection in immunohistochemistry (IHC). (CO5, K5)

R2323

Answer all the questions not more than 1000 words each.

16. (a) Describe in detail about the methods of clinical specimen collection, transport and processing of samples. (CO1, K2)

Or

- (b) Explain the principle, methodology, and applications of cytogenetic studies using BACs-on-Beads technology. (CO2, K4)
- 17. (a) Discuss the role of medical transcription in healthcare and how informatics can enhance the services provided by pharmaceutical care providers.

  (CO3, K4)

Or

- (b) Explain the principle of Polymerase Chain Reaction (PCR), its standard procedure, and discuss the various modifications of PCR used for specialized applications. (CO2, K4)
- 18. (a) Explain the principle and methodology of Amplified Ribosomal DNA Restriction Analysis (ARDRA) and discuss its significance in culture-independent analysis of bacterial communities. (CO4, K2)

Or

(b) Explain the principle of Multiplex PCR and its applications in paternity determination, human identification, and sex determination. (CO4, K2)

R2323

19. (a) Describe the structure, types, and functions of the Major Histocompatibility Complex (MHC). Explain its significance in immune response and transplantation immunology. (CO5, K5)

Or

- (b) Describe the principle, types, and applications of Enzyme-Linked Immunosorbent Assay (ELISA). Explain its significance in clinical diagnostics and research. (CO5, K5)
- 20. (a) Discuss the different levels of biosafety and containment in laboratories handling biological materials. (CO5, K5)

Or

(b) Discuss the principles, methods, and applications of DNA sequencing. (CO4, K2)

Sub. Code 509NM2

# $\label{eq:m.sc.degree} \begin{aligned} \textbf{M.Sc. DEGREE EXAMINATION, NOVEMBER-2024} \\ \textbf{Zoology} \end{aligned}$

### NME: FOOD PROCESSING TECHNOLOGY

(CBCS - 2022 onwards)

Tim	ie : 3 I	Hours	Maximum: 75 Marks	
		Part A	$(10 \times 1 = 10)$	
	Aı	nswer <b>all</b> the following objecti by choosing the correct		
1.	Mil	k can be preserved by ———	—. (CO1, K2)	
	(a)	Pasteurization		
	(b)	Freezing		

2. ——— enzyme is used as an index of super-HTST pasteurization? (CO1, K1)

Chemical preservatives

(a) Catalase

Drying

(b) Lipase

(c)

(d)

- (c) None of these
- (d) Lactoperoxidase

3.				
		(CO2, K1)		
	(a)	Retard bacterial growth in the meat		
	(b)	Extend the shelf-life of the meat		
	(c)	Retard bacterial growth and extend the shelf-life		
	(d)	Retard bacterial growth and Decrease color stability		
4.	Whi	ch of the following is also called as conditioning ess (CO2, K2)		
	(a)	) Freezing process		
	(b)	Boiling process		
	(c)	Ageing process		
	(d)	Curing process		
5.	Sun	drying heavily depends on the (CO3, K2)		
	(a)	Fish varieties		
	(b)	Wind		
	(c)	None of the above		
	(d)	Weather condition		
6.		t, meat and milk are preserved at room temperature he process of (CO4, K2)		
	(a)	Pasteurization		
	(b)	Dehydration		
	(c)	Freezing		
	(d)	Vernalisation		
		2 <b>R2324</b>		

- 7. During refrigeration this happens? (CO4, K3)

  (a) Removal of moisture from the product

  (b) Addition of moisture to the product

  (c) Removal of unwanted heat from the product

  (d) Addition of heat to the product
- 8. The primary function of antioxidants in fruit processing is (CO4, K2)
  - (a) Enhance flavor
  - (b) Extend shelf life
  - (c) Improve texture
  - (d) Increase nutritional content
- 9. Which of the following is not related to food safety management system (CO5, K3)
  - (a) Good handling practices (GHP)
  - (b) Good manufacturing practices (GMP)
  - (c) Hazard analysis critical control points (HACCP)
  - (d) Risk of injury
- 10. Which one of the following organic acids used in food preservation? (CO5, K2)
  - (a) Sulphuric acid
  - (b) Boric acid
  - (c) Hydrochloric acid
  - (d) Sorbic acid

R2324

Part B  $(5 \times 5 = 25)$ Answer all questions not more than 500 words each. 11. Discuss briefly about Pasteurization. (CO1, K3) (a) Or (b) Write short note on national status of dairy (CO1, K2) processing. 12. (a) Write short note on poultry meat processing. (CO2, K2) Or Briefly mention about the international status of (b) (CO2, K2) meat processing. 13. (a) Write a short note on chilling fish processing? (CO3, K2) Or Briefly discuss about the smoking fish preservation. (b) (CO3, K3) 14. (a) Briefly discuss about the role of QA and QC. (CO4, K4) Or (b) Discuss about the methods followed in fruit storage. (CO4, K3)

15. (a) Write a brief account on food adulterant acts.

(CO5, K3)

Or

(b) Give a brief account on HACCP. (CO5, K3)

R2324

Part C

 $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Write an essay on different types of milk preservation methods. (CO1, K3)

Or

- (b) Write an essay on the National and International status of milk processing. (CO4, K3)
- 17. (a) Give an account on National and International status of poultry meat processing. (CO2, K3)

Or

- (b) Explain different curing ingredients used in meat curing. (CO1, K3)
- 18. (a) Discuss about the different types of seafood processing techniques. (CO3, K4)

Or

(b) Write an essay about canning fish processing.

(CO3, K3)

19. (a) Give an account on different types of method involved in vegetable processing. (CO4, K3)

Or

(b) What are the different dehydration techniques used for fruits and vegetables? (CO4, K3)

R2324

20. (a) Discuss about food spoilage, food preservation and preservation acts. (CO5, K5)

Or

(b) Discuss what good manufacturing practices (GMP) need to follow in the food industry. (CO5, K3)

Sub. Code 515NM2

### M.A. DEGREE EXAMINATION, NOVEMBER - 2024

### **Journalism and Mass Communication**

## NME : FUNDAMENTALS OF AUDIO AND VIDEO PRODUCTION

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer the following objective type questions by choosing the correct option.

- 1. What is the primary purpose of an acoustically treated studio? (CO1, K2)
  - (a) To enhance the visual appeal
  - (b) To improve sound quality by reducing unwanted noise
  - (c) To increase the volume of sound
  - (d) To provide more space for equipment
- 2. The \_\_\_\_\_ is responsible for sending processed audio signals over a distance in the broadcast chain. (CO1, K2)
  - (a) Receiver
  - (b) Transmitter
  - (c) Amplifier
  - (d) Microphone

3.		h microphone type is most commonly used for ding interviews? (CO2, K4)
	(a)	Lavalier microphone
	(b)	Shotgun microphone
	(c)	Ribbon microphone
	(d)	Condenser microphone
4.	_	rams targeting often focus on educational ent and practical information relevant to their daily (CO2, K4)
	(a)	Rural folk (b) Children
	(c)	Youth (d) Industrial workers
5.		is mainly responsible for assisting the director and ling administrative tasks during the production? (CO3, K5)
	(a)	Cameraman
	(b)	Production Assistant
	(c)	Producer
	(d)	Art Director
6.	the s	is tasked with the setup and maintenance of tudio equipment, ensuring everything runs smoothly ag the broadcast. (CO3, K5)
	(a)	Technical Director
	(b)	Producer
	(c)	Cameraman
	(d)	Production Assistant
		2 <b>R2325</b>

audio	term refers to the technique of recording production. refers to the technique of recording it during production. (CO4, K1)
(a)	ADR (Automated Dialogue Replacement)
(b)	Foley
(c)	Voice-over
(d)	Dubbing
	t is the primary purpose of using a voice-over in a mentary? (CO4, K2)
(a)	To add background music
(b)	To provide narration and context
(c)	To create visual effects
(d)	To record live interviews
Expe aims	rimentation in educational production primarily to: (CO5, K6)
(a)	Meet production deadlines
(b)	Enhance the creative and instructional effectiveness of the content
(c)	Reduce the overall budget
(d)	Finalize the distribution channels
	ch technique is commonly used during editing to re smooth transitions between scenes? (CO5, K6)
(a)	Cross-fading
(b)	Cutaway shots
(c)	Voice-over narration
(d)	Color grading
	3 R2325

Answer all the questions not more than 500 words each.

11. (a) Explain the key differences between the roles of a producer and a cameraman during an outdoor video production. (CO3, K5)

Or

- (b) Explain the importance of room acoustics in a recording studio. (CO1, K2)
- 12. (a) Describe the basic setup for recording a high-quality interview. (CO2, K4)

Or

- (b) Describe the primary functions of a tripod in video shooting. How does its use impact the stability and quality of the footage? (CO4, K4)
- 13. (a) Discuss the role of amplifiers in audio receivers and how they impact sound quality. (CO1, K2)

Or

(b) Identify and describe three types of camera shots and their typical uses in documentary filmmaking.

(CO4, K4)

14. (a) Describe the responsibilities of a production assistant during a location survey for a video shoot.

(CO3, K5)

Or

(b) Identify and explain the significance of script writing in the production of educational programs. How does a well-written script enhance the educational value of the content? (CO5, K6)

R2325

15. (a) What techniques are used to ensure consistent sound quality across different music tracks?

(CO2, K4)

Or

(b) Discuss the role of audience analysis in the production of educational content. How can understanding the audience's needs and preferences influence the content and delivery methods?

(CO5,K6)

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Explain how the needs of rural folk might influence the content and production style of a radio program designed for them. (CO2, K4)

Or

- (b) Discuss the significance of writing for a program in video production. What are the key elements that should be considered when crafting a script for a documentary versus a short film? (CO4, K4)
- 17. (a) Compare and contrast different types of recording studios and discuss how each type is suited to specific program formats. (CO1, K2)

Or

(b) List and explain the primary responsibilities of a cameraman in video production. How do these responsibilities vary between studio shoots and outdoor locations? (CO3, K5)

R2325

18. (a) Explain the different methods of delivery used in educational productions. How can each method be utilized to enhance audience engagement and learning outcomes? Provide examples. (CO5, K6)

Or

- (b) Describe the process and considerations involved in conducting a location survey for an outdoor video shoot. What factors must be assessed to ensure a successful production? (CO3, K5)
- 19. (a) Outline the key components of a broadcast chain. Explain the role of each component in ensuring the delivery of high-quality audio content to the audience. (CO1, K2)

Or

- (b) Define the process of recording a musical score for a video production. How does the musical score contribute to the emotional tone and narrative of the final product? (CO4, K4)
- 20. (a) Describe the key elements that should be considered when selecting a script for an educational production. How do these elements contribute to the effectiveness of the production in achieving its educational goals? (CO5, K6)

Or

(b) Describe the process of setting up audio equipment for recording a live music performance intended for radio broadcast. (CO2, K4)

R2325

(d)

Personality

Sub. Code 518NM2

### M.A. DEGREE EXAMINATION, NOVEMBER – 2024 Life Skill Education

### NME – PROFESSIONAL CAREER AND DEVELOPMENT

(CBCS - 2022 onwards)

		(CDCD	2022 Oliwa.	iusj	
Tim	e : 3 H	lours		Maximum	: 75 Marks
		Pa	rt A	(	$10 \times 1 = 10$
A	nswer	all the following o	uestions by option.	choosing th	e correct
1.	Pers	onality is thought t	to be ———	<del></del> .	(CO1, K2)
	(a)	Short term and ea	sily change	d	
	(b)	A pattern of short	-term chara	acteristics	
	(c)	Unstable and sho	rt term		
	(d)	Long term, stable	and not eas	sily changed	
2.	indiv	long-standing tr viduals to consist ific ways are known	ently think	, feel and	
	(a)	Psychodynamic			
	(b)	Temperament			
	(c)	Humors			

3.	One of the most important communication skills	
		(CO2, K3)
	(a)	Empathic listening
	(b)	Inactive listening
	(c)	Objective listening.
	(d)	Active listening.
4.		sons who attribute much of the cause of what happens hem to control from within themselves are said to (CO2, K3)
	(a)	An internal locus of control
	(b)	An external locus of control
	(c)	An internal locum of control
	(d)	An external locum of control
5.	The	three major element of presentation do not include? (CO3, K4)
	(a)	An audience
	(b)	Specific content
	(c)	A presenter
	(d)	Visual aid
6.	Whi	ch of these should be avoided for an effective speech? (CO3, K4)
	(a)	Determination of the purpose
	(b)	Selection of message
	(c)	Lack of interest
	(d)	Selection of theme
		2 <b>R2326</b>

	(a)	a) Recognizing and understanding the signs of stress		
	(b)	Identifying sources of stress		
	(c)	Identifying what we can and can't control		
	(d)	All of the above		
8.		rning to support yourself during stressful situations and your control will —————————————————————————————————		
	(a)	Diminish		
	(b)	Increase		
	(c)	Enhance		
	(d)	None of the above		
9.	Whie grou	ch of the following is true, in general, in regard to ps? (CO5, K5)		
	(a)	A group is characterized by the independence of its members.		
	(b)	A group typically lacks definite roles and structures.		
	(c)	A group influences our emotional reactions.		
	(d)	An informal gathering cannot be considered a group.		
10.		ne context of the social identity theory, people have to callure or success of group members. (CO5, K5)		
	(a)	Angry reactions		
	(b)	Lack of empathy or pride		
	(c)	Emotional withdrawal		
	(d)	Emotional reactions		
		3 <b>R2326</b>		

The main keys to managing stress are

7.

(CO4, K3)

Part B  $(5 \times 5 = 25)$ 

Answer all the questions not more than 500 words each.

11. (a) Outline: Foundations of Personality Development. (CO1, K2)

Or

- (b) Relate the SWOT Analysis and Scope. (CO1, K2)
- 12. (a) Distinguish between to Interpersonal Relationships and Social Psychology. (CO2, K3)

Or

(b) Expand: Evolution and Human Relationship.

(CO2, K3)

13. (a) Interpret the Problems in Facing Interview and Interview Techniques. (CO3, K4)

Or

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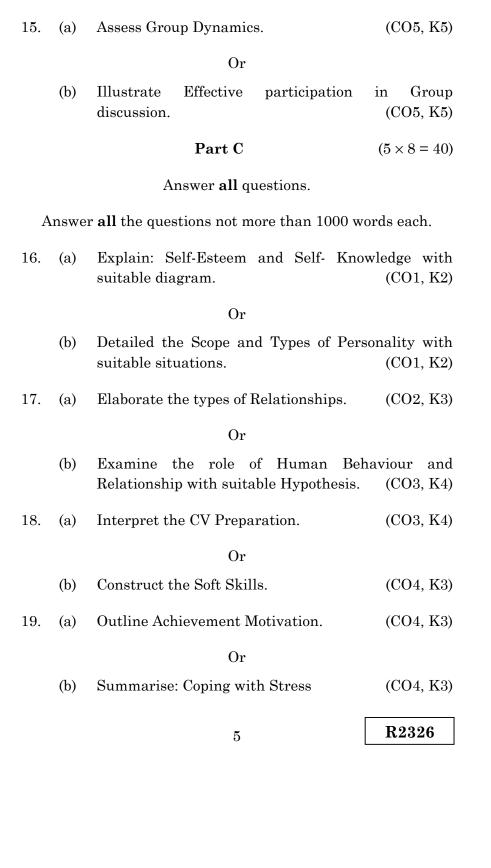
(CO3, K4)

14. (a) Outline Attitude towards Life. (CO4, K3)

Or

(b) Summarise: Techniques for Managing Stress and Time. (CO4, K3)

R2326



(a)	Discuss: Participating in Group discussions.
	(CO5, K5)
	${ m Or}$
(b)	Illustrate types and characteristics of a Group.
	(CO5, K5)

\_\_\_\_

Sub. Code 525NM2

### M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Botany**

## $\begin{array}{c} \mathbf{NME: COMMERCIAL\ GARDENING\ AND} \\ \mathbf{HORTICULTURE} \end{array}$

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

 $\mathbf{Part}\,\mathbf{A} \qquad (10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

1. Stage at which seed achieves it maximum dry weight and has maximum germination potential and vigour is

(CO1, K1)

- (a) Physiological Maturity
- (b) Edible Maturity
- (c) Harvest Maturity
- (d) None of above
- 2. Cracking in tomato fruit is due to

(CO1, K2)

- (a) High nitrogen level
- (b) Temperature fluctuations
- (c) Soil moisture fluctuations
- (d) All of these
- 3. Researchers describe seed moisture content in terms of (CO2, K1)
  - (a) Dry weight
- (b) Wet weight
- (c) Percent weight
- (d) (a) and (b)

4.	, ,		or is (CO2, K1)			
	(a)	Temperature	(b)	Duration		
	(c)	Media	(d)	all of above		
5.	The	most ancient type o	of gar	den is	(CO3, K2)	
	(a)	Kitchen garden	(b)	Market garden		
	(c)	Vegetable garden	(d)	Floating garden		
6.		ease free plants in rough ————.	nicro	propagation can	be obtained (CO3, K1)	
	(a)	Meristem culture	(b)	Anther culture		
	(c)	Embryo culture	(d)	Cell culture		
7.	Mak	king an incision belo	ow a b	oud to retard its gr	rowth. (CO4, K2)	
	(a)	nicking	(b)	ringing		
	(c)	notching	(d)	thinning		
8.	Whi	ch of the following i	s use	d for pruning of vi	nes? (CO4, K1)	
	(a)	Grafting knife				
	(b)	Shear				
	(c)	Pneumatic secate	urs			
	(d)	Dah				
9.	National Horticulture Mission was launched in which of the following years? (CO5, K2)					
	(a)	2001-02	(b)	2005-06	(CO5, K2)	
	(a) (c)	2007-08	(b)	2010-11		
10.	Whi	ch one of the follow	ing i			
	of plantation agriculture? (CO5, K2)					
		(a) large capital investment				
		(b) managerial and technical support				
	(c)	scientific methods				
	(d)	multiple crop spec	eializa	ation		
			2		R2327	

Answer all the questions not more than 500 words each.

11. (a) Describe the classifications and important cultivation and Management. (CO1, K1)

Or

- (b) Write a short notes on pruning and training techniques in horticulture. (CO1, K4)
- 12. (a) Describe the propagation techniques, ensure plant successful development. (CO2, K3)

Or

- (b) Clarify layering and grafting techniques in horticulture and applications. (CO2, K1)
- 13. (a) Differentiate between a water garden and indoor garden. (CO3, K3)

Or

- (b) Explain terraced gardening methods and uses. (CO3, K3)
- 14. (a) How does floral arrangements and principles of flower arranging? (CO4, K2)

Or

- (b) Discuss about the Ikbena arrangement and uses. (CO4, K3)
- 15. (a) What are the various aspects of crop protection in agriculture? (CO5, K3)

Or

(b) What are the steps involved preparation and processing of tomato ketchup? (CO5, K2)

R2327

Answer all the questions not more than 1000 words each.

16. (a) What are the various types of manure used in horticulture, and how are they applied to enhance crop productivity? (CO1, K2)

Or

- (b) What is the significance of horticulture and various types of garden implements used in horticulture practices? (CO1, K1)
- 17. (a) Explain the process of cutting layering and grafting with example. (CO2, K3)

Or

- (b) Describe about the plant propagation and their techniques and their advantages. (CO2, K2)
- 18. (a) What are the steps involved in starting a successful kitchen garden? (CO3, K4)

Or

- (b) What are the challenges in training and maintaining bonsai trees over several decades? (CO3, K2)
- 19. (a) What are the basic principles of Ikebana and flower arrangements? (CO4, K3)

Or

- (b) Explain the steps in flower arrangement methods. (CO4, K2)
- 20. (a) Write a detail note on International research institute dealing with crop varieties. (CO5, K5)

O

(b) Briefly explain the preparation and processing of tomato ketchup and jam with its storage method. (CO5, K2)

R2327

Sub. Code 530NM4

# $\label{eq:m.sc.} \begin{aligned} \text{M.Sc. DEGREE EXAMINATION, NOVEMBER} &- 2024 \\ &- & \text{Microbiology} \end{aligned}$

### NME: FOOD AND INDUSTRIAL MICROBIOLOGY

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. What is the primary bacterial culture used in the fermentation of yogurt? (CO1, K3)
  - (a) Lactobacillus acidophilus
  - (b) Streptococcus thermophilus
  - (c) Lactococcus lactis
  - (d) Leuconostoc mesenteroides
- 2. What enzyme is commonly used to coagulate milk in cheese production? (CO1, K3)
  - (a) Amylase
  - (b) Protease
  - (c) Lipase
  - (d) Rennin

3.	_	ohylococcus aureus can ough the production of —		food	poisoning (CO2, K2)
	(a)	Exotoxins			
	(b)	Endotoxins			
	(c)	Spores			
	(d)	Hemolysins			
4.		ch fungal toxin is associa cancer?	ated with	an incr	reased risk of (CO2, K2)
	(a)	Fumonisin			
	(b)	Zearalenone			
	(c)	Ochratoxin			
	(d)	Aflatoxin			
5.	of j	ch method is commonly potential industrial mi ples?			
	(a)	PCR (Polymerase Chai	n Reactio	n)	
	(b)	Flow cytometry			
	(c)	Serial dilution and plat	ing		
	(d)	Gel electrophoresis			
6.		ch of the following is a condustrial microbes used f			_
	(a)	Low oxygen requiremen	nt		
	(b)	High acid tolerance			
	(c)	High lipid content			
	(d)	High antibiotic product	ion		
		2			R2328

7.		t is the primary use of fungal single-cell protein (CO4, K1)
	(a)	Food preservatives
	(b)	Antibiotic production
	(c)	Animal feed
	(d)	Food flavoring
8.		th stage of beer production involves the conversion of these to fermentable sugars? (CO4, K1)
	(a)	Conditioning
	(b)	Fermentation
	(c)	Boiling
	(d)	Mashing
9.		t is the primary goal of screening in the context of ented product purification? (CO5, K5)
	(a)	To select high-yield producing microbial strains
	(b)	To identify pathogenic organisms
	(c)	To enhance the flavor of the product
	(d)	To determine the pH level of the product
purification of extracellular fermented products?		ch of the following is a common initial step in the fication of extracellular fermented products?  (CO5, K5)
	(a)	Crystallization
	(b)	Centrifugation
	(c)	Ultrafiltration
	(d)	Precipitation
		3 <b>R2328</b>

Part B  $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words.

11. (a) Why do we need to preserve foods? Explain in brief. (CO1, K3)

Or

- (b) Write a short note on the production of fermented dairy products such as cheese and yogurt. (CO1, K3)
- 12. (a) Elucidate in detail about the bacterial food borne infections and intoxications. (CO2, K2)

Or

- (b) Explain the microbial spoilage of meat and meat products. (CO2, K2)
- 13. (a) Write a short note on the range of fermentation processes. (CO3, K4)

Or

(b) Describe the methods of media optimization.

(CO3, K4)

14. (a) Give an account of single-cell proteins. (CO4, K1)

Or

- (b) Explain the microbial production of wine. (CO4, K1)
- 15. (a) Write a short note on the drying process of fermented products. (CO5, K5)

Or

(b) Describe in a detailed note the downstream processing. (CO5, K5)

R2328

**Part C**  $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Explain the role and significance of microorganisms in foods. (CO1, K3)

Or

- (b) Write a detailed account for the production of fermented vegetables and dairy products. (CO1, K3)
- 17. (a) Describe the preservation and spoilage of cereal and cereal products. (CO2, K2)

Or

- (b) Explain in detail the most common bacterial food-borne diseases. (CO2, K2)
- 18. (a) Explain the isolation, detection, preservation, and strain improvement of industrially important microbes. (CO3, K4)

Or

- (b) Describe in detail the classification of fermentation types. (CO3, K4)
- 19. (a) Discuss in detail the alcoholic beverage beer production. (CO4, K1)

Or

(b) Explain the microbial production of citric acid and its application. (CO4, K1)

R2328

20. (a) Write an essay on the purification of fermented products by using liquid - liquid chromatography. (CO5, K5)

Or

(b) Explain the purification of fermented products by centrifugation methods. (CO5, K5)

Sub. Code 536NM2

### M.Sc. DEGREE EXAMINATION, NOVEMBER – 2024 Chemistry

### NME: BASICS IN ENVIRONMENTAL SCIENCE

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer all the questions by choosing the correct option.

- 1. Which of the following is the main reason for producing the atmospheric greenhouse effect? (CO1,K2)
  - (a) Absorption and re-emission of ultraviolet radiations by the atmosphere
  - (b) Absorption and re-emission of infrared radiations by the atmosphere
  - (c) Absorption and re-emission of visible light by the atmosphere
  - (d) None of the above
- 2. The main contributors of acid rain are (CO1,K1)
  - (a) sulphur oxides and carbon oxides
  - (b) nitrogen oxides and sulphur oxides
  - (c) carbon dioxide and carbon monoxide
  - (d) None of the above

3.		h of the following is called the secondary air tant? (CO2,K2)		
	(a)	PANs		
	(b)	Ozone		
	(c)	Carbon monoxide		
	(d)	Nitrogen Dioxide		
4.		h is the best way to control noise pollution among our fundamental ways? (CO3,K1)		
	(a)	Reduce noise at the source		
	(b)	Block the path of noise		
	(c)	Increase the path length		
	(d)	Protect the recipient		
5.	Which of the following are the primary causes of water pollution? (CO3,K2)			
	(a)	Plants		
	(b)	Animals		
	(c)	Human activities		
	(d)	None of these		
6.	What	t are the health effects of excess fluoride in drinking r? (CO3,K1)		
	(a)	Fluorosis		
	(b)	Toothaches		
	(c)	Lung disease		
	(d)	Intestinal infection		
		2 <b>R2329</b>		

7.		ch of the following options is not included in the ainable development parameters? (CO4,K1)				
	(a)	Gender inequality and diversity				
	(b)	Intergenerational and intragenerational equity				
	(c)	Growing annually				
	(d)	None of the above				
8.		ch of the following is not a principle of Green mistry? (CO4,K2)				
	(a)	Green solvents and auxiliaries				
	(b)	Use of renewable feedstock				
	(c)	Hazardous chemical synthesis				
	(d)	Design for energy efficiency				
9.		The reactions which are caused by heat and in absence of ight is called ————. (CO5,K2)				
	(a)	Photochemical reactions				
	(b)	Dark reactions				
	(c)	Reversible reaction				
	(d)	Reversible photochemical reaction				
10.	An o	enzyme that joins the ends of two strands of nucleic is: (CO5,K1)				
	(a)	Polymerase				
	(b)	ligase				
	(c)	synthetase				
	(d)	Helicase				
		3 <b>R2329</b>				

Part B  $(5 \times 5 = 25)$ 

Answer all the questions not more than 500 words each.

11. (a) Explain the impacts of acid rain. (CO1,K3)

Or

- (b) What is meant by ecology–Explain it? (CO1,K3)
- 12. (a) Give a detail account on the pollution and effects. (CO2,K4)

Or

- (b) Discuss briefly about the radioactive pollution. (CO2,K3)
- 13. (a) Explain the types of water pollution. (CO3,K4)

Or

- (b) Discuss about the Advanced treatment methods for water pollution. (CO3,K3)
- 14. (a) What are the 12 principles of Green Chemistry-discuss it. (CO4,K3)

Or

- (b) Write a short note on sustainable development. (CO4,K4)
- 15. (a) Explain the green resources of Essential oils. (CO5,K3)

Or

(b) Discuss about the photochemical degradation. (CO5, K4)

R2329

Part C  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Explain in detail about green-house effect. (CO1, K4)

Or

- (b) Discuss clearly about photochemical smog and ozone-hole. (CO1, K4)
- 17. (a) Write notes on (CO2,K4)
  - (i) Land pollution
  - (ii) Pesticide Pollution.

Or

- (b) What are the contaminants in industrial effluents of tannery-Explain it. (CO2,K4)
- 18. (a) Discuss in detail about the biological or secondary treatment methods. (CO3,K4)

Or

- (b) Explain Pre-treatment methods. (CO3,K5)
- 19. (a) Give an account on types, guidelines and safety methods for Industrial hazards. (CO4, K5)

Or

(b) Write notes on corrosives and flammables chemicals. (CO5, K6)

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20. (a) Explain the technical methods for biochemical removal of phosphorous.

Or

(b) Discuss about the Green resources for drug development. (CO5,K5)  $\,$ 

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Sub. Code 540NM2

#### M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Energy Science**

# NME : RENEWABLE ENERGY AND ENERGY STORAGE SYSTEMS

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

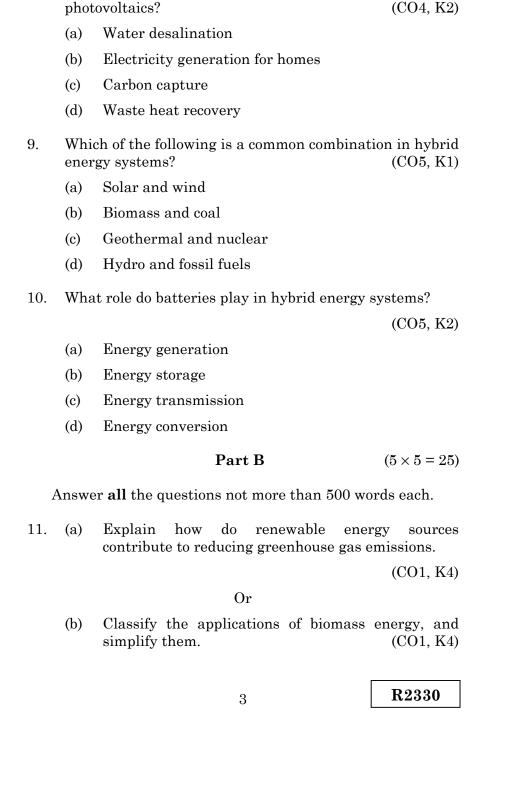
1. Which country is the largest producer of solar energy?

(CO1, K1)

(a) India

- (b) Germany
- (c) China
- (d) USA
- 2. What is India's target for renewable energy capacity by 2030? (CO1, K2)
  - (a) 100 GW
- (b) 250 GW
- (c) 500 GW
- (d) 750 GW
- 3. What type of energy storage involves storing energy in chemical bonds? (CO2, K2)
  - (a) Thermal energy storage
  - (b) Chemical energy storage
  - (c) Mechanical energy storage
  - (d) Electrochemical energy storage

4.	Which of the following is an example of thermal energy storage? (CO2, K2)							
	(a)	Lithium-ion batteries						
	(b)	Molten salt						
	(c)	Pumped hydro						
	(d)	Hydrogen fuel cells						
5.	Whi	ch of the following is a common type of ba	ttery?					
			(CO3, K1)					
	(a)	Supercapacitor						
	(b)	Lithium-ion						
	(c)	Fuel cell						
	(d)	Photovoltaic cell						
6.		What is the primary energy storage component of a supercapacitor? (CO3, K2)						
	(a)	Electrolyte						
	(b)	Dielectric						
	(c)	Electrode						
	(d)	Membrane						
7.	What is a typical application of solid oxide fuel cells?							
			(CO4, K2)					
	(a)	Portable electronics						
	(b)	Backup power for buildings						
	(c)	Automotive power						
	(d)	(d) Large-scale stationary power generation						
		2	R2330					



Which of the following is a primary application of

8.

12.	(a)	Compare the chemical energy and Therm	ıal energy.
			(CO2, K2)
		$\operatorname{Or}$	
	(b)	Explain the main advantages of usin energy storage over mechanical storage.	
13.	(a)	Classify a supercapacitor and its applicat	cions.
			(CO3, K4)
		Or	
	(b)	Express the demerits of lithium-ion batte	eries.
			(CO3, K4)
14.	(a)	Examine the basic principle of Photovolta	aics cells.
			(CO4, K4)
		${ m Or}$	
	(b)	Elaborate the reversible fuel cells advantages.	and its (CO4, K4)
15.	(a)	What is the potential of hybrid energy supporting electric vehicle (EV) infrastructure.	systems in charging (CO5, K2)
	(b)	Summaries a hybrid fuel cell and battery	system.
			(CO5, K2)

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Generate the main types of renewable energy and categories their potential Applications z. (CO1, K4)

Or

- (b) Explain the achievements of India in expanding its renewable energy capacity. (CO1, K4)
- 17. (a) Given an elaborate account on types of thermal energy. (CO2, K2)

Or

(b) Summarize the merits and demerits of energy storage mechanical energy and chemical energy.

(CO2, K2)

18. (a) Summarize the principle and application of Lithium-ion batteries. (CO3, K2)

Or

(b) Explain in detail about Electrochemical cells.

(CO3, K2)

19. (a) Classification of Photovoltaics and its fabrication methods. (CO4, K4)

Or

(b) Estimate account on reversible fuel cells. (CO4, K4)

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20. (a) Simplify the key operational steps involved in setting up and running a small-scale hybrid energy system. (CO5, K2)

Or

(b) Explain the role of hybrid fuel cell and hybrid battery systems. (CO5, K2)

Sub. Code 541NM2

## M.C.A. DEGREE EXAMINATION, NOVEMBER – 2024

## **Computer Application**

NME: OFFICE AUTOMATION

		(CBCS - S	2022	onwards)
Гimе	e:3]	Hours		Maximum : 75 Marks
		Par	rt A	$(10 \times 1 = 10)$
Ans	swer			e type questions by choosing option.
1.		create a new folder,	you o	ean right-click in a folder and (CO1, K1)
	(a)	Paste	(b)	Delete
	(c)	$\text{New}\rightarrow\text{Folder}$	(d)	Rename
2.		Windows, the		tool is used for basic (CO1, K2)
	(a)	WordPad	(b)	Notepad
	(c)	Calculator	(d)	Paint
3.		e topmost section of e File, Home, and Ins		Vord window, containing tabs is called the(CO2, K2)
	(a)	Ribbon	(b)	Status Bar
	(c)	Taskbar	(d)	Toolbar
4.	To	apply bold formatti ——— on the keybo	_	selected text, you can press (CO2, K1)
	(a)	Ctrl + I	(b)	Ctrl + B
	(c)	Ctrl + U	(d)	Ctrl + P

5.		select multiple cell button		ng the mouse, click and hold e dragging. (CO3, K1)
	(a)	Right	(b)	Left
	(c)	Middle	(d)	Scroll
6.		enter a formula sign.	in	Excel, start by typing the (CO3, K2)
	(a)	\$	(b)	#
	(c)	@	(d)	=
7.		_		a presentation, click on the File menu. (CO4, K2)
	(a)	Save	(b)	Open
	(c)	New	(d)	Print
8.		ormat the text on a nment, use the ——		e, such as changing the font or — menu. (CO4, K1)
	(a)	Insert	(b)	View
	(c)	Format	(d)	Slide Show
9.		Access is ate and manage dat		management system used to es. (CO5, K2)
	(a)	Document	(b)	Spreadsheet
	(c)	Database	(d)	Presentation
10.	data			ess allows you to define fields, ies while creating a table. (CO5, K1)
	(a)	Datasheet	(b)	Design
	(c)	Form	(d)	Layout
			2	R2331

Part B  $(5 \times 5 = 25)$  Answer all questions not more than 500 words each.

11. (a) Discuss the features of windows. (CO1, K2)

Or

(b) Compare WordPad and Notepad. (CO1, K2)

12. (a) Write a note on Thesaurus. (CO2, K2)

Or

- (b) Describe the steps to insert a Page number in MS Word. (CO2, K4)
- 13. (a) How to create charts in Spreadsheet? Explain. (CO3, K2)

Or

- (b) Write the procedure to format and navigate data in MS-Excel. (CO3, K3)
- 14. (a) How will you add Audio for each slide? (CO4, K3)

Or

- (b) What are the two ways to start a slideshow? Explain. (CO4, K1)
- 15. (a) How to create Table using Design View? Explain. (CO5, K3)

Or

(b) Write the procedure to create Database. (CO5, K6)

R2331

Part C

 $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Illustrate the structure of windows in detail with neat sketch. (CO1, K2)

Or

- (b) How to manage Files and Folders in MS Windows? Explain in detail. (CO1, K1)
- 17. (a) Explain the working procedure of Mail Merge in detail. (CO2, K3)

Or

- (b) Discuss in detail about how to work with Tables in MS Word. (CO2, K4)
- 18. (a) Write a detailed note on printing the Worksheet with various options. (CO3, K2)

Or

- (b) Discuss in detail about cell formatting in worksheets. (CO3, K3)
- 19. (a) How will you create Animation with custom effects for Slideshow in MS Powerpoint? (CO4, K6)

Or

- (b) Discuss the various view of Presentation in detail. (CO4, K2)
- 20. (a) How to design database using Queries in MS-Access? (CO5, K4)

Or

(b) Write the steps to design the MS-Access reports in detail. (CO5, K6)

R2331

Sub. Code 542NM2

#### M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Materials Science**

#### NME: NANOMATERIALS BIOSENSOR

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct options.

- 1. In a biosensor, the recognition element is responsible for: (CO1, K1)
  - (a) Signal transduction
  - (b) Detecting the target molecule
  - (c) Amplifying the output signal
  - (d) Providing a constant reference signal
- 2. What is the role of a transducer in a biosensor? (CO1, K2)
  - (a) It captures the target molecule
  - (b) It stabilizes the sensor surface
  - (c) It amplifies the chemical signal
  - (d) It converts the biological response into a measurable signal

- 3. In green synthesis, what property of nanoparticles is often controlled by varying the type of biological material (bacteria, fungi, or plant extract) used? (CO2, K6)
  - (a) Size, shape, and stability
  - (b) Only color
  - (c) Magnetic properties
  - (d) Chemical composition
- 4. In the context of green synthesis, which of the following plays a major role in reducing metal ions to nanoparticles when using fungi? (CO2, K3)
  - (a) Fungal cell walls
  - (b) Enzymes and metabolites produced by the fungi
  - (c) Fungal DNA
  - (d) Fungal spore count
- 5. Which of the following biorecognition elements is most suitable for detecting glucose in a biosensor? (CO3, K4)
  - (a) DNA aptamer
  - (b) Antibody
  - (c) Glucose oxidase enzyme
  - (d) Phospholipid
- 6. What is the primary advantage of using aptamers over antibodies in a biosensor for analyte detection? (CO3, K5)
  - (a) Lower sensitivity
  - (b) Higher production cost
  - (c) Less selectivity
  - (d) Greater thermal stability and reusability

R2332

7.	dete	-	ing e	sors, which events betw ment?			•		the
	(a)	Cyclic	voltar	nmetry					
	(b)	Surfac	e plas	mon resona	nce	(SP	R)		
	(c)	Potent	iomet	ry					
	(d)	Calorii	metry						
8.	Whi	ch of	the	following	is	a	common	type	of

- electrochemical biosensor? (CO4, K1)
  - (a) Amperometric sensor
  - (b) Calorimetric sensor
  - (c) Surface plasmon resonance (SPR) sensor
  - (d) Optical sensor
- 9. Which of the following materials 'is often used in nanosensors for detecting contaminants in food?(CO5, K5)
  - (a) Zinc oxide nanoparticles
  - (b) Silver nanoparticles
  - (c) Titanium dioxide
  - (d) Graphene-based materials
- 10. In precision farming, nanosensors are primarily used for: (CO5, K2)
  - (a) Measuring crop growth rates
  - (b) Analyzing soil health and nutrient levels
  - (c) Tracking the weather forecast
  - (d) Increasing crop size

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Answer all questions not more than 500 words each.

11. (a) Explain the sensitivity and selectivity of biosensors. (CO1, K2)

Or

- (b) Write a detailed note on components of biosensors. (CO1, K1)
- 12. (a) Explain the role of plant extracts in the green synthesis of metal nanoparticles. What are the advantages of using plant-based synthesis compared to chemical synthesis? (CO2, K3)

Or

- (b) Evaluate the potential applications of silver nanoparticles in the field of medicine and explain about their effectiveness as antimicrobial agents? (CO2, K6)
- 13. (a) Elaborate the significance of enzymes as bio-recognizing elements in nanosensors. (CO3, K4)

Or

- (b) Differentiate between covalent and non-covalent immobilization methods with their advantages and disadvantages. (CO3, K5)
- 14. (a) Write a note about conductometric biosensors and explain the principle behind their operation. (CO4, K5)

Or

(b) Explain the concepts of fluorescence and phosphorescence. (CO4, K1)

R2332

15. (a) Discuss the role and advantages of natural biopolymers in the development of food packaging. (CO5, K2)

Or

(b) Explain the concept of a smart delivery system in agriculture. (CO5, K5)

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Explain any three different types of Nano biosensors with suitable diagrams. (CO1, K1)

Or

- (b) Write a detailed note on different nanoparticles used for the biosensing Applications (CO1, K2)
- 17. (a) Describe in details about the what are the factors affecting biosynthesis of nanoparticles. (CO2, K3)

Or

- (b) Elucidate the mechanism behind the phytosynthesis of Metal nanoparticles with suitable diagrams. (CO2, K6)
- 18. (a) What is transducers and give an elaborate about the different types of transducers used for biosensing. (CO3, K4)

Or

(b) Describe about the immobilization process and what are the methods of immobilization of bacteria in biosensing system? (CO3, K6)

R2332

19. (a) Write a detailed note about the three generations of amperometric biosensors with suitable example. (CO4, K1)

Or

- (b) Give an elaborate details about the Nanomaterial's in fluorescence based biosensors. (CO4, K5)
- 20. (a) What is biopolymer and write a detailed notes about the classification of biopolymer based on the monomers used and the structure of the biopolymer (CO5, K1)

Or

(b) Describe about the any four different types of Nano fertilizer and primary methods of Nano fertilizer application. (CO5, K5)

**R2332** 

Sub. Code 546NM2

## M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

## **Information Technology**

## NME – INTERNET AND WEB DESIGN

(CBCS - 2022 onwards)

		(СВСБ	-0	on war as,	
Time	e : 3 H	lours		Max	imum : 75 Marks
		Pa	art A		$(10 \times 1 = 10)$
Ans	swer <i>a</i>	all the following of the co	•	e type quest option.	ions by choosing
1.	than	is the control is the corks.			
	(a)	Remote Access	(b)	Wi-Fi / Blu	etooth
	(c)	TCP/IP	(d)	WWW	
2.	SMT	P stands for		·	(CO1, K1)
	(a)	Simple Mail Tra	nsfer I	Protocol	
	(b)	Simple Message	Trans	fer Program	
	(c)	Simple Mode Tex	kting I	Program	
	(d)	Simple Memory	Transf	fer Protocol	
3.	Whice page	ch program is uses?	web clients	to view the web (CO2, K4)	
	(a)	Web browser	(b)	Protocol	
	(c)	Web server	(d)	Search Eng	gine

(a)	HTTP	(b)	SMTP
(c)	TCP	(d)	FTP
	vebpage displays a lay that picture?	a pict	ure. What tag was used (CO3, K
(a)	Picture	(b)	Image
(c)	img	(d)	src.
In H	ITML, tags that inc	clude	both on and off tag are calle (CO3, K
(a)	comment tag	(b)	document tag
(c)	container tag	(d)	none of the above
	coded in the body	of th	e webpage as an attribute (CO4, K
(a)	Internal	(b)	Style
(c)	External	(d)	Inline
Whi	_	g tag	is used to embed css in htt (CO4, K
(a)	<css></css>	(b)	html
(c)	<script></td><td>(d)</td><td><style></td></tr><tr><td>Is A</td><td>SP.NET web form</td><td>is par</td><td>t of ASP.NET core? (CO5, K</td></tr><tr><td>(a)</td><td>Yes</td><td>(b)</td><td>No</td></tr><tr><td></td><td>rename and refact essible JavaScript o</td><td></td><td>atures in Dreamweaver Ma (CO5, K</td></tr><tr><td>(a)</td><td>Rename</td><td>(b)</td><td>Refactor</td></tr><tr><td>(c)</td><td>Both (a) and (b)</td><td>(d)</td><td>None of the above</td></tr><tr><td></td><td></td><td></td><td>R2333</td></tr></tbody></table></script>		

Part B  $(5 \times 5 = 25)$ Answer all the questions not more than 500 words each. Describe about File Transfer protocol. (CO1, K3) 11. (a) Or Write note on Domain Name Service. (CO1, K3) (b) 12. (a) Explain about basic web design principles.(CO2, K5) Or (b) Discuss about creating user profiles and website prototypes. (CO2, K5) of HTML13. Elucidate about (a) basic structure documents. (CO3, K1) OrIllustrate about three types of list can be created in (b) HTML. (CO3, K1) 14. (CO4, K1) (a) Write note on creation of style sheets. Or (b) Explain about page layout and site design. (CO4, K1) Explain how to create tables for web pages. 15. (a) (CO5, K4)

Or

(b) Discuss about Microsoft front page. (CO5, K4)

R2333

Part C  $(5 \times 8 = 40)$ Answer all the questions not more than 1000 words each. 16. Elucidate about developing internet applications. (CO1, K5) Or Enumerate about Hazards on the internet. (b) (CO1, K5) 17. (a) Illustrate about different website structures and web design approaches. (CO2, K3) Or Discuss about web development models. (b) (CO2, K3) 18. (a) Write a Python program to add elements to the Tuple and delete elements from a Tuple. Or Describe about images and multimedia. (b) (CO5, K5)19. Enumerate about features of CSS styling. (CO4, K4) (a) Or (b) Discuss about creating page layout and site designs. (CO4, K4) 20. Illustrate about creating web site structure. (a) (CO4, K4) Or

Describe about publishing web sites.

4

(CO4, K4)

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(b)

Sub. Code 547NM2

## M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

## Fisheries Science

# NME: ORNAMENTAL AQUACULTURE

		(CBCS -	2022	onwards)
Гim	e:3 E	Iours		Maximum: 75 Marks
		F	Part A	$\mathbf{A} \qquad (10 \times 1 = 10)$
	An		_	bjective type questions
		by choosing t	he co	rrect answers.
1.	The	feeding habit of gol	ldfish	is ———. (CO1, K2)
	(a)	Omnivore	(b)	Herbivore
	(c)	Carnivore	(d)	None of the above
2.	Aqua	arium water should	l be a	erated during (CO1, K1)
	(a)	Night	(b)	Evening
	(c)	Early morning	(d)	Noon
3.	In ir	ntensive aquacultur	e, the	e design of tank should be
				(CO2, K3)
	(a)	Square	(b)	Circular
	(c)	Cylindrical	(d)	Rectangular
4.		ch state in Indi uction?	a ha	as highest ornamental fish (CO2, K5)
	(a)	Tamil Nadu	(b)	Kerala
	(c)	Odissa	(d)	West Bengal

5.		ch of these plants ough aquaponics?	may 1	not be suitable for cultivation (CO3, K4)	
	(a)	Carrot	(b)	Tomatoes	
	(c)	Cucumber	(d)	Strawberries	
6.	pone		sed to	reduce seepage losses from (CO3, K4)	
	(a)	Hypochlorite	(b)	Carbamide	
	(c)	Bentonite	(d)	Zeolite	
7.	Pad aera		s an e	xample of — types of (CO4, K1)	
	(a)	Turbine	(b)	Gravity	
	(c)	Diffuser	(d)	Surface	
8.	Whe	ere would you norn	nally g	o diving to see a clownfish?	
				(CO4, K3)	
	(a)	Rivers and Estua	aries		
	(b)	Corals			
	(c)	Open Ocean			
	(d)	Mangroves			
9.	Whi	ch of the following	is live	animal foods. (CO5, K5)	
	(a)	Brine shrimp	(b)	Copepods	
	(c)	Tubifex worms	(d)	All of the above	
10.	MPI	EDA headquarter i	s locat	zed at ———. (CO5, K2)	
	(a)	Mumbai	(b)	Delhi	
	(c)	Chennai	(d)	Kochi	
			2	R2334	

Part B

 $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) Write a short note on aquarium accessories.

(CO1, K2)

Or

(b) Explain about the exotic ornamental fishes.

(CO1, K3)

12. (a) What are the types of aquaponics systems?

(CO2, K2)

Or

- (b) How do you design the aquarium for various ornamental fishes? (CO2, K3)
- 13. (a) How do you maintain the water quality parameters in ornamental fish farm? (CO3, K4)

Or

- (b) What are the different types of marine ornamental fishes? (CO3, K2)
- 14. (a) Describe health management practices in live feed production. (CO4, K3)

Or

- (b) What is the role of live feeds in ornamental fish trade? (CO4, K1)
- 15. (a) Explain the present status of international ornamental fish trade. (CO5, K2)

Or

(b) Write a brief account on government subsidies in ornamental fish trade. (CO5, K6)

R2334

**Part C**  $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Write an essay on the history and status of ornamental fish culture. (CO1, K2)

Or

(b) Explain the types and design of marine aquarium.

(CO1, K1)

17. (a) Describe the types, present status, and importance of aquaponics. (CO2, K4)

Or

- (b) How do you culture the plant and animal species using aquaponics? (CO2, K3)
- 18. (a) Write about the equipment and accessories required for ornamental fish hatchery. (CO3, K3)

Or

- (b) Explain about the ornamental fish farm management practices. (CO3, K5)
- 19. (a) Write an essay on marine aquarium fish trading in India. (CO4, K3)

Or

- (b) Give detailed account on different media used for live feed production. (CO4, K2)
- 20. (a) Describe the role of live feeds in ornamental fish hatcheries. (CO5, K5)

Or

(b) Discuss in detail – High value marine ornamental fishes (CO5, K4)

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R2334

Sub. Code 548NM2

#### M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

## **Integrated Marine Biology**

NME: AQUARIUM KEEPING

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer all the following objective type questions by choosing the correct option.

- 1. Which one of the following nitrogen wastes is the most harmful? (CO1, K1)
  - (a) Nitrate
  - (b) Ammonia
  - (c) Nitrite
  - (d) All of the above
- 2. Feeding habits of goldfish is (CO1, K2)
  - (a) Herbivore
  - (b) Carnivore
  - (c) Omnivore
  - (d) None of the above

3.	Aquarium water should be aerated during (CO2, K2				(CO2, K2)
	(a)	Night			
	(b)	Evening			
	(c)	Early morning	ng		
	(d)	Noon			
4.		heing	first amo	no ornamental	fish producing
т,	coun		mst amo	ng ornamentar	(CO2, K4)
	(a)	Japan	(b)	Malaysia	
	(c)	Singapore	(d)	China	
5.		ch state in uction?	India ha	as highest or	namental fish (CO3, K4)
	(a)	Tamil Nadu			
	(b)	Kerala			
	(c)	Maharashtra	a		
	(d)	West Bengal			
6.	Whi	ch one of the	following	criteria used	for selection of
	orna	mental fish?			(CO3, K2)
	(a)	Able to live i	n confined	conditions	
	(b)	Should be di	sease resis	stance	
	(c)	Able of feed	natural fee	ed and artificia	l diets
	(d)	All of the abo	ove		
			2		R2335

7.	Identify the following one which is used as fish anesthetics (CO4, K2)						
	(a)	Tri-sodium citrate					
	(b)	Benzocaine					
	(c)	Tricaine					
	(d)	All of the above					
8.		ch one of the following is the bacterial disea mental fish? (CO	ase in 4, K2)				
	(a)	Fin and Tail Rot disease					
	(b)	Gas bubble disease					
	(c) Argulosis						
	(d)	All of the above					
9.	Identify the following marine ornamental fish (CO5, K4)						
	(a)	Goldfish (Carassius auratus)					
	(b)	Angel fish (Pterophillumscalare)					
	(c)	Anemone fish (Amphiprion sp.)					
	(d)	All of the above					
10.	The main features of the live feeds are ——— (CO5, K3)						
	(a)	) It refers to living organisms					
	(b)	It is easily digestible natural food					
	(c)	(c) It will not pollute the tank and provide brilliant colouration					
	(d)	) All of the above					
		3 R23	335				

Part B

 $(5 \times 5 = 25)$ 

Answer all the questions in not more than 500 words each.

11. (a) Write about the importance of aquarium. (CO1, K2)

Or

- (b) Give account on status of ornamental fish trade. (CO1, K1)
- 12. (a) Explain about filters and medias used in aquariums. (CO2, K3)

Or

- (b) How do you set up a freshwater aquarium in your home? (CO2, K3)
- 13. (a) Explain about the importance of live feed in aquarium. (CO3, K2)

Or

- (b) Outline about the management of aquarium. (CO3, K4)
- 14. (a) Outline the disease treatment methods in aquarium. (CO4, K2)

Or

- (b) Illustrate the fungal diseases in aquarium fishes. (CO4, K2)
- 15. (a) Summaries the design and construction of ornamental fish farm. (CO5, K1)

Or

(b) Describe about the breeding of ornamental fishes. (CO5, K4)

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**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions in not more than 1000 words each.

16. (a) Write a detailed account on ornamental fish trade. (CO1, K2)

Or

- (b) Describe about ornamental aquatic plants with suitable examples. (CO1, K1)
- 17. (a) Discuss different types of equipment used in aquarium. (CO2, K6)

Or

- (b) How do you design the marine aquarium? Explain with neat illustration. (CO2, K3)
- 18. (a) Write an account on care and maintenance of aquarium. (CO3, K2)

Or

- (b) Discuss in detail Criteria for selection of ornamental fishes. (CO3, K3)
- 19. (a) Write an essay on diseases of ornamental aquarium fishes. (CO4, K2)

Or

(b) Give detailed account of disease control measures in aquariums. (CO4, K2)

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20. (a) Outline the ornamental fish brood stock management measures. (CO5, K1)

Or

(b) Summaries about the packing and transport of aquarium fishes. (CO5, K4)

Sub. Code 549NM2

## M.A. DEGREE EXAMINATION, NOVEMBER – 2024

## **Public Administration**

# NME : INDIAN PUBLIC ADMINISTRATION FOR CIVIL SERVICES

		(CBCS –	2022	onwards)				
Tim	e : 3 I	Hours		Maxim	um : 75 Marks			
		Pa	rt A		$(10 \times 1 = 10)$			
Ar	nswer	<b>all</b> the following of	bjectiv ect op		choosing the			
1.		ch part of the cenship?	India	n constitution	provides for (CO1, K2)			
	(a)	Part I	(b)	Part II				
	(c)	Part III	(d)	Part IV				
2.		ch emergency pro an Constitution?	ovisio	n is not men	tioned in the (CO1, K2)			
	(a)	) National emergency						
	(b)	Financial emergency						
	(c)	(c) Constitutional emergency						
	(d)	Disaster emergency						
3.	is the first citizen of India. (CO2, K3							
	(a)	Prime Minister	(b)	President				
	(c)	Governor	(d)	None of the al	oove			

	is the	suprem	e judicia	l autho	ority of India. (CO2, K3)			
(a)	Supreme Cour	t						
(b)	High Court							
(c)	District Court							
(d)	None of the ab	ove						
Who	is the head of t	he distri	cts?		(CO3, K5)			
(a)	District collect	or						
(b)	District revenue officer							
(c)	Block developr	Block development officer						
(d)	None of the ab	ove						
	they follow the	laws pas	ssed by p	arliam	must ensure ent. (CO3, K5)			
(a)	Article 254	(b)						
(c)	Article 256	(d)	Article	257				
Cent	tral vigilance c 	ommissi	on was	created	d in the year (CO4, K6)			
(a)	1964	(b)	1974					
(c)	1984	(d)	1994					
——Autl	was on which was on which was on which was on was o		under	the L	egal Services (CO4, K6)			
(a)	Lok Adalat							
(b)	Lokpal							
(c)	State Human Rights Commission							
(d)	National Hum	an Right	ts Comm	ission				
	is no	t a m	ember (	country	of SAARC. (CO5, K4)			
(a)	Pakistan	(b)	India					
(c)	SriLanka	(d)	Malays	sia				

10.	Indi	a's peace keeping for	ce was rent to	(CO5, K4)
	(a)	China	(b) Japan	
	(c)	Italy	(d) Srilanka	
		Part	В	$(5 \times 5 = 25)$
	Ans	wer <b>all</b> questions not	more than 500 wor	rds each.
11.	(a)	Outline the fur Constitution.	ndamental duties	of Indian (CO1, K2)
			Or	
	(b)	Summarize the prostate policy.	ovisions of directive	e principles of (CO1, K2)
12.	(a)	Identify the powers	of parliament.	(CO2, K3)
			Or	
	(b)	Identify the powers	of cabinet secretar	riat. (CO2, K3)
13.	(a)	Assess the role Administration.	e of collector	in District (CO3, K5)
			Or	
	(b)	Evaluate functions	of high court.	(CO3, K5)
14.	(a)	Estimate the functi	ons of Lokayukta.	(CO4, K6)
			Or	
	(b)	Elaborate the feat	ares of Information	CO4, K6)
15.	(a)	Examine SAARC.		(CO5, K4)
			Or	
	(b)	Examine BRICS.		(CO5, K4)
			3	R2336

Part C  $(5 \times 8 = 40)$ Answer all the questions not more than 1000 words each. Explain the salient features of Indian Constitution. 16. (CO1, K2) Or (b) Summarize the emergency provisions in the Indian Constitution. (CO1, K2) 17. (a) Identify the powers and functions of President. (CO2, K3) Or of Prime (b) Identify the powers and functions Minister. (CO2, K3) 18. Evaluate the functions of Secretariat. (CO3, K5) (a) Or Assess the role of state Election Commission. (b) (CO3, K5) 19. (a) Elaborate the functions of Central Vigilance Commission. (CO4, K6) Or (b) Estimate the working of Public Grievance Redressal Mechanism at the centre. (CO4, K6) 20. Examine India's relations with Pakistan. (CO5, K4) (a)

Or

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Examine India's relations with Srilanka. (CO5, K4)

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(b)

Sub. Code 551NM2

## M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Computer Science**

#### NME - WEB DESIGNING

(CBCS - 2022 onwards)

Answer **all** the following objective type questions by choosing the correct option.

- 1. Which tag tells the browser where the page starts and stops? (CO1, K2)
  - (a) <html>
- (b) <body>
- (c) <head>
- (d) <title>
- 2. Which section is used for text and tags that are shown directly on your web page? (CO1, K1)
  - (a) Head
- (b) Meta tags
- (c) Body
- (d) title
- 3. To create HTML page, you need

(CO2, K4)

- (a) Web browser
- (b) text editor
- (c) Both (a) and (b)
- (d) None of the above
- 4. The <HR> tag is used for

(CO2, K2)

- (a) horizontal ruler
- (b) new line text
- (c) new paragraph
- (d) vertical ruler

5.	To st	tart a list using circ	(CO3, K4)						
	(a)	<ul "round"=""></ul>							
	(b)	<ul><li><ul type="circle"></ul></li></ul>							
	(c)	<ul><li><ul type="round"></ul></li></ul>	•						
	(d)	<ul ="round"=""></ul>							
6.	Whic	ch tag can set the	back	ground color for	your page? (CO3, K2)				
	(a)	<body></body>	(b)	<font></font>					
	(c)	<head></head>	(d)	<title>&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;7.&lt;/td&gt;&lt;td&gt;Wha&lt;/td&gt;&lt;td&gt;t does DHTML Sta&lt;/td&gt;&lt;td&gt;nd Fo&lt;/td&gt;&lt;td&gt;or?&lt;/td&gt;&lt;td&gt;(CO4, K4)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(a)&lt;/td&gt;&lt;td&gt;Digital HTML&lt;/td&gt;&lt;td&gt;(b)&lt;/td&gt;&lt;td&gt;Data-Binding H&lt;/td&gt;&lt;td&gt;ITML&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(c)&lt;/td&gt;&lt;td&gt;Dynamic HTML&lt;/td&gt;&lt;td&gt;(d)&lt;/td&gt;&lt;td&gt;Document HTM&lt;/td&gt;&lt;td&gt;IL&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;8.&lt;/td&gt;&lt;td colspan=4&gt;margin, border, color, and background propertie&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(a)&lt;/td&gt;&lt;td&gt;HTML&lt;/td&gt;&lt;td&gt;(b)&lt;/td&gt;&lt;td&gt;PHP&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(c)&lt;/td&gt;&lt;td&gt;CSS&lt;/td&gt;&lt;td&gt;(d)&lt;/td&gt;&lt;td&gt;Ajax&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;9.&lt;/td&gt;&lt;td&gt;Whi&lt;/td&gt;&lt;td&gt;ch one of the followi&lt;/td&gt;&lt;td&gt;ing is&lt;/td&gt;&lt;td&gt;a form element?&lt;/td&gt;&lt;td&gt;(CO5, K4)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(a)&lt;/td&gt;&lt;td&gt;Text box&lt;/td&gt;&lt;td&gt;(b)&lt;/td&gt;&lt;td&gt;Radio button&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(c)&lt;/td&gt;&lt;td&gt;Submit button&lt;/td&gt;&lt;td&gt;(d)&lt;/td&gt;&lt;td&gt;All of these&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;10.&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;ch of the following i&lt;br&gt;me/value pair to a i&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;s used to add&lt;br&gt;(CO5, K2)&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(a)&lt;/td&gt;&lt;td&gt;itemscope&lt;/td&gt;&lt;td&gt;(b)&lt;/td&gt;&lt;td&gt;itemref&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;(c)&lt;/td&gt;&lt;td&gt;itemprop&lt;/td&gt;&lt;td&gt;(d)&lt;/td&gt;&lt;td&gt;itemid&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;2&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;R2337&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;/tbody&gt;&lt;/table&gt;</title>					

Part B

 $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) List and explain any five HTML elements. (CO1, K2)

Or

- (b) Discuss about the attributes of hyperlink tag in HTML. (CO1, K2)
- 12. (a) Illustrate about ordered and unordered lists with suitable examples. (CO2, K4)

Or

- (b) Illustrate how to embed images in websites. (CO2, K4)
- 13. (a) Elucidate about frames in HTML. (CO3, K1)

Or

- (b) Describe about colouring cell using HTML. (CO3, K1)
- 14. (a) Explain about in line styles. (CO4, K1)

Or

- (b) Discuss about the features of DHTML. (CO4, K1)
- 15. (a) Describe about action attribute. (CO5, K4)

Or

(b) Explain about submit and reset buttons. (CO5, K4)

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**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Create a HTML document for a Collage home page displaying various courses offered. (CO1, K5)

Or

- (b) Explain about browsers and search engine. (CO1, K5)
- 17. (a) Describe the attributes of image tag and its uses. (CO2, K4)

Or

- (b) Discuss about Heading, aligning heading and printing. (CO2, K4)
- 18. (a) Write a HTML coding for creating table with various width and cells. (CO4, K5)

Or

- (b) Explain about nested lists. (CO4, K5)
- 19. (a) Enumerate about internal and external style sheets. (CO4, K4)

Or

- (b) What is style sheet? Explain the text properties in CSS with suitable example. (CO4, K4)
- 20. (a) Elucidate about check box and radio buttons. (CO5, K4)

Or

(b) Explain about designing sample forms. (CO5, K4)

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Sub. Code 558NM2

## M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Nutrition and Dietetics**

#### NME - FOOD PRESERVATION

(CBCS - 2023 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective type questions by choosing the correct option.

- 1. A good method of food preservation is one that \_\_\_\_\_. (CO1, K1)
  - (a) Slow down the action of the agents of spoilage
  - (b) Prevents altogether the action of the agents of spoilage
  - (c) The food should not be damaged
  - (d) All of these
- 2. Which of the following food items can be used as natural food preservatives? (CO1, K2)
  - (a) Ginger, garlic, banana and tamarind
  - (b) Garlic, apple, salt and tamarind
  - (c) Garlic, lemon, sugar and vinegar
  - (d) Vinegar, ginger, apple and banana

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	(d)	Canning
	(c)	Freezing
	(b)	Drying
	(a)	Heating
6.	food	process of sealing fruits and vegetables or any other stuffs airtight containers and sterilizing them by heat ong storage is known as (CO3, K1)
	(d)	Fats and oils
	(c)	Milk and Milk products
	(b)	Fruits and Vegetables
	(a)	Cereals and pulses
5.	Ran	cidity is the deterioration of (CO3, K2)
	(d)	Hydroxyle and oxygen
	(c)	Hydrogen and hydroxyl
	(b)	Nitrogen
	(a)	Hydrogen
4.	_	is really a measure of the relative amount of free rogen and hydroxyl ions in the water. (CO2, K1)
	(d)	Meat
	(c)	Yogurt
	(b)	Avocadoes
	(a)	Nuts
3.	Whi	ch one is not a perishable food items? (CO2, K2)

7.		method of drying includes heated air, et contact of heated surface, application of energy a radiating microwave or dielectric source.  (CO4, K1)
	(a)	Natural
	(b)	Mechanical
	(c)	Natural and mechanical
	(d)	None of these
8.		ch type of pickle is produced using a more entrated brine (up to 16% salt) and is preserved by salt and not by fermentation? (CO4, K1)
	(a)	Fermented pickle
	(b)	Sweet pickle
	(c)	Salt stock pickle
	(d)	Salted vegetables
9.		quantity of radiation energy absorbed by the food is d (CO5, K1)
	(a)	Calories of radiation
	(b)	Grams of radiation
	(c)	Radiation amount
	(d)	Radiation dose
10.		irradiation is the food preservation technique in the food is exposed to ionizing radiation beams (CO5, K1)
	(a)	Gamma rays
	(b)	Electron beams
	(c)	X-rays
	(d)	All of these
		3 <b>R2338</b>

Part B

 $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) Give a brief note on principles and methods of food preservation. (CO1, K3)

Or

- (b) Describe in detailed account on the regulation of food additives. (CO1, K3)
- 12. (a) Identify the shelf life of perishable and semi perishable foods. (CO2,K2)

Or

- (b) Discuss the microorganisms in the spoilage of meat and meat products. (CO2, K2)
- 13. (a) Give a brief note on food item changes occurring during freezing. (CO3, K2)

Or

- (b) Which heat preservation method is used for vegetables preservation? Brief it. (CO3, K2)
- 14. (a) Write a short note on mechanical drying. (CO4, K3)

Or

- (b) What are the factors affecting rate of drying? Brief it. (CO4, K3)
- 15. (a) Discuss about the units of radiation. (CO5, K4)

Or

4

(b) Explain the Kinds of ionizing radiations used in food irradiation. (CO5, K4)

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Part C

 $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Give an account on the methods of food preservation. (CO1, K3)

Or

- (b) Write a short note on the following international standards: FDA and HACCP. (CO1, K3)
- 17. (a) Describe the contamination and spoilage of microbes in cereals and cereal products and explain how to prevent it. (CO2, K2)

Or

- (b) Explain about the fish and other sea foods contamination, spoilage, preservation and control of microorganisms. (CO2, K2)
- 18. (a) Elucidate the principle of freezing and how to use slow freezing in the food preservation. (CO3, K4)

Or

- (b) Determine the different methods of high temperatures used in food preservation, with examples. (CO3, K4)
- 19. (a) Interpret the types of driers used in the food industry. (CO4, K5)

Or

(b) Explain in detail about the preservation by high concentration of sugar. (CO4, K5)

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20. (a) Summarize the mechanism of action, concept of cold sterilization. (CO5, K3)

Or

(b) Explain the preparation steps for jam and jelly in the food industry. (CO5, K3)

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Sub. Code 622NM2

# M.B.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### Corporate Secretaryship

#### NME - BUSINESS ETHICS

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective type questions by choosing the correct option.

- 1. An organization's obligation to protect to protect and improve society's welfare as well as its own interests is referred as (CO1, K1)
  - (a) Organizational social responsibility
  - (b) Organizational social responsiveness
  - (c) Corporate obligation
  - (d) Business ethics
- 2. The nature of business ethics does not include (CO1, K1)
  - (a) Focus on human values
  - (b) Social work
  - (c) Branch of philosophy
  - (d) Applies moral principles
- 3. Deontological Theory of ethics is not concerned with (CO2, K1)
  - (a) Duty ethics (b) Obligation ethics
  - (c) Rule based ethics (d) Classical ethics

- 4. Virtue ethics is acquired by
  - (a) Instinct and action
  - (b) Instruction and memory
  - (c) Thought and reflection
  - (d) Practice and habit
- 5. The key component of the Due Care Theory is (CO3, K1)
  - (a) Ensuring product affordability
  - (b) Minimizing environmental impact
  - (c) Protecting consumers from harm
  - (d) Increasing market share
- 6. Which of the following is primarily concerned with the dimensions of pollution and resource depletion? (CO3, K1)
  - (a) Due Care Theory
  - (b) Ethical Decision Making
  - (c) External Context Ecology
  - (d) Virtue Ethics
- 7. The critical issue addressed under job discrimination in business ethics is (CO4, K1)
  - (a) Promoting global trade
  - (b) Ensuring fair treatment of employees
  - (c) Increasing employee productivity
  - (d) Simplifying organizational hierarchy
- 8. The internal context concerning the employees does not focus on (CO4, K1)
  - (a) Job Discrimination
  - (b) Employee Rights
  - (c) Consumer Protection
  - (d) Ethical Audit

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(CO2, K1)

9.	The inter	Key topic related rnational business is	to ethical	perception in (CO5, K1)
	(a)	Job Discrimination		(,
	(b)	Economic Issues		
	(c)	Global Values		
	(d)	Ideology Theory		
10.	, ,	Subjective aspects of cul	lture excludes	(CO5, K1)
	(a)	Language (b)	Values	(,
	(c)	Belief (d)	Attitude	
		Part B		$(5 \times 5 = 25)$
	Ansv	wer <b>all</b> questions not mo	ore than 500 w	vords each.
11.	(a)	Explain the nature of b		
	(b)	Interpret the benefits of	of business eth	nics. (CO1, K2)
12.	(a)	Explain the concept of Or	virtue ethics.	(CO2, K4)
	(b)	Write a note on Justi organization.	ice and Fairn	less in business (CO2, K4)
13.	(a)	State the initiatives organization for enviro		
	(b)	Enumerate the ethi	cal issues	in advertising. (CO3, K4)
14.	(a)	Determine the ethical the organization.	obligations of	
	4.)	Or	. ,	C 11: 1 1:1
	(b)	Write short notes on	importance of	(CO4, K2)
15.	(a)	Describe the significan economy.	ce of business	ethics in global (CO5, K5)
		Or		
	(b)	Interpret the cross-cuinternational business.		l challenges in (CO5, K5)

Part C

 $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Narrate the common ethical issues in business. (CO1, K2)

Or

- (b) Report the framework of ethical decision making. (CO1, K2)
- 17. (a) Interpret the Theory of Deontology with suitable example. (CO2, K4)

Or

- (b) Describe the Role of Corporate culture and leadership in business success. (CO2, K4)
- 18. (a) Define Consumer privacy and state the significance of consumer privacy. (CO3, K4)

Oı

(b) Illustrate and explain the Due Care theory. (CO3, K4)

19. (a) Report the employee's job discrimination in terms of utility, rights and justice. (CO4, K2)

Or

- (b) Elucidate the duties to be fulfilled by the organization to its employees. (CO4, K2)
- 20. (a) Elaborate the principles relating to ethical decision making in international business. (CO5, K5)

Or

(b) Discuss the strategies to overcome cross-religion and cross racial issues in international business. (CO5, K5)

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R2339

Sub. Code 632NM2

## M.B.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Banking and Insurance**

#### NME: BASICS OF INVESTMENT

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following questions by choosing the correct option.

- 1. Investment made in real estate is (CO1,K2)
  - (a) Real investment
  - (b) Financial investment
  - (c) Non financial investment
  - (d) Intangible investment
- 2. Which of the following is a contingent investment?

(CO1,K2)

- (a) Recurring deposit
- (b) Bonds
- (c) Equity shares
- (d) Life insurance policy
- 3. What is a bull market?

(CO2, K4)

- (a) A market with rising prices
- (b) A market with falling prices
- (c) A market with stable prices
- (d) A market with high volatility

4.	Whic	(CO2,K4)			
	(a)	Nifty	(b)	Sensex	
	(c)	BSE 100	(d)	BSE 200	
5.	Wha	t is the primary fur	nction	n of a trading pla	tform? (CO3,K4)
	(a)	To provide market	data	L	
	(b)	To enable trading			
	(c)	To offer research t	cools		
	(d)	To provide custom	er su	pport	
6.	Wha	t is the purpose of a	a stop	o–loss order?	(CO3,K4)
	(a)	To maximize profi	ts		
	(b)	To lock in profits			
	(c)	To minimize losses	$\mathbf{s}$		
	(d)	To increase risk			
7.	Wha	t is the risk level as	ssocia	ated with ELSS is	nvestment? (CO4,K2)
	(a)	Low risk	(b)	Medium risk	
	(c)	High risk	(d)	Very high risk	
8.	Wha	t is the benefit	of in	vesting in an	index fund? (CO4,K2)
	(a)	Potential for high	retur	rns	
	(b)	Professional mana	igeme	ent	
	(c)	Low fees and expe	nses		
	(d)	All of the above			
9.	_	does insurance pr ning?	emiu	m coverage help	in financial (CO5,K5)
	(a)	By providing inves	stmer	nt opportunities	
	(b)	By providing tax b	enefi	ts	
	(c)	By providing risk	mana	agement	
	(d)	By providing retire	emen	t planning	
			2		R2340

10.	Wha	(CO5,K5)					
	(a)	A request to cancel a policy					
	(b)	A request to change a policy					
	(c)	A request to invest in a policy					
	(d)	A request to pay for a loss.					
		Part B	$(5 \times 5 = 25)$				
	Ansv	wer all questions not more than 500 words	each.				
11.	(a)	Outline the significance of investment.	(CO1,K2)				
		$\operatorname{Or}$					
	(b)	Compare the shares with bonds.	(CO1,K2)				
12.	(a)	Examine the salient features of NSE.	(CO2,K4)				
		$\operatorname{Or}$					
	(b)	How does a company determines its proprice while making IPO?	ublic other (CO2,K4)				
13.	(a)	How do trading platforms ensure secreliability?	curity and (CO3,K4)				
		$\operatorname{Or}$					
	(b)	What do you mean by net position?	(CO3,K4)				
14.	(a)	List out the benefits of investing thought	SIP. (CO4,K2)				
		$\operatorname{Or}$					
	(b)	Outline the characteristics of sector funds	s. (CO4,K2)				
15.	(a)	Assess the need for insurance.	(CO5,K5)				
		$\operatorname{Or}$					
	(b)	How to buy a insurance policy.	(CO5,K5)				
		3	R2340				

Part C  $(5 \times 8 = 40)$ Answer all questions, not more than 1000 words each. Classify the various types of Investment. (CO1,K2) 16. (a) Or What is Bit coin? Is it bit coin a good investment? (b) (CO1,K2) 17. Explain the various terms in stock exchanges. (a) (CO2,K4) OrHow do the mid cap stocks compare to large cap (b) stocks in terms of risk and return? (CO2,K4) 18. Distinguish between web based desktop and mobile (a) trading terminus. (CO3,K4) Or (b) Explain the features of online trading. (CO3,K4)19. How does STP work, and what are its benefits? (a) (CO4, K2) Or (b) Explain the procedure to invest in mutual funds. (CO4,K2) 20. Describe the various types of insurance. (CO5, K5)(a) Or (b) Explain the process of insurance claims. (CO5, K5)

R2340

Sub. Code 641NM2

## M.B.A. (General) DEGREE EXAMINATION, NOVEMBER – 2024

#### Management

#### NME — MANAGEMENT OF SMALL BUSINESS

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct option.

- 1. Khadi and village industries are identified as (CO1, K1)
  - (a) Large-scale industries
  - (b) Traditional small-scale industries
  - (c) Modern small-scale industry
  - (d) Medium-scale industry
- - (a) Village industries
  - (b) Micro Business industry
  - (c) Export-oriented unit
  - (d) Ancillary small industry

3.	Expa	(CO2, K1)					
	(a)	Society Industrial	Deve	elopment Bank of I	ndia		
	(b)	Small Industries I	Devel	opment Bank of In	dia		
	(c)	Super Industrial I	Devel	opment Bank of In	dia		
	(d) Small Indian Development Bank of India						
4.	Expa	and DIC			(CO2, K1)		
	(a)	Directorate of Ind	ustry	corporation			
	(b)	Directorate of Indi	ian C	orporation			
	(c)	District Industries	s Cen	ters			
	(d)	None of the above					
5.	to so	lving an identified	is the response of a person or an organization ving an identified problem or to meeting perceived. (CO3, K2)				
	(a)	Business Plan	(b)	Business Idea			
	(c)	Feasibility study	(d)	None of these			
6.		ll scale industries epreneurs have a sl			-		
	(a)	25 percent	(b)	50 percent			
	(c)	51 percent	(d)	20 percent			
7.	Why the majority of women are unaware of technological developments? (CO4, K1)						
	(a)	Low-risk bearing a	abilit	y			
	(b)	Low mobility					
	(c)	Lack of education					
	(d)	Low need for achie	evem	ent			

R2341

		3	R2341
	(b)	Present the difference between Enterprises and Large-scale industries.	Small-Scale (CO 1, K3)
		$\operatorname{Or}$	
11.	(a)	Mention the scope of Small-Scale	Enterprises. (CO 1, K3)
	Ans	wer <b>all</b> questions not more than 500 word	ls each.
		Part B	$(5 \times 5 = 25)$
	(d)	Family business dynamics	
	(c)	Family feuds	
	(b)	Organizational culture	
	(a)	Succession planning	
10.	busi	at is the term for conflicts that arise wit ness due to differences in goals, ectations?	thin a family values, or (CO5, K2)
	(d)	Market development strategy	
	(c)	Intensive expansion strategy	
	(b)	Stability strategy	
	(a)	Expansion strategy	
9.		ch one of the following strategy is fol epreneur in the starting phase of their bu	-
	(c)	Stiff Competition (d) Supervision	
	(a)	Social attitude (B) Finance cells	

8.

12. Briefly explain the various functions of DIC. (a) (CO2, K4) OrExplain the operating mechanism and contribution (b) development agencies for Small-Scale Enterprises' growth. (CO2, K4) 13. Outline the importance of market assessment for (a) Small-Scale Enterprises. (CO3, K2) OrSummarize the benefits of various forms of (b) ownership structure of Small-Scale Enterprises. (CO3, K2) 14. (a) Outline the salient features of the "Small Business Promotion programme". (CO4, K4) Or

- (b) Briefly explain the operation management issues faced by Small-Scale Enterprises. (CO4, K4)
- 15. (a) Write a note on the advantages of performance assessment and control. (CO5, K3)

Or

(b) What are the components of growth strategies for Small-Scale businesses? Explain. (CO5, K3)

R2341

Part C

 $(5 \times 8 = 40)$ 

Answer all questions not more than 1000 words each.

16. (a) Discuss the importance of Small-Scale Enterprises in the Indian Economy. (CO1, K4)

Or

- (b) Discuss the efforts taken by the government to develop Small-Scale Enterprises in India. (CO1, K4)
- 17. (a) Explain the various environmental factors that influence the development of Small-Scale Enterprises in India. (CO2, K5)

Or

- (b) Explain the role of funding agencies in the growth of Small-Scale Enterprises in India. (CO2, K5)
- 18. (a) Discuss the various methods of financing available to Small-Scale Enterprises. (CO3, K5)

Or

- (b) Enumerate the steps involved in effective business plan preparation. (CO3, K5)
- 19. (a) Demonstrate the financial issues faced by Small-Scale Enterprises. (CO4, K4)

Or

(b) Present the marketing issues faced by Small-Scale Enterprises. (CO4, K4)

R2341

20. (a) Discuss the challenges involved in the management of family enterprises. (CO5, K5)

Or

(b) How are stabilization strategies helpful for Small-Scale enterprises? Discuss. (CO5, K5)

Sub. Code 645NM2

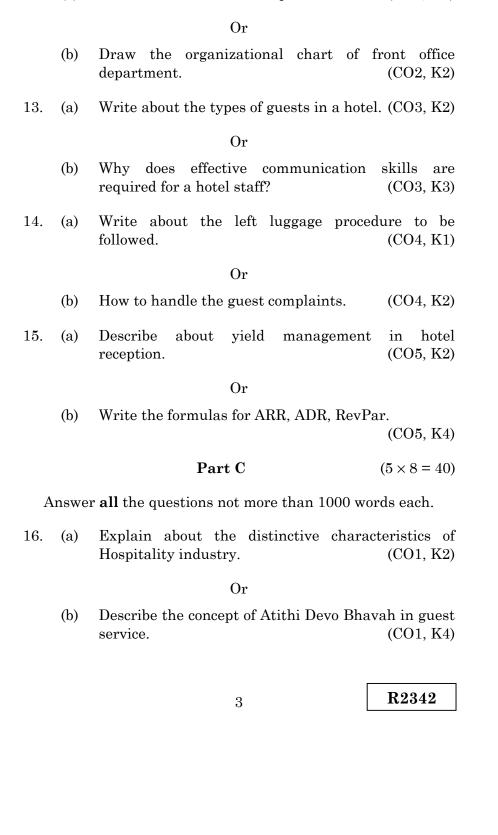
# M.B.A. DEGREE EXAMINATION, NOVEMBER - 2024

# **Tourism Management**

## NME: HOSPITALITY AND HOTEL MANAGEMENT

			(CBC	CS - 2	2022	on	ward	ls)				
Time	: 3 H	ours						Maxim	um	: 75	Marks	i
	Pa			Par	rt A				(1	$\times 0$	1 = 10)	)
An	swer a	all the fo	ollowi	ng ob	jecti	ve q	uesti	ions by	cho	osin	g the	
				corre	ect ar	ıswe	er.					
1.	The	hotels	that	are	loca	ated	on	highw	ays		called 1, K1)	
	(a)	Motel			(b)	Fl	oatel	l				
	(c)	Transit	hotel		(d)	Sı	ıburl	oan Hot	el			
2.			is	the	sub	dep	artm	ent of	fro		office. 01, K1)	
	(a)	Telepho	ones		(b)	Re	eserv	ation				
	(c)	Valet			(d)	Lo	bby					
3.	The	plan alo	ng wi	th b	reakt	fast,	lund	ch or di	inne		called 2, K1)	
	(a)	MAP			(b)	$\mathbf{C}$	P					
	(c)	EP			(d)	B	P					
4.	The	program	that	cert	ifies	safe	and	l hygiei	ne p		cices is 02, K1)	
	(a)	HRACO			(b)	SI	HRA					
	(c)	HACCE	)		(d)	C	DC					
5.	Who	is the	e hea	id o	f F	&B	prod	duction	de		ment? 03, K2)	
	(a)	Boulan	ger		(b)	Cl	nef d	e cuisin	ıe			
	(c)	Tourna	nt		(d)	Ga	arde	Mange	r			

6.	A highly trained member of the staff who takes care on needs of in-house guest is (CO3,						
	(a)	Captain	(b)	Sommelier			
	(c)	Butler	(d)	Waiter			
7.	The	other name for depa	artur	e is	(CO4, K1)		
	(a)	Check-out	(b)	Arrival			
	(c)	Pre-arrival	(d)	None of these			
8.	_	est who leaves the	e hot	el without making	the final (CO4, K1)		
	(a)	Thief	(b)	Porter			
	(c)	Busboy	(d)	Skipper			
9.	-	unts assigned to inva as	ual guests or a gu	estroom is (CO5, K2)			
	(a)	Master Folio	(b)	Guest Folio			
	(c)	City Folio	(d)	All the above			
10.	disbu	is a vou		used to support half of a guest.	the cash (CO5, K2)		
	(a)	Cash	(b)	Paid-outs			
	(c)	Allowance	(d)	Charge			
		Par	rt B	(	$5 \times 5 = 25)$		
A	nswe	r all the questions	not m	ore than 500 word	s each.		
11.	(a)	Write about the t	ypes	of hotels based or			
			Or				
	(b)	Explain the var	rious	F&B outlets in	a hotel. (CO1, K1)		
			2		R2342		



Write short notes on Meal plans.

(CO2, K2)

12.

(a)

17. (a) Write in detail about operational and supporting departments in a hotel. (CO2, K2)

Or

- (b) Explain the recent trends in food and lodging industry. (CO2, K4)
- 18. (a) What are the procedures to be followed while assigning a room to guest? (CO3, K4)

Or

- (b) List out the various types of rooms in a hotel along with the description. (CO3, K1)
- 19. (a) Describe about the custody and control of keys in housekeeping. (CO4, K4)

Or

- (b) Explain about the Mail handling and Message handling procedure in detail. (CO4, K3)
- 20. (a) Explain the elements and benefits of yield management in hotels. (CO5, K3)

Or

(b) How to evaluate the hotel performance using various formulas? (CO5, K4)

Sub. Code 646NM2

## M.B.A. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Disaster Management**

#### NME: CLIMATE CHANGE AND SOCIETY

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

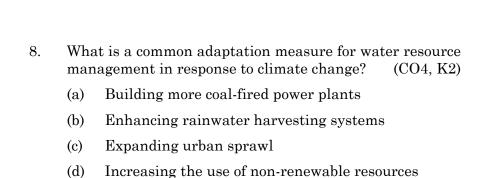
**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective type questions by choosing the correct option.

- 1. Which of the following gases is primarily responsible for the greenhouse effect? (CO1, K2)
  - (a) Carbon Dioxide (b) Oxygen
  - (c) Nitrogen (d) Hydrogen
- 2. Which of the following is a potential impact of climate change on human health? (CO1, K2)
  - (a) Improved air quality
  - (b) Increased frequency of extreme weather events
  - (c) Decreased sea levels
  - (d) Reduction in global temperatures
- 3. Which body of the United Nations is primarily responsible for climate change issues? (CO2, K2)
  - (a) UNESCO
- (b) UNDP
- (c) UNFCCC
- (d) WHO

- 4. What is the National Action Plan on Climate Change (NAPCC) in India aimed at? (CO2, K2)
  - (a) Increasing coal production
  - (b) Promoting sustainable development
  - (c) Reducing the number of electric vehicles
  - (d) Expanding urban areas without planning
- 5. What is the primary goal when determining relief needs during a disaster? (CO3, K2)
  - (a) Increase carbon emissions
  - (b) Halt all agricultural activities
  - (c) Assess the immediate needs of affected populations
  - (d) Promote fossil fuel usage
- 6. Which policy is crucial for promoting climate change adaptation in agriculture? (CO3, K2)
  - (a) Implementing sustainable farming practices
  - (b) Expanding urban development
  - (c) Reducing renewable energy usage
  - (d) Increasing fossil fuel subsidies
- 7. What is a primary goal of assessing the impact of climate change on water resources? (CO4, K2)
  - (a) To increase fossil fuel use
  - (b) To expand urban areas
  - (c) To promote industrial growth
  - (d) To understand changes in water availability and quality

R2343



- 9. What is a common impact of climate change on coastal zones? (CO5, K2)
  - (a) Decreased air temperatures
  - (b) Reduced UV radiation
  - (c) Increased landmass area
  - (d) Increased sea level rise
- 10. What is a key feature of effective governance for coastal adaptation? (CO5, K2)
  - (a) Lack of stakeholder involvement
  - (b) Comprehensive and inclusive policy frameworks
  - (c) Minimal regulation of coastal development
  - (d) Ignoring scientific research

Part B  $(5 \times 5 = 25)$ 

Answer all questions not more than 500 words each.

11. (a) Explain the concept of adaptation to climate change and provide an example of an adaptation strategy used in agriculture. (CO1, K3)

Or

(b) Describe how extreme weather events can impact public health and provide an example of a health impact caused by such an event. (CO1, K3)

R2343

12. (a) Explain the role of the Paris Agreement in global climate change adaptation efforts. (CO2, K3)

Or

(b) Discuss how local governments in India can contribute to national climate change adaptation strategies. Provide one example of a local initiative.

(CO2, K4)

13. (a) Explain the significance of a Agricultural needs assessment in disaster relief planning. (CO3, K3)

Or

- (b) Evaluate the impact of climate change on smallholder farmers and the strategies they can adopt to adapt to these climatic changes. (CO3, K4)
- 14. (a) Describe how community involvement can enhance the effectiveness of disaster relief efforts in Water resource Management. (CO4, K3)

Or

- (b) Describe the effectiveness of sustainable water management practices in adapting to climate change. (CO4, K4)
- 15. (a) Discuss one adaptation strategy for managing coastal erosion. (CO5, K3)

Or

(b) Explain the effectiveness of current policies for coastal adaptation. Suggest improvements.

(CO5, K4)

R2343

Answer all questions not more than 1000 words each.

16. (a) Illustrate the effectiveness of current global policies aimed at climate change adaptation. (CO1, K5)

Or

- (b) Explain the impact of climate change on coastal communities. (CO1, K4)
- 17. (a) Evaluate the importance of integrating adaptation into development planning. Provide case studies to illustrate successful integration and the outcomes achieved. (CO2, K5)

Or

- (b) Explain the progress of India's climate change policies in integrating adaptation and mitigation efforts. (CO2, K5)
- 18. (a) Analyze the role of community participation in disaster relief planning and delivery. Discuss how involving local communities can improve the effectiveness of relief efforts. (CO3, K4)

Or

- (b) Evaluate the effectiveness of current policies and suggest improvements to better support farmers in adapting to climate change. (CO3, K4)
- 19. (a) Illustrate the governance and policies for climate change adaptation in water resource management.

  Provide examples of successful policy implementations and their outcomes. (CO4, K5)

Or

(b) Express the concept of linking adaptation and mitigation in water resource management.

(CO4, K5)

R2343

20. (a) Explain the effectiveness of various adaptation options for coastal zones. Discuss their benefits and limitations. (CO5, K5)

Or

(b) Evaluate the effectiveness of international agreements and collaborations in addressing coastal adaptation challenges. (CO5, K5)

Sub. Code 701NM2

### M.A. DEGREE EXAMINATION, NOVEMBER – 2024 English

# ${\bf NME: ENGLISH\;FOR\;COMPETITIVE\;EXAMINATIONS}$

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A

Answer **all** the following objective questions by choosing the correct option.

1. Which part of speech is the word 'run' in the following sentence?

'I will run to the store'.

(CO1, K2)

 $(10 \times 1 = 10)$ 

- (a) Noun
- (b) Verb
- (c) Adjective
- (d) Adverb
- 2. Identify the noun phrase in the following sentence: 'The tired dog slowly wagged its tail'. (CO1, K2)
  - (a) The tired dog
- (b) Slowly wagged
- (c) It's tail
- (d) The dog slowly
- 3. Identify the preposition in the following sentence: 'The book is on the table'. (CO2, K6)
  - (a) The
- (b) Book
- (c) On
- (d) Table

- 4. Which of the following sentences is an example of subject-verb concord? (CO2, K6)
  - (a) The cat and the dog chases each other
  - (b) The cat and the dog chase each other
  - (c) The cat chases the dog, and the dog chases the cat
  - (d) The cat chase the dog and the dog chase the cat
- 5. Which of the following sentences is in Past Perfect Tense? (CO3, K2)
  - (a) I go to the store
  - (b) I went to the store
  - (c) I have gone to the store
  - (d) I had gone to the store
- 6. Which of the following sentences is in the superlative degree? (CO3, K2)
  - (a) She is the most intelligent student in the class
  - (b) She is more intelligent than her siblings
  - (c) She is as intelligent as her parents
  - (d) She is intelligent
- 7. Which of the following sentences is an example of a complex sentence? (CO4, K5)
  - (a) I went to the store, and I bought milk
  - (b) When I got home, I realized I had forgotten my keys
  - (c) She is studying to be a doctor
  - (d) He is tired because he didn't sleep well

R2344

Q	Wh:	ah of the follow	ring is s	aannaat avamnla	of a complex			
8.		ence?	ung is a	correct example	(CO4, K5)			
	(a)	I went to the	store, and	l she stayed hom	e			
	(b)	Although it w	as rainin	g, I still went to	the park			
	(c)	The teacher is	swriting	on the board				
	(d)	The students	are study	ring for their exa	m			
9.	Whi	ch part of the s	entence c	ontains the error	? (CO5, K3)			
	'The	company will h	nires new	employees next	month.'			
	(a)	company	(b)	will				
	(c)	hires	(d)	employees				
10.	Wha	at is the meanin	ng of the v	vord 'malleable'?	(CO5, K3)			
	(a)	Capable of be	ing shape	ed or bent				
	(b)	Unwilling to o	change or	compromise				
	(c)	Having a stro	ng and ri	gid structure				
	(d)	Having a light and fluffy texture						
			Part B		$(5 \times 5 = 25)$			
A	Answe	er all the quest	ions not n	nore than 500 wo	ords each.			
11.	(a)	Briefly explanation	_	ive types of Ad	jectives with (CO1, K2)			
			-		( , , ,			
			Or					
	(b)			nces between D cative Adjective.	emonstrative (CO1, K2)			
			3		R2344			

12.	(a)	Write five sentences of your own that ends with a preposition. (CO2, K6)
		Or
	(b)	Define Concord and classify it with suitable examples. (CO2, K6)
13.	(a)	Change the given Passive sentences to Active sentences. (CO3, K2)
		(i) The play was written by Shakespeare.
		(ii) The package was delivered by the courier service.
		(iii) The new policy has been implemented by the management
		(iv) The beautiful painting was created by the artist.
		(v) The data has been collected by the research team.
		$\operatorname{Or}$
	(b)	Identify the correct form of the verb in parentheses to complete the sentence from the given options:  (CO3, K2)
		(i) 'If I ———— (have) more time, I would help you'.
		(1) have
		(2) has
		(3) had
		(4) having
		4 <b>R2344</b>

(ii)	-	next year, I ————ive years'.	(study) English
	(1)	will study	
	(2)	study	
	(3)	am studying	
	(4)	will have studied	
(iii)	•	the time I arrived, they sh) their project'.	
	(1)	finish	
	(2)	finishes	
	(3)	finished	
	(4)	had finished	
(iv)		ey, I would be rich now'.	end) so much
	(1)	do not spend	
	(2)	did not spend	
	(3)	have not spent	
	(4)	had not spent	
(v)	-	next month, I ———————————————————————————————————	(attend)
	(1)	will attend	
	(2)	attend	
	(3)	am attending	
	(4)	will have attended	

14.	(a)	Iden opti	tify the type of sentence from the given cons:					
		(i)	The weather is sunny.					
			(1) Simple					
			(2) Compound					
			(3) Complex					
			(4) Compound-complex					
		(ii)	I love reading books, and my favourite author is Jane Austen.					
			1) Simple					
			(2) Compound					
			(3) Complex					
			(4) Compound-complex					
		(iii)	The student who is sifting in the back of the classroom is from Japan.					
			(1) Simple					
			(2) Compound					
			(3) Complex					
			(4) Compound-complex					
		(iv)	I went to the store because I needed to buy milk.					
			(1) Simple					
			(2) Compound					
			(3) Complex					
			(4) Compound-complex					
			6 <b>R2344</b>					

		(v)	My f		te food i	s pizza,	but m	y sister loves
			(1)	Simp	le			
			(2)	Comp	ound			
			(3)	Comp	olex			
			(4)	Comp	ound-co	mplex		
					Or			
	(b)	Writ phra		ote on	the Adje	ective pl	nrase a	nd Adverbial (CO4, K5)
15.	(a)	_		he me of your	_	f the Io	dioms	and frame a (CO5, K3)
		(i)	Need	dle in h	aystack			
		(ii)	Oil s	omeon	e's palm			
		(iii)	the j	ury is	out			
		(iv)	Mag	ic carp	et			
		(v)	A lal	bour of	Hercule	es.		
					Or			
	(b)	Spot	the	error	in the	given	senter	ces below: (CO5, K3)
		(i)	None	e of the	em have	arrived	yet	
		(ii)	None	e is ger	nuine			
		(iii)	Muc	h wate	r is wast	ed		
		(iv)	Man	y stud	ents has	turned	up for t	the seminar
		(v)	I go	to scho	ol on bu	$\mathbf{s}$		
					7			R2344

Answer  ${\bf all}$  the questions not more than 1000 words each.

16.	(a)	Expla	ain the Parts of Speech with suitable exam	-
			$\operatorname{Or}$	
	(b)		sify what noun phrases, adjective phrases, rbial phrases. (CO1	
17.	(a)	Fill i	in the blanks with the correct preposit (CO2	
		(i)	The new policy comes — enext month.	effect
		(ii)	The company is located the heart of the cit	Jy.
		, ,	The teacher is standing —————front of the classroom.	the
		(iv)	The students are gathered ———————————————————————————————————	- the
		(v)	The report is due — the enthe week.	nd of
		(vi)	The customer is waiting —————response to their inquiry.	— a
		(vii)	The package is being shipped ———express mail.	
		(viii)	The hotel room has a view —————city skyline.	- the

Or

R2344

(b)	Select the correct form of the verb in brackets to complete the sentence : (CO2, K6)
	(i) The team — (to win) the championship last year.
	(ii) The student — (to study) hard for the exam.
	(iii) The company — (to expand) its operations into new markets.
	(iv) The weather — (to be) hot and sunny all week.
	(v) The teacher — (to teach) English for over 10 years.
	(vi) The new employee — (to learn) the ropes quickly.
	(vii) The customer — (to receive) a full refund.
	(viii) The hotel — (to offer) a free breakfast buffet.
(a)	Explain how tenses are used in a sentence and show the aspects of tenses with suitable example. (CO3, K2)
	$\operatorname{Or}$
(b)	What are the degrees of comparison and explain the types and rules with suitable example. (CO3, K2)
(a)	Explain why we need a transformation in a sentence. (CO4, K5)
	Or
(b)	Explain Simple. Compound, and complex sentences with suitable examples. (CO4, K5)
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18.

19.

20. (a) Discuss what vocabulary and explain its four types. (CO5, K3)

Or

- (b) (i) Explain the meaning of the idiom and frame a sentence of your own. (CO5, K3)
  - (1) Cost an arm and a leg
  - (2) Cut to the chase
  - (3) Easy does it
  - (4) Give someone the benefit of the doubt
  - (ii) Spot the error and write the correct sentence.
    - (1) The teacher give us a lot of homework tonight.
    - (2) The cat chase it's tail with excitement.
    - (3) The students was very happy about the summer break.
    - (4) The book, which author is unknown, is on the bestseller list.

R2344

Sub. Code 720NM3

### B.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

### **Physical Education**

NME: SPORTS TRAINING

		(CBCS -	- 2022	onwards)
Tim	e:3 I	Hours		Maximum : 75 Marks
		Pa	art A	$(10 \times 1 = 10)$
			-	g objective question errect options.
1.	ant]		-	stematic process of preparing erformance in specific sports. (CO1, K2)
	(a)	Training load		
	(b)	Sports psycholog	gy	
	(c)	Sports competiti	on	
	(d)	Sports training		
2.	phy peri	sical training and		e amount and intensity of ete undergoes over a specific (CO1, K2)
	(a)	Intensity	(b)	Frequency
	(c)	Training load	(d)	Volume
3.	diffi	in trai	_	should gradually increase in adapt. (CO2, K2)
	(a)	Specificity	(b)	Progression
	(c)	Overload	(d)	None of the above

(-)	Toutlal tusining	(l <sub>2</sub> )	Cinarit tracinina
(a)	Fartlek training	` ,	C
(c)	Interval training	, ,	
over		_	rm goals and outlines the ncluding key competitions (CO3, K4)
(a)	Learning	(b)	Micro cycle
(c)	Meso cycle	(d)	Macro cycle
	initial training red to as the ——	_	e in periodization is often — (CO3, K4)
(a)	Competition phas	e	
(b)	Transition phase		
(c)	General preparate	ory pl	hase
(d)	All of these		
	are typ	-	
prac educ (a)	are typtices essential for ation.  Fundamentals of	effe	ective coaching and physical (CO4, K4)
prac educ (a) (b)	are typtices essential for ation.  Fundamentals of Sports coaching	effe	ective coaching and physical (CO4, K4)
praceduce (a) (b) (c)	are typtices essential for ation.  Fundamentals of Sports coaching Preparation	effe	ective coaching and physical (CO4, K4)
prac educ (a) (b)	are typtices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b)	effe	ective coaching and physica (CO4, K4) ical education
praceduce (a) (b) (c) (d) of hi	are typtices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b)  is a train	effe	ctive coaching and physica (CO4, K4) ical education nethod that alternates periods ith periods of lower-intensity
praceduce (a) (b) (c) (d) of hi	are typtices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b)  is a train gh-intensity exerce	effe physi ing m	ective coaching and physica (CO4, K4) (color decided and color dec
praceduce (a) (b) (c) (d) of hiexer	are typtices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b)  is a train gh-intensity exercise or rest.	effe physi ing m ise w	ective coaching and physical (CO4, K4)
praceduce (a) (b) (c) (d) of hi exerce (a) (c)	are typetices essential for action.  Fundamentals of Sports coaching Preparation  Both (a) and (b) ———————————————————————————————————	ing mise w  (b) (d)	ective coaching and physica (CO4, K4) acal education (CO4, K4) the entire of the entir
praceduce (a) (b) (c) (d) of hi exerce (a) (c)	are typetices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b) ———————————————————————————————————	ing mise w  (b) (d)	ctive coaching and physical (CO4, K4) (CO4, K4
praceduce (a) (b) (c) (d) ——————————————————————————————————	are typetices essential for ation.  Fundamentals of Sports coaching Preparation  Both (a) and (b)  is a training shintensity exercise or rest.  Circuit training  Fartelk training	ing m ise w (b) (d) est —	nethod that alternates periods ith periods of lower-intensity (CO4, K4)  Interval training  None of these  (CO5, K5)

0.	test is not come under the cardiovascular fitness test. (CO5, K5)								
	(a)	VO2 Max Test (b) 1.5 – Mile Run Te	, , ,						
	(c)	JCR Test (d) Cooper Test							
		Part B	$(5 \times 5 = 25)$						
A	nswe	er <b>all</b> the questions, not more than 500 word	ds each.						
1.	(a)	Illustrate the training load.	(CO1, K2)						
		$\operatorname{Or}$							
	(b)	Explain the definition and meaning training.	of sports (CO1, K2)						
2.	(a)	Express the strength training.	(CO2, K2)						
		$\operatorname{Or}$							
	(b)	Write about outline flexibility de	velopment. (CO2, K2)						
3.	(a)	Simplify the planning of training p	rogramme. (CO3, K4)						
		$\operatorname{Or}$							
	(b)	Interpret the short term and long term training.	n in sports (CO3, K4)						
4.	(a)	Classify the principles in sport fitness	s training. (CO4, K4)						
		$\operatorname{Or}$							
	(b)	Write simplify the weight training.	(CO4, K4)						
5.	(a)	Interpret the movement analysis.	(CO5, K5)						
		$\operatorname{Or}$							
	(b)	Explain the any one types of motor fi	tness test. (CO5, K5)						
		3	R2345						

Part C  $(5 \times 8 = 40)$ 

Answer all the questions, not more than 1000 words each.

16. (a) Express the aims and objectives of sports training. (CO1, K2)

Or

- (b) Illustrate the characteristics and principles of sports training. (CO1, K2)
- 17. (a) Explain the principles of strength training. (CO2, K2)

Or

- (b) Express the training methods for flexibility development. (CO2, K2)
- 18. (a) Generate the periodisation in detail. (CO3, K4)

Or

- (b) Classify the training cycles in detail. (CO3, K4)
- 19. (a) Interpret fundamental of physical education. (CO4, K4)

Or

- (b) Examine in detail about the types of training in sports. (CO4, K4)
- 20. (a) Explain in detail about administration of motor fitness test. (CO5, K5)

Or

(b) Compare and interpret 12 minutes cooper run or walk test and 1.5 mile run or walk test. (CO5, K5)

R2345

Sub. Code 724NM1

## B.Sc. DEGREE EXAMINATION, NOVEMBER – 2024

### Yoga

### NME: YOGIC SCIENCE

		(CBCS –	2022	onwards)	
Time	e:3 E	Hours		Maximur	n : 75 Marks
		Pa	rt A		$(10 \times 1 = 10)$
Ar	nswer	all the following o	bjecti	ve question by ch	oosing the
		corr	ect op	otion.	
1.		——— in Suriya	Nam	askar.	(CO1, K1)
	(a)	12 counts	(b)	14 counts	
	(c)	16 counts	(d)	18 counts	
2.	Has	ta Padasana ——		— steps in Suriya	a Namaskar. (CO1, K1)
	(a)	11	(b)	4	
	(c)	3	(d)	8	
3.	Asaı	na will come in —		—— stage in 8 li	mps of Yoga. (CO2, K2)
	(a)	2	(b)	5	
	(c)	4	(d)	3	
4.	Mat	syasana poster is –		<del></del> .	(CO2, K2)
	(a)	Wheel Poster	(b)	Fish Poster	
	(c)	Boat Poster	(d)	Lotus Poster	

	is the sec	ond li	mb of sadanga yo	oga sadhana (CO3, K1)
(a)	Niyama	(b)	Asana	, , ,
(c)	Pranayama	(d)	Pratyahara	
	is other r	name (	of kapalabhati.	(CO3, K1)
(a)	Pranayama	(b)	Shatkarma	
(c)	Basti	(d)	Bandhas	
	types in I	Kriyas	S.	(CO4, K1)
(a)	7	(b)	4	
(c)	6	(d)	8	
Band	dhas under ———		- Yoga.	(CO4, K4)
(a)	Kundalini Yoga	(b)	Hatha Yoga	
(c)	Ashtanga Yoga	(d)	Raja Yoga	
(a) (c)	nat applies. Lock Gesture itation can only be	(b) (d) e prac	Seal Circuit by pass ticed if you are –	
		<b>a</b> >	D. 1	(CO5, K5
(a)	Non - Religious	(b)	_	
(c)	Both	(d)	None of these	
	Pa	rt B		$(5 \times 5 = 25)$
Ans	wer <b>all</b> the questi	ons no	ot more 500 words	s each.
(a)	List out the steps	s of Ch Or	aair Suriyanamas	kar. (CO1, K1)
(b)	What are the ben		of Suriyanamaska	ar?(CO1, K1
• •			·	
		2		R2346

12.	(a)	Define the classification of Asanas.	(CO2, K2)
		$\operatorname{Or}$	
	(b)	Describe the advanced Asanas.	(CO2, K2)
13.	(a)	Write the uses of Pranayama.	(CO3, K3)
		$\operatorname{Or}$	
	(b)	List out of the sectional Breathing.	(CO3, K3)
14.	(a)	Classify the Kriyas.	(CO4, K4)
		Or	
	(b)	Discover the type of Bandhas.	(CO4, K4)
15.	(a)	Write about the Interpret of Mudras.	(CO5, K5)
		$\operatorname{Or}$	
	(b)	Write about the Importance of Meditati	on.(CO5, K5)
		Part C	$(5 \times 8 = 40)$
A	Answe	er all the questions not more than 1000 we	ords each.
16.	(a)	Explain the Suryanamaskar with	all counts.
		$\operatorname{Or}$	(CO1, K1)
	(b)	Explain the Chandra Suryanamaskar.	(CO1, K1)
17.	(a)	Discuss the role of Asanas for Healthy I	Life.
		$\operatorname{Or}$	(CO2, K2)
	(b)	Discuss the categorize Asanas with example of the categorize Asanas with example of the categories of the categories and the categories of	mples.
	` '		(CO2, K2)
		3	R2346
		·	

18. (a) How to apply the through Pranayama for our healthy life? (CO3, K3)

Or

- (b) Determine the role of Pranayama on Physiological Functions. (CO3, K3)
- 19. (a) Explain about the Kriyas in detail. (CO4, K4)

Or

- (b) Examine in the practicing methods of Kriyas. (CO4, K4)
- 20. (a) Discuss the role of meditation in Stress Management. (CO5, K5)

Or

(b) Discuss the Yoga Therapy for disorders. (CO5, K5)

Sub. Code 741NM2

### M.Sc. DEGREE EXAMINATION, NOVEMBER – 2024

#### **Education**

#### NME: ENVIRONMENTAL EDUCATION

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective questions by choosing the correct options.

- 1. Environmental Education aims to empower individuals to (CO1, K2)
  - (a) Be passive observers of environmental degradation
  - (b) Take responsible action to improve the environment
  - (c) Increase industrial pollution
  - (d) Focus only on recycling activities
- 2. Which of the following is a prerequisite for successful environmental education? (CO1, K1)
  - (a) A purely theoretical approach without hands-on activities
  - (b) Community involvement and interdisciplinary learning
  - (c) Focusing only on classroom-based instruction
  - (d) Teaching environmental issues without relating them to daily life

3.	Env		_	onsible for developing the urriculum at the school level (CO2, K2)
	(a)	UGC	(b)	NCERT
	(c)	AICTE	(d)	MHRD
4.	role	•		nmission (UGC) plays a key mental Education at which (CO2, K1)
	(a)	Primary schools		
	(b)	Secondary schools	3	
	(c)	Higher education	insti	tutions
	(d)	Kindergartens		
5.	Wha	at is the primary ca	use o	f the environmental crisis? (CO3, K1)
	(a)	Excessive industr	ial gr	rowth
	(b)	Cultural tradition	ıs	
	(c)	Decreased popula	tion	
	(d)	Increase in renew	able	energy
6.	Wha	at is the main servation?	n o	bjective of environmental (CO3, K2)
	(a)	To promote rapid	urba	nization
	(b)	To conserve natur	al re	sources and biodiversity
	(c)	To increase the us	se of f	fossil fuels
	(d)	To focus only on is	ndust	crial development
7.		ch type of pollutionssions?	on is	caused by excessive vehicle (CO4, K1)
	(a)	Land pollution	(b)	Air pollution
	(c)	Water pollution	(d)	Noise pollution
			2	R2347

3.

8.	Wha	at is the primary cause of the greenhouse effect? (CO4, K1)
	(a)	Excessive deforestation
	(b)	Emission of greenhouse gases like carbon dioxide and methane
	(c)	Increased use of wind energy
	(d)	Reduction in the use of fossil fuels
9.	Wha	at is the most common cause of forest fires? (CO5, K2)
	(a)	Lightning strikes and human activities

- (b) Excessive rainfall
- (c) Natural cooling of temperatures
- (d) Ocean currents
- 10. Which of the following is an example of an environmental movement in India? (CO5, K1)
  - (a) Green Revolution
  - (b) Chipko Movement
  - (c) Industrial Revolution
  - (d) Digital Revolution

Part B  $(5 \times 5 = 25)$ 

Answer all the questions not more than 500 words each.

11. (a) What strategies you would implement to address the challenges in environmental education in the local community? (CO1, K3)

Or

(b) How could you adapt environmental education to address specific issues like climate change and pollution in a classroom setting? (CO1, K3)

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12. (a) Explain the role of NCERT in developing environmental education curriculum reflected in the School education and list any two teaching strategies employed by educators? (CO2, K3)

Or

- (b) Compare and contrast the environmental education curriculum in India with that of Any other country. What best practices can be identified and potentially adopted in India? (CO2, K4)
- 13. (a) Analyze the causes and consequences of the major environmental problems in India, such as air pollution and deforestation. (CO3, K4)

Or

- (b) Explain the role of major constitutional amendments in India which have impact on environmental conservation. (CO3, K3)
- 14. (a) How do the greenhouse effect and ozone layer depletion contribute to environmental hazards? (CO4, K4)

Or

- (b) What are the underlying causes of forest fires, and how do they relate to environmental hazards and climate change? (CO4, K4)
- 15. (a) How would you apply the principles of the Chipko Movement to current environmental challenges related to deforestation in India? (CO5, K3)

Or

(b) What were the major achievements of the Rio Summit, and how do they relate to the contemporary global environmental agenda?

(CO5, K4)

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 $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Discuss the relationship between environmental education and sustainable development. (CO1, K4)

Or

- (b) Examine the goals and objectives of environmental education. How do these goals align with contemporary environmental issues, such as climate change and biodiversity? (CO1, K4)
- 17. (a) Examine the challenges faced by NCERT and UGC in developing a comprehensive environmental education curriculum. What strategies could be employed to overcome these challenges? (CO2, K4)

Or

- (b) Critically assess the role of educational institutions in promoting environmental education. Are they fulfilling their responsibilities adequately? Why or why not? (CO2, K5)
- 18. (a) Analyze the impact of science and technology on the current environmental crisis. How the advancements in technology contribute to mitigate environmental issues? (CO3, K4)

Or

(b) Design a national program that integrates science, technology, and cultural values to solve India's most environmental problems, such as pollution and resource depletion. (CO3, K5)

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19. (a) Assess the impact of various type of Pollution (land, air, water, noise, and radiation) in an urban area with illustrations. (CO4, K6)

Or

- (b) Assess the impact of various environmental policies on the conservation of flora and fauna. To what extent have these measures succeeded in preventing the species of extinction to enhance biodiversity conservation. (CO4, K6)
- 20. (a) Evaluate the effectiveness of the Chipko Movement in preventing deforestation. What were its long-term impacts on environmental activism in India? (CO5, K6)

Or

(b) Create an action plan for implementing the main features of the Rio Declaration in a developing nation. (CO5, K6)

R2347

Sub. Code 743NM2

#### M.Ed. Spl. Edn. DEGREE EXAMINATION, NOVEMBER – 2024

#### **Special Education (Visual Impairment)**

**NME: MINDFULNESS** 

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the objective questions by choosing the correct option.

- 1. Which part of the brain is associated with self-regulation in mindfulness? (CO1, K1)
  - (a) Hippocampus (b) Amygdala
  - (c) Prefrontal cortex (d) Cerebellum
- 2. Which of the following is a principle of mindfulness?

(CO1, K1)

- (a) Judgment
- (b) Patience
- (c) Overthinking
- (d) Criticism
- 3. Mindfulness of the body focuses on which of the following? (CO2, K4)
  - (a) Bodily sensations
  - (b) External distractions
  - (c) Cognitive thoughts
  - (d) Social interactions
- 4. What is the importance of feeling the body in mindfulness practice? (CO2, K4)
  - (a) To improve muscle tone
  - (b) To stay grounded in the present
  - (c) To increase physical activity
  - (d) To distract the mind from thoughts

5.	This	s part of the	brain is	s most	involved	l in	emp	
	(a)	A maradala		(b)	Cerebel	1		(CO3, K1)
	(a) (c)	Amygdala		` '				
	(c)	Prefrontal	cortex	(a)	Brainst	em		
6.		ch of the tions?	followi	ng is	linked	to	mi	ndfulness of (CO3, K1)
	(a)	Multitask	ing and	self-d	iscipline			
	(b)	Physical s	trength					
	(c)	Empathy	and bra	in				
	(d)	Memory r	etention	l				
7.	Min stat		breathi	ing h	elps in p	oron	noti	ng(CO4, K2)
	(a)		it	(h)	Conscio	110 0	****	` , ,
	(a) (c)	Sleep	vity	(d)	Distract		wai	elless
	(6)	Sieep		(u)	Distract	1011		
8.		ch of the fo	ollowing	is as	ssociated	wit	h fo	orgiveness in (CO4, K2)
	(a)	Emotional	l suppre	ssion				
	(b)	Letting go	of grud	ges				
	(c)	Being judg	gmental					
	(d)	Ignoring f	eelings					
9.	Min	dfulness in	daily lif	e help	os to impi	rove		 (CO5, K6)
	(a)	Creativity		(b)	Stress le	evel	$\mathbf{s}$	
	(c)	Cognitive	function	n (d)	All of th	ıe al	ove	
10.		pract	ice invol	lves a	pplying r	nino	lful	ness in social
	inte	ractions.			11 0 0			(CO5, K6)
	(a)	Interperso	nal min	ıdfuln	ess			
	(b)	Mindful p	osture					
	(c)	Mindful e	ating					
	(d)	Self-critic	ism					
				6			ſ	D0040
				2				R2348

Part B  $(5 \times 5 = 25)$ Answer all questions not more than 500 words each. 11. Brief the concept of Mindfulness. (CO1, K1) Or State the definition of Mindfulness. (CO1, K1) (b) 12. What do you mean by mindfulness of body? (a) (CO2, K4) Or Enumerate the process of mindfulness of the body. (b) (CO2, K4) Write a short note on Mindfulness of Emotions. 13. (a) (CO3, K1) Or (b) Briefly explain about Emotional regulation. (CO3, K1) 14. Brief about the Mindfulness of Posture. (CO4, K2) (a) Or(b) Reflect on the Mindfulness of Breathing. (CO4, K2) Elucidate the concept of Interpersonal Mindfulness. 15. (a) (CO5, K6) Or (b) Write a note on Mindfulness of Daily life. (CO5, K6) R2348 3

**Part C**  $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Enumerate the Principles of Mindfulness. (CO1, K1)
Or

- (b) Analyse the role of Pre-frontal cortex in the Self-regulation process. (CO1, K1)
- 17. (a) Brief the practices to maintain body mindfulness. (CO2, K4)

Or

- (b) Discuss the advantages of Body Mindfulness. (CO2, K4)
- 18. (a) Describe the influence of neurobiology on thoughts and emotions. (CO3, K1)

Or

- (b) Enumerate the ways to work with Emotional intensity. (CO3, K1)
- 19. (a) Explain the difference between Mindfulness and Consciousness. (CO4, K2)

Or

- (b) Discuss the management of Inner critic through Mindfulness and Self-compassion. (CO4, K2)
- 20. (a) Summarize the need for Mindfulness in our day-to-day activities. (CO5, K6)

Or

(b) Analyse the various aspects of Daily life where Mindfulness can be practiced. (CO5, K6)

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Sub. Code 813NM2

### M.Sc. DEGREE EXAMINATION, NOVEMBER – 2024

### Yoga

NME: SCIENCE OF YOGA

(CBCS - 2022 onwards)

		· ·		•			
Tim	e:3 I	Hours		Maximur	n : 75 Marks		
		P	art A		$(10 \times 1 = 10)$		
	nswer	swer <b>all</b> the following objective questions by choosing the correct option.					
1.	_	a means maintair wn ask	_				
	(a)	Karmasukausala	am				
	(b)	Samatvam					
	(c)	Purushav					
	(d)	Dukhasamyogav	viyoga				
2.		ch form of yoga e way to attain spin	_		-		
	(a)	Bhakthi Yoga	(b)	Karma Yoga			
	(c)	Raja Yoga	(d)	Jnana Yoga			
3.		o said Yoga is a "m a single life"?	neans (	of compressing on	e's evolution (CO5, K3)		
	(a)	Rabindranath Ta	agore				
	(b)	Buddha					
	(c)	Swami Vivekana	anda				
	(d)	Gandhi					

4.	Bod	y and mind in yoga			(CO3, K4)
	(a)	influences the che	emisti	cy	
	(b)	awareness in ever	ry day	v life	
	(c)	improved mental	healt	h	
	(d)	fitness			
5.	The	thunderbolt yoga p	ose, a	also known as	(CO2, K5)
	(a)	Padmasana	(b)	Vajrasana	
	(c)	Trikonasana	(d)	Tadasana	
6.	To i	ncreasing concentra	ation	and knowledge	(CO4, K4)
	(a)	Jnana mudra	(b)	Chin mudra	
	(c)	Vayu mudra	(d)	Agni mudra	
7.	In S	anskrit, Kriyas me	ans		(CO3, K3)
	(a)	Emotion	(b)	Effort	
	(c)	Expression	(d)	Evaluate	
8.	Prai	nayama means			(CO6, K4)
	(a)	Exercise	(b)	Asanas	
	(c)	Breathing	(d)	Fitness	
9.	Whe	en is World Meditat	ion D	ay celebrated?	(CO1, K6)
	(a)	March 11	(b)	November 17	
	(c)	May 11	(d)	May 21	
10.	Med	litation means			(CO2, K5)
	(a)	Dhyana	(b)	Conductor behav	vior
	(c)	disease free life	(d)	promote over all	
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Answer all questions not more than 500 words each. (a) 11. Explain the concept of Yoga practices. (CO1, K2) Or Write about the importance of yogic practice. (b) (CO1, K2) 12. (a) Define Asanas and classify the asanas. (CO2, K2) Or (b) Difference between asanas and physical exercise. (CO2, K2) Write down the guidelines of breathing. 13. (a) (CO3, K3) Or (b) Explain the benefits of Pranayama. (CO3, K3) 14. State that kriyas and mudras. (CO4, K3) (a) Or (b) Explain about the practicing methods of mudras. (CO4, K3) Write down the concept of meditation. (CO5, K4) 15. (a) OrDiscuss the benefits of meditation. (CO5, K4) (b) Part C  $(5 \times 8 = 40)$ Answer all the questions not more than 1000 words each. 16. (a) Explain the principles of yogic practices. (CO1, K4) Or Describe about the suryanamskar. (b) (CO1, K4) R2349 3

Part B

 $(5 \times 5 = 25)$ 

17. (a) Explain in detail about the Vajrasana and Padmasana. (CO2, K3) Or(b) Write the essentials, limitations and benefits of (CO2, K3) asanas. Write about the techniques of pranayama. (CO3, K4) 18. (a) Or (b) Explain the phases of breathing in pranayama. (CO3, K4) 19. (a) Explain the types of kriyas. (CO5, K4) Or Explain the types of mudras. (b) (CO5, K4)20. (a) Illustrate the techniques of meditation. (CO4, K5) Or How does meditation helps the individual. Explain. (b)

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(CO4, K5)

Sub. Code 932NM2

#### M.Sc. DEGREE EXAMINATION, NOVEMBER - 2024

#### **Library and Information Science**

# NME – ELECTRONIC INFORMATION SOURCES AND SERVICES

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 1 = 10)$ 

Answer **all** the following objective type questions by choosing the correct option.

- 1. What is the meaning of e-documents? (CO1, K2)
  - (a) Documents other than printed
  - (b) Non-paper documents
  - (c) Documents in electronic form
  - (d) Audio- visual tools
- 2. Article published in research journals are (CO1, K2)
  - (a) Secondary source (b) Primary source
  - (c) Tertiary source (d) Reference source
- 3. DOAB stands for (CO2, K2)
  - (a) Directory of Open Access Books
  - (b) Directory of Open Archive Books
  - (c) Directory of Online Access Books
  - (d) Directory of Online Archive Books

4.	Wha	t is a blog?			(CO2, K2)
	(a)	A static website			
	(b)	A website to displa	ay co	mpany details	
	(c)	A website with con	ntent	updating from ti	me to time
	(d)	All the above			
5.	SCO	PUS is an			(CO3, K3)
	(a)	Full text database	)		
	(b)	Numerical databa	.se		
	(c)	Indexing database	e		
	(d)	Abstract and Cita	tion o	database	
6.	Acad	emic search ultima	ate is	the product of	(CO3, K3)
	(a)	EBSCO	(b)	Sage	
	(c)	Elsevier	(d)	Springer	
7.	_	tal collections devel ut of single or mult	_		e intellectual (CO4, K4)
	(a)	Digital Publishing	g (b)	Digital Reposito	ory
	(c)	Digital Archive	(d)	Digital library	
8.	The inter	term virtual changeably with —	libr	eary was init	cially used (CO4, K4)
	(a)	Digital library	(b)	Automated libra	ary
	(c)	National library	(d)	Special library	
9.	Wha	t is the main functi	on of	Archie?	(CO5, K2)
	(a)	Helps to find in Internet	nform	ation located a	nywhere on
	(b)	Helps to find infor	mati	on by Password	
	(c)	Helps to find infor	mati	on on the www of	Internet
	(d)	Helps to find infor	mati	on on Internet	
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are called those libraries in which services are fully ated and all resources are in digitized form? (CO5, K2)	
Digital libraries (b) Electronic libraries	(a)
rirtual libraries (d) Libraries without walls	(c)
Part B $(5 \times 5 = 25)$	
all the questions not more than 500 words each.	Answe
Provide an overview of documentary sources of nformation. (CO1, K2)	. (a)
$\operatorname{Or}$	
Describe primary information sources using xamples. (CO1, K2)	(b)
Give brief description of Subject Gateways. (CO2, K2)	2. (a)
$\operatorname{Or}$	
Vrite a short note on Dictionaries. (CO2, K2)	(b)
Discuss the significance of a citation database. (CO3, K3)	3. (a)
$\operatorname{Or}$	
Oatabases - what are they? Give a few examples. (CO3, K3)	(b)
Describe biographical sources and give examples. (CO4, K4)	ł. (a)
$\operatorname{Or}$	
Discuss e-Shodhsindhu. (CO4, K4)	(b)
dentify the difference between an information enter and a documentation center. (CO5, K2)	5. (a)
$\operatorname{Or}$	
analyze the role of publishing houses in the eneration of information. (CO5, K2)	(b)

Part C

 $(5 \times 8 = 40)$ 

Answer all the questions not more than 1000 words each.

16. (a) Provide an overview of the different sources of information (CO1, K2)

Or

- (b) Examine how information sources are evaluated. (CO1, K2)
- 17. (a) Describe various forms of e-resources. (CO2, K2)

Or

- (b) Examine the characteristics of Internet information resources. (CO2, K2)
- 18. (a) Describe the different types of databases. (CO3, K3)

Or

- (b) Discuss the importance of repositories. (CO3, K3)
- 19. (a) Assess the need for resource sharing. Explore the various ways libraries can share resources. (CO4, K4)

Or

- (b) Explain the need for and importance of library networks. Explain how library networks are beneficial. (CO4, K4)
- 20. (a) What are the different components of an information system? (CO5, K2)

Or

(b) Discuss the role of the Internet in publishing. (CO5, K2)

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