

### தொன் போஸ்கோ கல்லூரி

ச்தியமன் புறவநிச் சாகை. சோகத்தார் சிஞ்சல், தரும்புரி 636 809 நோல்கபேகி: 9443604446, 9443604447 பினைத்தம்: கில155திர்கமி திரையுகளும் (www.dbcdharmapuri.edu.le



இளங்கலைத் தமிழ் இரண்டாமாண்டு-மூன்றாம் பருவம் சுழற்சித் தேர்வு (செப்-2019)

தாள் : தமிழ் மொழி வரலாறு

காலம் : 2 மணி 17UTAA03 மதிப்பெண்: 50

பகுதி 🗕 அ

அனைத்து வினாக்களுக்கும் விடையளி:

(5X2=10)

ஒலியை ஆராயும் முறைகள் யாவை?

இந்திய வரிவடிவங்களின் தூய் எது?

- சங்க மருவிய காலத்தமிழை எந்நூல்களின் வழி ஆராயலாம்?
- ஆக்கப் பெயர்களுக்குச் சான்று கருக.
- வானாலித் தமிழில் இடம்பெறும் சொற்கள் யாவை?

### பகுதி – ஆ

 கொடுக்கப்பட்ட வினாக்களுக்கு விடையளி.

(4X5=20)

 அ) தென்திராவிட மொழிகளின் சிறப்பியல்புகளை இயம்புக,

(அல்லது)

 ஆ) வெளிநாட்டார் எழுதிய இலக்கணங்கள் குறித்துத் தெளிவுறுத்துக.

- அ) குகைக் கல்வெட்டுகளைச் சான்று காட்டுக.
   (அல்லது)
  - ஆ) சங்ககாலத் தமிழ்க் குறித்துச் சுருக்கமாக எழுதுக.
- அ) பல்லவர் கால உயிரோலி, மெய்யோலி மாற்றங்களைப் பட்டியலிடுக.
   (அல்லது)
  - ஆ) நாயக்கர் காலத் தமிழ் ஒலியன்களை வரிசைப்படுத்துக.
- அ) இருபதாம் நூற்றாண்டு தமிழ்ச் சொற்சொற்களின் மாற்றத்தினை எழுதுக.

(அல்லது)

 ஆ) மராட்டியக் கால ஒலியன் மாற்றத்தை நிரல்படுத்துக.

### பகுதி – இ

- III. எவையேனும் இரண்டு வினாக்களுக்கு விடையளி. (2X10=20)
- திராவிட மொழிகளின் வகைகள் குறித்துக் கட்டுரைக்க.
- தொல்காப்பியத் தமிழ்க் குறித்து விவரிக்க.
- 12. சோழர் காலத் தமிழை ஆய்க.





### CYCLE TEST - SEPTEMBER- 2019 COUNSELLING SKILLS FOR CONTEMPORARY SOCIAL WORK

: II MSW Marks: 50 Class

Paper Code : 17PSW12 Time : 2 Hours

#### SECTION - A

I. Answer all the questions: (4x5=20)

1. a) Explain the portrait of a trainer.

(or)

- b) Write the elements of counselling.
- 2. a) Mention the importance of attending and listening skill.

(or)

- b) Enumerate the psychological foundations of counselling.
- 3. a) Write short notes on genuineness and concreteness.

(or)

- b) Detail the concept of self-actualization.
- 4. a) Describe the need for family therapy.

(or)

b) Explain the significance of cognitive approach.

#### SECTION - B

#### II. Answer all the questions:

(3x10=30)

5. a) Discuss the effectiveness of a counsellor.

(or)

- b) Examine the significance of counsellor and counselee relationship.
- 6. a) Elucidate the salient features of Clientcentered approach.

- b) Discuss about eclectic approach in counselling.
- 7. a) Elaborate counselling process in detail.

(or)

 b) Describe the helper's skills needed for effective counselling.





E mail: dbc155@five.in Website: www.dbcdharmapuri.edu.in

CYCLE TEST - 2019

# PERSONALITY DEVELOPMENT AND HUMAN BEHAVIOUR

Class :

: I MSW

Marks: 50

Paper Code : 17PSW05

Time : 2 Hours

#### SECTION - A

I. Match the following:

(10x1=10)

1. Sigmund Freud

- Functionalism

William James

- Empiricism

Wilhelm Wundt

Associationism

4. Carl Roger

- Psycho analysis

5. John B. Watson

- Structuralism

6. William McDougall

- Dualism

7. Johann Herbart

- Behaviourism

8. Descartes

- Defined Psychology

9. John Locke

10. Kant

Individual Psychology
 Analytical Psychology

SECTION - B

II. Answer any TWO questions:

(2x5=10)

- Explain the relevance of psychology in social work.
- 12. Describe the fields of psychology.
- Mention the development tasks of babyhood.
- 14. Explain the nature and definition of learning.

- 13. Mention the development tasks of babyhood.
- 14. Explain the nature and definition of learning.
- 15. Write the types of coping mechanism.

#### SECTION - C

III. Answer all the questions:

(3x10=30)

16. a) Elaborate on the branches of psychology.

(or)

- b) Explain the fields of psychology.
- a) Discuss the difference between Human growth and development.

(or)

(or)

- b) Elucidate the social aspects of development of adult.
- a) Illustrate the theories of learning and its importance in social work.
  - b) Explain the schools of psychology.



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### DON BOSCO COLLEGE

Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809
Phone: 9443004446, 9443004447
Ental: dbc155g8yrain Website: www.dbcdharmapuri.edu.in



100		SEPTEMBER - 2		10. Queen Anne ruled England	
	SOCIAL HISTO	DRY OF ENGLAN	ND	(a) From 1702 to 1714	* * * * * * * * * * * * * * * * * * * *
Class	: I B.A.ENG	Ma	rks : 50	(c) From 1700 to 1714	(d) From 1706 to 1714
Paper Cod	e: 17UENA01	Tir	me : 2 Hrs		
	SEC	TION A		II Answer any TWO of the fo	ollowing questions in about
<ol> <li>Choose t</li> </ol>	he best answer:		(1x10=10)	100 words:	
1. Earl of St	arrey and Thomas	Wyatt brought			(2x5=10)
poetry int	o England.			11. Write short notes on the Pu	ritan contribution to English
(a) Ballac	(b) Sonnet	(c) Ode	(d) Epic	Literature.	
2. William (		inting press to Eng	land in	<ol><li>Write a short note on Virgin</li></ol>	nia.
	(b) 1476		(d) 1487	13. Write short notes on the Gu	manual of Dist
		English Reformatio		13. Write short notes on the Gu	inpowder Plot.
		(b) King Her		14. What were the causes for th	e Reformation?
		(d) King Her			
		s summoned by		<ol><li>What are the results of the A</li></ol>	Agrarian Revolution?
		(b) King Hen		7 700 0	
		(d) King Hen	-	III Answer ALL questions in	
		Great Plague of Lo	-		(3x10 = 30)
out in_				<ol><li>(a) Write an essay on the Re</li></ol>	eformation.
		(c) 1645	(d) 1675	**	or)
	* * * * * * * * * * * * * * * * * * * *	Great Fire of Lond		(b) Write an essay on the A	grarian Revolution.
on .	g			17. (a) Write an essay on the go	olden age of Oueen Anne
	mber 1565	(b) 2 Septemb	per 1665	(o	
	mber 1645	(d) 4 Septemb		(b) Write an essay on the Re	**
		million people in		(c) and an energy on the to	estoration England.
England.	only dood!	_ minion propie in		18. (a) Write an essay on the C	olonial expansion of England.
	n (b) 5 million	(c) 6 million (d	0.7 million	(0	er)
	was fluent in		i, / illillon	(b) Write an essay on the Gl	lorious Revolution.
(a) 2	(b) 5	(c) 6	(d) 8		
(4) 4	(0) 5	(0) 0	(u) 0		

9. Elizabeth I established

(a) Black Fire Theatre

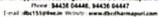
(c) New England

in 1600.

(b) East India Company

(d) Plymouth







#### CYCLE TEST-SEPTEMBER-2019 PRINTING PROCESS & MATERIALS

Class : II B.Sc. D.P.M Marks: 50

Paper code: 17UDP04 Time: 2 hrs.

#### SECTION - A

#### I. Answer any FIVE questions. (5x2=10)

- 1. Write about stock preparation.
- 2. Define paper pulp.
- 3. What is gray board?
- 4. Write short notes on finishing process.
- 5. Define testing.
- 6. What are the board properties?
- 7. List out the types of paper sizes.
- 8. Mention glossy ink.
- 9. Write about duplex board.
- 10. Define bleaching.

#### SECTION - B

#### II. Answer ALL the questions. (4x5=20)

11.a) What are the various operations in paper making process?

(or)

b) Explain pulping process.

a)Write the various stages in board making Process.

(or)

- b) Describe runnability properties and testing.
- 13. a) Why is bleaching done in paper making process?

(or)

- b) List out the different process involved in screen printing.
- 14. a) Elaborate the types of papers and boards. (or)
  - b) Explain about ISO paper sizes.

#### SECTION - C

- III. Answer any TWO questions. (2x10=20)
- 15. Emergence of the four printing process. Explain in detail.
- 16. Describe the different industrial applications of paper and boards.
- 17. Write in detail the complete paper making process.



#### CYCLE TEST SEPTEMBER - 2019

#### WEB TECHNOLOGY

Class : III BCA Time : 2 Hrs Paper Code : 17UCA06 Marks : 50

#### SECTION - A

I. Answer any five questions  $(5 \times 2 = 10)$ 

- List out the types of array.
- What is numeric array?
- 3. How will you store a data in array?
- Define nesting array.
- Write short notes on user defined data types in php.
- 6. How will you create a class in php?
- 7. What is the use of file size() function?

#### SECTION - B

II. Answer all the questions:  $(4 \times 5 = 20)$ 

a) Elucidate the topic of date and time function. (or)

- b) How will you use forms in arrays?
- a) Give a note on constructor.

(or)

- b) Explicate about oop concepts in php.
- 10. a) Write the procedure to work with arrays.

(or)

- b) List and explain the numeric functions.
- 11. a) Detail the file concept.

(or)

b) List and explain the directory functions.

#### SECTION - C

- III. Answer any two questions:  $(2 \times 10 = 20)$
- Illustrate process arrays with loops and iterations.
- Explain the arrays and functions.
- 14. How will you read and write files from directory?

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Athiyaman Bypass Road, Segathur Post, Dharmapuri 636 80



E-mail: dbc155@live.in Website: www.dbcdharmapurl.edu.in

#### CYCLE TEST - SEPTEMBER – 2019 BUSINESS APPLICATION SOFTWARE

Class : I B.Com CA Marks : 50 Paper Code : 17UCSA10 Time : 2 Hrs

#### SECTION - A

	Answer All questions .We can start MS Word by typing	$(10 \times 1 = 10)$
	Dialog box.	in the Run
	A.winword.exe B.word.exe C.msword	d.exe D.docx.exe
2.	Which one is the the spreadsheet applic with MS Office software group?	ation that comes
	A. MS Word B. MS Excel C. MS Pov	verPoint
	D. MS Access	
3.	We can apply border to	
	A. Cell B. Paragraph C. Table D. All o	f These
	William to all and another than the comment of the Com-	en dialon hous

- What is the shortcut key to open the Open dialog box?
   A. F12 B. Shift F12 C. Alt + F12 D. Ctrl + F12
- You cannot close MS Office application by
   A. Exit from File menu B. Pressing Alt+F4
   C. Clicking [X] Button D. Close from File Menu
- By default Footers are printed on:
   A. First Page B. Last Page C. All Pages D. Even Pages
- Which shortcut make selected text Italic ?
   A. Ctrl + IB. Ctrl + A C. Ctrl + S D. Ctrl + V
- Which shortcut is used to select entire text?
   A. Ctrl + I B. Ctrl + A C. Ctrl + S D. Ctrl + V

- 9. What is the shortcut key to search for any Spelling mistake on a document?
  - A. Function Key 2 B. Function Key 5
  - C. Function Key 7 D. Function Key 9
- Name word processing application that comes with MS office.

A. MS Word B. MS Excel

C. MS power Point D. MS Paint

#### SECTION - B

#### II. II. Answer any TWO questions (2 x 5= 10)

11. Illustrate the parts of word window.

12. Explain about table menu.

- Describe the various aspects of editing and formatting in excel
- 14. How will you create a chart?
- 15. Write down the steps to create a data form.

#### SECTION - C

#### III. Answer ALL the questions $(3 \times 10 = 30)$

16. a) How will you format the document?

(or)

- b) Discuss excel formulae and functions.
- a) Explain the various aspects of art and sound in Ms power point.

(or)

- b) Elaborate format and slide show menu.
- 18. a) Narrate text and format in power point.

(or)

b) Mention the commands used in insert menu.



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636:
Phone: 9443604446, 9443604447
Email other Station in Market Processing Control of the C



#### CYCLE TEST – SEPTEMBER – 2019 BANKING THEORY LAW AND PRACTICE

Class

: II B.Com.

Marks: 50

Paper Code: 17UCM07

Time : 2 Hrs

#### SECTION - A

#### I. Answer any FIVE questions:

 $(5 \times 2 = 10)$ 

- State the qualities of negotiable instrument.
- 2. Define the term cheque.
- Give the meaning commercial bank.
- 4. What do you mean by lending practice?
- 5 What is general crossing?
- 6. Write a short note on central bank.
- 7. Give any two types of deposits account.
- 8. How will you compute secured loan?

#### SECTION - B

#### II. Answer ALL the questions:

 $(4 \times 5 = 20)$ 

a) Bring out the different kinds of deposits account.

(or)

b) Explain the classification of commercial bank.

- 10. a) What are the condition of sound bank lending? (or)
  - b) Describe the different types of advance.
- 11. a) Narrate the elements of negotiable instruments.
  - b) Distinguish between cheque and bill of exchange.
- a) Indicate the types of crossing cheque.

(or)

 Enumerate the effective duties of collecting banker.

#### SECTION - C

III. Answer any TWO questions:

 $(2 \times 10 = 20)$ 

- 13. Briefly explain various types of endorsement.
- 14. Mention the monetary policy of RBI.
- 15. Describe the role of economic development.
- 16. List out the methods of credit control.





#### CYCLE TEST - SEPTEMBER- 2019 INORGANIC CHEMISTRY - I

: III B.Sc. Chem. Marks: 50 Class Paper Code: 17UCH05 Time : 2 Hrs

#### SECTION - A

Answer ANY FIVE questions: (5X2=10)

- 1. What is meant by ligand?
- 2. Write the IUPAC name of the following complex a) K<sub>4</sub>[Fe(CN)<sub>6</sub>] b) [Co(NH<sub>3</sub>)<sub>6</sub>]Cl<sub>3</sub>
- Define Coordination number.
- Find out EAN of [Pt(NH<sub>3</sub>)<sub>6</sub>]<sup>4+</sup>
- State Sidgwick's theory.
- What is trans effect?
- Give the reactions of cobalt ions.
- How will you identify the Ni2+ ions?
- Organize the order of ligands in trans effect.
- Draw the structure of EDTA.

#### SECTION - B

Answer ALL the questions:

(4X5=20)

11. a) Describe the structural isomerism in complexes.

(or)

- b) Construct the Nomenclature of mononuclear and polynuclear complexes.
- 12. a) Illustrate the Werner's Coordination theory.

(or)

- b) Outline the geometrical isomerism in 6 coordinated complexes.
- 13. a) Applying trans effect how will you synthesis cis and trans forms of dichlorodiamine platinum (II) complexes. (or)
  - b) Compare the reactions of copper and cadmium ions.
- 14. a) Write the applications of EDTA.

(or)

b) Estimate the principle and requirements of complexometric titrations.

#### SECTION - C

Answer ALL the questions: (2X10=20)

15. a) Explain the optical isomerism in 4 and 6 co-ordinate complexes.

(or)

- b) Justify the following
  - (i) Chelate effect (ii) EAN concept
- 16. a) Discuss the various theories of trans effect.

(or)

b) Describe the substitution reactions in square planar complexes with suitable examples.



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 80 Phone: 9443604446, 9443604447



C-mail: dbc155gfive.in Website: www.dbcdharmapuri.edu.in

#### CYCLE TEST – SEPTEMBER 2019 PHYSICAL CHEMISTRY - III

Class : II M.Sc, Chem.

Marks: 50

Paper Code: 17PCH08

Time : 2 Hrs

#### SECTION - A

#### Answer ALL the questions:

 $(4 \times 5 = 20)$ 

 a) Determine the hydrogen-oxygen evolution reactions.

(or)

- b) List the principle and prevention of corrosion metals.
- a) Construct the working of Nickel-Cadmium battery.

(or)

- b) Define fuel cell and examine the H<sub>2</sub>-O<sub>2</sub> fuel cell.
- a) Discuss the effect of isotopic substitution on rotational spectra.

(or)

- b) Deduct the mutual exclusion rule on Raman spectra.
- a) Explain vibrational spectra of harmonic oscillator.

(or)

 Elaborate the electronic spectra of diatomic molecules by using Franck-Condon principle.

#### SECTION - B

#### Answer ALL the questions:

 $(3\times10=30)$ 

a) Explain the working of lead acid accumulator storage battery.

(or)

- b) State the principle and applications of Electro deposition.
- a) Evaluate the Butler-Volmer equation in exchange and equilibrium current density.

(or)

- b) Derive the internuclear axis of rigid rotator on spectral lines.
- a) Sketch the principle and selection rules of rotational and vibrational Raman spectra.

(or)

- b) Write short notes on:
  - i) Hot bands, ii) Overtones and combination bands, iii) Fermi resonance.



#### CYCLE TEST SEPTEMBER- 2019 ENTREPRENEURSHIP DEVELOPMENT

Class : II DPM Marks : 50 Paper Code : 17UBAA07 Time : 2 Hrs

#### SECTION - A

### I- Answer any five questions: (5X2=10)

- What is financing entrepreneur.
- 2. State the IFCI.
- Mention any four qualities of entrepreneur.
- 4. Give the meaning of commercial banks.
- Explain MSME.
- 6. Write any two regulations governing SSI.
- Write a short note on 'ICICI'.
- 8. What is project design?
- Distinguish import and export.
- 10. What do you mean by TIIC.

#### SECTION - B

### II-Answer the following questions: (4X5=20)

11. a) Bring out the function of IFCI.

(or)

b) What are the objectives of LIC?

 a) Discuss in detail the phase of entrepreneurial development programme.

(or)

- State the terms and condition of financial assistance.
- Narrate the importance of small scale industries.

(or)

- b) Explain the role of small scale industries
- Discuss about features of commercial bank
   (or)
  - b) Classify project feasibility studies.

#### SECTION - C

#### III Answer any two questions: (2X10=20)

 a) Explain various roles of commercial banks in a developing economy.

(or)

- b) What are the functional objectives of ICICI bank?
- Describe the incentive and concessions offered to small scale units.

(or)

 b) List out the steps in the preparation of a project report



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 B Pione: 9443604446, 9443604447



E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.le

#### CYCLE TEST - SEPTEMBER-2019 PRINCIPLES OF MANAGEMENT

Class : I BBA Marks : 50 Paper Code : 17UBA01 Time : 2 Hrs

#### SECTION - A

#### I Answer ALL questions:

(10X1=10)

- 1. Which is the first function of management?
  - (a)Planning (b) Organizing (c) Staffing (d) Directing
- 2. Who pioneered the concept of MBO?
  - (a)Taylor (b)Fayol (c)Peter Drucker (d) Mayo
- 3. Division of work promotes:
  - (a)Specialization (b) Wastage(c) Confusion (d) Defects
- Organization is the process of:
  - (a)Arranging various inputs (b) Arranging conflicts
  - (c) Increasing objection (d) Defining accountability
- 5. Select the correct abbreviation for MBO
  - (a)Management by objective (b) Means of object
  - (c)Manufacturing by option (d) Maintain by option
- 6. Authority generally flows from:
  - (a)Top to bottom (b) Bottom to top
  - (c) Sideward (d) Different level
- 7. Centralization involves:
  - (a)Delegation of authority (b) Delegation of power
  - (c)Dispersal of authority (d) Dispersal of position

- 8. Select the single use plan:
  - (a)Objectives (b) Policies(c) Budget (d) Rules
- 9. Accountability is the obligation of a:
  - (a)Superior (b) Sub-ordinate
  - (c)Foreman (d) Middlemen
- 10. Planning is concerned with:
  - (a)Present (b) Past (c) Future (d) Recent

#### SECTION - B

#### II Answer any two questions out of five:(2X5=10)

- 11. Explain the characteristics of planning.
- 12. Describe the process of MBO.
- 13. What are the steps involved in decision making?
- 14. Enumerate the principles of organization.
- 15. Differentiate formal and informal organization.

#### SECTION - C

#### III Answer the following questions: (3X10=30)

a) Enumerate the merits and demerits planning.

(or)

- b) Briefly explain the process of planning.
- a) Discuss the merits and demerits of line and staff organization.

(or)

- b) Bring out the types of decisions.
- a) Describe the problems of delegation.

(or)

b) What are the factors influencing span of management.



raman Bypass Road, Sogathur Post, Dharmapuri 636 80



nall; dbc155@live.in Website; www.dbcdharmapuri.edu.in

#### CYCLE TEST - SEPTEMBER - 2019

#### ALLIED PHYSICS - II

Class : II B.Sc. Che B Time : 2 Hrs. Paper Code: 17UPHA02 Marks : 50

#### PART - A

### I. Answer ANY FIVE questions: $(5 \times 2 = 10)$

- Write Kepler's third law.
- 2. State Newton's law of gravitation.
- Define gravitational mass.
- Express joule Thomson's effect.
- Coefficient of thermal conductivity
- 6. What is meant by inertial mass.
- 7. What are called critical points?
- List out the Applications of switches.

#### PART - B

#### II. Answer the following questions: $(4 \times 5 = 20)$

9. a) Explain carey foster bridge..

(or)

b) Calculate the atomic radius of SC structure.

a) Describe the secondary bonds.

(or)

- Determine the internal resistance of the Unknown resistance.
- a) Draw and discuss lee's disc experiment.

(or)

- b) State and prove Demorgan's theorem.
- a) Illustrate porous plug experiment with neat diagram.

(or)

b) Show that:

(i) 
$$(A+B)(A+C) = A+BC$$

#### PART - C

### III. Answer the following questions: (2X10=20)

13. a) Explain about primary bonds..

(or)

- b) Calculate the G by Boy's method.
- 14. a) Describe a Zener diode use as a voltage regulator.

(or)

 Prove that the changes of g between altitude and depth..



### CYCLE TEST - SEPTEMBER - 2019 INCOME TAX LAW AND PRACTICE - 1

Class : III B.Com / III B.Com. (CA) Max.Marks : 50
Paper Code :17UCM14 / 17UCC11 Time : 2 Hrs

#### Section - A

#### I. Answer any FIVE questions:

 $(5 \times 2 = 10)$ 

- Expand an Assessee.
- What is total income U/S 2 (45)?
- Define the term Income.
- 4. Who is an ordinary resident?
- 5. What do you mean by residential status?
- Explain annual value.
- 7. Write a short note on unrealised rent.
- 8. Give the meaning of expected rent.

#### Section - B

### II. Answer ALL questions:

(4X 5 = 20)

- (a) Explain briefly about Person.
- (or)
- (b) What are the various incomes exempted U/S 10?
- 10. (a) How to identify the Residential Status of an Individual?

(or

- (b) Mr. A Comes to India for the first time in August 2015. During his stay in India up to 30<sup>th</sup> Sep 2018, he stayed for the first eight months in Mumbai and thereafter in Chennai. Determine his residential status for the assessment year 2019-2020.
- 11. (a) Define Annual Value and how is it determined?

(or)

(b) From the following, calculate Gross Annual Value.

Particulars	House I Rs.	House II Rs.
Municipal Rental Value	80,000	80,000
Fair Rental Value	1,00,000	1,00,000
Standard Rent	70,000	1,20,000
Actual Rent Received	1,20,000	90,000

It is assumed that both the houses were let out throughout the year and there was also no unrealized rent.

(a) Explain the objectives on income tax.

(or)

(b) Compute the annual rental value for the previous year 2018-19 from particulars given below:

MRV Rs 84000 P.a; FRV Rs 90000 P.a; Standard Rent Rs 87000 P.a; Real rent Rs 8000 P.a;

Unrealized rent Rs 4000;

Date of completion 31-07-2018;

Date of letting 01-10-2018.

#### Section - C

### III. Answer any TWO questions:

 $(2 \times 10 = 20)$ 

13. (a) Explain the term 'Assessee.' State the different classes of Assessees.

- (b) Which of the following incomes are taxable, when the residential status of Mr. Umesh is:
  - Income accrued in Canada but received in India Rs. 2,000.
  - b. Rs. 5,000 were earned in Africa and received there but brought to India.
  - c. Rs. 5,000 earned in India but received in Canada.
  - d. Rs. 10,000 earned and received in Srilanka from a business controlled from India.
  - e. House property income (Computed) from Srilanka Rs. 2,000
  - f. Rs. 4,000 was past untaxed foreign income which was brought to India during the previous
- g. Profit earned from a business in Kanpur Rs. 10,000.

Computed his total income for the assessment Year 2019-20, if he is

- a) Resident
- b) Not ordinary resident and
- c) Non resident

## 14. (a) Calculate the ARV, from the particulars given below:

Particulars	House – I Rs.	House – II Rs.
Standard Rent	1,90,000	80,000
Municipal Rental Value	1,91,000	90,000
Fair Rental Value	2,05,000	72,000
Rent Received		
Municipal Tax	25,000	85,000 8,000
Fire Insurance	4,000	1,700
Interest on Loan Borrowed for Construction of building	18,000	12,000
Nature of Occupation	Self	Rental

Determine the Income from House property of Mr.Suman.

(or)

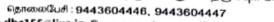
(b) Explain any 10 fully exempted incomes.

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## தொன் போஸ்கோ கல்லூரி

அதியமான் புறவழிச் சாலை, சோகத்தூர் அஞ்சல், தருமபுரி 636 809





மின்னஞ்சல் : dbc155@live.in கீணையதளம் : www.dbcdharmapuri.edu.in

முதுகலைத் தமிழ் இரண்டாமாண்டு - மூன்றாம் பருவம்

சுழற்சித தேர்வு - (செப்டம்பர் - 2019)

தாள் - தமிழக வரலாறும் பண்பாடும்

காலம் : 2 மணி

17PTA13

மதிப்பெண் : 50

பகுதி – அ

(4X5=20)

### அனைத்து வினாக்களுக்கும் விடையளி.

அ) சங்ககால வரலாறு மற்றும் நிலப்பரப்பு பற்றி எழுதுக.

(அல்லது)

- ஆ) பழைய கற்கால மக்களின் வாழ்க்கை முறைகளை விவரி?
- 2. அ) இரும்புக்காலம் குறித்து நிறுவுக.

(அல்லது)

- ஆ) தொல்காப்பியருக்கு முற்பட்ட தமிழர் நாகரிகமும் பண்பாடும் பற்றி எழுதுக.
- அ) சோழர் கால வட எல்லைகளை விளக்குக.

(அல்லது

- ஆ) பல்லவர் கால வரலாந்நினைப் புலப்படுத்துக.
- அ) தமிழ்நாட்டுக் குடைவரைக் கோயில்கள் பற்றி இயம்புக.
   (அல்லது)
  - ஆ) சங்ககால அரசியலையும், மக்களின் வாழ்க்கை முறைகளையும் எடுத்துரைக்க.

பகுதி – ஆ

(2x15=30)

### கீழ்க்காணும் வினாக்களுக்கு விடையளி.

அ) சங்ககால வரலாறு பற்றிக் கட்டுரை வரைக.

(அல்லது)

- ஆ) தமிழ்நாட்டு எல்லைகள் குநித்து விளக்குக.
- அ) தொல்காப்பியருக்கு முன்பிருந்தக் கலைகளைப் புலப்படுத்துக.

(அல்லது)

ஆ) சோழர்களின் வரலாற்றினை ஆய்க.

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Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809



E-mail: dbc155@live.in Webste: www.dbcdharmapuri.edu.in

#### CYCLE TEST- SEPTEMBER 2019 COMPLEX ANALYSIS

Class : III B.Sc. Maths Marks : 50 Paper Code : 17UMA11 Time : 2Hrs

#### Section - A

#### I Answer ALL the questions:

(5x2=10)

Define a contour integral.

- 2. What is the statement of n<sup>th</sup> derivative formula for Cauchy integral formula?
- 3. Define simply connected region.
- 4. Write down the condition of bilinear transformation.
- 5. Evaluate  $\int_{C} \frac{z^{3}-z}{(z-z)^{3}} dz$ ; |z| = 3.

#### Section - B

#### II Answer ALL the questions:

(4x5=20)

6. a) Derive the statement of Gourstat's lemma.

(or)

- b) Write the elementary transformation of w=sinz.
- 7. a) If C is the positive oriented unit circle |z| = 1 and

$$f(z) = \exp(2z)$$
 then find  $\int_C \frac{f(z)}{z^4} dz$ .

- b) Let f(z) be continuous on a domain D. If  $\int_C f(z)dz = 0$  for every closed contour C in D then prove that f is analytic throughout D.
- 8. a) State the fundamental theorem of Algebra and prove it.

(or)

b) If a function f is analytic and not constant in a given domain D, then prove that |f(z)| has no maximum value in D. That is, there is no point z<sub>0</sub> in the domain such that |f(z)| ≤ |f(z<sub>0</sub>)| for all points z in it.

 a) If a function f is entire and bounded in the complex plane, then prove that f(z) is constant throughout the plane.

(or)

b) Find  $w = e^z$ , the image of the infinite strip  $0 \le y \le \pi$  in the upper half  $y \ge 0$ .

#### Section - C

#### III Answer any TWO questions:

(2x10=20)

- 10. Let f be analytic everywhere inside and on a simple closed contour C, taken in the positive sense. If  $z_0$  is any point interior to C, then prove that  $f(z_0) = \frac{1}{2\pi i} \int_C \frac{f(z)dz}{z-z}$ .
- 11. Explain the transformation of  $w = \frac{1}{z}$ .
- (i) Find the value of Cauchy integral formula for f(z) = z/(g-z<sup>2</sup>), C is the positive oriented circle |z| = 2.
  - (ii) Solve  $f(z) = \frac{z^2}{z-3}$ ; when the contour C is the unit circle |z| = 1, to apply the Cauchy Goursat theorem.
- Find the bilinear transformation of z = 1, 0, -1 are to be mapped onto w = i, ∞, 1.



#### MODEL EXAMINATION - OCTOBER - 2019 MANAGEMENT INFORMATION SYSTEM

Class : III BBA Marks : 75 Paper Code : 17UBA13 Time : 3 Hrs

#### SECTION - A

#### I Answer all the questions: (10X2-20)

- 1. Define management information system.
- 2. What are the needs of information?
- Discuss briefly the term of central processing unit.
- 4. List out the various kinds of output devices.
- 5. "System implementation"-Brief out the term.
- Distinguish between system and system design.
- 7. Enumerate short note on data base management.
- 8. What is meant by managerial support system?
- Expand: TPIS, MIS, DMS.
- 10. Write a short note on "FMIS",

#### SECTION - B

#### II Answer all the questions: (5X5=25)

 (a) Explain the various sources of information in a organization.

(or)

(b) Discuss about management decision.

 a) Discuss briefly the basic structure of personal computer.

(or)

- b) Describe any four kinds of output device.
- a) Write the various classification of system.

(or):

- b) Write a short note on expert system,
- 14, a) Briefly explain objectives of database.

(or)

- b) What are the advantages of DBM5?
- 15. a) What is accounting information system?

(or)

b) List out the various HRIS.

#### SECTION - C

#### III Answer any three questions:

(3X10-30)

- Discuss the internal external factors that influence organization.
- 17. List out the various kinds of input device.
- 18. Diseass the elements of a system in detail.
- Explain decision support system in MIS.
- Describe in detail "production management information System".







#### MODEL EXAMINATION - OCTOBER - 2019 INORGANIC CHEMISTRY - I

: III B.Sc. Chem. Class

Marks: 75

Paper Code: 17UCH05

Time : 3 Hrs

#### SECTION - A

#### Answer ALL the questions:

(10x2=20)

What are lewis acids?

- Mention any two merits of liq.NH3 as solvent.
- State various oxidation state of lanthanides and Actinides.
- Write the preparation of ThO<sub>2</sub>.
- Define the EAN rule.
- Name the following complexes:
  - a) K<sub>4</sub>[Fe(CN)<sub>6</sub>]b) [Ag(NH<sub>3</sub>)<sub>2</sub>]Cl
- Give any two limitations of VB theory.
- Construct the order of spectrochemical series.
- How will you identify Ni and Cu?
- Draw the structure of Ni-DMG.

#### SECTION - B

#### Answer ALL the questions:

(5x5=25)

11. (a) Mention any five reactions in liquid SO2.

(or)

- (b) Discuss the Arrhenius and Bronsted-lowry concept of acids and bases with examples.
- 12. (a) Write a comparison between lanthanides and actinides.

(or)

- (b) How are lanthanides isolated from monazite sand?
- 13. (a) Describe about Werner's theory of Coordination complexes.

(or)

- (b) Calculate EAN for the following:
- i) [Co(NH<sub>3</sub>)<sub>6</sub>]<sup>3+</sup> ii) [Fe(CN)<sub>6</sub>]<sup>4-</sup>
- 14. (a) Give the postulates of valence bond theory. (or)
  - (b) Tabulate the similarities and differences of VBT and CFT.
- 15. (a) Illustrate the EDTA titration in hardness of water.

(or)

(b) Applying trans effect, how will you synthesis cis and trans forms of dichlorodiamine platinum (II) complexes.

#### SECTION - C

#### Answer any THREE questions:

(3x10=30)

- 16. Explain the principle and classification of hard. soft acids and bases and its applications.
- 17. Name the ores of Uranium. How is pure uranium extracted from its ore?
- 18. Describe the various types of isomerism exhibited by coordination complexes.
- 19. Write the splitting of d orbitals in octahedral and tetrahedral complexes with d1, d5 and d8 CFSE values.
- Discuss the theories of trans effect.





Marks: 75

### MODEL EXAM - OCTOBER - 2019 RESEARCH METHODOLOGY

Class : II M.Com

Paper Code: 17PCM09 Time : 3 Hrs

#### SECTION - A

I. Answer ALL the Ouestions  $(5 \times 5 = 25)$ 

1. a) What do you understand by research methodology?

(or)

- b) State the features of research design.
- 2. a) Explain various steps in sampling. (or)
  - b) Write the characteristics of sampling errors.
- 3. a) Differentiate primary data from secondary data.

(or)

- b) List out the various sources of data collection.
- 4. a) Point out the limitations of tests of hypotheses.
  - b) Bring out the qualities of good hypothesis.
- 5. a) Who are the target audience of the research report?

(or)

b) State the role of glossary in the research report.

#### SECTION - B

II. Answer ALL the Questions

 $(5\times10=50)$ 

6. a) Describe the different types of research.

(or)

- b) Mention the quality of a good research problem.
- a) Describe the types of sampling techniques. (or)
  - b) Critically examine the role of sampling in the research.
- 8. a) Discuss the characteristics of good hypothesis. (or)
  - b) Point out the merits and limitation of primary data.
- a) Explain the various tools used in data analysis. (or)
  - b) Narrate the type I and II error.
- a) What are the qualities of a good research report

(or)

b) Explain the various parts included in the appendices.



#### MODEL EXAM - OCTOBER – 2019 CAPITAL MARKET

Class : II B.Com. (CA) Marks : 75

Paper Code: 17UCCS01 Time : 3 Hrs

#### SECTION - A

I. Answer ALL the questions:  $(10\times2=20)$ 

Define the Capital market.

- 2. Write short notes on investigation.
- 3. What is investor protection?
- Explain SEBI.
- 5. Give the meaning of rating agencies.
- 6. Define Indian trade mark.
- 7. State the meaning of stock price.
- Expand CRA.
- 9. Who are the depositories?
- 10. Point out 3P's of capitalization.

#### SECTION - B

#### II. Answer ALL the questions:

 $(5 \times 5 = 25)$ 

 a) Write about recent developments in capital market.

(or)

b) List out the role of SEBI.

12. a) Discuss about investor protection.

(or)

b) What do you understand about financial innovation.

(or)

13. a) Evaluate FITCH rating.

(or)

- b) Explain the rating process available in CRISL?
- 14. a) Explain the demat trading and depositories.

(or)

- b) Develop the approach of fundamental analysis.
- 15. a) Explain: a) Inflation
  - b) GDP

(or)

b) List out various types of stock.

#### SECTION - C

III. Answer any THREE questions: (3×10=30)

- 16. What are the functions or roles of capital market?
- 17. Explain in detail about invest.
- Compare EGAN-JONES and DBRS.
- 19. What are the measures used in BSE, NSE and SENSEX?
- Elaborate the growth potential and inflation of gross domestic product.

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#### MODEL EXAMINATION – OCTOBER 2019 FUNDAMENTALS OF DIGITAL COMPUTERS

Class : II BCA

Marks: 75

PaperCode:17UCA03

Time:3Hrs

#### SECTION - A

#### Answer all the questions:

(10x 2 = 20)

- Define analog signals.
- Write the binary equivalent 0 to 15.
- Draw the basic gates.
- 4. How to write truth table for Karnaugh map?
- Delineate encoder.
- 6. State binary number system.
- 7. What is ASCII code?
- Sketch RS-flip flop.
- Term register.
- Expand ROM, PROM, EEPROM, RAM.

#### SECTION - B

#### Answer all the questions:

 $(5 \times 5 = 25)$ 

- 11. a) Explain the concept of digital wave forms.
  - (or)
  - b) Discuss about universal logic gates.

a) Compare Pairs, Quads, Octets with an example.

(or)

- b) Elucidate the BCD-to-Decimal Decoder.
- a) Enlighten the concept of JK Master salve filp flops.

(or)

- b) Illustrate the arithmetic building blocks.
- a) Write a short note on decimal to binary conversion with an example.

(or)

- b) Compare ASCII Code and Excesss-3 code with an example.
- 15. a) Discuss the simple computer design.

(or)

b) Summarize the serial in - parallel out.

#### SECTION - C

Answer any three questions:

 $(3 \times 10 = 30)$ 

- Discuss the digital integrated circults.
- 17. Write in detail about Karnaugh map simplification.
- 18. Elaborate the concept of edge triggered D-flip-flop.
- Discuss about 2'S complement Representation and arithmetic.
- Describe the magnetic memory.

\*\*\*\*\*\*\*\*\*\*ALL THE BEST\*\*\*\*\*\*\*



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#### MODEL EXAMINATIONS – OCTOBER 2019 OPERATING SYSTEM

Class : III B.Sc., CS Marks : 75 Paper Code : 17UCS07 Time : 3 Hrs

#### SECTION - A

#### I. Answer ALL the questions:

(10X 2 = 20)

- Define OS.
- 2. What do you mean by process?
- Write the difference between a process and a thread.
- 4. How do you find the critical region?
- Give the concept of paging.
- 6. How does round robin scheduling work?
- State the deadlock.
- Write a note on multiprocessor.
- 9. Expand RAID.
- 10. Why do we need files?

#### SECTION - B

#### II. Answer ALL the questions:

(5X 5 = 25)

- a) Illustrate the history of operating system.
   (or)
  - b) Write short notes on miscellaneous system calls.

12. a) Clarify the concept of thread and its types.

(or)

- b) Why do we use semaphore?
- 13. a) Discuss in detail about memory management.

(or)

- Elucidate the first in-first out page replacement algorithm.
- a) Summarize the multiprocessors.

(or)

- b) Elucidate the deadlock detection and recovery.
- 15. a) Elaborate the principles of I/O software.

(or)

 b) Give a short note on hierarchical directory systems.

#### SECTION - C

#### III. Answer any THREE questions: (3 X10 = 30)

- 16. Describe operating system concepts.
- 17. What are the different types of inter-process communication methods?
- 18. Explain page replacement algorithms.
- Enumerate the deadlock avoidance with an example.
- Differentiate principles of I/O software and hardware.

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Athlysmen Bypass Road, Sogethur Post, Dharmapuri 636 809 Phore: 94436 0448, 94436 04447



#### MODEL EXAM – OCTOBER – 2019 PRINTING PROCESS & MATERIALS

Class : II B.Sc D.P.M Marks: 75 Paper code : 17UDP04 Time : 3 hrs

#### SECTION - A

I. Answer all the questions.

(10x2=20)

- 1. Write a short notes on planography.
- 2. Define relief process.
- 3. Mention manual composing.
- 4. Write about gravure printing.
- 5. State the stock preparation.
- Define paper pulp.
- Explain testing of board.
- 8. What are the board properties?
- 9. Write about glossy ink.
- 10. Define ink dryers.

#### SECTION - B

- II. Answer the following questions. (5x5=25)
- (a) Write the historical background of printing Process.

(or)

(b) Describe the intaglio and planography process.

- 12. (a) What are the advantages of screen printing? (or)
  - (b) Write in detail the process of electronic composing.
- 13. (a) What are the various operations in paper making process?

(or)

- (b) Explain pulping and bleaching process.
- (a) Write the various stages in board making process.

(or)

- (b) Explain the properties in testing.
- 15. (a) Describe the various ink drying method.

(or)

(b) Name the ink types used in printing process.

#### SECTION - C

- III. Answer any THREE questions. (3x10=30)
- Explain in detail the emergence of the four printing Process.
- Write brief notes on letter press, offset and screen printing.
- Describe the different industrial applications of paper and boards.
- 19. Explain the paper sizes and its properties.
- 20. What are the characteristics of printing inks?

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### MODEL EXAMINATION – OCTOBER 2019 SOFT SKILLS FOR CAREER COMMUNICATION

Class : II B.A. English Marks : 75 Paper Code : 17UENS02 Time : 3 Hrs

#### Section - A

I. Answer all the questions:

 $(10 \times 2 = 20)$ 

Explain 'Descriptive Essay."

- 2. List out the advantages of effective reading.
- Define Collective Noun.
- 4. What is meant by content words?
- Mention the two kinds of people in our society.
- 6. Give a short note on objective of Guidance.
- 7. What is the basic principle of lateral thinking?
- Elucidate the types of stress.
- 9. What is meant by Authoritarian style of leadership?
- Explain Momentum.

#### Section - B

#### II. Answer all the questions:

 $(5 \times 5 = 25)$ 

a) Describe the need for communication.

(or)

b) Write a note on combination resume.

12. a) Explain the uses of past tense.

(or)

- b) Distinguish between stressed and unstressed syllable.
- a) Mention the steps involved in career planning.
   (or)
  - b) Elucidate the hard and soft skills.
- 14. a) Does the thinking skill support one to achieve one's target?

(or)

- b) What are the attributes of time management?
- a) Write a paragraph on the forms of technical communication.

(or)

 b) Write a paragraph on the importance of Group Discussion.

#### Section - C

- III. Answer any three of the following questions:  $(3 \times 10=30)$
- Bring out the importance of communication.
- 17. What are the basic sentence structures in English language?
- Write an essay on the role of Libraries in Guidance and Counseling.
- 19. How could one lead a balanced life in the hectic world?
- Bring out how Bloom's philosophy is relevant in the present day context of acquiring soft skills.

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Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809 Phose: 0443004448, 0443004447



#### MODEL EXAM – OCTOBER 2019 DIGITAL ELECTRONICS

Class : III B.Sc. PHYSICS Marks: 75 Paper Code: 17UPHS04 Time : 3 Hrs

#### PART - A

I. Answer ALL the questions: (10X2 = 20)

- Convert (111010)<sub>2</sub> to octal number.
- Define Excess-3 code.
- Write associative laws of Boolean algebra.
- 4. What do you mean by k-map and POS?
- Define: Decoder and Encoder.
- State Multiplexer and De-multiplexer.
- 7. What is meant by shift register?
- What is a flip flop? Give its uses.
- Define A/D and D/A converter.
- 10. Give the applications of shift registers.

#### PART - B

#### II. Answer ALL the questions: (5X5=25)

11.a) Show that NOR gate is an universal gate.

(or)

- b) State and prove Demorgan's theorems.
- Explain two variable k-map simplification using minterm.

(or)

b) Simplify using k - map $Y = f(A,B,C) = \Sigma(1,2,3,5,7)$   a) Describe the working of an half adder and full adder with truth table.

(or)

- b) Discuss the working of multiplexer and de-multiplexer.
- Explain the RS flip flop using NOR gate.

(or)

- Explicate the function of clocked RS flip flop using NAND gates.
- Elucidate the 4-bit asynchronous counter with neat circuit diagram.

(or)

 Give explanation with neat diagram the working principle of A/D converter.

#### PART - C

#### III. Answer any THREE questions: (3X10=30)

- (a) Draw the symbols of basic logic gates and write their truth tables.
  - (b) Show that NAND gate is an universal building block.
- Simplify the following expression using kmap F=Σm (0,1,3,5, 7, 9, 11,12,13, 14, 15).
- Describe the half subtractor and the full subtractor circuit construction using NAND gates.
- Explain the working of J-K master slave flip flop.
- Discuss the working of R-2R ladder by D/A converter.



Phone: 9442804448, 9442804447
Lenal: tibs 155pilva in Wetshe; www.dboffsermagneti.edu.in



(10X2=20)

#### MODEL EXAM – OCTOBER 2019 ALLIED PHYSICS - I

Class : II B.Sc. (Che, Mat, CS) Marks: 75 Paper Code: 17UPHA01 Time: 3 Hrs

#### Section - A

#### I. Answer ALL the questions:

- 1. Define Young's modulus.
- 2. What is surface tension?
- Define Reverberation time.
- Write the advantages of piezo-electric method.
- 5. What is temperature of inversion?
- Give the results of Joule-Kelvin porous plug experiment.
- 7. State Newton's law of gravitation.
- 8. State Kepler's laws of planetary motion.
- 9. What is circuit breaker?
- 10. List out the significance of fuse.

#### Section - B

#### II. Answer ALL the questions: (5X5=25)

11.a) Obtain an expression for the period of oscillation of a torsion pendulum.

(or)

- b) Write an expression for the depression at the midpoint of a beam loaded at centre of the beam.
- 12.a) How can the frequency of the A.C. mains can be determined by using a sonometer?

- b) How will you produce ultrasonics waves using piezo-electric method?
- 13.a) Describe the Lee's disc method of finding the thermal conductivity of a bad conductor.

(or)

- b) Derive an expression for coefficient of thermal conductivity.
- 14.a) Discuss the Boy's method of calculation of gravitational constant.

(or)

- b) State and explain Newton's law of gravitation. Why is it said to be a universal law?
- 15.a) How will you calibrate the readings of a low range voltmeter using a potentiometer?.

(or)

b) How to determine the internal resistance of a cell using potentiometer?

#### Section - C

#### III. Answer any THREE questions: (3X10=30)

- Describe static torsion method to find the rigidity modulus of the material.
- Write an essay on acoustics of buildings.
- Explain Joule-Kelvin porous plug experiment with necessary theory.
- Deduce an expression for variation of g with altitude and depth.
- Explain with necessary theory how carey foster bridge can be used to measure known resistance to unknown resistance.

(or)



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809
Phone: 0443604446, 9443604447
E-mail: dbc155alige in Website: www.dbcdharmaguri.edu.io



E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.in

#### MODEL EXAMINATION – OCTOBER 2019 GENERAL CHEMISTRY-I

Class : I B.Sc. Chemistry.	Marks: 75
Paper Code: 17UCH01	Time : 3 Hrs
SECTIO	
Answer ALL the questions:	(15×1=15)
<ol> <li>In Lewis concept of acid and base, acid</li> </ol>	
<ul> <li>a) Electron pair donor</li> <li>b) Electron pair</li> </ul>	r acceptor c) Proton donor
d) Proton acceptor	
2. Fe <sup>2*</sup> + Ce <sup>4*</sup> Fe <sup>3*</sup> + Ce <sup>3*</sup> is an exam	
a) Oxidation b) Reduction c) Redo	x d) Complexometric
<ol><li>The number of gram equivalent of solu</li></ol>	te present in one litre of solution
is	
a) Molarity b) Molality c) Mole fract	tion d) Normality
Nucleon is a combination of	
a) 1H1 and on! b) 1H1 and 1e0 c) 1H1 and	
<ol> <li>Rutherford model of atom is an scatteri</li> </ol>	
a) Beta particles b) Alpha particles c)	Gamma particles d) no charge
<ul> <li>Azimuthal quantum number determines</li> </ul>	the of the orbital.
a) Shape b) Energy c) Volume d) M	lagnetic
<ol> <li>The orbital with a lower energy filled up with higher energy.</li> </ol>	p first before filling of orbital
a) Pauli's principle b) Hund's rule c)	Aufbau principle d) n+l rule
. In Ionisation energy, we move from top	to bottom
a) Decreases b) Increases c) equal d	) more than one
. Stable oxidation state of lanthanides is .	
a) +1 b) +2 c) +3 d) +4	
0. In Boyle's law, pressure is pro	portional to volume.
a) directly b) inversely c) equal to d	
1. Ideal gas equation is	the same of the sa
a) PV=TP b) PV=nT c) PV=nP d) P	V = nPT

<ol><li>According to Avo</li></ol>	gadro's law, volume is directly p	roportional to
a) Temperature b	No. of molecules c) Pressure	d) Volume
<ol><li>Give the IUPAC r</li></ol>	name of compound, CH <sub>3</sub> CH <sub>2</sub> CH <sub>2</sub> C	CH₂COOH.
	b) 1-hexanol c) 1-pentanone	d) 1-pentanoic acid
<ol> <li>Geometry of SP<sup>3</sup></li> </ol>	hybridisation is	
a) tetrahedral b) j	planar c) octahedral d) linear	
	trophile is	
a) Br b) NO2 c	) OH	
	SECTION - B	
Answer ANY TWO	uestions:	(2×5=10)
<ol><li>Discuss the primar</li></ol>	y and secondary standard of solu	tions.
17. Write a note on Ru	therford's atom model.	
18. State Pauli's exclu	sion principle and Hund's rule.	
19. What are the factor	rs affecting electronegativity?	
20. Derive kinetic gas	equation.	
	SECTION - C	
Answer ALL the que	stions:	(5×10=50)
21. a) Give the First aid	d procedure, safety and hygiene i	n chemical
Laboratory,	(or)	
b) Explain the prine	ciple of acid-base titration and re	dox titration.
22. a) Discuss the post	alates and limitations of Bohr's a	tom model.
	(or)	
<ul> <li>b) Elaborate the var</li> </ul>	rious types of quantum numbers.	
23. a) What are the fact	ors affecting ionization energy a	nd electronaffinity?
	(or)	•
b) Write the charact	teristic properties of d and f block	k elements.
24. a) Mention the prep	aration and properties of alkynes	i.
	(or)	
b) Describe the free	radical mechanism of alkenes.	
	ell distribution of molecular velo	ocities.
	(or)	

i) Collision diameter, ii) Collision frequency, iii) Mean free path

b) Justify the following:



#### தொன் போஸ்கோ கல்லூரி

ன்றியாளன் புறவழிச் சாலை, சோகத்தார் கூற்சல், தரும்புரி 636 809 கொண்டுகி (944)564448, 944)364447 முன்னத்தம் (Bc15)6(vein திணையதை) www.dbcthamanusi.edu.io



#### முதுகலைத் தமிழ் இரண்டாமாண்டு - மூன்றாம் பருவம் மாதிரித் தேர்வு — (அக்டோபர் - 2019) காள் - பெரியாரியல்

காலம் : 3 மணி நேரம்

17PTA12

மதிப்பெண் : 75

பகுதி – அ

அனைத்து வினாக்களுக்கும் விடையளிக்க.

(5X3=15)

(அ) 'நீதிக்கட்சி' குறித்து எழுதுக.

(அல்லது)

(ஆ) பகுத்தறிவு என்றால் என்ன?

(அ) 'கவிQா வேமனா' – குறிப்பு வரைக.

(அல்லது)

(ஆ) வைக்கம் போர் பற்றி எழுதுக.

 (அ) ஈ.வே.ரா. 'குடியரசு' இதழ் தொடங்கியதற்கான நோக்கங்கள் யாவை?

(அல்லது)

(ஆ) 'பிரம்ம சமாஜம்' பற்றி விளக்குக.

(அ) பெண்ணடிமைக்காவக் காரணங்களைக் குறிப்பிடுக.

(அல்லது)

(ஆ) விதவை மறுமணம் குறித்து விளக்குக.

(அ) ஈ.வே.ராவின் எழுத்துச் சீர்திருத்தம் பற்றிப் புலப்படுத்துக.

(அல்லது)

(ஆ) வகுப்புவாரி உரிமை பற்றி ஈ.வே.ரா. கூறுவன யாவை?

பகுதி – ஆ

கீழ்க்காணும் வினாக்களுக்கு விடையளி.

(5X12=60)

(அ) பெரியாரின் சுயமரியாதைக் கொள்கைகள் பற்றி விவரி.
 (அல்லது)

(ஆ) பெரியாரின் வாழ்வும், பணியும் குறித்து அராய்க.

7. (அ) நாராயணகுரு, பசவர் ஆகீயோரின் சமூகப் பணிகளை விளக்குக.

(அல்லது)

(ஆ) சிவவாக்கியாரின் சமூகச் சீர்திருத்தம் பற்றித் தொகுத்துரைக்க.

(அ) சிற்றிலக்கிய மரபுக் குறித்துக் கட்டுரை வரைக.

(அல்லது)

(ஆ) செங்கற்பட்டு சபமரியாதை மாநாட்டின் தீர்மானங்களைத் தெளிவுப்படுத்துக.

(அ) பெண் விடுதலை பற்றித் தொகுத்தெழுதுக.
 (அல்லது)

(ஆ) 'கற்பு' பற்றி ஈ.வே.ரா. கூறும் விளக்கத்தை ஆய்க.

(அ) கோயில் நுழைவுப் போராட்ட வரலாற்றை விவரிக்க.
 (அல்லது)

(ஆ) தன்மதிப்பு – சமத்துவம் - சகோதரத்துவம் குறித்து மதிப்பிடுக.

\*



#### Model Exam – October - 2019 Classical Algebra

Class : I B.Sc. Maths Paper Code: 17UMA01	Max Marks: 75 Time : 3Hrs
Section- A	
I Answer ALL the questions:	(15x1=15)
<ol> <li>problems using binomial series.</li> </ol>	
(a) Approximation (b) Only square roo (d) Cubic root	ot (c) Diagonal
<ol> <li>If n is a rational number and −1 &lt; x &lt; 1 the calledseries.</li> </ol>	infinite series is also
(a) Exponential (b) Binomial (c) Logariti	
<ol><li>An integer = an integer + a which i</li></ol>	s absurd.
(a) Rational (b) Real (c) improper fraction	(d) Proper fraction
<ol> <li>Every square matrix satisfies its own character</li> </ol>	istic equation is
(a) Latent root (b) Eigen vector (c) Cayley- (d) Newtons method	Hamilton theorem
<ol><li>The given system of equation is since t number of solutions.</li></ol>	here are infinite
(a) Constant (b) Co-efficient (c) Inconsiste	nt (d) Consistent
The Characteristic roots of a matrix are	real.
(a) Hermilian (b) Square (c) Symmetric	(d) skewsymmetric
<ol> <li>In a polynomial equation with real co-efficient occur in</li> </ol>	imaginary roots

(c) Imaginary

(d) Rational

(a) Conjugate pairs (b) Real

8.	If $\alpha + \sqrt{\beta}$ is a root of $f(x) = 0$	then is al	so a root
	of $f(x) = 0$ .		
	(a) $\alpha + \beta$ (b) $\alpha - \beta$	(c) $\sqrt{\alpha} + \beta^2$	(d) $\alpha - \sqrt{\beta}$
9.	An equation of the form $a_0, a_1 \dots$		
	known as integral eq		
	(a) Real (b) Imaginary	(c) Irrational	(d) Rationa
10	. A reciprocal equation the co-effic		
	the beginning and end.		
	(a) Reciprocal (b) Polynomial	(c) equidistant	
	(d) None of the above		
11.	The forming equation whose roots of the equation.	are $\emptyset(\alpha_1)$ , $\emptyset(\alpha_1)$	is called
	(a) Transformation (b) Real	(c) Rational	(d) Reciprocal
12.	The successive co-efficient can be		
	(a) Division algorithm (b) Multip	dication (c) Syn	thetic division
	(d) None of the above	(4) 571	arrane arranen
13.	In remove the second term of the ed	quation the value	h is
	(a) $na_0$ (b) $-\frac{a_1}{na_0}$	$(c)\frac{a_1}{na_0}$	$(d) \frac{na_1}{a_0}$
	Using of signs we can deter imaginary roots of an equation.	mine the minimun	n number of
	(a) Cramer's Rule (b) Positive (c	) Negative (d) D	escartes Rule
5.	The general formula for the best ap	proximated value	of the root as
	-, -, -, -, -, -, -, -, -, -, -, -, -, -	$x_{n+1} \neq x_n - \frac{f(x_n)}{f'(x_n)}$	
	(c) $x_{n+1} = x_n + \frac{f(x_n)}{f'(x_n)}$ (d)	$x_{n+1} = x_n$	

#### Section - B

#### II Answer any TWO questions:

16. If -1 < x < 1 then show that  $\log_e(1+x) = x - \frac{x^2}{2!} + \frac{x^3}{3!} \dots \infty$ 

- 17. Verify Cayley Hamilton theorem for the matrix  $\begin{bmatrix} 1 & 2 & 1 \\ 0 & 1 & -1 \end{bmatrix}$
- 18. If  $\alpha, \beta, \gamma$  are the roots of the equation  $x^3 + px^2 + qx + r = 0$ then find the value of

(i) 
$$\sum \alpha^2$$
 (ii)  $\sum \alpha^2 \beta$  (iii)  $\sum \alpha^2 \beta^2$ .

- 19. Solve the equation  $x^4 8x^3 + 19x^2 12x + 2 = 0$  by removal of its second term.
- 20. Discuss the nature of roots of the equation  $x^6 + 3x^2 5x + 1 = 0$

#### Section - C

#### III Answer ALL the questions:

(5x10=50)

21. a) Find the sum to infinite of the series

$$\frac{1}{9.18} - \frac{1.3}{9.18.27} + \frac{1.3.5}{9.18.27.36} - \dots$$

- b) Show that  $\log_e (1 + \frac{1}{n})^n = 1 \frac{1}{2(n+1)} \frac{1}{2(3(n+1)^2} \dots \infty$
- 22. a) Diagonalizable the matrix  $\begin{bmatrix} 2 & -2 & 3 \\ 1 & 1 & 1 \\ 1 & 2 & -1 \end{bmatrix}$ 
  - b) Find the characteristic root and the associated characteristic

vector of the matrix 
$$A = \begin{bmatrix} 8 & -6 & 2 \\ -6 & 7 & -4 \\ 2 & -4 & 3 \end{bmatrix}$$
.

23. a) If  $\alpha, \beta, \gamma$  are the roots of the equation

$$x^3 - x - 1 = 0$$
, then prove that  $\sum \frac{1+\alpha}{1-\alpha} = -7$ .

b) One of the roots of the equation is

$$3x^5 - 4x^4 - 42x^3 + 56x^2 + 27x - 36 = 0$$
 is  $\sqrt{2} + \sqrt{5}$ . Find the other roots.

24. a) Solve the reciprocal equation

$$2x^6 - 9x^5 + 10x^4 - 3x^3 + 10x^2 - 9x + 2 = 0.$$
(or)

b) Prove that if  $\alpha$  is a root of the equation

$$x^4 + 9x^3 - 6x^2 - 9x + 1 = 0$$
 so, also is  $\frac{1+\alpha}{1-\alpha}$ . Prove that the other two roots are  $-\frac{1}{\alpha}$  and  $\frac{\alpha-1}{\alpha+1}$ .

25. a) Using Horner's method to find the real root of the equation  $x^3 + 29x - 97 = 0$  correct to two places of decimals.

 b) Find an approximate root (correct to two decimal places) of  $x^3 - 2x - 5 = 0$  by Newton's method.



#### தொன் போஸ்கோ கல்லூரி

சுதியாள் புறவழிச் சாலை, சோகத்தூர் அஞ்சும், தரும்புரி 636 809 FETONIGUE 9443604446, 9443604447.



மாதிரித் தேர்வு - இளங்கலைத் கமிழ் முதலாமாண்டு - முதற்பருவம் (அக்டோபர் - 2019) இக்கால இலக்கியங்கள்

காலம் : 3 மணி கோம்

17UTA02

மதிப்பெண் : 75

பகுதி – அ

அனைத்து விணக்களுக்கும் விடையளி.

(15X1=15)

- கீழ்வருவனவற்றுள் பாரதியார் இயற்றிய நூல் யாது? அ) பாஞ்சாலி சபதம் ஆ) குடும்ப விளக்கு இ) ஆலாபனை ச) அலையோசை
- பிசிராந்தையார் என்னும் நாடக நூலின் ஆசிரியர் யார்? ஆ) பாரதியர் இ) அறிஞர் அண்ணர் ஈ) நவரப் அ) பாரதிதாசன்
- வரை என்னும் சோல்லின் பொருள் தருக. அ) கோடு ஆ) மலை இ) நிர் ஈ) கடல்
- 'குழந்தைக்கவிஞர்' என அழைக்கப்படுபவர் யார்? அ) சுரதா ஆ) திரு.வி.க இ) கவிமணி ஈ) அம். வள்ளியப்பா
- 5) உயர்கய்யாம் பாடல்களைத் தழுவி தமிழில் பாடல்களை எழுதியவர் quirit?
  - அ) சிற்பி ஆ) அப்துல் ரகுமான் இ) சி. மணி #) கவிமணி
- ஆத்துப்பொள்ளாச்சி என்ற கிராமத்தின் காவல் மரம் எது? அ) அரசமரம் ஆ) அத்திமரம் இ) ஆலமரம் #) Gasúlupjú
- 'தமிழ்த்தாத்தா' எனப் பாராட்டப்படுபவர் யார்?
  - அ) உ.வே.சா ஆ) வ.உ.சி இ) வ.வே.சு #) unr.Gurr.dl
- குறிஞ்சிப்பாட்டில் வரும் பூக்களின் எண்ணிக்கையைச் சுட்டுக. න) 96 (A) 98 æU 97
- 9) தமிழ்ச் சிறுகதையின் தந்தை யார்?
  - அ) அதிலன் ஆ) வ.வே.சு.ஐயர் (3) あめあ (4) はいのが
- 10) ரா.பி. சேதுப்பின்ளையின் 'தமிழ் இன்பம்' சாகித்திய அகாதமிப் பரிசுப் பெற்ற ஆண்டு எது? න) 1955 න() 1956 இ) 1957 #) 1958
- 'NOVAL' எனும் ஆங்கிலச் சொல்லுக்கு நிகரானத் தமிழ்ச் சொல் தருக.
  - அ) உரைநடை ஆ) புதினம் இ) சிறுகதை ஈ) புதுக்கவிதை
- 12) புதினத்தின் தாயகம் எது?

- அ) இந்தியா ஆ) அமெரிக்கா இ) இத்தாலி ஈ) பீரென்க
- கும்பகர்ணனின் மனைவி பெயர் என்ன? அ) வாமை ஆ) கேதகை இ) கனகை ஈ) மண்டோதரி
- 14) நாடகம் எத்தனை வகைப்படும்? அ) இரண்டு ஆ) மூன்று இ) நான்கு #) ஐந்து
- 15) 'கனகை' என்னும் நாடகநூல் வெளிவந்த ஆண்டு?
- அ) 1897 **24)** 1891 (2) 1976 #) 1855

பக்கி – ஆ

 எவையேனும் இரண்டு வினாக்களுக்கு விடையளி. (2X5=10)

- 16) அஸ்தினாபுரத்தின் எழிலை பாரதியார் எங்ஙனம் பாராட்டுகிறார்?
- 'ஒரு கிராமத்து நதி' பற்றிச் சிற்பி சித்தரிக்கும் முறையை விளக்குக.
- இருபதாம் நூற்றாண்டுத் தமிழ்க் கவிதைகள் பற்றி எழுதுக.
- ராக்கியண்ணனின் சமூகப் போராட்டத்தைப் புலப்படுத்துக.
- 20) நாடகம் சிறக்க உதவும் உத்திகளை வகைப்படுத்துக.

பகுதி - இ

III. அனைத்து வினாக்களுக்கும் விடையளி.

(5 X10=50)

- அ) துரியோதனின் குழ்ச்சியைப் புலப்படுத்துக.
  - (ചര്ത്ത്വ) ஆ) இதிகாசங்கள் நம்பத்தகாதவை என்பதற்குப் பாரதிதாசன் உரைக்கும் காரணங்களை ஆய்க.
- 22) அ) உயர்கப்பாம் கவிதைகளில் இடம்பெறும் இயற்கை வருண்ணைகளை விவரி.

(அல்லது)

- ஆ) சிற்பி கூறும் 'மூன்று கனவுகள்' குறித்துக் கட்டுரை வரைக.
- 23) அட 'இறவாத கவிதை' பற்றி அமு பரமசிவானந்தம் கூறும் கருத்துகளைத் தொகுத்தெழுதுக. (அல்லது)
  - ஆ) க.ப. அறவாணன் கூறும் மொழிப்பற்றினை மகிப்பிடுக.
- 24) அ) ஜெயகாந்தனின் 'பூ வாங்கலியா பு...'சிறுகதை உணர்த்தும் சமூக நீதியைப் புலப்படுத்துக.

(அல்லது)

- அ) 'ஒடைப்புல்' நாவலின் மையக்கருத்தினை விளக்குக.
- 25) அ) நாடகத்தின் தோற்றம், வளர்ச்சிக் குறித்து விவரி. (அல்லது)
  - அ.) 'கனகை' என்னும் பாத்திரத்தின் பண்புநலன்களைத் தொகுத்துரைக்க.



# DON BOSCO COLLEGE Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809



Phone: 9443604446, 9443604447 E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.in

### MODEL EXAM - OCT 2019 LINEAR ALGEBRA

CLASS : I M.: PAPER CODE : 17PM	Sc., MATHS 4A01		MARKS TIME	: 75 : 3 Hrs
I. Answer ALL the ques	SECTIO	ON – A		
	uons:			(15X1=1)
<ol> <li>Verify the L(V,W) is</li> </ol>				
<ol><li>Which one satisfies si</li></ol>	b) Linear space ngular and non-singular	c) Both a & b	d) None o	f these
a) V=0 b) V	$t \neq 0$ c) $T(V)=0$	d) T(V)=0;V=0	& T(V)≠ 0	;V≠ 0
<ol><li>If V be the vector space</li></ol>	ee of all n x n matrix over	F, if T(A)=AB-BA, for a	l A belongs	to V, then
the value of $T(aA_1 + bA_2)$	$A_2$ ) is			
a) $aT(A_1) + T(A_2)$	b) $aT(A_1) + bT(A_2)$	c) Both a & b	d) None o	of these
4. The polynomial $x^4 + 2$	$x^{3} + x^{2} + 1$ is			
<ul> <li>a) Identity polynomia</li> </ul>	ıl b) polynomial	c) Monic polynomial	d) a and b	
<ol><li>Choose the space of di</li></ol>				
<ul> <li>a) Double dual space</li> </ul>		c) Empty space	d) Null sp	ace
<ol><li>The composition of the</li></ol>	e product is a linear algebr	a iff the space one dimen	sional is	
a) (TU)V=(UT)V	b) T=U	c) Both a & b	d) U=T	
<ol><li>Which one satisfies the</li></ol>				
a) $A^{-1} = adjA$	b) $A^{-1} = \frac{1}{ A } adjA$	c) $A^{-1} = \frac{1}{ A }$	d) $A^{-1} =  $	A adjA
8. What is the value of $\sigma$	in even and odd permuta	ation is		
a) 1 and 2	b) 3 and 4	c) 4 and 9	d) 1 and -	-1:
9. If the diagonalizable el	ements of the matrix are		-,	
a) unique	b) equal	c) zero	d) distinct	
		-17		
10. Find the characteristic	roots of the matrix $A = \begin{bmatrix} 1 \end{bmatrix}$	0		
a) -i	b) <i>i</i>	c) ±i	d) 1	
11. If the value of $E^2 = E$ i	s			
<ul> <li>a) projection</li> </ul>	b) imaginary	c) real value	d) comple	X
<ol><li>What is the condition o</li></ol>	f minimal polynomial is			
<ul> <li>a) monic polynomial</li> </ul>	b) monic with ideal	polynomial e) ide	al d) none	:
13. If N is row equivalent to	o M, if N can be obtained			mentary
	$\rightarrow M_1 \rightarrow \dots \rightarrow M_k = N$			
a) row equivalent	b) column equivaler		d) none of	Cthaca

- 14. Which one satisfies the Jordan form is
  - a)  $N_i = T_i C_i I$
- b)  $N_i = T_i$
- c)  $N_i = C_i I$
- d)  $N_i = I$
- 15. If the minimal polynomial divides the characteristic polynomial for T is
  - a) Hamilton
- b) Cayley Hamilton
- c) cyclic decomposition
- d) none of these

#### SECTION - B

#### II. Answer any TWO questions:

(5X2=10)

- 11. Let V and W be vector spaces over the field F and let T be the linear transformation from V into W. Suppose that V is finite dimensional, then prove that rank(T) + nullity(T) = dim V.
- 12. Let f and g be non-zero polynomials over F. Prove that the following.
  - i) fg is a non zero polynomial
- ii) deg(fg) = deg f + deg g.
- 13. Prove that similar matrices have the same characteristic polynomial.
- 14. Let V be finite dimensional vector space over the field F and T be a linear operator on V. Prove that T is triangulable if the minimal polynomial for T is a product of linear polynomials over F.
- 15. If T be a linear operator on a finite dimensional vector space. Prove that every T-admissible subspace has complementary subspace which is also invariant under T.

#### SECTION - C

#### III. Answer ALL the questions:

(5x10=50)

- 16. Let V and W be a finite dimensional vector spaces over the field F such that dimV = dimW. If T is a linear transformation from V into W, then prove that the following are equivalent.
  - i) T is invertible
  - ii) T is non singular
  - iii) T is onto, that is the range of T is W.

(or)

- (b) Prove that every n-dimensional vector space over the field F is isomorphic to the space F<sup>n</sup>.
- Derive Taylor's formula.

(or)

- (b) Prove that a linear combination of n-linear functions is n-linear.
- State and prove Cayley-Hamilton theorem.

(or)

- (b) Let K be a commutative ring with identity, and let A and B be nxn matrices over K. Prove that det (AB) = (detA) (detB).
- 19. Explain about Primary decomposition theorem.

(or)

- (b) Let V be finite dimensional vector space over the field F and T be a linear operator on V. Prove that T is diagonalizable if the minimal polynomial for T has the form p = (x-c<sub>1</sub>)(x-c<sub>2</sub>)...(x-c<sub>k</sub>), where c<sub>1</sub>,c<sub>2</sub>...c<sub>k</sub> are distinct elements of F.
- Extract the Cyclic decomposition theorem.

(or)

(b) Let F be a field and B be a nxn matrix over F, prove that B is similar over the field F to one and only one matrix which is in rational form.

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Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 80 Phone: 9443804446, 9443804447



#### MODEL EXAMINATION - OCTOBER – 2019 FINANCIAL MANAGEMENT

Class Paper Code : II-BBA

: 17UBA05

Marks: 75

Time : 3 Hrs

#### SECTION - A

#### 1 -Answer all the questions:

(10X2=20)

- 1. What is Financial Management?
- 2. Define Capital Budgeting.
- 3. Explain Cost of Capital.
- 4. What do you mean by Financial Leverage?
- Write a short note on Temporary Working Capital.
- 6. State the meaning of Financial Decision.
- 7. Explain Preference Share Capital.
- 8. What do you understand by Capital Structure?
- 9. Give the meaning of Working Capital.
- 10. What are the formulas used in computing IRR method?

#### SECTION - B

#### II -Answer the following questions:

(5X5=25)

a) Bring out the assumptions of MM approach.

(or)

- State the concept of Cost of Capital.
- 12. a) What are the importance of Capital Structures?

(or)

- b) Describe the advantages in Cost of Capital.
- 13. a) Narrate the term Management of Cash?

(or)

- Describe the objectives of Financial Management.
- a) Mention the methods of managing Inventories.

(or

b) Project x initially costs Rs, 25,000. It generates the following cash flow:

Year	Cash inflow Rs	Present value @ 10%
1	9,000	0.909
2	8,000	0.826
3	7,000	0.751
4	6,000	0.683
5	5,000	0.621

Taking the cut off rate as @ 10% suggest whether the project should be accepted or not.

15. a) Briefly explain the scope of Financial Management

(or)

b) Explain different types of Leverage.

#### III -Answer any three of the following questions:

(3X10=30)

- Illustrate the function of financial management and the role of financial manager. 16.
- Ganesh steels Ltd., is considering two mutually exclusive projects. Both require an initial cash outlay of 17. Rs, 10,000 each and have a life of five years. The companies required rate of return is 10% and pay tax at a 50% rate. The projects will be depreciated on straight line basis. The profit expected to be generated by the projects are as follows:

Year		1	2	3	4	5
Project A	Rs	4,000	4,000	4,000	4,000	4,000
Project B	Rs	6,000	3,000	2,000	5,000	5,000

#### Calculate:

- i) The payback period of each project.
- The average rate of return for each project. ii)
- iii) The net present value and profitability index for each project.
- iv) The method of ranking project.
- 18. The flowing projection has been given in respect of "O Bright Co":

Output

: 3, 00,000 units

Fixed cost (Rs.)

: 3, 50,000

: 1

Unit variable cost (Rs.) Interest expenses (Rs.)

: 25,000

Unit selling price (Rs.)

: 3

On the basis of above information calculate

- (a) Operating Leverage
- (b) Financial Leverage
- (c) Combined Leverage.
- Asin Ltd., issued 15,000 12% preference shares of Rs. 100, redeemable at 10% premium after 20 years. The floatation costs were 5%. Find out the cost of preference capital if shares are issued
  - (a) at par,
  - (b) at premium of 5% and
  - (c) at a discount of 10%.
- 20. Rose Ltd., is engaged in customer retailing. Estimate its working capital requirements from the following .

Project annual sales

: Rs, 6, 50,000

Average percentage of net profit to cost of sales

: 25%

Average credit allowed to debtors

: 10 weeks

Average credit allowed to creditors

Average stock carrying (in terms of sales requirements): 08 weeks

: 04weeks

Add 20% to allow for contingencies



thiyaman Bypass Road, Sogathur Post, Dharmapuri 636 801 Phone:9443004445, 9443004447



MODEL EXAM - APRIL 2020 INORGANIC CHEMISTRY - II

Class

: III B.Sc. Chem.

Marks: 75

Paper Code: 17UCH08

Time : 3 Hrs

#### SECTION - A

### Answer ALL the questions:

(10x2=20)

- Spell the composition of Zeolite.
- Mention any two uses of Ni(CO)<sub>4</sub>.
- How do you prepare t-butyl Lithium.
- List any two uses of organometallic compounds.
- Label the nanocomposites.
- Find quantum dots.
- Relate the order of halogens and pseudohalogens.
- 8. What is borazole?
- State the point group of HCl and CO<sub>2</sub>.
- Define magnetic susceptibility.

#### SECTION - B

### Answer ALL the questions:

(5x5=25)

 (a) How is Cr(CO)<sub>6</sub> prepared? Draw its structure and properties.

(or)

- (b) Discuss the structure and classification of Silicates.
- 12. (a) What are organometallic compounds? How are they classified?

(or)

- (b) Deduct the synthesis and structure of Zeise's salt.
- (a) Give an account of fullerenes and carbon nano tubes.

(or

- (b) Interpret any five applications of nano materials.
- (a) Describe the classification and structure of carborane.

(or)s

- (b) Tabulate the similarities and differences of halogens and pseudohalogens.
- (a) Justify symmetry elements with its operations.
   (or)
  - (b) Distinguish between ferromagnetism and antiferromagnetism

#### SECTION - C

### Answer any THREE questions:

(3x10=30)

- Explain the biological role of Haemoglobin and Chlorophyll.
- Describe the structure and properties of Cyclopentadienyl complexes.
- Write various methods of preparation of nanomaterials.
- Mention the preparation, properties and uses of cyanogen and thiocyanogen.
- 20. How will you determine the magnetic moment by using Guoy's balance?





E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.in

### MODEL EXAM - APRIL 2020 ELECTIVE - SPECTROSCOPY

Class : I M.Sc. Chem. Marks: 75 Paper Code: 19PCHE03 Time : 3 Hrs SECTION - A

Answer ALL the questions: The λ<sub>max</sub>value of cyclic conjugated diene

a) 217nm b) 214nm c) 214nm d) 253nm 2. The far UV region shows

a) Below 200nm b) 200 to 400 nm

c) 400 to 600nm d) above 200nm

The number of vibrational degrees of freedom present in benzene is a) 30 b) 24 c) 36 d) 42

4. The number of H1NMR signals in 2-bromo butane a) 1 b) 2 c) 3 d) 4

The number of equivalent protons present in TMS a) 1 b) 4 c) 9 d) 12

The spin-spin coupling ratio intensities of alignments are a) 1+Xn b)  $(1+X)^n$  c)  $1-X^n$ d) (1-X)<sup>n</sup>

The C12 nucleus is not magnetically because

b)  $I = -\frac{1}{2}$ c) I=0 d) 1 = 1In CMR, the acetylene absorbs in the range of

a) 20 to 25ppm b) 45 to 60ppm c) 65 to 90ppm d) 95 to 120ppm

The number of C13NMR signals observed in methyl acetate a) 1 b) 2 c) 3 d) 4

10. Photo acoustic spectroscopy is a combination of a) Optical methods with acoustical detection of signal

b) Adsorption emission methods c) Instrumental methods

d) All of the above

11. PAS provides a means for obtaining UV-Visible and IR adsorption spectrum of a) Solid b) Semisolid c) Liquids d) all

 $(15 \times 1 = 15)$ 

12. What is the functional group region of IR? a) 1500 to 1350cm<sup>-1</sup> b) 1380 to 1050cm<sup>-1</sup> c) Below 1000cm<sup>-1</sup> d) 1750 to 1600cm<sup>-1</sup>

13. The removal of degeneracy of spin states by the internal magnetic field in paramagnetic electrons is termed as

d) 5

(2x5=10)

 $(5 \times 10 = 50)$ 

b) Quadrapole splitting

d) all

a) Fine splitting b) zero field splitting c) both d) hyperfine splitting

14. The number of ESR lines for methyl radical a)2 b) 3 c) 4

15. In Mossbauer spectroscopy, the main hyperfine interaction is

 a) Isomer shift c) Nuclear Zeeman splitting

### SECTION - B

Answer any TWO questions:

16. Explain the transitions involved in UV-visible region. 17. Write a note on shielding and deshielding effects.

18. Designate off resonance decoupling.

19. Write the surface applications of PAS spectrum.

20. Describe the factors affecting 'g' value.

### SECTION - C

Answer ALL the questions: 21. a) Discuss the adsorption and intensity shifts involved in UV-

Visible spectroscopy. (or)

b) Describe the applications of IR. 22. a) Write an account on chemical shift and its factors affecting in

NMR. (or)

b)Clarify the coupling constant and its types. 23. a) Write a note on double resonance and

heteronuclear decoupling.

(or)

b)Elaborate the chemical shift and its factors affecting in CMR. 24. a) Write a detail note on the instrumentation of PAS.

(or) b) Describe the applications of PAS.

25. a) Write a note on hyperfine splitting and spin hamiltonian.

(or)

b) Clarify the formation of Mossbauer nuclides and Land Mossbauer factors.



Phone: 9443804446, 9443804447



### MODEL EXAMINATION - APRIL - 2020 BUSINESS ENVIRONMENT

Class : III BBA Marks : 75 Paper Code : 17UBA15 Time : 3 Hrs

### SECTION - A

### I Answer all the questions:

(10X2=20)

- Define business.
- 2. What is external environment?
- 3. What do you mean by business culture?
- 4. Write a short note on linguistic religious groups.
- Mention any four kinds of shareholders responsibility to the business.
- 6. State the concept of social responsibility.
- 7. Point out government service sector.
- 8. List out any three scope of industrial policy.
- 9. Explain private sector.
- Give a brief account of various economic system.

### SECTION - B

### II Answer all the questions:

(5X5=25)

11. a) What is the effect of technological environment on business?

(or)

b) Bring out the nature of business environment.

12. a) List out the kinds of family.

(or)

- b) What are the characteristics of joint family system?
- 13. a) State the kinds of business ethics.

(or)

- b) Narrate the effect of migration.
- a) What is government and write down the regulations for starting a business.

(or)

- b) Describe the technological up gradation in import technology.
- 15. a) Write a short note on capitalism.

(or)

 Enumerate the various problems in public sector.

### SECTION - C

### III Answer any three questions: (3X10=30)

- 16. Describe the micro and macro environment.
- 17. Explain the functions of family.
- Bring out the social responsibility of business man to the society.
- Explain the impact of technological changes on business.
- State the various achievement and failures of public sector in India.



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809 Phone: 9443604446, 9443604447



E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.in

### MODEL EXAM – APRIL - 2020 COMPANY LAW

Class : II B.Com Marks: 75 Paper Code: 17UCM08 Time : 3 Hrs

#### SECTION - A

I. Answer ALL the questions:  $(10\times2=20)$ 

Define joint stock company.

2. What is company law?

3. Give the meaning of MOA.

- 4 Write a short note on 'certificate of incorporation'
- 5. Who can be a manager?
- 6. State the meaning of ordinary resolution.
- 7. Who is liquidator?
- 8. Define winding up.
- Expand criminal liability.
- 10. What is quorum?

### SECTION - B

### II. Answer ALL the questions:

 $(5 \times 5 = 25)$ 

11. a) Evaluate the features of company.

(or)

- b) Trace out differences between public compny and private company.
- a) Elaborate the various types of promoters.

(or)

- b) Distinguish between memorandum of association with articles of association.
- a) Evaluate misstatement in prospectus and remedies.

(or)

- b) Briefly describe various kinds of preference shares.
- 14. a) Describe the qualification of shares.

(or)

- b) What is ordinary resolution? When is it necessary?
- 15.a) Discuses about the process of winding up in a company.

(or)

 Enumerate the duties of the liquidators of winding up of the company.

#### SECTION - C

## III. Answer any THREE questions: (3×10=30)

- 16. Discuss the kinds of company.
- 17. Explain the clauses of memorandum.
- 18. State the contents of prospectus.
- 19. Mention the powers and duties of directors.
- Explain the circumstances where winding up is compulsory.



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809 Phone: 9443604446, 9443604447



F-mail dhe155-blive in Website: www.dhedharmanuri.edu.in

### MODEL EXAMINATIONS – APRIL 2020 INTERNET AND ITS APPLICATION

Class : II-CS A&B

Marks: 75

Paper Code: 17UCSS02

Time : 3 Hrs

#### SECTION - A

I. Answer all the questions:

(10X 2 = 20)

1. Define internet.

Expand FTP.

3. What is an IP address?

List any four popular web browsers.

Give a note on internet explorer.

State proxy server.

7. Write a note on internet relay chat.

8. What is remote login?

Define IRCTC.

10. Write note on online train reservation.

### SECTION - B

II. Answer all the questions:

(5X 5 = 25)

11. a) Elucidate the internet.

(or)

b) Write a detailed note on gopher.

12. a) Write a note on MODEM.

(or)

b) Narrate internet addressing.

13. a) Explain web server and its uses.

(or)

b) What is search engine? Explain in detail.

14. a) Give a detailed description of types of network.

(or)

b) Write a note on packet switched network.

a) Explain briefly about online passport processing.

(or)

 b) Give an introduction to tamilnadu government services.

#### SECTION - C

III. Answer any three questions:  $(3 \times 10 = 30)$ 

16. Explicate networking.

17. Discuss in detail physical connection.

18. Illustrate web browser and how it works.

19. Elucidate internet protocol.

 Discuss in detail on form creation for online reservation.

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### MODEL EXAMINATION APRIL - 2020

#### GUI PROGRAMMING

Class : III BCA Marks : 75 Paper Code : 17UCA12 Time : 3 Hrs

### SECTION - A

### I. Answer all the questions

 $(10 \times 2 = 20)$ 

- Write a note on project explorer.
- List the purpose of label control.
- 3. What are the parts of code window?
- Mark the syntax to open a sequential file.
- Classify the types of error that occur in VB.
- Give the steps to add RitchTextBox control to the tool box.
- 7. Elucidate a primary key with an example.
- 8. What is meant by a record set?
- 9. Clarify a cursor with an example.
- 10. Define ADO?

### SECTION - B

# II. Answer all the questions

 $(5 \times 5 = 25)$ 

- 11. a) Write about the features of visual basic. (or)
  - Explain any five command button properties.

12. a) Describe the file system controls.

(or)

- Explain the three steps involved in working with the file system object.
- 13.a) Discuss about debug toolbar.

(or)

- b) Write the code to change the color of text using common dialog control.
- 14.a) Using Add-Ins menu how to create a table and add fields to it?

(or)

- b) Describe the functions of Jet-DB engine.
- 15.a) Write short notes on ADODC property pages.

(or)

b) How to register an ActiveX control?

### SECTION - C

- III. Answer any three questions  $(3 \times 10 = 30)$
- 16. Discuss about various data types of VB.
- 17. Explain For...Next statement with an example.
- 18. Enumerate the common dialog control.
- Develop a VB application using ADO for delete and update a record in MS-Access.

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20. How will you create a report using crystal report wizard?



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### Model Exam – April 2020 PACKAGING TECHNIQUES

Class : III DPM Marks : 75 Paper Code : 17UDP12 Time : 3 Hrs

#### SECTION - A

### Answer the following questions.

 $(10 \times 2 = 20)$ 

- Write about tray style carton.
- 2. What is carton gluing machine?
- Define varnishing.
- 4. Why is lamination done?
- Write short notes on adhesives.
- 6. State the properties of rigid boxes.
- Mention strapping.
- Define sealing tape.
- What is skin packaging?
- Explain barcoding.

### SECTION - B

### Answer the following questions.

 $(5 \times 5 = 25)$ 

- 11. a) What are the principles of carton design? (or)
  - b) Describe any three types of boards used in packaging?
- a) Explain varnishing and the two main types.(or)
  - b) How is wax coating done for packaging?

a) Detail the uses of corrugated cases in packaging.

(or)

- b) What are the purposes of rigid boxes?
- 14. a) What are the materials used for closures and dispensing devices?

(or)

- b) Write the applications of paper and plastics in packaging.
- a) Describe the principles involved in corrugated box making.

(or)

b) State the properties of glass and their uses.

### SECTION – C Answer any THREE of the following questions. (3 x 10 = 30)

- 16. Explain the types of folding carton.
- 17. What are the equipment used for conversion?
- Detail the usages of ancillary materials in packaging industry.
- Explain the different styles and purposes of boxes and containers.
- Elaborate the speciality packages with suitable examples.



hiyaman Bypess Road, Sogathur Post, Dharmapuri 636 801
Phone: 94436 94436 94436 94417
Food: shetSpytoda Velode, www.sheshamapuri.com



### Model Exam – April 2020 DIGITAL PREPRESS

Class : III DPM Paper Code : 17UDP13 Marks : 75

Time : 3 Hrs

### SECTION - A

Answer the following questions.

 $(10 \times 2 = 20)$ 

- 1. List out the methods for digitizing originals.
- 2. What is digital printing?
- 3. Elaborate and define PDF.
- 4. Narrate the flat bed image setter.
- What is CTP?
- Classify the light source used in CTP
- Write the importance of gravu flow inking system.
- Explain about direct imaging.
- Elaborate E-Print.
- 10. Give the technologies of digital printing.

#### SECTION - B

Answer the following questions.

 $(5 \times 5 = 25)$ 

- 11. a) What are quality requirements of finished art?
  - b) Explain the work flow of digital pre-press.
- a) Differentiate the film material used in image setters.

(or)

 b) Write and explain the layout of internal drum exposure.  a) Detail the working principle of external drum exposure.

(or)

- b) Narrate the necessity of CTP.
- a) List out and explain the advantages of E-Print.

(or)

- b) Differentiate the copy based and job based process.
- 15. a) Give the digital proofing processes.

(or)

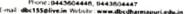
b) How does the electro photography work?

### SECTION – C Answer any THREE of the following questions. (3 x 10 = 30)

- 16. Draw and explain the capstan type exposure.
- Narrate the working principle of 74 Karat digital press.
- Brief about the possibility and limitations of different exposure.
- Explain the lonography process.
- Detail about Continues inkjet process.

\*\*\*\*\*\*\*







### MODEL EXAM - APRIL - 2020 ORGANIZATIONAL BEHAVIOUR

Class : II MSW Marks: 75

Paper Code : 17PSW14A Time : 3 Hours

### SECTION - A

I. Answer all the questions:

(5x5=25)

1. a) Give the historical perspective of Organizational Behaviour.

(or)

- b) List out the various causes of conflict.
- 2. a) Write a short note on Job Satisfaction.

(or)

- b) Portray the factors influencing perception.
- 3. a) What is meant by a Group? Explain with its types.

(or)

- b) Explain the importance of morale in an organization.
- 4. a) Write a note on organizational culture.

(or)

- b) Briefly explain about Hawthorne studies.
- 5. a) Describe the role of management in organizational discipline.

(or)

 Explain the concept of organizational change in an industry.

#### SECTION - B

II. Answer all the questions:

(5x10=50)

a) Discuss the challenges of managers while using organizational behaviour concepts.

(or)

- b) Explain the basic approaches to organizationalbehaviour.
- 7. a) Elaborate on the Foundations of Individual Behaviour.

(or)

- b) Elucidate the different types of personality.
- 8. a) Discuss about leadership, power and politics in group.

(or)

- b) Write a detailed note on management communication.
- 9. a) Describe the essential features of good organizational structure.

(or)

- b) Critically analyze the application of Transactional Analysis.
- 10. a) Elaborate on Japanese style of management with examples.

(or)

b) Explain about stress and the need for stress management.



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809 Phone: 9443604448, 9443604447



E-mail: dbc155@live.in Website: www.dbcdharmapuri.edu.in

### MODEL EXAM – APRIL 2020 NUCLEAR PHYSICS

Class : III B.Sc. PHYSICS Marks: 75

Paper Code: 17UPH08 Time : 3 Hrs

#### PART - A

### I. Answer ALL the questions:

(10X2 = 20)

- Write any two properties of nucleus.
- 2. What do you mean by mirror nuclei?
- 3. Give the principle of solid state detector.
- What is a betatron?.
- Define nuclear fission.
- 6. What is meant by radioactivity?
- Write the different types of nucler reactions.
- Define K-electron capture.
- Write a note on baryon number.
- State strangeness number.

### PART - B

### II. Answer ALL the questions:

(5X5=25)

 Discuss the experimental measurement of nuclear radius by mirror nuclei method.

(or)

- b) State and explain the proton-electron theory of nucleus.
- Explain principle and working of proportional counter.

(or)

 b) Give the principle and constructional details of electron synchrotron. 13. a) Describe the Bohr's theory of nuclear disintegration.

(or)

- Write a short note on Carbon-Nitrogen cycle.
- State and explain Geiger-Nuttal law. Give its applications.

(or)

- b) Discuss the laws of successive disintegration.
- a) Briefly explain the different types of nuclear interactions.

(or)

 Discuss the isospin quantum number of elementary particle.

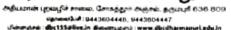
### PART - C

### III. Answer any THREE questions: (3X10=30)

- Explain in detail about liquid drop model from Weizacker's semi empirical mass formula.
- Describe the principle, construction and working of scintillation counter.
- Derive the Q-value equation for nuclear reaction.
- Explain Gamow's theory of alpha decay. Give its experimental measurement.
- Discuss the classification of elementary particles.



### தொன் போஸ்கோ கல்லூரி





இளங்கலைத் தமிழ் இரண்டாமாண்டு – நான்காம் பருவம் மாதிரித் தேர்வு (ஏப்ரல் - 2020)

தாள் : பண்டைய இலக்கியங்களும் நாடகமும்

காலம் : 3 மணி நேரம் 17UFTA04 மதிப்பெண் - 75

### பகுதி – அ

அனைத்து வினாக்களுக்கும் விடையளி.

(10X2=20)

- 1. 'மாடம் ஓங்கிய மல்லல் மூதூர்' இடஞ்சுட்டுக.
- 'யாரும் இல்லை தானே கள்வன்' இடஞ்சுட்டுக.
- 'கனயானை கவின் அழி குன்றம்' இடஞ்சுட்டுக.
- 'உடம்பொடு உயிரிடை என்ன மந்து' இடஞ்சுட்டுக.
- ஆதிமந்தியைக் காப்பாற்றியவர் யார்?
- 6. தமிழின் சிறப்பைக் கூறுக.
- முச்சங்கள் பற்றி முதன் முதலில் கூறும் நூல் எது?
- பத்துப்பாட்டில் புறநூல் எது?
- 9. கைக்கிளை என்றால் என்ன?
- வெட்சித்திணை விளக்குக.

### பகுதி – ஆ

கொடுக்கப்பட்ட வினாக்களுக்கு விடையளி.

(5X5=25)

 அ) போர்ப் பாசறையில் இருந்த அரசன் நிலை குறித்து விளக்குக.

(அல்லது)

 ஆ) அகநானூற்றில் பரணர் பாடியுள்ள குறிஞ்சித் திணைப் பாடலை விளக்குக.  அ) 'வான் சிறப்பு' அதிகாரம் தரும் செய்திகளைத் தொகுத்தெழுதுக

(அல்லது)

- ஆ) 'புல்லின்றி மேயினும் ஏற்றுக் கன்று ஏறாய் விடும்' என பழமொழி தரும் கருத்தினை விளக்குக.
- 13. அ) ஆதிமந்தயின் அழகை ஒற்றாகள் ஆட்டனத்தியிடம் எவ்வாறு புகழ்ந்துரைத்தனர்?

(அல்லது)

- ஆ) ஆட்டனத்தி, ஆதிமந்தியும் ஒன்று சேர்ந்ததை கண்ட நெய்தலியின் முடிவு என்ன?
- அ) தமிழின் இனிமையை எடுத்துரைக்க.
   (அல்லது)
  - ஆ) குறுந்தொகையின் சிறப்பினைக் கூறுக.
- அ) ஐந்திணைக்குரிய முதல், உரிப்பொருள்களை எழுதுக.

(அல்லது)

 ஆ) மருதத்திணைக்குரிய கருப் பொருள்களைத் தருக.

#### பகுதி – இ

- எவையேனும் மூன்று வினாக்களுக்கு விடையளி. (3X10=30)
- தலைவன் தன் நெஞ்சிற்குக் கூறியதாக அமைந்துள்ள அகநானூற்றுப் பாலைதிணைப் பாடல்களை விளக்குக,
- நட்பாராய்தல் என்னும் அதிகாரச் செய்தியை நாலடியார் வழிநின்று நிறுவுக.
- சேரத்தாண்டவம் நாடகத்தின் தலைப்புப் பொருத்தம் குறித்து ஆராய்க.
- சங்க இலக்கியங்கள் காட்டும் சமுதாய நிலை குறித்துக் கட்டுரை வரைக.
- 20. புறத்திணைகளை விவரி.



## தொன் போஸ்கோ கல்லூரி

அதியமான் புறவழிச் சாலை. சோகத்துர் அஞ்சம். தருமபுரி 636 809 ஹெலைபேசி : 9443604446, 9443604447 மின்னஞசல் : dbc155@live.in கேணையதாம் : www.dbcdharmapuri.edu.in



### முதுகலைத் தமிழ் இரண்டாமாண்டு நான்காம் பருவம் - மாதிரித் தேர்வு (ஏப்ரல் - 2020) சங்க இலக்கியம்

காலம் : 3 மணி நேரம்

17PTA14

மதிப்பெண்: 75

பகுதி – அ

(5X3=15)

- அனைத்து வினாக்களுக்கும் விடையளி.
- 1. அ) 'மடலேறுதல்' குறிப்புத் தருக.

(அல்லது)

- ஆ) பதிற்றுப்பத்து குறிப்புத் தருக.
- அ) மருத நிலக்காட்சிகளை வெள்ளிவீதியார் பாடல்கள் மூலம் எடுத்துரைக்க.
   (அல்லது)
  - ஆ) 'பலாஅம் பழுத்த பசும் புண்அரியல்' என்ற பாடல் அடிகளை விளக்குக.
- 3. அ) எட்டுத்தொகை நூல்களில் அகம் பற்றியச் செய்திகளைத் தருக. (அல்லது)
  - ஆ) பரிபாடல் குறிப்புத் தருக.
- 4. அ) 'ஏறுதழுவுதல்' பற்றியத் தலைவி தோழிக் கூற்றினை எடுத்துரைக்க.
  - (அல்லது) ஆ) எட்டுத்தொகை நூல்களில் புறம் பற்றியச் செய்திகளைத் தருக.
- அ) அகநானூறு குறிப்புத் தருக.

(அல்லது)

ஆ) பரணர் பாடல்களில் குறிப்பிடப்பட்டுள்ள போர்க்களச் செய்திகளை விளக்குக.

பகுதி - ஆ

(5X12=60)

- கீழ்க்காணும் வினாக்களுக்கு விடையளி.
- 6. அ) தலைவனைப் பிரிந்த தலைவியின் நிலையினை நெடுநெல்வாடை மூலம் விளக்குக. (அல்லது)
  - ஆ) தலைவியின் துயர் நீக்க தோழி தலைவனிடம் கூறியச் செய்திகளை விவரி.
- அ) 'நிலத்தினும் பெரிதே; வானினும் உயர்ந்தன்று; என்ற குறுந்தொகைப் பாடலை விளக்குக.

(அல்லது)

- ஆ) திருமால் பற்றியப் பரிபாடல் செய்திகளைத் தொகுத்தெழுதுக.
- அ) ஐங்குறுநூறு முன்னிலைப் பத்தில் கூறப்பட்டுள்ளச் செய்திகளை விவரி.
   (அல்லது)
  - ஆ) வைகையில் பெண்கள் புனலாடும் சிறப்பினைத் தொகுத்தெழுதுக.
- அ) நற்றிணை காட்டும் மருதத்திணைப் பற்றியச் செய்திகளை எடுத்துரைக்க.
   (அல்லது)
  - ஆ) பாசறையின் இயல்பு குறித்து முல்லைப்பாட்டு வழிப் புலப்படுத்துக.
- அ) 'யாரையும் அறியேம்' எனத் தலைவன் கூறியதை ஓரம்போகியார் பாடல் வழிப் புலப்படுத்துக.

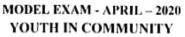
(அல்லது)

ஆ) குறுந்தொகைப் பாடல்களின் வழி 'மடலேறுதல்' பந்நியச் செய்திகளைத் தொகுத்துரைக்க.



a) Social Work

b) Social Action



Class : I MSW	Marks : 75	a) 1985	b) 1960
Paper Code : 19PSW09C	Time : 3 Hrs	c) 1970	d) 1965
SECTION	A		
1. Answer all the questions:	(15x1=15)		
1. Adolescence is a period characterized by		SECTION - B	
a) Low self-esteem	b) High morale	II. Answer any TWO questions:	(2x5=10)
c) High anxiety	d) None	16. Explain the methods of mobilization in political	
2. The relationship with the individual youth or a		Parties.	
group or a community must be		17. Write the stages of Group Formation.	
a) purposeful	b) Professional		
c) time bound	d) All the above	<ol><li>Enumerate characteristics of change agents.</li></ol>	
<ol><li>Article says childhood and youth are</li></ol>		<ol><li>Explain the skills of youth worker.</li></ol>	
protected against exploitation.		20. Give a short note on NCC.	
a) 39 (f)	b) 39		
c) 40	d) 49		
4. Inbased youth work	practice, the focus is		
to provide services that are short term and		SECTION - C	
addressing the symptoms of	the problems and not	III. Answer all the questions:	(5x10=50)
root causes.		21. a) Elaborate the types of youth ir	India.
a) Relief	b) Welfare	(or)	
c) Development	d) Empowerment	* /	
<ol> <li>In India, Juvenile delinquency means a crime committed by youth who is under the age of</li> </ol>		<ul> <li>b) Explain the influence of youth in politics.</li> </ul>	
	under the age of		
years.	1/10	22. a) Discuss the problems of Youth in India.	
a) 16 e) 15	b) 18	(or)	
6. Gender is construct	d) 21	875 (191 - 941)	
a) Political b) social c) Biological d) Economical		b) Elucidate the Stages in the formation of	
7. According to India, Youth is	•	Group.	
years of age.	defined as	22 - 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	
a) 12-28	b) 13-30	<ol> <li>a) Analyze the different types and areas of youth training</li> </ol>	
c) 13-35	d) 15-35	(or)	
8. Middle adolescence takes pla	ice years of age.		
a) 14-16 b) 15-17		<ul> <li>b) Explain the Role of Youth in Training.</li> </ul>	
c) 16-18	d) 13-15		
9. The assumption of ap	oproach is that no	24. a) Critically analyze the role of mass media for	
one value system is right for everyone, so we are		social change.	
left go figure out what works best for us.		(or)	
a) Moralizing	b) Laissez-faire	<ul> <li>b) Analyze the impact of social n</li> </ul>	nedia on youth.
c) Modeling	d) None		
<ol><li>National Youth day</li></ol>		25 22 22	
a) 12 <sup>th</sup> January	<li>b) 15<sup>th</sup> January</li>	<ol><li>a) Discuss the national policy for youth in India.</li></ol>	
c) 12 <sup>th</sup> February	d) 15th February	(or)	
11. NSS was launched in the year		b) Elaborate the significance of national youth	
a) 1959	b) 1969	day and youth week.	
c) 1979	d) 1989		
12. NCC means National Cadet			
a) Collaboration	b) Corps		
c) Corporation	d) None		
<ol><li>is voluntary based a</li></ol>	ctions		

b) Social Service

D) None

14. \_\_\_\_ has a lot of potential as an aid to our

15. International Youth year is \_\_\_\_\_

b) Video

d) Simulation

Educational work. a) Role play

c) Case study



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809



E-mail: dbc155@live.in Website: www.dbcdharmanuri.edu.ir

### MODEL EXAM - APRIL 2020 LATEX THEORY

CLASS : III - B.Sc. (N PAPER CODE : 17UMAS05

: III - B.Sc. (Mathematics)

MARKS

: 75

TIME

: 3 Hrs

### Part – A

### I. Answer ALL the questions:

(10x2=20)

1. Define sample document.

Explain KEY concepts.

3. Write different types of environments.

Define basic latex.

Write the definition of dashes and hyphens.

6. Define further essential latex and troubleshooting.

Explain typesetting mathematics in latex.

Give an example for equation environments.

Define underlining and warning message.

Write short note on math styles in latex.

#### Part - B

### II. Answer ALL the questions:

(5X5=25)

11. (a) Derive type style and environments lists.

(or)

(b) Write brief notes on sample document and key concepts. (a) Explain the centering and how to form the tables in latex.

(or)

- (b) Describe the typesetting mathematics with an example.
- (a) Write brief notes on customized commands and theorem like environments.

(or)

- (b) Explain Math Miscellany.
- (a) Give an example for fonts , underlining and arrays.

(or)

- (b) Illustrate the Vertical and Horizontal spacing.
- 15. (a) Explain symbols for number set.

(or)

(b) Describe the common error and warning message.

#### Part - C

### III. Answer any THREE questions:

(3X10=30)

- Write brief notes on document classes and the overall structure.
- 17. Derive Sectioning commands.
- Write the commands for Bold Math and symbols of number sets.
- 19. Explain Binomial coefficient.
- Derive spacing, accented character and pinpointing error.

\*\*\*\*\*\*



Athiyaman Bypass Road, Sogathur Post, Dharmapuri 636 809



E-mail: dbc155plive.in Website: www.dbcdharmapuri.edu.in

## MODEL EXAM – APRIL 2020

### INDIRECT TAXES

Class : II M.Com. Marks: 75 Paper Code : 17PCM13 Time: 3 Hrs

### Section - A

### I. Answer ALL questions: $(5 \times 5 = 25)$

- a) State the salient features of indirect taxes.
   (or)
  - b) Discuss the various objectives of taxation.
- a) What is VAT? Explain its advantages.
  - b) Distinguish between excise duty and sales tax.
- a) Briefly explain prohibited items of import and export.

  (or)
  - b) Explain the scope of Customs Act.
- a) What are the objectives of CST Act? (or)
  - b) Write short note on inter-state trade.
- a) Define 'turnover' under TNGST Act. (or)
  - b) What are the objectives of GST?

### Section - B

### II. Answer ALL questions:

 $(5 \times 10 = 50)$ 

a) Explicate the merits and demerits of indirect taxes.

(or)

- b) Distinguish between direct taxes and indirect taxes.
- a) Explain various kinds of excise duties.
   (or)
  - b) Differentiate between MODVAT and CENVAT.
- a) Elucidate the various types of customs duty.

(or)

- b) What are the exemptions that can be granted within the customs act?
- 9. a) State the salient features of CST Act.

(or)

- b) Discriminate between inter-state sale and intra-state sale.
- 10. a) Types of GST.-Tiscuss in detail.

(or)

b) List out the merits and demerits of GST.

\*\*\*\*\*\*\*\*\*