Sub. Code 91BPEL

M.Sc. DEGREE EXAMINATION, NOVEMBER - 2022

First Semester

Integrated Marine Biology

PROFESSIONAL ENGLISH FOR LIFE SCIENCES - I

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A $(10 \times 2 = 20)$

Answer all questions.

- 1. Mention any two co-operative behaviours in a group work.
- 2. Give example for Fact and Opinion.
- 3. Why is role play important for developing speaking skills?
- 4. What is scanning?
- 5. Fill in the blanks with appropriate word from the bracket.

(costly, beautiful, pure, white)

- (a) I love ———— dress.
- (b) We have not got milk.
- 6. What are the three types of brainstorming?
- 7. Write the difference between creativity and imagination.
- 8. Give picture representation of like and dislike.

- 9. Write any two steps of making PPT.
- 10. Punctuate the following sentences:
 - (a) Look at that Cow
 - (b) Hi I am going to tour

Part B

 $(5 \times 5 = 25)$

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

- 11. Write five steps for opening a new file in a computer.
- 12. State True or False:
 - (a) Loksabha gets dissolved every five years.
 - (b) Rajiyasabha is not a permanent body.
 - (c) The verdict of Supreme Court is ultimate.
 - (d) The first Speaker of free India is Sarojini Naidu.
 - (e) The Press needs to play the role of a watch dog.
- 13. Attempt a paragraph with your immediate reaction on seeing the picture given below.



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14. Rohit calls up Rajat to make a plan for the weekend. Complete the dialogue between Rohit and Rajat by filling in the gaps.

Rohit: (i) This weekend?

Rajat: I don't have any special plan.

Rohit: How do you like the idea (ii) the zoo?

Rajat: That sounds good, But I (iii) my

parent's permission.

Rohit: I'll come to your house this evening and

request your parents to allow you to join me to

see the zoo.

Rajat: Ok.

Rohit: (iv) in the evening?

Rajat: Yes. They will be at home.

Rohit: (v)

- 15. Match the following words with their meaning:
 - (a) Quay possessing the skill of reading and writing
 - (b) Literacy the principles underlying all knowledge
 - (c) Philosophy a low ranking judicial officer
 - (d) Magistrate inner struggle
 - (e) Conflict a landing place built along a coastline.
- 16. Write a brief note on the personality you find in the picture:



- 17. Write a paragraph on Interview skills.
- 18. Write clear instruction to the stranger to reach Science Campus, Alagappa University from Karaikudi New Bus Stand.

Part C $(3 \times 10 = 30)$

Answer any three questions.

- 19. Write an essay on the role of trees in the rainforest.
- 20. The step is to fill the bath with water. Draw a flow chart for having a bath. Begin with Start and End box.
 - (a) Turn on the hot and cold taps.
 - (b) Is it too hot or cold? If it is, go to step 3, otherwise go to step 4.
 - (c) Adjust the hot and cold taps and go back to step 2.
 - (d) Wait for 2 minutes.
 - (e) Is the bath full? If it is, go to step 7, otherwise go to step 6.
 - (f) Go back to step 4.
 - (g) Turn off the hot and cold taps.
- 21. Sketch the mind map for the following.
 - (a) Micro-organisms (b) Genetic Science
- 22. Write the basic instructional design for oral presentation through short films.
- 23. Explain the purpose of Punctuation.

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Sub. Code 548101

M.Sc DEGREE EXAMINATION, NOVEMBER - 2022

First Semester

Integrated Marine Biology

PHYSICAL OCEANOGRAPHY

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A $(10 \times 2 = 20)$

Answer all questions.

All questions carry equal marks.

- 1. Write a short note on JGOFS.
- 2. Write a short note on Argo float.
- 3. Define density of seawater.
- 4. What is eddy?
- 5. Write short note on rip current.
- 6. Define tide.
- 7. Define estuary.
- 8. Define shore line.
- 9. What is geostationary satellite?
- 10. Define cyclone.

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

Answer all questions, choosing either (a) or (b).

11. (a) Discuss about finding of challenger expedition.

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- (b) Write a detailed note on post war development in oceanography.
- 12. (a) Write a detail note thermal property of seawater.

Or

- (b) Explain about colligative property of seawater.
- 13. (a) How ocean waves modified in the shallow depth.

Or

- (b) Give an account on flood tide.
- 14. (a) Write a note on type of estuaries.

Or

- (b) Write detail note on El Nino and its impacts.
- 15. (a) Write detail note on tropical cyclone.

Or

(b) How satellite used in meterology.

Part C
$$(3 \times 10 = 30)$$

Answer any three questions.

- 16. Write a note on historical review of development of Oceanography.
- 17. Write a detail note on physical property of seawater.

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- 18. Write detail note on ocean currents.
- 19. Discuss about reasons for sea level rise and its impacts.
- 20. Write a detail note on general circulation model of Earth atmosphere.

Sub. Code 2MB1A1

M.Sc. DEGREE EXAMINATION, NOVEMBER - 2022

First Semester

Integrated Marine Biology

Allied — I: GENERAL CHEMISTRY — I

(CBCS - 2022 onwards)

Time: 3 Hours Maximum: 75 Marks

Part A $(10 \times 2 = 20)$

Answer all the questions.

- 1. Define alloys. Write the alloys of copper and nickel.
- 2. Write any two applications of water gas and producer gas.
- 3. What is meant by ligand?
- 4. Write the catalytic applications of metal complexes.
- 5. Define hybridization. Give an example for sp³, sp², sp hybridizations.
- 6. What are the sources of free radicals?
- 7. Write the reducing property of glucose.
- 8. Define primary and secondary structure of proteins.
- 9. Classify the face active agents.
- 10. Write the synthesis of soap.

Part B

 $(5 \times 5 = 25)$

Answer all questions, choosing either (a) or (b).

11. (a) Explain the zone refining method.

Or

- (b) What is meant by amalgam? Write the application of amalgam in organic reactions.
- 12. (a) Name the following complexes.

$$\begin{split} [\operatorname{Cr}(H_2O)_5\operatorname{Cl}]\operatorname{Cl}_2[\operatorname{Fe}(\operatorname{CO})_5][\operatorname{CoCl}_3(\operatorname{NH}_3)_3] \\ &\quad \quad K_3[\operatorname{Fe}(\operatorname{CN})_6][\operatorname{Cr}(\operatorname{NH}_3)_6]\operatorname{Cl}_3 \end{split}$$

Or

- (b) Explain the M-C bonding in metal carbonyls.
- 13. (a) Explain *cis* and *trans* isomerism with suitable examples.

Or

- (b) Write note on elimination reaction.
- 14. (a) Explain the structure of sucrose.

Or

- (b) Write short notes on analgesics and antibacterial.
- 15. (a) Differentiate resins and plastics.

Or

(b) Explain in details about anionic and cationic detergents.

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Part C $(3 \times 10 = 30)$

Answer any **three** questions.

- 16. Write the preparation and properties of producer gas and natural gas.
- 17. Explain the structure of haemoglobin and myoglobin.
- 18. What is meant by reaction intermediate? Explain the generation and structure of carbocation and carbanion.
- 19. Explain the classification, properties and functions of amino acids.
- 20. Write the properties of Bakelite, nylon-66, ureaformaldehyde resin.