

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc. DEGREE PROGRAMME

INDUSTRIAL CHEMISTRY - CMU3232

FINAL EXAMINATION - 2015/16

Duration – Three hours (03)



Date: 15.01.2017

Time: 9.30 a.m. – 12.30 p.m.

This question paper consists of two parts. **Part I** and **Part II**.

- Part I consists of **15 short questions**; recommended time to complete this part is **one** hour.
- Part II consists of **six (06)** questions; you are expected to answer **four (04)** questions. Recommended time to complete this part is **two** hours.

Part I (40 marks)

Index Number:

Staff signature:

Answer all questions.

1. What is meant by “metal finishing”?

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(02 marks)

2. Write down **two** types of metal finishing.

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(02 marks)

3. For what specific purpose/process does “drain casting” and “powder pressing” used in ceramic industry.

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(02 marks)

4. Is there any difference between the X- ray diffraction patterns of KCl and glass? Give reasons for your answer.

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(04 marks)

5. Distinguish between cement and mortar.

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(04 marks)

6. Identify the crystalline phase(s) responsible for

Early strength

Slow setting

(04 marks)

7. What is the composition of a blend used to measure an octane number of 90?

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(02 marks)

8. List **three** simple tests used to characterize crude petroleum in a refinery laboratory.

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(03 marks)

9. What are the special characteristics of titanium metal that is extracted from rutile and ilmenite?

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(03 marks)

10. How do you extract zircon?

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(06 marks)

11. Define the term “iodine number” of fats.

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(02 marks)

12. What does iodine number measure?

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(01 marks)

13. Give **two** extraction methods that are used to extract essential oils from plants.

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(02 marks)

14. What is biodiesel?

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(01 marks)

15. Give the necessary raw materials needed for biodiesel production

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(02 marks)
