Department of Electronics & Communication
Internal Assessment - I
7BEC5C1 – OPTICAL COMMUNICATION

Class: III B.Sc., EC   Max. Marks: 15
Date: 05.10.2020   Time: 1 hour
            Part – A (Answer All Questions)   [2 x 1½ = 3]

1. Define refraction, critical angle and total internal reflection.
2. Give the advantages and disadvantages of the double junction heterostructure.

            Part – B (Answer All Questions)   [2 x 3 = 6]

3. (a) Brief out the structure of step index fiber and graded index fiber.   [OR]
   (b) Brief out the transmission of signal in step index fiber and graded index fiber.
4. (a) Discuss in detail about the PIN photo diode.   [OR]
   (b) Explain all the physical phenomena under which the LASER works.

            Part – C (Answer any ONE question)   [1 x 6 = 6]

5. Derive the expressions for Acceptance angle and Numerical aperture for step index fiber
   and graded index fiber.
6. Define and give the expressions for responsivity, quantum efficiency and dark current for
   photodiode.

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Department of Physics
Internal Assessment - II
7BPH5C1- Analog Electronics

Class: III B.Sc., Physics   Max.Mark: 15
Date & Session: 02 /11/2020 (FN)   Time: 1 hour

Answer all the questions   Part-A   [2 x 1.5 = 3]
1. What do you understand by single stage transistor amplifier?
2. A power amplifier operated from 12V battery gives an output of 2W. Find the maximum collector current in the circuit.

Answer all the questions   Part-B   [2 x 3= 6]
3. (a) Show that the output voltage of a single stage common emitter transistor amplifier is 180º out of phase with the input voltage.   [OR]
   (b) Explain direct coupled amplifier with neat circuit diagram. Give its advantages and disadvantages.
4. (a) Define and explain the following terms as applied to power amplifiers:
       (i) collector efficiency (ii) distortion (iii) power dissipation capability   [OR]
   (b) What do you understand by class A, class B and class C power amplifiers?

Answer any one question   Part-C   [1 x 6 = 6]
5. Describe a transformer coupled amplifier. Discuss the frequency response curve and mention its advantages and disadvantages.
6. With neat circuit diagram explain the direct coupled class A transistor power amplifier and find an expression for the collector efficiency.

Department of Computer Science
Internal AEvessessment-I
7MCE2E4 - PARALLEL PROCESSING

Class : I M.Sc CS   Time   : 1 hour

Date   : 20/02/2021 (FN)   Max. Marks : 15

PART-A   (2× 1.5 = 3)
Answer all questions

1. Define Parallel Processing.

2. What is meant by speed up?

PART-B   (2× 3 = 6)
Answer all questions

3. (a)What are the difference between serial processing and parallel processing? (OR)

   (b) Write about mechanism of implementing parallel processing.

4. (a Discuss about any three computational demands of parallel processing in detail.(OR)

   (b) Write about pipelining.

PART-C   (1× 6 = 6)
Answer any one question

5. Explain in detail terminology in parallel processing.

6. What are the major issues in parallel processing? Explain in detail.

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Department of Computer Science
Internal Assessment-II
JAVA PROGRAMMING - 7BCE4C1

Class   : II B.Sc CS   Time   : 1 hour
Date   : 10.03.2021   Max. Marks   : 15

PART-A   (2× 1.5 = 3)
Answer all questions

7. Define constructor.
8. What is meant by finalizer method with example?

PART-B   (2× 3 = 6)
Answer all questions

9. (a) How to create objects in Java with example? (OR)
   (b) Write about Method Overloading in Java?

10. (a) What is Method Overriding? Discuss in detail. (OR)
    (b) Write about Abstract methods and classes.

PART-C   (1× 6 = 6)
Answer any one question

11. Discuss about Arrays in detail.
12. Explain in detail interfaces in Java with example.