



Rewarding Learning

ADVANCED

General Certificate of Education

2019

Centre Number

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Candidate Number

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# Software Systems Development

## Unit AS 1

Introduction to Object Oriented Development



SDV11

[SDV11]

WEDNESDAY 22 MAY, AFTERNOON

### TIME

2 hours.

### INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Write your answers in the spaces provided in this question paper.

Answer **all seven** questions.

### INFORMATION FOR CANDIDATES

The total mark for this paper is 100.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

### ADVICE TO CANDIDATES

You are advised to take account of the marks for each part question in allocating the available examination time.

For Examiner's use only			
Question	Marks available	Marks	Remark
1	9		
2	18		
3	18		
4	20		
5	14		
6	5		
7	16		
<b>Total</b>	<b>100</b>		

1 Underline the most appropriate word from those given in the brackets that will correctly complete each statement.

An object is an (**example, instance**) of a class that can perform a set of related activities that define its (**behaviour, operation**).

Abstract classes (**can, cannot**) be instantiated.

An abstract class can only be used as a (**super / base class, interface, derived / subclass**) for other classes that (**change, extend**) it.

A class can inherit from (**one, many**) abstract class(es) and must (**overload, override**) all its methods/properties that are declared to be (**abstract, virtual**) methods/properties.

Polymorphism at run-time is a primary concept of object-oriented programming which is enabled through (**early binding, late binding**).

[9]

Examiner Only	
Marks	Remark













4 (a) Using examples for illustration describe what you understand by the following class terms.

**overloading**

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**example**

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**interface**

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**example**

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[8]

Examiner Only	
Marks	Remark

(b) A class **Book** has been designed to hold data about available books for a school sale.

```
public class Book
{
    private String      bookNo;    //ISBN No
    private String      author;
    private String      title;
    private double       price;
    private int         noCopies;
    private int         noSold;
}
```

(i) Write code to instantiate an array, arrBook, capable of holding data on 50 books.

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[4]

Examiner Only	
Marks	Remark





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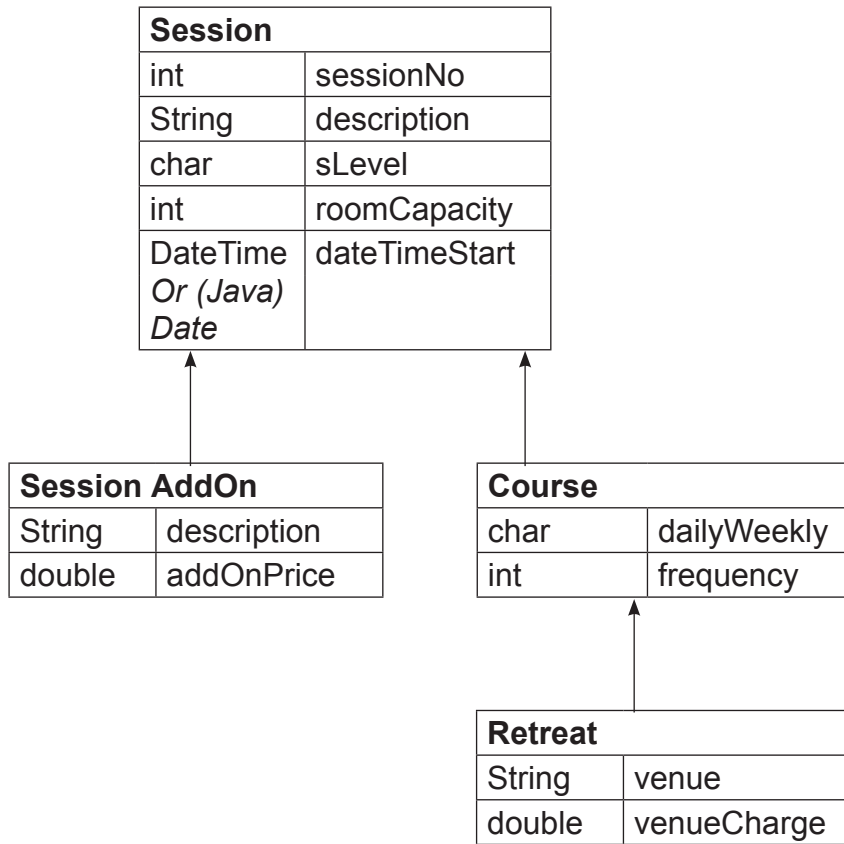
**(Questions continue overleaf)**





- 6 YogaLife is a centre offering Yoga from beginner to trainer level. Add-ons such as consultations or meditations are also available. Apart from one-off taster sessions, clients can prepay for courses of 4, 6 or 8 sessions. A Retreat is a course held at an off-site venue.

### Inheritance Diagram for YogaLife



Examiner Only	
Marks	Remark







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