



ATAR course examination, 2024

COMPUTER SCIENCE

SOURCE BOOKLET

Refer to the information that follows to answer Questions in Section Two of the Question/Answer booklet.

Refer to the following information to complete Question 22 part (a).

The WA Children's Art Institute currently employs contract art tutors to teach drawing and sketching to children. The tutors use paper supplied to them as they need it. They simply sign for the paper in a supply book and an electronic invoice is sent to them by email at a later date.

The tutor data set provided represents a sample of the transaction records from the WA Children's Art Institute, where contract art tutors are required to pick up packets of A4 paper in various colours for their art classes. Traditionally, the process has involved the tutors physically visiting the office to collect the paper packets and sign in a logbook with their name, email and phone number.

Tutor	Email	PhoneNumber	City	InvoiceDate	ProductName	UnitPrice	Qty
Alex Patel	alexkimpatel@cuvox.de	0412 345 678	Wanneroo	12/11/2023	Red A4 paper	10.99	2
Alex Patel	alexkimpatel@cuvox.de	0412 345 678	Wanneroo	12/11/2023	Blue A4 paper	20.99	3
Alex Patel	alexkimpatel@cuvox.de	0412 345 678	Wanneroo	18/11/2023	Green A4 paper	16.99	3
Alex Patel	alexkimpatel@cuvox.de	0412 345 678	Wanneroo	18/11/2023	Yellow A4 paper	7.99	4
Jordan Nguyen	jordanleenguyen@superrito.com	0456 789 123	Joondalup	25/11/2023	Yellow A4 paper	7.99	3
Jordan Nguyen	jordanleenguyen@superrito.com	0456 789 123	Joondalup	25/11/2023	Black A4 paper	12.99	5
Taylor Robinson	taylorrobinson@gustr.com	0487 654 321	Rockingham	8/12/2023	Black A4 paper	12.99	5
Taylor Robinson	taylorrobinson@gustr.com	0487 654 321	Rockingham	8/12/2023	Blue A4 paper	20.99	4
Sam O'Neal	samoneal@rhyta.com	0499 888 777	Thornlie	14/12/2023	Red A4 paper	10.99	2
Sam O'Neal	samoneal@rhyta.com	0499 888 777	Thornlie	14/12/2023	Green A4 paper	16.99	1

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Refer to the information below to complete Question 22 parts (b) and (d).

RoomsTable

RoomID	RoomName	Building
RM-001	Da Vinci	Building 1
RM-002	Van Gogh	Building 1
RM-003	Picasso	Building 2
RM-004	Frida Kahlo	Building 2

RoomTableBookings

BookingID	RoomID	StartDate	StartTime	Duration
BK-001	RM-001	12/11/2023	9:00 am	60
BK-002	RM-002	25/11/2023	10:00 am	50
BK-003	RM-003	8/12/2023	1:00 pm	45
BK-004	RM-001	14/12/2023	2:00 pm	50
BK-005	RM-002	16/12/2023	4:00 pm	60
BK-006	RM-003	2/11/2023	11:00 am	45

Note: duration is in minutes

EquipmentCartTables

CartID	CartName	EquipmentDetails
CT-001	Louvre	Drawing tablets, Sketch pads
CT-002	Tate	Watercolor sets, Brushes
CT-003	Metropolitan	Easels, Canvas rolls
CT-004	Getty	Mixed media supplies, Craft kits

CartUsageTables

UsageID	RoomID	CartID	DateUsed
USG-001	RM-001	CT-001	12/11/2023
USG-002	RM-002	CT-002	25/11/2023
USG-003	RM-003	CT-003	8/12/2023
USG-004	RM-004	CT-004	14/12/2023

Refer to the information below to complete Question 23 parts (a) to (e).

The WA Children's Art Institute is interested in setting up a Wi-Fi network for both the tutors and students to access, and keep this network traffic separate from the administration staff network traffic. There are two buildings 200 m apart, connected by a fibre optic cable. Both buildings are connected to the internet. The WA Children's Art Institute will create this new Wi-Fi service utilising the infrastructure it already has. Currently there is no network diagram, however; the WA Children's Art Institute contains:

- rooms that contain the network switches
- current entry point of the NBN internet connection
- fibre optic cable connection between buildings.

Tutors currently use the cameras in their rooms to transmit real-time live videos of their lectures.

The WA Children's Art Institute would like to enhance security and use IP addresses efficiently while maintaining distinct areas for the main administration staff network and the tutor and student networks.

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*Published by the School Curriculum and Standards Authority of Western Australia
303 Sevenoaks Street
CANNINGTON WA 6107*