BCS Foundation Certificate in User Experience

Specimen Paper

Record your surname / last / family name and initials on the answer sheet.

Sample paper only 20 questions, which are multiple-choice – 1 mark awarded to each question.

Multiple choice questions allow only one correct answer to be selected for 1 mark. There are no trick questions.

A number of possible answers are given for each question, indicated by either **A B C or D**. Your answers should be clearly indicated on the answer sheet.

Pass mark is 13/20
Time allowed 30 minutes

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This professional certification is not regulated by the following United Kingdom Regulators - Ofqual, Qualifications in Wales, CCEA or SQA

1   Which of the following has the **MOST** significant impact on determining the usability of a system?

    A   Creating a user interface that is visually attractive.
    B   Understanding users and their needs.
    C   Ensuring the design is responsive on different platforms.
    D   Creating comprehensive help and documentation.

2   When trying to understand the needs of the user in an interview, why is it unsuitable to simply ask people what they want?

    A   Any designs resulting from these interviews will lack originality.
    B   User requirements need to be based on organisational goals.
    C   People do not have good insight into their needs from a system.
    D   User interviews are too complex to analyse in any meaningful way.

3   The designers of a new in-flight entertainment system to be used on an airplane want to test out the user interface. Who would you recommend they recruit for a usability test?

    A   Ground staff at airports who speak with customers every day.
    B   People who own an interactive digital television in their home.
    C   People who have travelled on two or more long-haul flights in the last 6 months.
    D   Regular movie-goers who have been to the cinema at least once a month over the last year.

4   You are working on a government system that allows people to apply for a driving license. Identify which key user needs are **MOST** important.

    A   Upload their photo ID.
    B   Search for driving instructors.
    C   Apply for provisional entitlement to drive a lorry.
    D   Take their theory test.

5   Identify the key user needs for a GPS system aimed at hikers.

    A   He says he needs a mobile phone provider with better coverage in out-of-the-way locations.
    B   Peter has been a keen walker since he was a teenager.
    C   He enjoys purchasing the latest gadgets and technology.
    D   He wants to discover out-of-the-way sites with an interesting history.

6   A new application is proposed, that enables individuals to look up all bus services within a small city. Which of the following is most likely to be the primary persona used in the system design?

    A   A commuter who uses 3 buses a day each way to get to work, with short intervals to change between buses.
    B   A 27-year old bus spotter, who is interested in the cumulative late running of services.
    C   Police traffic control staff, interested in the effect of road-works and traffic lights on services.
    D   An inspector for a bus operating company who wants to check on the performance of individual drivers.

7   Your team are working on the design of an app that can control a smart toy car. Illustrate the role of design experiments when creating products.

    A   Design experiments help the design team validate their learning about customers.

    B   Design experiments encourage the design team to get face-to-face with users.

    C   Design experiments guarantee that design decisions are statistically significant.

    D   Design experiments ensure that the development team is working within an Agile framework.

8   A web site that sells organic food organises its produce by the area of the country from where the food originates. What organisational scheme is it using?

    A   Time.

    B   Category.

    C   Location.

    D   Hierarchy.

9   Your team are working on the user interface of an app that controls toy trains. You need to create a mental model. What is a mental model?

    A   The description of the intended user.

    B   The model that the system architects and developers bring into being when turning the design into reality.

    C   The model that the designers create when defining and refining the solution hypothesis.

    D   The user's internal representation of the system or product.

10 What are the components of the context of use?

    A Users, UX vision and testing.
    B Users, environments and tasks.
    C Users, Personas and KPI.
    D Users, prototyping and testing.

11 You are creating a form for a hotel booking system. One field is titled, "Select a type of room" and the possible answers are "Single", "Double" and "Twin". What would be the correct user interface control to accept responses?

    A A set of radio buttons.
    B A set of checkboxes.
    C A free text field.
    D A drop down menu.

12 Users are requested to indicate at the end of an online application which daily national newspaper(s) they read. Which would be the **MOST** appropriate user interface control to use?

    A Check boxes.
    B Radio buttons.
    C Text box.
    D Drop down menu.

13 The practice of creating strong lines that keep the viewer focused and cause the page to look elegant exploits which principle of visual design?

    A Contrast.
    B Repetition.
    C Proximity.
    D Alignment.

14 You are in the early stages of the design of an in-car entertainment system that will allow passengers to download and view movies. What would be your first step?

    A Encourage the design team to think of various potential solutions to prevent them from becoming fixated on one design idea.
    B Explore the technical feasibility of using multi-touch, speech and head-up displays within an in-car environment.
    C Visit potential users to understand their current needs for such a system.
    D Create a paper prototype of a potential user interface and test it with users.

15 The design team are struggling to decide whether to use a set of radio buttons or a drop down menu to help users choose from a small list of items. What would you advise?

    A Choose a drop down menu as this will reduce the amount of screen real estate needed for the control.
    B Choose radio buttons as this will expose all of the options to users without them having to click to see the choices.
    C Prototype both alternatives and observe how users interact with the controls in an upcoming usability test.
    D Design a new control that combines the best of both approaches.

16 You are at the early design stage of a new system that will make significant changes to the way users carry out their work. The design team would like feedback on three alternative design ideas. Which user research technique would be **MOST** suitable?

    A Carry out a structured interview with existing users.
    B Carry out a usability test with a high-fidelity prototype.
    C Run an online survey with existing users.
    D Carry out a usability test with a low-fidelity prototype.

17 You are evaluating a new interactive voice response system in which users are expected to make selections from a telephone keypad. Which one of the following research questions could be answered with a small number of participants (say 5)?

    A Are users quicker with the new system or with the old system?
    B How much would people pay to use the service?
    C What are the demographic characteristics of the target audience?
    D What are the main usability issues with the system?

18 Which of the following data sets could be useful for recording quantitative data during usability evaluations?

    A Observations about pathways users took.
    B Task time, error rates, satisfaction, questionnaire ratings.
    C Task time, observations about pathways users took, problems experienced.
    D Problems experienced, satisfaction questionnaire ratings.

19 Which of the following tasks would be suitable to use in a usability test of a stylus-based drawing tablet aimed at digital illustrators?

    A Access social media.
    B Erase something.
    C Connect their wireless headphones to the tablet over Bluetooth.
    D Download an e-book.

20 A design team in the early stages of the design of an in-store shopping basket with a digital interface has approached you to carry out user research. They suggest you interview 10 of their internal staff who regularly shop in supermarkets. How should you respond?

    A 10 users is too few to collect adequate data.
    B It would be better to observe staff as they shop.
    C It would be more cost effective to run a focus group than separate interviews.
    D Any research should be carried out with real users, not internal staff.

End of Paper

Question	Answer	Syllabus Section
1	B	One of the 6 key principles in ISO 9241-210 is "The design is based upon an explicit understanding of users, tasks and environments." This is summarised in answer B. A is an important way to improve user satisfaction with a system, but there is no point having an attractive UI if you do not understand users and their needs. C is a technology-based answer that will apply only to certain situations (unlike answer A, which will always apply). Answer D will apply only in a situation where the system needs comprehensive help: an appropriately designed system may not need any documentation.
2	C	This question tests a candidate's knowledge of this classic user research issue: it's not what users say, it is what users do that matters. D is wrong, because the qualitative data from user interviews can be analysed with many techniques, including affinity mapping. B is wrong: organisational goals are important, but they do not trump user goals. A is wrong because originality isn't the issue here; and anyway, users may still come up with original ideas that do not meet their needs.
3	C	The purpose behind this question is to check that candidates are aware that they should run tests with real users of the system, not people who are similar to real users or that speak for users. A is the wrong choice because ground staff are not users of the system. B is the wrong choice because the context of using an interactive television in the home is very different to using a system on an aeroplane. D is the wrong choice because movie-goers are not necessarily airline travellers. This leaves C as the best choice since this group will contain the actual users of the system.
4	C	A, B and D are all examples of things the user is likely to need at some stage but are secondary to the primary user need – being able to apply for provisional entitlement to drive. This leaves C as the correct answer.
5	D	A good user need will begin with a word like "needs" or "wants". Although B is useful information for a persona, it is not a user need: it simply captures a little of the user's domain knowledge. Similarly, C is not a need but a personality trait. A is a possible option, but notice the phrase, "he says" in

Question	Answer	Syllabus Section
		the stem. This isn't a need but an implementation. The user need behind this could be met by other implementations (for example, a system that allowed the user to download maps before setting off on the walk). This leaves option D as the correct choice.
6	A	This question is about identifying the main user group in the design of a system. All of these groups are potential users of the system, but the question asks the candidate to identify the best user description; that is, the group that is most likely to have a need for the service. Option A is more realistic (in terms of genuine use), so this gives the best answer. This is not to invalidate the use of a bus spotter as a potential user – but people in this category are not using the service as the majority of people would – "is my bus on time and likely to get me to my destination as required?" Option C is another likely secondary user group, but again will not be the main user of the service (that is, the service should not be designed specifically for this audience). Option D is another possible secondary user, although this user will almost certainly require other data (such as driver names) alongside the timetable.
7	A	Option D is not correct since teams can practise Agile without carrying out design experiments (and vice versa). Option C is incorrect because the results from design experiments do not need to be statistically significant to be useful (often teams are just looking to see which way the wind blows). Although B is partly true, a team can carry out a design experiment without directly engaging with a user (e.g., A/B testing). This leaves A as the correct answer.
8	C	C is the correct choice because area of the country is a location-based scheme. A and D are wrong because area of the country has no relationship to time or hierarchy. It could only be a category scheme (option B) if it used a finite list of locations, but C is the best answer.
9	D	D is the correct answer as a mental model refers to the user's internal representation of the system or product. C refers to the conceptual model and B relates to the implementation model. A relates to personas (a named fictitious person who represents a group).
10	B	B is the correct answer because ISO 9241-11 describes the context of use as comprising a description of users, tasks, environments and equipment. A, C and D all correctly contain

Question	Answer	Syllabus Section
		'users', but also have distracter buzzwords, none of which relate to environments or tasks.
11	A	B is incorrect because this will accept more than one choice and the choices are mutually exclusive ("Choose a type of room"). C is incorrect because it will result in typing errors. D is incorrect because there are only three choices and using a drop down is less efficient than clicking a single radio button (click to activate the drop down, scroll to correct answer, release mouse). This leaves A as the correct answer.
12	A	The question indicates that more than one choice can be made. This rules out radio buttons, and a drop down menu for selection. Entering text into a free format text box allows all kinds of difficulties to be encountered – is "The Times" the same as "Times"? And what about "The London Times"? Having eliminated other choices, the best option is that which remains, option A – check boxes.
13	D	A is wrong: the purpose of contrast is to organise the screen and make it more interesting. B is wrong because the purpose of repetition is to create consistency and to add visual interest. C is wrong because the purpose of proximity is to organise and group the various parts of the UI. This leaves D as the correct answer.
14	C	The purpose of this question is to make sure candidates realise that the first step in a project is not to prototype or think of design solutions at all, but to speak with users without any preconceptions about how the design might look. This makes C the best answer. A and D are sensible steps to take once the design process has begun, but neither should be the first step. Similarly, B will be important once the user's need for the service has been established, but there is no point exploring the technical feasibility until the users' needs have been uncovered.
15	C	The purpose of this question is to see if candidates realise that the best way to choose between options in a user interface is by having real user data rather than opinions. D is wrong, because it makes sense to use a control that's consistent with other controls that people use, rather than create a new one. Without any more information about the context in the question stem, it's impossible to choose between A and B since both might be sensible choices in a particular context. This leaves C as the correct choice. Although it's true that it might not make sense to run a

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		usability test if the only aim of the test was to decide about controls, the question points out that this is an 'upcoming' test, so it would be a quick and cheap way to inject this question into the upcoming test and get a definitive answer.
16	D	A and C are wrong because they will collect opinion data: this will almost certainly be overwhelmingly negative because users are being asked to work differently. An additional problem with A is that the interviews will be 'structured' which omits the possibility of discovering findings outside of the team's current way of thinking. What is needed here is some indication of the problems (if any) that people will have with the new approach, so some kind of behavioural observations are called for. This leaves B and D as the possible choices. Since we are at the early stages of design, and since the design team have three alternative designs, a test of a low-fidelity prototype would make more sense than a test with a high-fidelity prototype because the prototypes can be created more quickly. The low fidelity prototype has the additional advantage that the systems will not look too "finished" which means users are more likely to see the designs as early concepts and not finished designs.
17	D	This question aims to test a candidate's understanding of the kinds of research that can be done with small sample sizes. A is incorrect because this question will require some kind of statistical comparison, and this isn't plausible with a small sample size. B is incorrect because this is an opinion-based question that again will need a large sample size. C is incorrect because a small sample size will badly skew the results (for example, if 4 of the 5 participants are male, does this mean 80% of the population is male?) D is the correct answer as a well-run usability test will identify the main usability issues even if the sample size is relatively small.
18	B	All items are valid types of data that can be collected during usability tests, but option B is the only option that has just quantitative data types. The other options include mixtures of quantitative and qualitative data.
19	B	This question aims to test that candidates can choose between good and poor tasks in a usability test. A, C and D are poor tasks because they are not the kind of tasks a user, (in this case a digital illustrator), would normally expect to carry out. The remaining task is a

Question	Answer	Syllabus Section
		task that real users would carry out with the product which makes B the correct answer.
20	D	The aim of this question is to ensure candidates understand that the most important people to observe during a field visit are the intended users of the system. Option A is a red herring, since as few as 5 people will still provide some insights. B is a better choice as it captures context, but it still omits the actual users of the system. C is a poor choice since it ignores both the user's context and the users themselves. This leaves D as the correct answer.