

BCS Foundation Certificate in User Experience Sample Paper 1 Answer Key

Question No	Answer	Syllabus Area	Learning Objective	K Level
1.	B	UX001	1.2	K2
2.	C	UX003	3.4	K3
3.	D	UX009	9.1	K1
4.	C	UX007	7.3	K1
5.	A	UX009	9.6	K3
6.	A	UX004	4.2	K3
7.	A	UX006	6.2	K3
8.	C	UX002	2.2	K2
9.	B	UX008	8.1	K2
10.	B	UX005	5.2	K3
11.	C	UX002	2.5	K2
12.	B	UX009	9.4, 9.5	K2
13.	D	UX003	3.1	K2
14.	D	UX005	5.4	K1
15.	D	UX009	9.3	K3
16.	A	UX003	3.2	K3
17.	A	UX006	6.2	K2
18.	C	UX008	8.2	K2
19.	B	UX007	7.3	K1
20.	B	UX005	5.4	K2
21.	A	UX003	3.1	K3
22.	A	UX004	4.4	K2
23.	C	UX006	6.3	K1
24.	D	UX009	9.3	K3
25.	D	UX007	7.1	K1
26.	D	UX002	2.3	K3
27.	C	UX005	5.3	K2
28.	D	UX008	8.1	K2
29.	B	UX009	9.3	K2
30.	B	UX002	2.1	K1
31.	A	UX009	9.6	K3
32.	C	UX007	7.3	K1
33.	D	UX003	3.4	K3
34.	C	UX006	6.2	K3
35.	A	UX008	8.3	K1
36.	A	UX001	1.3	K1
37.	D	UX005	5.6	K1
38.	C	UX005	5.2	K1
39.	B	UX009	9.8	K3
40.	A	UX003	3.2	K2

There is now a brief explanation of why an answer is correct, and perhaps as important, why other answers are wrong.

Question 1

Rationale

One of the 6 key principle 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.

Question 2

Rationale

B and D are functional specifications referring to a specific implementations and are not expressions of a user’s need from the service. A is an abstract requirement that assumes the system will have some kind of navigation: it may not. This leaves C as the correct answer.

Question 3

Rationale

a, e and f are three of Jakob Nielsen’s 10 usability heuristics. b, c and d are not. These have been chosen as distracters because they are much more specific than Nielsen’s principles (i.e. the distracters provide specific design guidance). Option D is the only answer that contains a, e and f, so is the correct response

Question 4

Rationale

A is sometimes used in combination with eye tracking to understand why the user was looking in a particular place, but on its own it will not provide the answer the researcher needs. B is the wrong answer because A/B testing is a technique used to compare two alternative designs with a large number of users and provides no details on eye tracking. D is the wrong answer because a summative usability test is used to measure effectiveness, efficiency and satisfaction and provides no details on eye tracking. This leaves C as the correct answer.

Question 5

Rationale

This aims to test the candidate's knowledge of test moderation using the "boomerang" technique of answering a question with a question. B is incorrect because the user may confabulate or provide a made-up answer. C is incorrect because it is explaining to the user how to do the task. D is incorrect because this is a usability test, not a contextual inquiry: with a usability test, we are testing a specific system rather than trying to understand the context of use.

Question 6

Rationale

It's true that task completion rate is an important measure for all systems, but 2 and 4 are systems used by expert users and these people will have the experience or training to complete the tasks. Efficiency is most important in a call centre task, which is why X is the best choice. With games, part of the enjoyment is becoming immersed in the task, so task completion, time to complete and incorrect decisions are poor metrics: satisfaction (Y) is the best choice. For the fingerprint system, all of these measures are important but Z is the best choice because incorrect decisions could lead to identifying the wrong suspect. Option A is therefore the preferred answer

Question 7

Rationale

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.

Question 8

Rationale

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.

Question 9

Rationale

Choice A is wrong because realistic animations are impossible to replicate with a paper prototype. Choice D is wrong because paper prototypes cannot assess technical feasibility. It is only option B that has the other choices, excluding A and D.

Question 10

Rationale

A is wrong on 3 counts, but most obviously because 'Home', 'Small Business' and 'Enterprise' are not types of file format. C is wrong on all counts, but most obviously because 'Send money' and 'Request money' are not types of audience. D is wrong on all counts, but most obviously because 'Send money' and 'Request money' are not types of file format. This leaves B as the correct answer.

Question 11

Rationale

This question tests a candidate's knowledge of this classic user research issue: it's not what users say, it's 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.

Question 12

Rationale

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.

Question 13

Rationale

This question tests candidate's understanding of focusing on users in design. A is wrong because demographic characteristics are of only rudimentary use when doing design. B is wrong because it will lead to a system that suffers from bloat but still does not meet the needs of users. C is wrong because design is contextual, and an approach that works on one site may not work on another. This leaves D as the best answer.

Question 14

Rationale

This statistical technique is used to assign cases to groups (clusters) and so makes sense only for answer D.

Question 15

Rationale

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.

Question 16

Rationale

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.

Question 17

Rationale

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.

Question 18

Rationale

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 not 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.

Question 19

Rationale

The evidence for the F shape is from <http://www.nngroup.com/articles/f-shaped-pattern-reading-web-content/>. Although it doesn't form a perfect 'F', it certainly doesn't look like a W, L or C. So option B is the correct answer.

Question 20

Rationale

A is incorrect because participants do not work to a time limit. D is incorrect because participants do not work in pairs: you are after an individual's insights and you then get the 'consensus' through data analysis. E is a distracter that makes no sense: closed card sorts are not for expert users only. Option B is the only answer that has the three not discounted above.

Question 21

Rationale

The question requires the candidate to think about the characteristics of the potential users. There may be many characteristics that matter, but the most important one is: are they a likely user of a kitchen renovation system? (A) is a poor choice because a homeowner may not be interested in a kitchen renovation. (B) is a better choice, but still not appropriate because the landlords are not potential users of the system (they may have been a year ago). (E) is a poor choice since a plumber may not be working on a kitchen redesign. This leaves (C) and (D) as appropriate choices and option A as the correct answer.

Question 22

Rationale

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.

Question 23

Rationale

A is wrong because Hick's Law refers to the time taken to make a decision with a user interface based on the number of choices. B is wrong because this refers to learning improvement with time. D is wrong because Nielsen's Law refers to Internet bandwidth. This leaves C as the correct answer.

Question 24

Rationale

A is a poor choice for a usability objective because it is unmeasurable in its current state: what does 'easy to use' mean in this context? C suffers from the same problem: what does "acceptable" mean? Neither of these is specific enough to be useful objectives in a usability test. The remaining choices are specific enough, which makes D the correct choice.

Question 25

Rationale

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.

Question 26

Rationale

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.

Question 27

Rationale

Three of the options, A – C, are sorting techniques, whereas the last option, option D, is a summary of what the user feels, hears, sees and thinks within the context of use. Option D can therefore be discounted. Options A and B have defined categories, so the correct answer is option C, an open card sort

Question 28

Rationale

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's 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.

Question 29

Rationale

B has to be the first choice because the test objectives will have implications for the users who are recruited and the task scenarios that are used. D must come before c because the pilot test cannot take place without the scenarios. The only answer with B, D and C in order is choice B. It's possible that user recruitment (B) could take place last, although it would be inefficient to do so (it makes more sense to start recruitment as early as possible since this can cause a delay).

Question 30

Rationale

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 'users', but also have distracter buzzwords, none of which relate to environments or tasks.

Question 31

Rationale

This question tests if candidates realise their role as a test moderator is simply to help participants to keep talking and not to influence their stream of consciousness. (B) and (F) are poor questions because participants are not designers: it's not clear how the design team can take action on what the participant says here. (C) is a poor choice because it may bias the participant to look for help or to confabulate and say they were looking for help when they were not. (E) is a poor choice because the participant isn't struggling: the user has simply paused. This is when the researcher learns about the problems the participant is experiencing and this shouldn't be cut short. This leaves (A) and (D) which are both good prompts to make and so A the correct answer.

Question 32

Rationale

These terms are clearly defined in the eye tracking literature but students sometimes confuse 'fixation' with 'saccade' and 'gaze plot' with 'heat map' so the answers have been carefully ordered to test for this confusion. C is the only correct answer.

Question 33

Rationale

A good user need will begin with a word like "needs" or "wants". Although (a) is useful information for a persona, it is not a user need: it simply captures a little of the user's domain knowledge. Similarly, (b) is not a need but a personality trait. (d) is a possible option, but notice the phrase, "he says" in 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 (c) as the only user need in the list and makes D the correct choice.

Question 34

Rationale

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 usability test if the only aim of the test was to make a decision 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.

Question 35

Rationale

B is wrong because sketching is the process of generating ideas and sketches are rarely suitable for paper prototyping. C is wrong because this technique requires the participants to view a video of themselves using the system and narrate what they were doing. D is wrong because a design studio is a collaborative sketching activity attended by designers. This leaves A as the correct answer.

Question 36

Rationale

A is a multi-part standard that addresses usability and is the correct answer. B is incorrect because ISO 9001 is a quality standard. C refers to a withdrawn standard on "Thin parallel keys and their corresponding keyways" and is nothing to do with usability. D refers to a standard to do with paper dimensions.

Question 37

Rationale

All of the options are definitions as detailed in the glossary. The terms given are:

- A Alignment
- B A closed question
- C Contrast
- D Affordance

Thus option D is the required answer

Question 38

Rationale

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

Question 39

Rationale

This question aims to test that candidates can choose between good and poor tasks in a usability test. (c) is a poor task because it explains to users how they should do the task (it is more like a user acceptance test task). (e) is a poor task because it is not realistic: this isn't the kind of task a user would normally expect to carry out. The remaining tasks are all tasks that real users would carry out with the product which makes B the correct answer.

Question 40

Rationale

Choice d is wrong: the specific aim of personas is to prevent designing for an average user. e is wrong because personas are a design tool, not a marketing tool. Option A has the other choices included, and is the correct answer.