Level 3 Technical Level: Entertainment Technology

Business for Video Games
Mark scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Assessment Writer.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

MARKING METHODS

In fairness to candidates, all examiners **must** use the same marking methods. The following advice may seem obvious, but all examiners **must** follow it as closely as possible.

1   If you have any doubt about how to allocate marks to an answer, consult your Team Leader.
2   Refer constantly to the mark scheme and standardising scripts throughout the marking period.
3   Use the full range of marks. Don't hesitate to give full marks when the answer merits them.
4   The key to good and fair marking is **consistency**.

INTRODUCTION

The information provided for each question is intended to be a guide to the kind of answers anticipated and is neither exhaustive nor prescriptive. **All appropriate responses should be given credit**.

Where literary or linguistic terms appear in the Mark Scheme, they do so generally for the sake of brevity. Knowledge of such terms, other than those given in the specification, is **not** required. However, when determining the level of response for a particular answer, examiners should take into account any instances where the candidate uses these terms effectively to aid the clarity and precision of the argument.

DESCRIPTIONS OF LEVELS OF RESPONSE

The following procedure must be adopted in marking by levels of response:

● read the answer as a whole

● work up through the descriptors to find the one which best fits

● where there is more than one mark available in a level, determine the mark from the mark range judging whether the answer is nearer to the level above or to the one below.

Since answers will rarely match a descriptor in all respects, examiners must allow good performance in some aspects to compensate for shortcomings in other respects. Consequently, the level is determined by the 'best fit' rather than requiring every element of the descriptor to be matched. Examiners should aim to use the full range of levels and marks, taking into account the standard that can reasonably be expected of candidates.

Section A

Total for this section: 50 marks

0 1 A games studio's R&D department want to invest in the most recent major area of focus for game developers', which is..

A   e-sports
B   free to play games
C   mobile games
D   virtual reality

[AO3, 1 mark]

Answer
D   virtual reality

0 2 An experienced businessperson has started investing in other people's companies. One of their friends asks them why they want to take that kind of risk. They state that their **primary** reason is . . .

A   belief in the management team
B   tax relief
C   personal interest in what the company does
D   chance of making more money than if they put the money in the bank

[AO2, 1 mark]

Answer
D   chance of making more money than if they put the money in the bank

0 3 A recent graduate is setting up their first company. The first step is to register as a company with . . .

A   a bank
B   Companies House
C   HMRC
D   shareholders

[AO1, 1 mark]

Answer
B   Companies House

0 4 The director of a game development studio has been asked to speak to some students about the role of a game designer. He explains that whilst game designers can be responsible for lots of things, their **key** role is to . . .

A   define the art style of the game
B   manage the team
C   make the art for the game
D   work out the mechanics of the game

[AO3, 1 mark]

Answer
D   work out the mechanics of the game

0 5   The management team of a game development studio is planning their next project.
The CEO says that they should have a soft launch period because . . .

A   they can then test the game and fix any issues before full release
B   the game will start making money earlier
C   it may provide free testers, reducing the cost of professional testing
D   it reduces the budget they will need to get the game to market

[AO3, 1 mark]

Answer
A   they can then test the game and fix any issues before full release

0 6   An established UK game studio needs to raise funding for their new game. They have been
advised to set-up a Special Purpose Vehicle (SPV) by their accountant because . . .

A   it will make their cashflow more efficient
B   it will make the company more attractive to possible investors
C   they will be able to split staff between the two companies
D   they don't want to give away equity in their company

[AO2, 1 mark]

Answer
D   they don't want to give away equity in their company, OR
B   **it will make the company more attractive to possible
investors**

0 7   The director of a start-up game studio is planning to meet publishers to discuss their game.
He is researching the difference between third party and first party publishers.
He learns that first party publishers…

A   are the best publishers
B   only publish games made by developers that they own
C   own the platform that they publish on
D   publish across multiple platforms

[AO4, 1 mark]

Answer
C   own the platform that they publish the game on

0 8   A programmer gets promoted to lead programmer. She has never managed anyone before
but is now in charge of 5 other people. She quickly realises that the best way to delegate a
task is to . . .

A   give full responsibility to the person for delivering the task
B   give the person parameters within which to work, with specific goals
C   tell the person exactly what to do step by step
D   tell the person what is needed and provide a deadline.

[AO4, 1 mark]

Answer
B   give the person parameters within which to work, with specific goals

| 0 | 9 | The founder of a start-up business realises the need for a shareholders' agreement.

State the purpose of a shareholders' agreement and give **two** examples of what it covers.

[AO1, 3 marks]

Answer
Define **(1 mark)**
Any two from the following **(2 marks)**
- shareholders' rights
- how the company is run
- shareholders' obligations/responsibility
- how decisions will be made
- protection for shareholders/investors
- controls/regulates the sale of shares
- rules between the company and its shareholders

1 mark for every correct one from this list (up to 3 marks)

| 1 | 0 | A director of a start-up company needs to take more control of the company's finances, and explains to colleagues that there are three key financial tools to be considered.

Describe each of the key financial tools identified below:

– Cashflow forecasts
– Financial accounts
– Management accounts

[AO1, 3 marks]

Answer

1 mark for defining cashflow forecast as: tracking money in and out / showing money in the bank / forecasting how much money you will have / make sure you won't run out of cash / make sure you can pay suppliers or employees / managing budget.

1 **mark** for defining financial accounts: legal requirement / available publicly / summary of finances / profit and loss and balance sheet on yearly basis / financial statements.

1 mark for defining management accounts: regular accounts for managers / key financial information for running of the business / key financial information for making day to day decisions / profit and loss and balance sheet on weekly or monthly basis.

| 1 | 1 | A business that has been running for six months is trying to carry out an analysis of their business proposition and define its position within the market using Porter's Five Forces.

Identify the name and state the purpose of **three** of the sections within Porter's Five Forces.

[AO2, 6 marks]

Answer
1 mark for every correct name and 1 mark for every correct purpose from this list (up to 6 marks):

- Supplier Power: the fewer suppliers / fewer choices / more difficulty switching suppliers – the more powerful the suppliers.
- Buyer Power: the more important each buyer is / the easier for them to switch / the more alternatives there are – the more powerful the buyer.
- Competitive Rivalry: how strong are you compared to your competitors.
- Threat of Substitution: how easy would it be for customers to find an alternative way of doing what you do.
- Threat of New Entry: how easy is it for new companies to do what you do.

| 1 | 2 | The founders of a start-up company are deciding on the management and ownership structure of the business.

Andy wants to run the company and negotiate commercial deals.

Satish wants to do programming only.

Emma wants to do art but also wants to manage production and operations.

Identify who should be directors of the business and who should be shareholders.
Give reasons for your answers.

[AO1, 6 marks]

Answer
1 mark for: Andy should be director and correct rationale for why ~~shareholder~~
1 mark for: Andy should be a shareholder and correct rationale for w~~W~~hy
e.g Andy should be a director because he will manage the company, and should be a shareholder as he is a founder.
1 mark for: Satish shouldn't be a director and correct rationale for why not ~~should be a shareholder~~
1 mark for: Satish should be a shareholder and correct rationale for why
e.g Satish shouldn't be a director because he isn't interested in the business side but should be a shareholder as he is a founder
1 mark for: Emma should be a director and correct rationale for why ~~shareholder~~
1 mark for: Emma should be a shareholder and correct rationale for why
e.g Emma should be a director because she wants to be involved in running the business as well as making games, and should be a shareholder as she is a founder

| 1 | 3 | You have been asked to explain to the director of a game development studio why they might benefit from SEIS and EIS. Draft the content of an email to explain the following:

(a) What SEIS and EIS stand for? **[1 mark]**

(b) Which organisation is responsible for SEIS/EIS? **[1 mark]**

(c) What each of these are for and why they exist? **[2 marks]**

(d) Identify two differences between them. **[2 marks]**

[AO2, 6 marks]

Answer
1 mark for: SEIS stands for Seed Enterprise Investment Scheme and EIS stands for Enterprise Investment Scheme
1 mark for: HMRC / Her Majesty's Revenue and Customs / Revenue and Customs
1 mark for: tax breaks for investors
1 mark for: to encourage investment in early stage/high risk companies
1 mark (max 2 marks) for any answers describing any of the following:
– SEIS has a smaller limit of how much can be invested per company/investor than EIS
– SEIS is for start-ups only, whereas EIS has no such restriction
– SEIS give more tax relief than EIS

1	4

A producer of a start-up game development studio is considering what roles she will need to fill. In her previous job, she managed a studio of 400 people, including 50 programmers who were building and using a proprietary game engine. However, for this start-up studio, she only needs to hire 5 programmers.

14.1   Explain **three** differences that the producer needs to consider now when hiring staff compared to her previous job?

[AO3 3 marks]

Answer
1 mark for each of (up to 3 marks):

- They (probably) won't build a proprietary engine / they will (probably) use a 3rd party engine/unity/unreal
- They will need more generalist than specialist programmers
- They may not be able to support so many graduates/inexperienced programmers / they may need more experienced programmers who don't need so much management/training support / they won't be able to train programmers as much
- Each programmer will have a lot more responsibility
- Each programmer may be able to get more involved in the overall project
- They probably won't get as many job applications as they are a start-up
- They may not be able to advertise as much/may rely on word of mouth/social media

14.2   State **three** types of programmers she may want to hire.

[AO3, 3 marks]

1 mark for every correct one from this list (up to 3 marks):

- Gameplay
- UI/user interface
- Lead
- Senior
- Technical Director
- Scripter
- Back end
- Front end
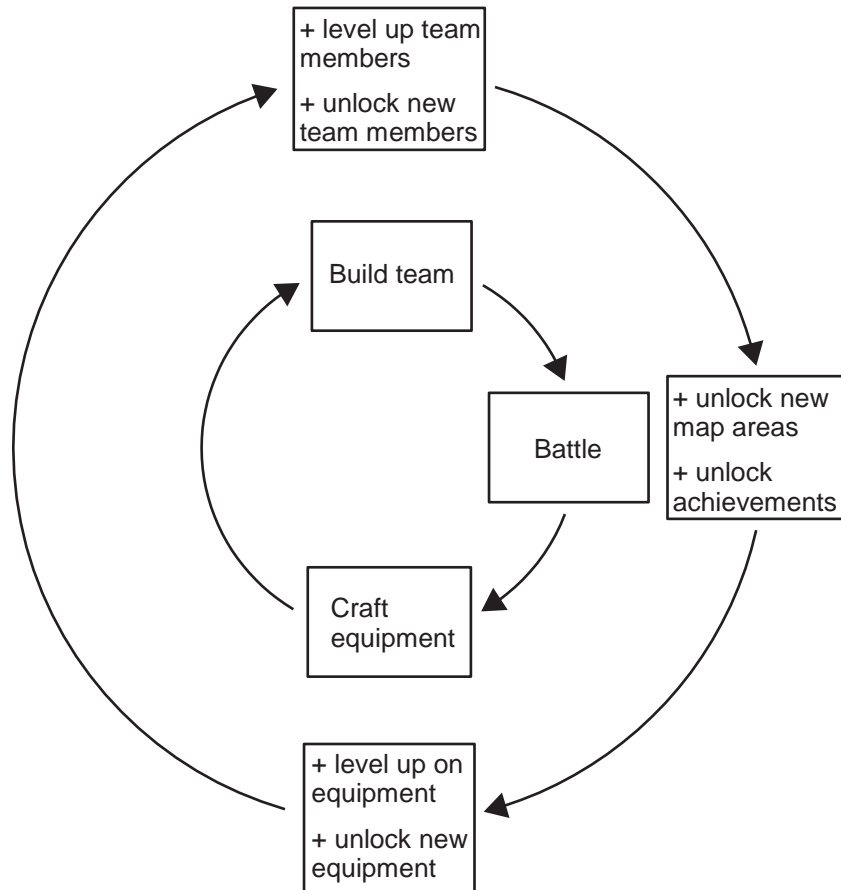- Unity
- Unreal
- Graphics
- Audio

Any other acceptable answer.

1	5

A game designer is designing a new Free to play game. This is the current overview.

Identify the name of each loop, explain what it is and state how this diagram relates to the business model of the game.

[AO3, 6 marks]

```
                    +-------------------+
                    | + level up team   |
                    | members           |
                    | + unlock new      |
                    | team members      |
                    +-------------------+

                    +-----------+
                    | Build team|
                    +-----------+
                                        +------------------+
                        +--------+      | + unlock new     |
                        | Battle |      | map areas        |
                        +--------+      | + unlock         |
                                        | achievements     |
                    +-----------+       +------------------+
                    | Craft     |
                    | equipment |
                    +-----------+

              +-----------------+
              | + level up on   |
              | equipment       |
              | + unlock new    |
              | equipment       |
              +-----------------+
```

Answer

1 mark for identifying that the inner loop is the core game loop

1 mark for identifying that the outer loop is the retention loop

1 mark for explaining that the core game loop is: the gameplay/the main things a player does in the game/the thing the player does over and over again/what the player controls/plays

1 mark for explaining that the retention loop is: what keeps players coming back to the game

1 mark for saying that: Free to play/F2P/freemium games need to retain players long enough to monetize them

1 mark for saying the retention loop is what relates this diagram to the business model

1 6 The directors of a small game development studio are working on the marketing strategy for their first game. They are self-funding their game and don't have a publisher and have a £2000 marketing budget.

Outline **three** types of marketing typically used for games promotion and assess the suitability of each.

[AO4, 6 marks]

Answer
1 mark (up to 3) for any of the following:

- PR: public relations / dealing with the press / getting featured in the press / writing press releases
- Events: attend events to show your game to potential players / get press attention
- Community management: dealing directly with players / managing players directly / supporting players / social media
- Advertising / user acquisition: playing for advert / adverts online / on social media / adverts in other games / acquiring users by paying for them
- Crowdfunding: selling pre-orders of your game whilst building a community of supporters
- Enter awards: get recognition from industry / raise awareness / get press attention
- YouTube: famous YouTube channels feature your game.

1 mark (up to 3) for assessing any of the following:

- PR / press: yes they should use this as they can do this themselves (without cost)
- Events: some events can be quite cheap to attend so they may want to do limited amounts of this
- Community management: yes, they should do this as they can do it themselves
- Advertising / user acquisition: this requires a lot of money so they shouldn't plan to do this
- Crowdfunding: they could do this, but it takes a lot of time and is very risky
- YouTube: they can do this, particularly with smaller YouTube channels, but it isn't something you can always control and the bigger YouTube channels charge a lot of money to feature the game.

Section B

Total for this section: 30 marks

1	7

Imagine you are starting a games company next year, making premium games that you want to release on Steam. Your first game is going to cost £150 000 to develop. There are many different aspects that you need to address, such as the legal requirements of setting up a business, financial planning, building a team, managing the development and release of the game and your own personal strengths and weaknesses.

Identify and explain **four** challenges in relation to starting a games company of this type, and discuss what strategies you would use to approach each challenge.

[AO1, 15 marks]

Quality of response	Definition	Max 15 marks
	Up to **3 marks** for quality of answer, including: • Explaining aspects in depth • Assessing their own strengths and weaknesses • Identifying that they need help and can't do it all themselves • Showing judgment	13–15 marks
3	**1 mark (up to 4)** for every strategy that they mention they would use to approach one of their identified challenges, for example: • My strategy for marketing/releasing a game would be to learn about this from going to conference talks, engaging with people in industry and reading/doing some training on marketing • My strategy for developing a game would be to hire some more experienced people into my team who could help me to learn and reduce risk • My strategy for setting up a company will be to see if I can get any business mentoring, or to just spend time learning and implementing the process as I go • My strategy for building a team will be to go to industry events and use social media to meet people.	9–12 marks
2	**1 mark (up to 4)** for each challenge that they explain, for example: • Setting up / running a company: challenging because never done it before, there is a lot to do, may need some money to get started before raising finance • Releasing / marketing a game: never done it before, without knowledge of the market, lack of network (eg, don't know publishers / platform holders/press) • Developing a game: never released a commercial game / developed a full game before • Managing people: lack of experience or training in management • Building a team: don't have the network, or money to spend on job ads, or the reputation to attract staff • Managing finances: have never had to manage money before • Raising funding: lack of credibility (lack of experience), may need a prototype or pitch which will cost money, don't know any funders / lack of network.	5–8 marks

1	1 mark (up to 4) for each challenge identified, which could relate to: • Setting up / running a company • Releasing / marketing a game • Developing a game • Managing people • Building a team • Managing finances • Raising funding	1–4 marks

| 1 | 8 | The 'Free to play' business model has now become one of the primary ways to monetise games. |

18.1 Identify and discuss two commercial considerations in developing Free to play games
[AO4, 6 marks]

Quality of response	Quality of response	Quality of response
3	For each of the areas described at level 2, ~~explain the purposes of these changes~~explain in more detail eg soft launch is needed to refine retention and monetisation, live services are needed to support the game with on-going updates and the primary way to get users is to buy them. **(1 mark for**	5-6 marks
2	For each area identified at level 1, explain what they mean at a basic level ~~how they changed~~ eg production process needs a soft launch process, team need live services people and marketing is primarily about user	3-4 marks
1	Identify 2 areas for consideration **(1 mark per consideration)** eg changes to production process, team requirements, routes to market or marketing	0-2 marks
Examples around design considerations such as micro transactions or advertising within the game also acceptable		

18.2 Assess the range of impacts of Free to play games on the games industry
[AO4, 9 marks]

Quality of response	Quality of response	Quality of response
3	Analysis of impact – use of examples to make point, logical chains of argument Balanced response – awareness of competing points of view, logical structure Exercising judgement – attempting to reach a conclusion – has it been a positive/negative impact?	7-9 marks
2	For the areas identified at level 1, explain impacts **(1 mark for each impact – max 3 marks)** eg, discoverability – there are too many games competing for attention, legal – people spend money without realising, ethical – Free to play games for children and market size – has grown hugely because games are free	4-6 marks
1	Identify any areas that have been impacted by Free to play games, eg, Legal, Ethical, discoverability and market size **(1 mark for each are identified - max 3 marks)**	0-3 marks

Assessment outcomes coverage

Assessment Outcomes	Marks available in section A	Marks available in section B	Total Mark
AO1: Understand the logistics of setting up a business in the games industry	13 marks 16.25%	15 marks (18.75%)	28
AO2: Understand how to develop a business plan for a game development studio	14 marks 17.5%	0 marks (0%)	14
AO3: Understand how to manage the development of a game	15 marks 18.75%	0 marks (0%)	15
AO4: Understand how to release a game and grow a business	8 marks 10%	15 marks 18.75%	23
Total	**50 marks**	**30 marks**	**80**

QUESTION	AO1	AO2	AO3	A04
1			1	
2		1		
3	1			
4			1	
5			1	
6		1		
7				1
8				1
9	3			
10	3			
11		6		
12	6			
13		6		
14			6	
15			6	
16				6
17	15			
18				15
Totals	**28**	**14**	**15**	**23**