

ВНИМАНИЕ!

1. Комплексное тестирование для обучения в магистратуре с английским языком обучения проводятся по следующим специальностям по направлению «1 Образование» с указанием дисциплин:

Для всех специальностей	Тест на определение готовности к обучению	
	Критическое мышление	Аналитическое мышление
Специальности	Тест по специальности	
	Дисциплина 1	Дисциплина 2
«1 Образование» (5 специальности)		
6M011000 Физика	Методика преподавания физики	Общая физика
6M011100 Информатика	Методика преподавания информатики	Теоретические основы информатики
6M011200 Химия	Методика преподавания химии	Химия
6M011300 Биология	Методика преподавания биологии	Биология
6M011900 Иностранный язык: два иностранных языка	Методика иноязычного образования	Профессионально ориентированный иностранный язык (лексико-грамматический тест и работа с текстом)

2. Книжка содержит задания по следующим дисциплинам:

1. Тест на определение готовности к обучению (на русском языке-30);
2. Методика преподавания физики (на английском языке-30);
3. Общая физика (на английском языке -20);
4. Методика преподавания информатики (английский-30);
5. Теоретические основы информатики (на английском языке -20);
6. Методика преподавания химии (на английском языке-30);
7. Химия (на английском языке -20);
8. Методика преподавания биологии (на английском языке-30);
9. Биология (на английском языке -20);
10. Методика иноязычного образования (на английском языке-30) ;
11. Профессионально ориентированный иностранный язык (на английском языке, лексико-грамматический тест -10 и работа с текстом - 10).

3. Время тестирования – 160 минут (2 час 40 минут).

4. Начинать отвечать можно с любой дисциплины.

5. Выбранный ответ нужно отмечать на листе ответов путем полного закрашивания соответствующего кружка на секторе данной дисциплины.

6. Все необходимые расчеты можно производить на свободных местах книжки.

7. Нужно внимательно заполнить все секторы листа ответов.

8. После окончания тестирования книжка и лист ответов должны быть сданы дежурному по аудитории.

9. Во время вступительного экзамена в магистратуру с английским языком обучения не допускается:

- *выходить из аудитории без разрешения и сопровождения уполномоченного лица;*
- *пересаживаться с места на место, переговариваться;*
- *обмениваться экзаменационными материалами, списывать;*
- *зносить в аудиторию и использовать шпаргалки, учебники и другую методическую литературу, а также сведения, раскрывающие содержание тестов и кодов правильных ответов к ним, калькулятор, фотоаппарат, мобильные средства связи (пейджер, сотовые телефоны, планшеты, iPad, iPod, iPhone, SmartPhone), ноутбуки, плееры, модемы (в т.ч. мобильные роутеры);*
- *использовать любые виды радио-электронной связи (Wi-Fi, Bluetooth, Dect, 3G, 4G, наушники проводные и беспроводные и прочее);*
- *осуществлять порчу экзаменационных материалов (листов ответов и книжек) путем их смятия, использования корректирующей жидкости, отрыва страниц, закрашивания секторов, не предусмотренных для этого (номер листа ответов).*

ПРЕДУПРЕЖДЕНИЕ:

В случае обнаружения у поступающего во время тестирования шпаргалок, учебников, учебно-методической литературы, калькуляторов, фотоаппаратов, мобильных средств связи (пейджеров, сотовых телефонов, планшетов, iPad, iPod, iPhone, SmartPhone), радио-электронной связи (Wi-Fi, Bluetooth, Dect, 3G, 4G, наушники проводные и беспроводные) ноутбуков, плееров, модемов (в т.ч. мобильных роутеров) представитель Министерства совместно с дежурным по аудитории в присутствии поступающего составляют **«Акт выявления запрещенных предметов и удаления из аудитории поступающего, нарушившего правила поведения в аудитории»**. Решением представителя Министерства поступающий удаляется из аудитории, результаты тестирования аннулируются.

В случае отказа поступающим сдать экзаменационные материалы по истечении времени тестирования, результаты тестирования не обрабатываются.

С результатами тестирования можно ознакомиться на сайте

Национального центра тестирования www.testcenter.kz

Тест на определение готовности к обучению
Задания с выбором одного правильного ответа

Критическое мышление

1. Выбрать 1 правильный вариант из 4 предложенных.

Прямая $ax + 2y = 11$ проходит через точку $C(7; 5)$.

A: a , **B:** $\frac{1}{7}$.

- A) величина A больше
- B) две величины равны
- C) величина B больше
- D) отношение между величинами не может быть определено на основе информации, представленной в примере

2. Выбрать 1 правильный вариант из 4 предложенных.

Периметр прямоугольника равен 14 дм, а площадь его равна 12 дм².
 a и b – стороны прямоугольника.

A: $\frac{a}{b}$, **B:** 1.

- A) две величины равны
- B) величина A больше
- C) величина B больше
- D) отношение между величинами не может быть определено на основе информации, представленной в примере

3. Выбрать 1 правильный вариант из 4 предложенных.

На координатной прямой отмечены числа A и B .



A: $B - A$

B: AB

Сравните величины **A** и **B** между собой.

- A) отношение между величинами не может быть определено на основе информации, представленной в примере
- B) величина B больше
- C) величина A больше
- D) две величины равны

4. Расположите в порядке возрастания: $0,3$; $\frac{1}{2}$; -5 ; $-4,8$.

A) $\frac{1}{2}$; $0,3$; $-4,8$; -5

B) $0,3$; $\frac{1}{2}$; -5 ; $-4,8$

C) -5 ; $-4,8$; $0,3$; $\frac{1}{2}$

D) $-4,8$; -5 ; $\frac{1}{2}$; $0,3$

E) $-4,8$; -5 ; $0,3$; $\frac{1}{2}$

5. Бедность – абстрактное определение крайней нужды или относительной неимущества, которые сложно выразить конкретным показателем. Бедность можно измерить по множеству параметров.

Например:

- обеспеченность питанием;
- доход на душу населения;
- доступность чистой питьевой воды и иных коммунальных услуг;
- доступность средств первой медицинской помощи;
- уровень грамотности среди взрослого населения;
- индексы качества жизни.

На основе анализа содержания текста определите вид информации, представленный во второй части текста.

A) резюмирующая

B) обобщающая

C) иллюстрирующая

D) аргументирующая

E) конкретизирующая

6. Качество жизни – одно из новых понятий, применяемых для анализа уровня социально-экономического развития отдельных стран. Качество жизни можно измерить по определенным параметрам.

Например:

- обеспеченность питанием;
- доход на душу населения;
- доступность чистой питьевой воды и иных коммунальных услуг;
- доступность средств первой медицинской помощи;
- уровень грамотности среди взрослого населения;

На основе анализа содержания текста определите вид информации, представленный во второй части текста.

- A) конкретизирующая
- B) иллюстрирующая
- C) обобщающая
- D) резюмирующая
- E) аргументирующая

7. Глобальный продукт – имеет хождение по всему миру под одной фирменной маркой: «Кока-кола», «Макдональдс», «Бакарди». Характерной особенностью при этом является стандартность и неизменность товара, носящего фирменное наименование.

Иными словами биг-маг будет иметь один и тот же вкус и в Манчестере, и в Милане, и в Мельбурне.

На основе анализа содержания текста определите вид информации, представленный во второй части текста.

- A) вводная
- B) аргументирующая
- C) резюмирующая
- D) детализирующая
- E) дублирующая

8. Диагональ прямоугольника равна 10 см, а его периметр равен 28 см.

Найдите площадь прямоугольника.

- A) 56 см^2
- B) 64 см^2
- C) 144 см^2
- D) 48 см^2
- E) 36 см^2

9. Площадь участка земли прямоугольной формы равна 600м^2 . Для ограждения этого участка в три ряда потребовалось 420м проволоки. Найти ширину и длину этого участка земли.

- A) 24м, 25м
- B) 10м, 60м
- C) 15м, 40м
- D) 20м, 30м
- E) 12м, 50м

10. Найти значения n и m , при которых вершина параболы

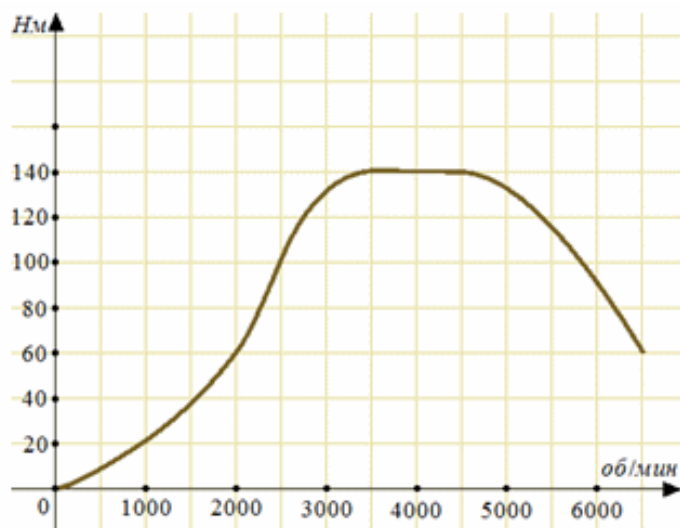
$$y = nx^2 + mx \text{ расположена в точке } (2; 3).$$

- A) $m=1; n= - 0,25$
- B) $m= - 3; n= - 0,75$
- C) $m=3; n=0,75$
- D) $m=3; n= - 0,75$
- E) $m= - 1; n= 0,25$

11. Катер за один час проплыл 15 км по течению реки и 4 км в стоячей воде. Скорость течения реки в 4 раза меньше скорости катера в стоячей воде. Найдите собственную скорость катера.

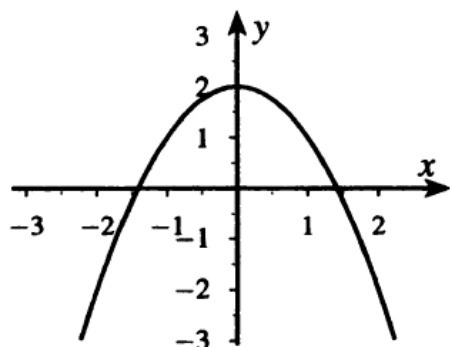
- A) 10 км/ч
- B) 14 км/ч
- C) 16 км/ч
- D) 12 км/ч
- E) 20 км/ч

12. На графике изображена зависимость крутящего момента автомобильного двигателя от числа его оборотов в минуту. На оси абсцисс откладывается число оборотов в минуту. На оси ординат — крутящий момент в Нм. Чтобы автомобиль начал движение, крутящий момент должен быть не менее 60 Нм. Определить наименьшее число оборотов двигателя в минуту, которого достаточно, чтобы автомобиль начал движение.



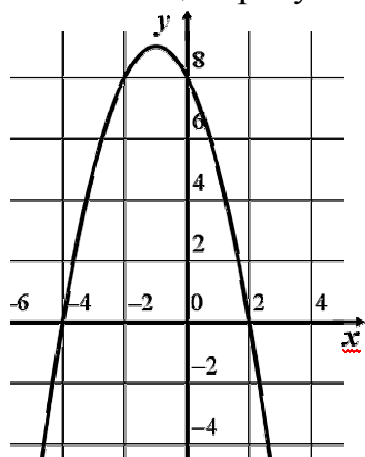
- A) 1000
- B) 4000
- C) 2000
- D) 1500
- E) 6500

13. Определите график функции, изображенной на рисунке.



- A) $y = -x^2 + 2$
- B) $y = x^2 + 2$
- C) $y = 2x + 1$
- D) $y = -x^2 - 2$
- E) $y = -(x + 2)^2$

14. С помощью рисунка укажите решение неравенства: $-x^2 - 2x + 8 \leq 0$



- A) $[-4; 2]$
- B) $(-\infty; -4] \cup [2; +\infty)$
- C) $(-4; 2)$
- D) $[-4; 2)$
- E) $(-\infty; -4) \cup (2; +\infty)$

15. Медицинский кабинет в течение года вел учет заболеваемости каждого из учащихся. В конце года на стенде был вывешен график, показывающий, как распределились учащиеся по количеству заболеваний за год:



Зная, что всего 800 учащихся, определить количество учащихся, которые в течение года хоть раз заболели.

- A) 720
- B) 40
- C) 80
- D) 760
- E) 200

Аналитическое мышление

16. Аурелио Печчеи, инициатор создания Римского клуба, писал: «Ещё несколько десятилетий назад мир человека можно было – в весьма упрощенном виде, разумеется, – представить тремя взаимосвязанными, но достаточно устойчивыми элементами. Этими элементами были *Природа*, сам *Человек* и *Общество*. Теперь в эту систему вошел четвертый и потенциально неуправляемый элемент – основанная на науке [...]».

Вставьте пропущенный концепт вместо многоточия в квадратных скобках.

- А) Атомная Реакция
- В) Либеральная Экономика
- С) Химическая Промышленность
- Д) Техника
- Е) Атомная Энергетика

17. «[...] убедительно показывает, что даже в неорганической природе существуют классы систем, способных к самоорганизации. История развития природы – это история образования все более и более сложных нелинейных систем. Такие системы и обеспечивают всеобщую эволюцию природы на всех уровнях ее организации – от низших и простейших к высшим и сложнейшим (человек, общество, культура)».

Вставьте вместо многоточия, заключенного в квадратные скобки, название теории, о которой говорится в приведенном тексте.

- А) Системно-функциональный анализ.
- В) Системно-структурный анализ.
- С) Системно-целостный подход.
- Д) Системный подход.
- Е) Синергетика.

18. «Человечество обязано сохранить и передать потомкам [...] Земли, и не только потому, что природа прекрасна и восхищает нас своим великолепием. Есть еще более значимое основание: сохранение [...] является неперенным условием жизни самого человека на Земле, поскольку устойчивость биосферы тем выше, чем больше составляющих ее видов».

Что обозначено в тексте как пропуски, отмеченные многоточием, заключенным в квадратные скобки?

- А) Флора и фауна.
- В) Живая природа.
- С) Биологическое разнообразие.
- Д) Животное и растительное царство.
- Е) Условия органической жизни.

19. Ч.Ч. Валиханов писал: «Тот закон хорош для народа, который более ему известен, закон родной, под которым человек вырос и воспитывался». Какой социально-философский принцип может быть указан как «методологическая характеристика» приведенного суждения казахского просветителя?

- А) Принцип «восхождения» от абстрактного к конкретному.
- В) Принцип историзма в анализе социальных явлений.
- С) Принцип первичности материального над идеальным.
- Д) Принцип системно-функционального анализа.
- Е) Принцип детерминизма в анализе социальных явлений.

20. Шакарим писал: «Причинные истоки всего существующего в безмерности познания, могущества и искусности Творца. Мои обоснования: если следовать науке, то ничего из существующего не создается и не движется само по себе. Как они <вещи, предметы> могут придать сами себе жизнь и движение сами себе?».

О какой философской категории пишет Шакарим?

- А) О причинности
- В) О вещи, предмете.
- С) О гносеологии.
- Д) О творце-создателе.
- Е) О знании.

21. «Человек вышел в космос, проник внутрь атомного ядра, освоил новые виды энергии, создал мощные вычислительные системы, разгадал генетическую природу наследственности, научился использовать в невиданных масштабах богатство природы. Однако он гораздо менее преуспел в рациональном и бережном отношении к природе и к богатейшим ее ресурсам».

О какой, по существу, проблеме говорится в приведенном фрагменте?

- А) Об экологической проблеме
- В) Об эффективности использования открытий и технологий.
- С) Об отсутствии рациональности.
- Д) Об использовании ресурсов.
- Е) Об опасностях, таящихся в природе.

22. В учебниках и пособиях, в хрестоматиях и антологиях по философии, по истории экономических учений одинаково популярны определенные суждения известных мыслителей.

Кто еще среди философов до Маркса мог бы быть «присоединён» к известному его суждению о том, что «труд есть источник всякого богатства»?

- А) Шеллинг
- В) Кейнс
- С) Гегель
- Д) Шопенгауэр
- Е) Бергсон

23. Современный технологический уклад – важнейшее звено любой конкурентоспособной экономики.

Биотехнологии, информационные технологии, нано-технологии... Что общего между этими видами технологий?

- А) Это – важные элементы инновационной составляющей в современной промышленности.
- В) Это – важные цепочки инновационной производственной структуры.
- С) Это – технологии, которые стимулируют рынок потребления.
- Д) Это – технологии, требующие особых затрат и ресурсов.
- Е) Это – важные компоненты расходной части промышленного бюджета.

24. Современная философия содержит ряд ключевых понятий, касающихся критического отношения к развитию научных теорий.

Отметьте парные термины, характеризующие сущность подхода К. Поппера к вопросу о критике научных теорий.

- А) верификация и фальсификация
- В) верификация и открытость
- С) критицизм и открытость
- Д) фальсификация и критицизм
- Е) открытость и закрытость

25. Льюис Мамфорд (Lewis Mumford, 1895 – 1990) в своей знаменитой книге «Миф машины» написал: «Мощь, скорость, движение, стандартизация, массовое производство, количественное измерение, регламентация, точность, единообразие, астрономическая правильность, контроль, прежде всего контроль, - все эти понятия стали ключевыми паролями современного общества, живущего по законам нового западного стиля». Как видно из цитаты, автор пишет о некоторых чертах западной цивилизации.

Выберите наиболее подходящий ряд альтернативных понятий, в большей степени характеризующих традиционные цивилизации Востока.

- А) Ориентация на потребление и разнообразие стандартов
- В) «Замедленность» и цикличность времени, «дух» доминирует над «телом»
- С) Отсутствие стремления к точности и бесконтрольность
- Д) Традиционность и отсутствие всякой регламентации.
- Е) Отсутствие астрономии и понятий о движении и времени

26. Гафу Каирбеков: «Учителем быть – поэзия души, / Учителем быть – смелость сердца. / Не оскудеет сердце человека, / Сделавшего свою жизнь светом для других» (пер. с казахского).

Выберите из цитат, предложенных ниже, наиболее удачный аналог приведенному поэтическому фрагменту.

- А) «Учителя должны быть ... образцом благоразумия в частной и общественной жизни» (Ян А. Коменский).
- В) «Воспитатель должен обладать природной любовью к детям, терпением и добротой» (Р. Оуэн).
- С) «Учитель – сердце школы» (И. Алтынсарин).
- Д) Учитель, педагог – «мудрый человек, на котором лежит забота оберегать детей от всего дурного» (Дж. Локк).
- Е) «Воспитание, обучение требует от учителя терпения и, конечно же, специальных знаний» (К.Д. Ушинский).

27. В культуре речи различают такие ее позитивные качества:

- правильность (произносительную, в выборе семантики слов, грамматическую);
- точность семантическую (смысловую);
- логичность;
- чистота речи;
- выразительность и др.

Выберите верное определение понятия «Правильность речи».

- A) соответствие общеобязательным нормам современного литературного языка
- B) соблюдение норм произношения
- C) соблюдение правил письма
- D) соответствие правилам каллиграфии
- E) логичность речи

28. Лев Васильевич Успенский: «Официально этот вид транспорта именовался «конно-железная дорога». По улице проложены рельсы, всюду только одна колея. Кое-где эта колея образует «разъезды» с раз и навсегда переведёнными стрелками: тут «вагоны конно-железной дороги» встречаются и расходятся на своём пути.

Вообразите на крыше современного трамвая двойную скамью во всю длину, на которой можно сидеть спинами друг к другу, лицами – к двум противоположным сторонам улицы. По бортикам крыши – лёгкие перильца, а к ним с внешней стороны прикреплены длинные рамки выполненных на жести вывесок и рекламных объявлений. Высота всего сооружения получалась довольно солидная, с теперешние двухэтажные автобусы и троллейбусы. По длине вагоны примерно равнялись нашим трамвайным, но только, конечно, не современным четырехосным, а двухосным, лёгким, в высоту же они намного превосходили их.

Вот она погромыхивает тяжко и неторопливо по рельсам: ну с какой скоростью может двигаться огромный железный вагон, влекомый двумя пусть даже и хорошо кормленными лошадьми? Для каждого из граждан 1970 года не представило бы ни малейшего труда слезть на ходу с этого рыдвана где-нибудь на углу Пушкарской и Введенской, наддать ходу, догнать вагон у Народного дома и снова вскочить в него.

Внутри коночный вагон был оборудован двумя длинными крашенными масляной краской скамьями вдоль окон, из конца в конец. Над обеими дверьми висели фонарики, и по вечерам в них горели, тускло освещая внутренность конки, свечи. Билеты были разных сортов: за пятак – вовнутрь, за три копейки – на верхотурку. Были еще и «пересадочные», на копейку дороже: взяв такой билет, вы могли доехать до пересечения двух линий и пересесть бесплатно в вагон другого маршрута.

Вот на такой конке и ездил в те годы весь демократический, для которого уже «извозец» был великой роскошью, Петербург: рабочие с далёких заводов, если нельзя было пройти пешком, студенты, когда был дождь или сильный холод, мелкие чиновники ежедневно, чиновники повыше рангом – от случая к случаю, горничные, модистки, хористки из мелких театриков, ночные бабочки, когда возвращались домой после нелёгкой своей работенки... С раннего утра ползли они по улицам, огромные синие вагоны, зимой залепленные снегом, с наглухо замерзшими стеклами, настылые, мрачные; летом пестреющие женскими шляпками, с империалом, то над чем-то хохочущим, то мирно созерцающим окрестный пейзаж... Шляпки, шляпки, черные котелки, мягкие панамы... И вдруг – дождь, и вся конка сразу покрылась множеством чёрных зонтов, точно на ней вмиг выросло три или четыре десятка грибов.

Смешно все это? Да, конечно, смешно. Смешное, старое время, смешная жизнь, медленная, болотистая, тихая...

Но когда я закрываю глаза и передо мной встаёт в зимнем туманчике, в метели, в питерском июньском дожде высокий призрак дребезжащей на ходу всеми стеклами синей громады, мне приходит в голову, что по ступенькам таких конок поднимался иной раз на империал Александр Блок и оттуда видел свои улицы, свои фонари и аптеки, своих Незнакомок и Фаин. В этих кузовах мог ехать и молодой, ещё не успевший накинуть на плечи свои будущие богатые бобры, Шаляпин. И тут смех уходит в сторону, и на его место встаёт почтение к прошлому, большая гордость, что оно было и что я его помню.

Каждому овощу свое время. Конке – тоже».

Какое из высказываний, приведенных ниже, содержит ответ на вопрос: «Как автор относится к старому транспортному средству – конке?»

- А) История конки, по мнению автора, неотъемлемая часть истории города.
- В) Это неприятные воспоминания.
- С) Это несовременные воспоминания.
- Д) Автор не проводит параллели между историей конки и историей города.
- Е) Автор рад наступлению эпохи технического прогресса и возможности передвигаться с помощью современного транспорта.

29. Выберите верное продолжение ответа на вопрос: «Почему рассказчик в тексте использует устаревшее слово «извозец»?»

Использование историзма говорит ...

- А) о стремлении передать речь простого народа.
- В) о желании автора передать колорит того времени более точно.
- С) о том, что именно так называют извозчиков
- Д) о невозможности заменить слово современным синонимом.
- Е) о том, что именно так называют извозчиков в Петербурге.

30. Фридрих Ницше: «Философия есть исповедь своего сочинителя». Мераб Мамардашвили: «Философия есть сознание вслух».

Что может быть общего в этих высказываниях по их смыслу, контексту?

- А) То, что в обоих суждениях речь идет о философии, которую можно прочесть или услышать как исповедь.
- В) То, что оба автора не связаны с марксизмом, понимавшим философию как науку.
- С) То, что оба автора избегают наукообразия в своих попытках определить суть философии.
- Д) То, что философия – «выведение» духовных исканий человека во вне, «в мир».
- Е) То, что всякая философская «исповедь» – явление «сознания».

Тест на определение готовности к обучению завершен

Тест по дисциплине Методика преподавания физики

Задания с выбором одного правильного ответа

На английском языке

1. Tasks of methodology of training in physics can be formulated in the form of answers to the following questions:

- A) What does the training provide? What to teach? Why train?
- B) Why teach? Whom to teach? Why train?
- C) Why teach physics? Whom to teach? How to teach?
- D) Why train in physics? What to teach? How to train?
- E) Why teach physics? What does the training provide? How to teach?

2. Radial structure of the physics course means

- A) using of training time and maintenance of informative interest of pupils to the discipline
- B) combined approach that promotes the efficient use of training time and maintenance of informative interest of pupils to the discipline
- C) presentation of all material at the elementary level
- D) repeated study of separate sections of physics at different stages of training
- E) consistent, independent study of each section of physics, beginning with simple concepts and ending with information about the latest scientific achievements

3. Search-heuristic teaching method:

- A) assumes not only an acquaintance with well-known facts, but also an independent search work on clarification and understanding of unknown facts
- B) assumes organization of comprehension of educational information and its logical assimilation
- C) involves solving non-standard problems, writing of abstracts, conducting computer simulations and leading simple research works
- D) means reproduction, repetition of theoretical material explained by the teacher
- E) involves solving only standard problems

4. A calendar plan should be made for the whole academic year and consists of the following items:

- A) demonstrations, description of front-end laboratory works
- B) theoretical and practical basis
- C) individual work with students
- D) questions for fixing of educational material, tasks
- E) title of the lesson, date, list of didactic materials

5. The device which can be used for demonstration the proportionality of acceleration to the corresponding force, and inverse proportionality of acceleration to the mass of moving body is a
- A) trolley with a load
 - B) dynamometer
 - C) mathematical pendulum
 - D) at wood device
 - E) physical pendulum
6. A plan of lesson should be improved by the teacher every year...
- A) taking into account content of new textbooks, possibilities of new pedagogical technologies
 - B) taking into account the specific situation that has arisen during the educational process
 - C) taking into account the schedule of classes for each class
 - D) taking into account the educational process
 - E) taking into account principles, methods and means of teaching physics
7. Problem training is
- A) the mass check of students' knowledge
 - B) one of the most effective pedagogical systems
 - C) the self-study on the selected theme
 - D) the developing of interest in physics
 - E) the student skills testing
8. List types of physical training experiment:
- A) theoretical bases, labs
 - B) practical fundamentals
 - C) solving of physical tasks
 - D) new methodic techniques
 - E) physical demonstrations, physical practicum
9. The most complex type of laboratory works is
- A) physical demonstration
 - B) physical practicum
 - C) extracurricular observation and experiment
 - D) frontal lab
 - E) laboratory work performed in a classroom

10. Reproduction, repetition of the information getting from a teacher refers to
- A) educational and research methods of teaching
 - B) world-outlook method
 - C) search-heuristic method of training
 - D) information and reproductive method of teaching
 - E) search-and-heuristic and teaching-research methods of teaching
11. Coefficient of importance of each question at rating testing is taking into account according to
- A) typical errors
 - B) specific errors
 - C) point of view of the teacher
 - D) additional questions
 - E) results of corresponding calculations via corresponding formulas
12. In school physics classrooms it is forbidden to apply
- A) multimeters and ammeters
 - B) measuring instruments
 - C) power supplies
 - D) sources of ultrahigh-frequency radiation
 - E) unbreakable massive vessels
13. Qualitative tasks in physics are used to
- A) improve accuracy of their measurement
 - B) explain physical phenomena and their regularities without involving formulas and quantitative description
 - C) quantify the ratio of physical quantities using analytical formulas
 - D) determine and measure physical quantities and to improve accuracy of their measurement
 - E) establish the causes of the laws of physical phenomena
14. Method, based on application of conservation laws and known formulas in a deductive manner, i.e. from general rules to the private solution, is
- A) graphic
 - B) synthetic
 - C) analytical
 - D) graphic and synthetic
 - E) didactic

15. Computational problems in physics are used to

- A) quantify a ratio of physical quantities using analytical formulas
- B) obtain necessary data from the analysis of graphs
- C) explain physical phenomena and their singularities without involving formulas and quantitative description
- D) establish the causes of the laws of physical demonstration phenomena
- E) explain formulas and quantitative description

16. List types of lessons for knowledge control and correction:

- A) frontal, individual or group oral examination
- B) lesson-lecture
- C) problem solving lesson
- D) lesson of practical work
- E) lesson of theoretical research

17. Assessment of the quality of knowledge, skills and overall development of students, their achievements in mastering the subject, is the

- A) method of teaching
- B) content of the subject
- C) main task of verification
- D) objective of the subject
- E) extracurricular work on the subject

18. Type of independent work necessary to build the ability to work with literature and learn new knowledge:

- A) measurement of physical quantities
- B) to invent problems using new physical laws and formulas
- C) prove the validity of the formulas
- D) summarize the formulas showing the functional dependence of physical values
- E) solve tasks

19. Changing in position of a body relative to other bodies is studied in

- A) optics
- B) statics
- C) acoustics
- D) electrodynamics
- E) mechanics

20. Two theories of light, firstly suggested by Newton and Huygens:

- A) corpuscular and oscillatory
- B) spot and light
- C) straight and longitudinal
- D) corpuscular and wave
- E) vibrational and high-speed

21. Formulate of the Louis de Broglie hypothesis

- A) when the electron moves around the nucleus, continuous radiation of electromagnetic waves occurs
- B) any particles, along with corpuscular particles, also have wave properties
- C) an atom is a positively charged sphere, inside which there are electrons
- D) atomic oscillators emit energy not continuously, but in certain portions – quanta
- E) Light characterizes by quantum properties

22. Angular velocity at uniform rotational motion can be described as

- A) $\omega = \varphi t$
- B) $\omega = \omega_0 + at$
- C) $\omega = \frac{2\pi}{T}$
- D) $\omega = \omega_0 t$
- E) $\omega = at$

23. In the coil of an electromagnet with an inductance of 0.8 H, with uniform change in the current intensity by 3 A in 0.02 s, an induction is excited, value of the induction is equal to:

- A) 24 V
- B) 240 V
- C) 12 V
- D) 0.24kV
- E) 0.12 kV

24. Which of these planets and their satellites can not be seen with the naked eye:

- A) Neptune
- B) Mars
- C) Venus
- D) Mercury
- E) Saturn

25. Power, developed by force F during time range dt is

A) $N = Fa$

B) $N = \frac{\vec{F}d\vec{s}}{dt}$

C) $N = \frac{d\vec{A}}{dt}$

D) $N = mgt$

E) $N = Ft$

26. Relationship of wave length with wave speed and period of oscillation:

A) $\lambda = \vartheta / \nu$

B) $\lambda = \nu \cdot T$

C) $\lambda = \vartheta \cdot \frac{1}{\nu}$

D) $\lambda = \frac{ch}{E}$

E) $\lambda = \frac{h}{P}$

27. Specify the nucleus mass defect formula:

A) $\Delta m = Z(m_p - m_n) - M_{яд}$

B) $\Delta m = (A - Z)(m_p - m_n) + M_{яд}$

C) $\Delta m = Zm_p + (A - Z)m_n - M_{яд}$

D) $\Delta m = (A - Z)(m_p + m_n) - M_{яд}$

E) $\Delta m = Zm_p - (A - Z)m_n + M_{яд}$

28. The logarithmic decrement of attenuation is described as

A) $\theta = \beta T$

B) $A(t) = A_0 e^{-\beta t}$

C) $W = \frac{m\omega A^2}{2}$

D) $\theta = \ln \frac{A(t)}{A(t+T)} \cdot \omega$

E) $\ddot{x} = -\omega_0^2 x$

29. A tram makes a left turn. Motion of the tram can be considered as
- A) only translational
 - B) only rotational with respect to the center of curvature of the trajectory
 - C) only rotational with respect to the center of the intersection
 - D) translational and rotational with respect to the center of curvature of the trajectory
 - E) only rotational with respect to any point

30. A section of a conductor with length 10 cm is located in a uniform magnetic field with induction equal to 50 mT. Value current through the conductor is 10 A. Determine work of the Ampere's force for moving the conductor by 8 cm in the direction of the force. The conductor is perpendicular to lines of the magnetic field.
- A) 0.5 J
 - B) 0.625 J
 - C) 0.04 J
 - D) 0.4 J
 - E) 0.004 J

Тест по дисциплине Методика преподавания физики завершен

Тест по дисциплине Общая физика

Задания с выбором одного или нескольких правильных ответов

На английском языке

1. Linear velocity of a point moving in a circle of radius R:

A) $\langle v \rangle = \left| \frac{\vec{\Delta r}}{\Delta t} \right|$

B) $v = \lim_{\Delta t \rightarrow 0} \frac{\Delta S}{\Delta t}$

C) $v = at$

D) $v = v_0 + gt$

E) $v = v_0 + at$

F) $v = R\omega$

G) $v = \lim_{\Delta t \rightarrow 0} \left(\frac{R\Delta\varphi}{\Delta t} \right)$

H) $v = R \lim_{\Delta t \rightarrow 0} \left(\frac{\Delta\varphi}{\Delta t} \right)$

2. Lorentz transformation:

$$\text{A) } z = \frac{z' + vt'}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$\text{B) } x = \frac{x' + vt'}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$\text{C) } t' = t - vx/c^2$$

$$\text{D) } t' = t$$

$$\text{E) } l = \frac{l' + vt'}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$\text{F) } t' = \frac{t - vx/c^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$\text{G) } y' = \frac{y - vy/c^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

$$\text{H) } t = \frac{t' + vx'/c^2}{\sqrt{1 - \frac{v^2}{c^2}}}$$

3. The moment of inertia of a body about rotating axis:

A) $dI = r^2 dm$

B) $I = r^2 m$

C) $I = I_0 + md^2$

D) $I = \int r^2 dm$

E) $I = \frac{1}{2} r^2 m$

F) $I = r^2 \omega$

G) $I = \frac{M}{\varepsilon}$

H) $\sum_{i=1}^n m_i r_i^2$

4. The average kinetic energy of translational motion of one molecule of an ideal gas:

A) $\langle \varepsilon_0 \rangle = \frac{E}{N}$

B) $P = 2 \bar{E}_k$

C) $\langle \varepsilon_0 \rangle = \frac{m_0 \langle v_{KB} \rangle^2}{2}$

D) $\langle \varepsilon_0 \rangle = \frac{1}{3} n \langle v_{KB} \rangle^2$

E) $\langle \varepsilon_0 \rangle = \frac{i}{2} RT$

F) $\langle \varepsilon_0 \rangle = \frac{3}{2} kT$

G) $\langle \varepsilon_0 \rangle = \frac{i}{2} kT$

H) $U = \frac{m}{M} C_V T$

5. The first law of thermodynamics for the adiabatic process:

A) $\delta A = -\frac{m}{M} C_V dT$

B) $\delta Q = \frac{m}{M} RT \ln \frac{V_2}{V_1}$

C) $\delta Q = \delta A + dU$ $\delta Q = dU$

D) $\delta Q = \frac{m}{M} RT \ln \frac{P_1}{P_2}$

E) $\delta Q = \frac{m}{M} C_V dT + \frac{m}{M} R(T_2 - T_1)$

F) $\delta A = -dU$

G) $\delta Q = dA$

H) $PdV = -\frac{m}{M} C_V dT$

6. The law on the distribution of ideal-gas molecules over velocities:

A) $f(v) = 4\pi \left(\frac{M}{RT} \right)^{3/2} v^2 \exp[-m_0 v^2 / (kT)]$

B) $f(v) = 4\pi \left(\frac{M}{2\pi RT} \right)^{3/2} v^2 \exp[-v^2 / (2T)]$

C) $f(v) = 4\pi \left(\frac{M}{2\pi RT} \right)^{3/2} v^2 \exp[-v^2 / (2kT)]$

D) $f(v) = 4\pi \left(\frac{M}{2\pi RT} \right)^{3/2} v^2 \exp[-m_0 v^2 / (2kT)]$

E) $f(v) = \left(\frac{M}{2\pi RT} \right)^{3/2} v^2 \exp[-m_0 v^2 / (2kT)]$

F) $f(v) = 4\pi \left(\frac{m_0}{2\pi kT} \right)^{3/2} v^2 \exp[-m_0 v^2 / (2kT)]$

G) $f(v) = 4\pi \left(\frac{m_0 N_A}{2\pi RT} \right)^{3/2} v^2 \exp[-m_0 v^2 / (2kT)]$

H) $f(v) = 4\pi \left(\frac{M}{2\pi RT} \right)^{3/2} \exp[-m_0 v^2 / (2kT)]$

7. Equation for the capacitance of capacitor:

A) $C = \frac{\sigma S}{d}$

B) $C = \frac{\sigma S}{Ed}$

C) $C = \frac{\epsilon\epsilon_0 S}{d}$

D) $C = \frac{q}{\Delta\phi}$

E) $C = UI$

F) $C = \frac{d}{\epsilon\epsilon_0 S}$

G) $C = q\epsilon\epsilon_0 S$

H) $C = qU$

8. The unit of measurements for electrostatic intensity:

A) 1V

B) 1Cl / V

C) 1 N • m / (Cl • m)

D) 1 V / m

E) 1F

F) 1 J / Cl

G) 1 N / Cl

H) 1 N • m / Cl

9. Current density:

A) $j = \rho \langle v \rangle$

B) $j = \int_S IdS$

C) $j = \frac{dI}{dS}$

D) $j = \int_S j dt$

E) $\vec{j} = ne \langle \vec{v} \rangle$

F) $j = qdt$

G) $j = \int_S qdS$

H) $j = ne \langle v \rangle S$

10. Biot-Savart-Laplas's law:

A) $dB = \frac{\mu\mu_0}{4\pi} \frac{Idl \sin \alpha}{r^2}$

B) $d\vec{B} = \frac{\mu\mu_0}{4\pi} \frac{I [d\vec{l} \times \vec{r}]}{r^2}$

C) $d\vec{B} = \frac{\mu\mu_0}{4\pi} \frac{I [d\vec{l} \times \vec{r}]}{r^3}$

D) $d\vec{B} = \frac{1}{4\pi} \frac{I [d\vec{l}, \vec{r}]}{r^2}$

E) $d\vec{B} = \frac{\mu\mu_0}{4\pi} \frac{I [d\vec{l}, \vec{r}]}{r^3}$

F) $d\vec{B} = \frac{\mu\mu_0}{4} \frac{Ird\vec{l}}{r^2}$

G) $d\vec{B} = \frac{1}{4\pi} \frac{I [d\vec{l} \times \vec{r}]}{r^2}$

H) $dB = \frac{\mu\mu_0}{2} \frac{Idl \sin \alpha}{r^2}$

11. Ampere's Law:

A) $F = I\vartheta m$

B) $d\vec{F} = I [d\vec{l} \cdot \vec{B}]$

C) $F = IqB$

D) $F = BI \sin \alpha$

E) $F = Iq\vartheta$

F) $d\vec{F} = I [d\vec{l}, \vec{B}]$

G) $dF = IBdq$

H) $F = BIl \sin \alpha$

12. Magnetic induction is measured in units:

- A) 1H
- B) V/m
- C) 1 T
- D) $\frac{A}{m}$
- E) 1 H/(Cl*m/s)
- F) $\frac{1H}{(A \cdot m)}$
- G) $1 \frac{B}{c}$
- H) 1B

13. The dependence of the wavelength λ_{\max} , corresponding to the maximum of the function $r_{\lambda,T}$ on the temperature T , according to the Wien displacement law:

- A) $R_T^e = A_T R_e$
- B) $\lambda_{\max} = \frac{b}{T}$
- C) $\frac{R_{\nu,T}}{r_{\nu,T}} = A_{\nu,T}$
- D) $\sigma = \frac{R_e}{T^4}$
- E) $\frac{R_e}{\sigma} = T^4$
- F) $T = \frac{b}{\lambda_{\max}}$
- G) $R_e = \sigma T^4$
- H) $\lambda_{\max} T = b$

14. Brewster's law:

A) $\alpha = \arctg (n_{21})$

B) $I = I_0 \cdot 1\alpha \cdot \mu$

C) $i_3 + i_2 = \frac{\pi}{2}$

D) $\operatorname{tg} \alpha = \frac{n_2}{n_1}$

E) $I = I_0 / 2$

F) $\varphi = a \cdot d$

G) $\varphi = [\alpha] \cdot c \cdot d$

H) $\operatorname{tg} \alpha = n_{21}$

15. Type (s) of light interference in thin films:

A) Fringes equal thickness

B) Fringes of equal inclination

C) Interference spectroscopy

D) Interference reflectometry

E) Newton's rings

F) Optic clearing

G) Fresnel zone

H) Kerr cell

16. The general Schroedinger equation:

A)
$$-\frac{\hbar^2}{2m} \frac{\partial^2 \psi}{\partial r^2} + \frac{\partial U(x, y, z, t)}{\partial t} \psi = i\hbar \frac{\partial \psi}{\partial t}$$

B)
$$-\frac{\hbar^2}{2m} \Delta \psi + U(x, y, z, t) \psi = i\hbar \frac{\partial \psi}{\partial t}$$

C)
$$-\frac{\hbar^2}{2m} \Delta \psi + \frac{\partial U(x, y, z, t)}{\partial t} \psi = i\hbar \frac{\partial \psi}{\partial t}$$

D)
$$\hat{H} \psi = i\hbar \frac{\partial \psi}{\partial t}$$

E)
$$\left(-\frac{\hbar^2}{2m} \Delta + U(x, y, z, t) \right) \psi = i\hbar \frac{\partial \psi}{\partial t}$$

F)
$$i\hbar \frac{\partial \psi}{\partial t} = U(x, y, z, t) \psi$$

G)
$$-\frac{\hbar^2}{2m} \frac{\partial^2 \psi}{\partial x^2} + \frac{\partial U(x, y, z, t)}{\partial t} \psi = 0$$

H)
$$\frac{\partial^2 \psi}{\partial x^2} + \frac{\partial^2 \psi}{\partial y^2} + \frac{\partial^2 \psi}{\partial z^2} + U(x, y, z, t) \psi = i\hbar \frac{\partial \psi}{\partial t}$$

17. The energy of the hydrogen atom:

A) $E_n = -\frac{Z^2 e^2 m}{32\pi^2 \epsilon_0^2 \hbar^2 n^2}$

B) $E_n = -\frac{Z^2 m}{32\pi^2 \epsilon_0^2 \hbar^2 n^2}$

C) $E_n = -\frac{e^2 m}{16\pi \epsilon_0^2 \hbar^2 n^2}$

D) $E_n = -\frac{Z^2 e^2 m}{n^2 32\pi^2 \epsilon_0^2 \hbar^2}$

E) $E_n = -\frac{Z^2 e^2 m}{32\pi \epsilon_0^2 \hbar^2}$

F) $E_n = -\frac{Z e^2}{4\pi \epsilon_0 r}$

G) $E_n = -\frac{Z^2 e^2 m}{32\pi_2 \hbar^2 n^2}$

H) $E_n = -\frac{Z^2 e^2 m}{32\epsilon_0^2 \hbar^2 n^2}$

18. Differential equation for free harmonic charge oscillations in the circuit:

A) $\ddot{Q} + \frac{k}{m} Q = 0$

B) $J\ddot{q} + \omega_0^2 q = 0$

C) $m\ddot{q} = -kq$

D) $J\ddot{\alpha} + \frac{mgl}{J} \alpha = 0$

E) $LC\ddot{Q} + Q = 0$

F) $\ddot{Q} + \frac{1}{LC} Q = 0$

G) $\ddot{Q} + \omega_0^2 Q = 0$

H) $\ddot{x} + \omega_0^2 x = 0$

19. Proton:

- A) Helium ions
- B) $+1,6 \cdot 10^{19}$ Cl, the elementary particle
- C) $m_p \approx 1836 m_e$
- D) $-1,6 \cdot 10^{19}$ Cl, the elementary particle
- E) Hydrogen ions
- F) Elementary particles in the nucleon
- G) Neon ions
- H) $m_p \approx 1838 m_e$

20. Mass defect:

- A) $\Delta M = Z m_p - N m_n - M_n$
- B) $\Delta M = (Z m_p + N m_n) - M_n$
- C) $\Delta M = Z m_p + M_n - N m_n$
- D) $\Delta M = ((A - N) m_p + N m_n) - M_n$
- E) $\Delta M = Z m_p + N m_n + M_n$
- F) $\Delta M = (Z m_p + (A - Z) m_n) - M_n$
- G) $M_n < Z m_p + N m_n$
- H) $\Delta M = M_n + N m_n - Z m_p$

Тест по дисциплине Общая физика завершен

Тест по дисциплине Методика преподавания информатики

Задания с выбором одного правильного ответа

На английском языке

1. Who wrote the first "Informatics and computer technigue" student's book?
 - A) M.I. Ragulina
 - B) M.P. Lapchik
 - C) A.P. Yershov
 - D) V.G. Kaymin
 - E) A.G. Kushnirenko

2. Definition of Informatic discipline:
 - A) describes formation and ability of using information technologies
 - B) a set of data, information, and knowledge about the process of education and qualification and personal management
 - C) the actual data of the object and the links between them
 - D) information, conversion, storage, distribution and use of methods and tools
 - E) it is the research study and academic discipline that deals with the processes of acquisition, storage and communication of information with the help of computers and telecommunication systems

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4. Social informatics studies:
 - A) integration and collective use of diverse information resources
 - B) the semantic aspects of intellectual processes and information systems;
 - C) stochastic methods in Informatics
 - D) preparation of text and graphic documents, technical documentation
 - E) information culture and information security of the individual

5. The assessment of determining gifted pupil and the level of Informatics teaching in schools:

- A) workshop
- B) olympiads
- C) sections
- D) laboratory
- E) optional

6. Levels of Informatics course:

- A) Basic and specialized
- B) introduction, basic and specialized
- C) propaedeutic, basic and profile
- D) propaedeutic, basic and informatic
- E) propaedeutic, ICTs and specialized

7. The purpose of teaching students' thinking ability and creative development:

- A) developing and general
- B) knowledge able and educational
- C) practical and educating
- D) developed and creative
- E) educating and developing

8. Period of working time for pupils of 1-4 classes with computer:

- A) not more than 20 minutes
- B) 10-20 minutes
- C) 10-15 minutes
- D) 30 minutes
- E) 1-20 minutes

9. The main contents of the State educational standard of Informatics are:

- A) information, display information, information processes, and algorithms
- B) display information, computer, information technology
- C) trends in social and informatics science, teaching science
- D) trends in teaching Informatics, information display, information
- E) information technology, modeling, computer users

10. The main objectives of the educational process of the distance learning:

- A) the issue of saving money of learners in other regions
- B) saving time for the student's education in the region
- C) the selection and choose effective methods of teaching material
- D) on the effective management of the organization, network learning
- E) increase the efficiency of the personalization of education, the acquisition additional knowledge

11. The Technique for checking the writing skills of pupil:

- A) lab
- B) dictation
- C) teaching
- D) workshop
- E) explaining

12. Individual didactic methods of teaching on the principles of addition and distribution of knowledge:

- A) specification, generalization
- B) control, question-and-answer
- C) narrative, to prove in practical way
- D) theory and practice
- E) comparative, methods of synthesis and analysis

13. Training Tools:

- A) telecommunications, traditional textbooks, distance learning system
- B) press, press releases, a tabloid
- C) equipment, scientific discoveries
- D) multimedia, software, hardware devices
- E) e-books, ICTs and Internet tools, multimedia educational software and resource

14. The teaching methods of the distance learning:

- A) to direct the development of personal discipline
- B) methods of individualized learning, educational project
- C) context method
- D) approach to research and research activities
- E) class-lessons form

15. The technology types that's used in the distance learning education are ...

- A) mixed training, webinar, remote training
- B) laboratory classes, practical work face-to-face training
- C) project, the creation of self-search, personal trainin
- D) limited access to e-learning, and a variety of learning-based training
- E) master class, generally, a program aimed at teaching-learning system

16. Internet services:

- A) World Wide Web, searching information, the exchange of electronic message between users
- B) To lay foundations for the scientific world outlook, documents be submitted electronically
- C) E-mail, remote access to files on your computer
- D) Diagnostic technologies
- E) Work, strengthening education on the basic documents

17. Electronic publications, teaching materials and resources in education:

- A) should be interactive
- B) should be visual
- C) should be verbal and logical
- D) should be communicative
- E) should be small

18. Assessing the quality of the electronic books:

- A) customer orientation, substantial, modular
- B) the propensity of economic efficiency, humanism
- C) process and collaboration, consistency
- D) comprehensiveness, clarity and convergence
- E) unit which develops, integrity

19. Requirements for distance learning teaching materials:

- A) democratic content
- B) predisposition, humanism
- C) interactivity, modular
- D) the media
- E) humanistic, developmental

20. Internet and the Intranet networks in teaching Informatics directions:

- A) for organization of educational process
- B) create documents
- C) to use full-time and remote sections admissions
- D) to use Internet and Intranet technologies in a new level
- E) to use Internet and Intranet networks the full-time for organization of work and distance education planning

21. The types of extra-curricular work:

- A) own work, laboratory work, lectures, teaching practical lessons
- B) oral test, consulting
- C) control, test, exam, annual and daily lesson
- D) final, thematic daily
- E) informatics meeting, competitions, Informatics interesting club

22. Professional games which are used in the extra-curricular work:

- A) short-term business games, games based on the differentiation of specific information
- B) simulation games, long-term games
- C) the real value games, internet games
- D) question and answer games, computer games, mobile games
- E) informatics quiz, excursions, a question and answer game

23. Extracurricular activities of student as a type of game lessons:

- A) consulting, exam, dictation
- B) lab, colloquium, midterm
- C) control work and lab
- D) practical, control work
- E) role play, competition, questionnaires'

24. Type of portable computer:

- A) logical devices of the computer
- B) personal computer
- C) laptop
- D) supercomputers
- E) wireless network

25. External memory devices:

- A) hard disk
- B) operating memory
- C) floppy disk
- D) flash memory
- E) file

26. The principles of von Neumann architecture:

- A) uses of the binary number system in machine arithmetic
- B) the formation of video information in memory
- C) scanning a raster with an electron beam
- D) discrete (pixel) computer structure
- E) motionless drawing or animation

27. The factors of development of teacher's information culture:

- A) to know the law of pedagogical processes
- B) to connect to the Internet, the development of communication
- C) to consider ways of development of communication technology
- D) to know teaching methods
- E) the organization of training information courses for teachers

28. Types of information on the display method:

- A) Audio, tactile, digital
- B) DC, AC, technical, graphical
- C) Mathematical, medical, psycho-biological
- D) Text, numeric, symbolic, graphical
- E) Scientific, production, management, social

29. Teachers Informatics apply in practice work:

- A) to have high voice intonations
- B) skills of using pedagogy and information and communication technologies
- C) using different methods and techniques in the classroom
- D) style of speech manner, use effectively time given for a lesson
- E) using informational technology according to the given topic

30. The concept of a bylean logical inversion:

- A) it is not true, false, negative
- B) it is not it true, false
- C) effective, truth, non-negative
- D) it is true, true, false, denial
- E) it is not correct, not a refutation

Тест по дисциплине Методика преподавания информатики завершен

Тест по дисциплине Теоретические основы информатики

Задания с выбором одного или нескольких правильных ответов

На английском языке

1. Theoretical information science is based on:
 - A) The laws of mechanics and electricity
 - B) Mathematical logic
 - C) The laws of nature
 - D) Numerical analysis
 - E) Mathematical analysis
 - F) Theory of coding
 - G) Theory of Algorithms
 - H) Differential equations.

2. In the example of "Telephone conversation":
 - A) The coding device is that part of the tube that is put to an ear
 - B) Information receiver - a speaker
 - C) Decoder - microphone
 - D) Information source - a speaker
 - E) Information receiver - a receiver
 - F) Interference - voice
 - G) The source of information - a receiver
 - H) Communication channel - telephone network (wire)

3. According to the way of information perception by a person there are following types of data is recognized:
 - A) Political
 - B) Probability
 - C) Religious
 - D) Visual
 - E) Sound, tactile
 - F) Economic
 - G) Scientific, social
 - H) Olfactory, on flavour

4. Information processes are:

- A) The ability to encode information
- B) Information communication
- C) Set of rules
- D) Information presentation
- E) Receiving and storing information
- F) Information processing speed
- G) The ability to encrypt information
- H) Information processing

5. Do not belong to information processes:

- A) Processes for the construction of buildings and structures
- B) The process of finding information about employees
- C) Information processing process
- D) The process of obtaining information
- E) Power generation processes
- F) The processes of extracting minerals from the earth depths
- G) The process of using information
- H) Information transfer process

6. Hexadecimal numeral system:

- A) Alphabetical number system
- B) Use digits 0 and 1
- C) Use digits from 0 to 7
- D) Non-position number system
- E) Ancient Egyptian number system
- F) Used mainly to represent commands in machine-oriented programming languages
- G) Positional number system
- H) Use digits from 0 to 9 and the Latin letters A, B, C, D, E, F

7. Binary number 1110_2 :

- A) in decimal numeral system 15_{10}
- B) in decimal numeral system 14_{10}
- C) $1 * 2^3 + 1 * 2^2 + 1 * 2^1 + 0 * 2^0$
- D) $1 * 2^3 + 1 * 2^2 + 0 * 2^1 + 0 * 2^0$
- E) in the 5-digit numeral system is 30_5
- F) $1 * 2^3 + 1 * 2^2 + 1 * 2^1 + 1 * 2^0$
- G) in the decimal system of 16^{10}
- H) in the 5-digit numeral system 24_5

8. $P \vee \neg P \equiv$

- A) $\neg P$
- B) P
- C) 0
- D) $\ln 1$
- E) $P \wedge \neg P$
- F) $\ln e$
- G) 2^0
- H) 1

9. $P \wedge \neg P \equiv$

- A) $\sin \pi$
- B) $\ln e$
- C) $\neg P$
- D) P
- E) $\ln 1$
- F) 1
- G) $P \wedge \neg P$
- H) 0

10. The true propositional formula is

- A) Maths –an interesting subject
- B) Digit 6 is divided for 2 and 3
- C) Tashkent –capital of Uzbekistan
- D) Porridge is tasty meal
- E) I am telling a lie
- F) Astana-Capital of Kazakhstan
- G) Student of KSU named after S.Ualikhanov
- H) It is bad weather outside

11. The false statement is:

- A) The Earth rotates around the Sun
- B) Astana is the capital of Kazakhstan
- C) Rome - the capital of France
- D) $2 + 3 = 5$ or the vertical angles are equal
- E) $2 * 2 = 4$ or polar bears live in Africa
- F) 7 is a prime number and 9 is a prime number
- G) 7 -simple number or 9 -simple number
- H) The word "grace" is a verb

12. Basic algorithmic structures:

- A) series
- B) start-finish
- C) cycle
- D) operator brackets
- E) typical/standard process
- F) process
- G) branching
- H) interrupt function

13. Functions of utterance

- A) Gas leakage - cause of explosion
- B) Someone entered the house; x reason for y
- C) $x > 3$
- D) $7 > 5$
- E) A rhombus is an equilateral parallelogram
- F) The B is between A and C
- G) $x + 5 = 12$
- H) x – advocate

14. Equation conditions for Post machine

X 2

→3

? 4; 2

V 5

→ 6

? 8; 7

!

← 9

? 10; 8

→1

- A) The carriage is above the rightmost label of the second array
- B) It is required to find the product of two arrays
- C) Given two arrays of labels that are placed in some distance from each other
- D) It is required to find the difference of two arrays
- E) The carriage is above the leftmost label of the first array
- F) It is required to find the sum of two arrays
- G) The carriage is above the rightmost label of the first array
- H) It is required to connect two arrays into one array

15. Software support includes:

- A) Software products
- B) Mathematical programming methods
- C) Set of schemes of information flows
- D) Set of block diagrams
- E) Queuing theory methods
- F) Process control technology
- G) Set of methods workers and technical facilities applying regulation
- H) Means for modeling management processes

16. The Fibonacci sequence is applied for using recursive calls to calculate Fibonacci sequence, so if $n = 3$, $n = 4$, $n = 5$:

- A) 6
- B) 5
- C) 8
- D) 10
- E) 2
- F) 3
- G) 9
- H) 12

17. Basic principles of information technology:

- A) The flexibility of the data change process
- B) Automation
- C) Limits in user's skills
- D) Integration
- E) The minimum degree of risk
- F) Objectives defining
- G) Interactivity
- H) Development disparity of information technology awareness in local places

18. Economic-mathematical model:

- A) Textual language model of quantitative interrelationships of economic systems
- B) Full-scale model
- C) Linguistic model of quantitative interdependencies of economic systems
- D) Description of quantitative interrelations and interdependencies of economic systems in mathematical form
- E) A model describing information processes (occurrence, transfer, transformation, use of information)
- F) Not an exact copy, some abstraction of this economic system
- G) A model where a real object is replaced by a collection of characters
- H) A model that characterizes the important properties of specific economic systems, abstracting from details and particulars.

19. Formalization is-:

- A) A model using the algebraic language formula
- B) The process of constructing information models with formal languages
- C) Transition from non-distinct problems arising in reality, to a formal information models
- D) Allocation of adequate information about the object
- E) The stage of transition from a meaningful description of the links between the selected features of the object to a description, using some coding language
- F) Change the initial state of the object
- G) The process, determined by a combination of means and methods of processing, manufacturing, changing the state, properties, form of material
- H) Substitution of real object with sign or set of signs

20. The efficiency of the sorting algorithm depends on the following factors:

- A) Number of additional variables
- B) The set of transitions
- C) Time taken to input the data
- D) A set of condition checks
- E) Number of sorted elements
- F) Number of input and output data
- G) Exclude or add elements
- H) Degrees of initial grading

Тест по дисциплине Теоретические основы информатики завершен

Тест по дисциплине Методика преподавания химии

Задания с выбором одного правильного ответа

На английском языке

1. Classification of methods in teaching chemistry
 - A) research and heuristic, interactive
 - B) explanatory, heuristic and research
 - C) games technology, experimental
 - D) chemistry extra-curricular group work, group trip
 - E) specular, visual and verbal-visual and practical methods

2. Teaching method of aromatic hydrocarbons
 - A) group
 - B) practical
 - C) speech visual
 - D) individual
 - E) problem-solving

3. Didactical classification of assessment of students' knowledge and ability
 - A) formative, periodical, summative
 - B) test, short written control work
 - C) the end of unit, the end of theme
 - D) term, year
 - E) written and oral assessment

4. Type of lessons, where the focus is on motivation of students to study branches of science
 - A) elective
 - B) mixed
 - C) generalization and systematization of knowledge
 - D) control and accounting
 - E) learning new material

5. The peculiarity of individual work is
- A) individual learning
 - B) teacher's assistance
 - C) improving knowledge and skills
 - D) cognitive process
 - E) meeting deadline
6. General concepts of oxides is classified as
- A) metal oxides and non-metallic oxides
 - B) acid and metal
 - C) oxygen and non-metal
 - D) element and basis
 - E) oxygen and metal
7. Exchange reaction between salt ions and water solution is
- A) resolve
 - B) substitution
 - C) concentrations
 - D) melting
 - E) hydrolysis
8. In a scheme the main classes of inorganic compounds can be specified
- A) from the simple substance form to salt
 - B) from the simple substance form to the complex compounds
 - C) from the elements to oxides
 - D) from the elements to the base and acid
 - E) from the simple elements to the acid and base
9. This method is used in teaching the theme "Oxygen. Oxides"
- A) analysis
 - B) inductive
 - C) synthesis
 - D) deductive
 - E) comparing
10. What is mass of 4 mole aluminium?
- A) 90 g
 - B) 86g
 - C) 108 g
 - D) 96 g
 - E) 101 g

11. The founder of “Molecular Theory” and “Law of Conservation of mass”
- A) Le Chatelier
 - B) M. Lomonosov
 - C) D. Mendeleev
 - D) Vant –Hoff
 - E) V. Butlerov
12. The author of “Ionization theory”
- A) D.I. Mendeleev
 - B) VA Kistjakovskiy
 - C) M. Lomonosov
 - D) I.A. Kablukov
 - E) S.A. Arrhenius
13. Choose the method to consolidate knowledge about ionization
- A) project work
 - B) report
 - C) plan
 - D) tasks
 - E) exercises
15. The aim of experimental work ,where comparison of mixtures and solutions properties are given, is
- A) on the learning ion theory
 - B) on the teaching of the theory of electrolytic dissociation
 - C) the study the theme "simple and complex substances"
 - D) the primary concept of solutions
 - E) on the learning protolytic theory
16. The "Theory of Electrolytic Dissociation" is taught on
- A) 11th class
 - B) 8-9 classes
 - C) 10-11 classes
 - D) 8th class
 - E) 9th class
17. Type of hybridization of acetylene molecules are explained by
- A) sp^0
 - B) sp^3
 - C) sp^2
 - D) sp
 - E) sp^4

18. This type of hybridization is explained by chemical bonding in compounds such as alkynes with triple bonds

- A) sp^1
- B) sp^3
- C) sp
- D) sp^0
- E) sp^2

19. Organic substances containing two radical hydrocarbon molecules are called

- A) ketones
- B) ethylene glycols
- C) propanones
- D) carboxylic acids
- E) aldehydes

20. The formula C_nH_{2n-2} is for

- A) pentanone
- B) Bhutan
- C) pentene
- D) pentadien
- E) Ethylene

21. C_nH_{2n+2} formula for

- A) alcohol-aldéhyde
- B) carbohydrate
- C) hydrocarbons
- D) muti-atom alcohols
- E) polyholoside

22. Group of organic substances with NH_2 functional grup on carbon atom is

- A) dimethylamine
- B) nitrobenzene
- C) toluene
- D) nitro compounds
- E) amines

23. Which condition explains interaction of atoms according to the theory of organic substances (offered by A.M. Butlerov)

- A) 3
- B) 1
- C) 2
- D) 5
- E) 4

24. Organic compounds which contain in N O_2 functional groups are called

- A) toluene
- B) nitro compounds
- C) dimethylamine
- D) amines
- E) nitrobenzene

25. The reactions of interaction of carboxylic acids, esters and alcohols are called

- A) Markovnikov's rules
- B) Kucherov reaction
- C) neutralization reaction
- D) esterification reaction
- E) silver mirror reaction

26. Choose the method to explain the interaction of carboxyl group atoms in carboxylic acids, increasing of acid properties at bring in halogen atoms in hydrocarbon radicals.

- A) experimental equation
- B) doing exercises
- C) practical work
- D) chemical experiments
- E) comparative study

27. When you explain to the theme about alcohols students should review

- A) polarity of hydroxyl group of carbon atom, force of electronegativity of oxygen atom
- B) electron donor of hydrocarbon radicals, polarity of hydroxyl group
- C) radicals of hydrocarbon, polarity of hydroxyl group
- D) electron donor of hydrocarbon radicals, polarity of hydroxyl group, electronegativity of oxygen atom
- E) electron donor of hydrocarbon radicals, force of electronegativity of oxygen atom

28. When students study relationship between organic compounds they should review
- A) each laboratory experiments, compare experimental data with theoretical data from scientific literature
 - B) each experiments which carried out, write equations of chemical reactions, do exercises
 - C) do exercises
 - D) write equations of chemical reactions, do exercises
 - E) compare experimental data with theoretical data from scientific literature
29. The nomenclature of organic compounds, homologous series, extraction of substances refers to
- A) formation and development of the basic concepts of chemistry
 - B) the methods of teaching organic chemistry
 - C) the development of basic concepts of organic chemistry
 - D) formation and development of basic concepts of organic chemistry
 - E) the basis of organic chemistry theory
30. Types of works which is organized for formation of basic concepts of organic chemistry
- A) implementation of interdisciplinary, application of illustrated materials, demonstration of the dependence of properties of substances from their structure
 - B) Demonstration of the dependence of properties of substances from their structure, synthesis
 - C) connection with science, doing exercise
 - D) implementation of interdisciplinary, demonstration of the dependence of properties of substances from their structure
 - E) application of illustrated materials, project work

Тест по дисциплине Методика преподавания химии завершен

Тест по дисциплине Химия

Задания с выбором одного или нескольких правильных ответов

На английском языке

1. What compound has the non-polar covalent bond?
A) LiH
B) NaCl
C) OF₂
D) CaBr₂
E) Br₂
F) KCl
2. The particle discovered as a result of cathode ray experiments is the
A) Alpha particle
B) proton
C) neutron
D) nucleus
E) фотон
F) electron
3. Which particles have the electron configuration $1s^2 2s^2 2p^6 3s^2 3p^6$:
A) Cl⁻
B) Sc
C) F
D) S⁻²
E) Cl
F) F⁻
4. In the basic state of cobalt atom there are _____ unpaired electrons and the atom is _____.
A) 2, diamagnetic
B) 0, diamagnetic
C) 1, diamagnetic
D) 5, paramagnetic
E) 2, paramagnetic
F) 3, paramagnetic

5. Ionic chemical bonding, in contrast to the covalent bond, is characterized by:
- A) orientation and saturation
 - B) non-orientation and unsaturation
 - C) chemical bond due to the presence of relatively free electrons
 - D) orientation and unsaturation
 - E) saturation and non-directionality
 - F) alignment of all parallel spin clouds
6. Which substance has an metal crystall lattice?
- A) S
 - B) SiO₂
 - C) C
 - D) ZnS
 - E) Na
 - F) Zn
7. All substances interact with water when heated
- A) Pt, Au, Ni
 - B) Au, Cu, Ag
 - C) Mg, Ca, Ag
 - D) Mg, Fe, Zn
 - E) Zn, Al, Au
 - F) Na, Au, Ca
8. Which metals react with concentrated HNO₃ at ordinary temperature:
- A) Zn
 - B) Mg
 - C) Ni
 - D) Fe
 - E) Sn
 - F) Cr
 - G) Al
 - H) Au
9. The mathematical expression of the first law of thermodynamics:
- A) $A = \Delta U - Q$
 - B) $A = \Delta U + Q$
 - C) $\Delta U = Q + A$
 - D) $Q = \Delta U + A$
 - E) $\Delta U = Q/A$
 - F) $Q = \Delta U - A$

10. The process of iron reduction is based on expression

$\text{Fe}_2\text{O}_3(\text{solid}) + 3\text{CO}(\text{g}) \rightleftharpoons 2\text{Fe}(\text{solid}) + 3\text{CO}_2(\text{g})$ and accompanied by the releasing of heat, whereas cooling of system will bring to :

- A) the yield of the products decreases
- B) the yield of the products increases
- C) the yield of the products is not changed
- D) the equilibrium shifts towards the formation of products
- E) changes the speed only of the reverse reaction
- F) The equilibrium shifts towards the formation of reagents

11. The number of stages of electrolytic dissociation of carbonic acid

- A) 2
- B) 5
- C) 2
- D) 4
- E) 1
- F) 3

12. In a dry cell anode is made up of

- A) calcium
- B) graphite
- C) sodium
- D) magnesium
- E) zinc
- F) potassium

13. Salts that hydrolyze by the anion are:

- A) NH_4NO_3
- B) FeBr_3
- C) NH_4CN
- D) KClO_4
- E) MnCl_2
- F) Na_2CO_3

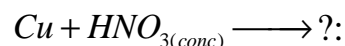
14. What electrolytes are the strong electrolytes?

- A) H_2CO_3
- B) H_2SO_4
- C) $\text{Fe}(\text{CNS})_3$
- D) HCl
- E) HCN
- F) HNO_3

15. How many grams of salt and solvent are necessary to prepare 10% aqueous solution?

- A) 12 g of salt in 20 g of water
- B) 3 g of salt in 27 g of water
- C) 4 g of salt in 46 g of water
- D) 5 g of salt in 37 g of water
- E) 2 g of salt in 20 g of water
- F) 1 g of salt in 9 g of water

16. What is the coefficient in front of the oxidant in the reaction



- A) 5
- B) 6
- C) 1
- D) 3
- E) 2
- F) 4

17. In the electrolysis of aqueous solution of sodium chloride, what gases are formed at electrodes?

- A) NaClO
- B) Cl₂
- C) ClO₂
- D) O₂
- E) H₂
- F) H₂O
- G) NaOH
- H) HClO

18. $\text{MnO}_4^- \rightarrow \text{MnO}_2$ this reaction proceeds in the medium:

- A) alkaline
- B) acid
- C) solution
- D) alcohol
- E) neutral
- F) water-alcohol

19. Substances exhibiting amphoteric properties in an aqueous medium

- A) KCl
- B) $Na_2C_2O_4$
- C) ZnO
- D) $Al(OH)_3$
- E) H_2S
- F) HCN

20. A substance that tends to bring about oxidation by being reduced and gaining electrons:

- A) none of above
- B) electrolysis
- C) reduced
- D) hydrolysis
- E) hydrogenated
- F) oxidized

Тест по дисциплине Химия завершен

Тест по дисциплине Методика преподавания биологии

Задания с выбором одного правильного ответа

На английском языке

1. The next person was follower of Gerd A.Ya. whom views he defended:

- A) Kaygorodova D.N.
- B) Mr. Lyuben
- C) Rathke M. H.
- D) Beketov A. N.
- E) Polovtsev V.V.

2. The next problems are solved in the basis of connection of biology teaching methods and psychology:

- A) takes into account individual psychological characteristics of students
- B) interdisciplinary
- C) teaching methods
- D) each course features
- E) forms of learning

3. The next action created by the researcher on the basis of a scientific prediction:

- A) selects the research tasks and methods
- B) selects the technique
- C) output
- D) collects the material
- E) collect material on the subject of study

4. The determinants of the content of educational process are:

- A) definitions and terms, state constitution
- B) the school administration, the content of textbook
- C) curriculum, training program, textbooks
- D) state charter, the education law, books
- E) civil code, the social code, state standard

5. The basic pedagogical terms are:

- A) upbringing, education, teaching, teaching process,
- B) education, personality, work
- C) education, training, development
- D) the person and work teaching, innovative technology
- E) education, training, labor

6. The options of predicting the target are: A) cognition, abstracts, stimulating
B) annual, thematic, educational
C) policy, guide, personality
D) perspective, assumption of goals, operational
E) narrow, individual, by lessons, broad, complex

7. The documents that do not represent the content of education: A) books
B) journals of class
C) the training programs
D) lesson plans
E) notebooks

8. The dictation is the method of ... A) the process of observation
B) checking process
C) the element of class
D) diagnosis
E) study

9. Methods of the formation individual knowledge are: A) note, correct, take rights, cancel
B) it is a question of interpretation, lectures, interviews, for example, the debates, the analysis of the situation
C) approve, praise materials or award
D) the order, prohibition, orientation
E) council, trust, mistrust, applications, events, conditions, charges

10. Educational methodical associations include:
A) order of the school director
B) the program, syllabus, lectures, exam questions
C) experienced teachers
D) miscellaneous teachers
E) teachers and parents

11. The models of higher education are:
A) the pre-school, school age, secondary education, higher education
B) bachelor's, master's and PhD doctorate
C) universities, postgraduate and doctoral studies
D) secondary school, college, high school (high school)
E) colleges, institutes, universities

12. Determining of teachers actions includes:

- A) add the participants of the different types of organization, collective creation, organization
- B) involved in relationships with teachers
- C) sorting education materials, planning, persistence
- D) communication, planning
- E) collective creation, to establish relationships

13. The object of pedagogical sciences includes:

- A) team, group
- B) teacher, education
- C) education standards
- D) methods and approaches
- E) student

14. The results of methodological experiment show us:

- A) conceptual basis
- B) confirm the contents of the theoretical practice
- C) focuses on the accumulation of material
- D) will prove the accuracy of the forecast
- E) concluding, forms chital laws

15. The basics pedagogical terms are:

- A) education, training, development
- B) the person and work teaching, innovative technology
- C) pedagogical diagnostics, pedagogical ethics
- D) education, personality, work
- E) education, training, labor

16. The main evaluation criteria of the teacher is:

- A) education, training, labor
- B) the quality of pupils on the subject, their great attitude.
- C) education, personality, work
- D) education, training, development
- E) the person and work teaching, innovative technology

17. The reason of perceived worldview is:

- A) the point of view of the people about the world and its place in the world, a special form of knowledge
- B) special form of religion and faith
- C) linguistic knowledge through the special form of recognition of the self and the world.
- D) psychological form of cognition, historical and social point of view
- E) special form of historical knowledge.

18. The global complex of educational views is:

- A) global standardization of the quality of education
- B) strengthening of scientific ties
- C) misconduct, action, communication
- D) the state of emotions and experiences
- E) system component, to understand

19. The main purpose of enhancing the cognitive activity of the student is:

- A) help each other
- B) competence, strengthening of socialization
- C) self-work, massive work
- D) understanding of the ready material
- E) economic adaptation

20. The didactic teaching principles is used in teaching of biology:

- A) distressed, specificities
- B) informative, activity, sensible
- C) visually, strength training, scientific
- D) organization and pedagogically
- E) specificity, content

21. The definition is upbringing is:

- A) impact on the mental perception
- B) education
- C) formation, training
- D) organizing and planning of the personalization process
- E) the wake

22. The purpose of using different methods in the class is:

- A) showing the knowledges and skills of teacher
- B) to do experiments
- C) the experiment carried out practical work
- D) in order to be interesting
- E) conducts laboratory works

23. The basic personal qualities of a teacher are:

- A) the ability of remember every things
- B) using multimedia
- C) thoughts
- D) competence, speech culture
- E) dress well ,and pay more attention to appearnce

24. School educational plan for the new school year is:

- A) to come up with the school
- B) by noting the purpose of the education
- C) by defining the main directions of educational work
- D) by determining the main direction of education and sports
- E) the analysis of planning before the start of the new academic year

25. The criterias for assessing teacher performance are:

- A) students progress
- B) intellectual development, education qualification
- C) to determine the qualifications of teacher
- D) determine the status of the current period
- E) supervision of the management of the educational process

26. Upbringing ways are:

- A) books, internet, social set
- B) class time, actions of a teacher
- C) interview, game, lesson
- D) give permission to use facebook, instagram, VK contact.
- E) visual contact, convincing and confidence, teacher's image and character

27. Morphological content in the classroom is:

- A) to do work with microscope
- B) keeping in memory the forms
- C) to do work with textbooks
- D) to do work with the natural object dry grass
- E) to do work with books

28. Active teaching in the groups is:

- A) the texts of textbooks reading
- B) evaluation of knowledge through didactic cards
- C) providing educational tools
- D) group discussion
- E) the movie in the classroom

29. Steps of obtaining training material consisting of:

- A) activate teachers enthusiasm
- B) efficient use of time
- C) target oriented, execution and control sequences
- D) add changes to the method of training
- E) reduce the period timing

30. Educational technology is:

- A) examination of the contents of the training, regulation
- B) parents and children bond
- C) set of educational systems
- D) training method
- E) the purpose of the diagnostic study

Тест по дисциплине Методика преподавания биологии завершен

Тест по дисциплине Биология

Задания с выбором одного или нескольких правильных ответов

На английском языке

1. Scientists who contributed into the plant biology in the XVII c.:

- A) W. Harvey
- B) N. Grew
- C) G. Mendel
- D) Ch. Darwin
- E) M. Malpighi
- F) Galen
- G) Pliny
- H) R. Hooke

2. The results of the light phase of photosynthesis are:

- A) Glucose
- B) Atomic hydrogen
- C) DNA
- D) Molecular hydrogen
- E) ATP
- F) RNA
- G) Molecular oxygen
- H) Atomic oxygen

3. The merits of C. Linnaeus are:

- A) Evolutionary concepts of gametogenesis
- B) An artificial plant system
- C) Binary nomenclature
- D) An artificial animal system
- E) The theory of catastrophes
- F) Evolutionary concepts of anthropogenesis
- G) The study of the 'ladder of being'
- H) The theory of hereditary variability

4. The heterotrophic organisms are:

- A) These are self-sustaining organisms
- B) These are organisms capable of synthesizing organic compounds from inorganic
- C) These are animals as well as microorganisms
- D) From the Greek–‘other’, trope – ‘food’
- E) These are organisms that need ready organic compounds
- F) These are higher plants
- G) These are organisms that are capable of both synthesizing organic substances and using them in a ready-made form
- H) From the Greek–‘himself’, trope – ‘food’

5. The evidence of natural origin of animals implies:

- A) The universality of the genetic code
- B) Similar habitat conditions
- C) Insufficient adaptation to the conditions of existence
- D) Fecundity of Métis
- E) The limited area
- F) Displacement of less adapted
- G) The anatomic-morphological resemblance to primates
- H) The similar topography of internal organs

6. Features of the anamnia digestive system are:

- A) The development of the jaw apparatus, dental system and chewing musculature
- B) enhancement of the enzymatic function, which allows digesting large amounts of food
- C) There is further lengthening of the intestine
- D) Digestive glands are formed: liver, pancreas (amphibians still have salivary glands)
- E) strengthening of the absorption function
- F) There is a differentiation of the digestive tract into divisions
- G) Differentiation of the digestive tract reaches the highest level
- H) The length of the intestine increases

7. Features of the digestive system amniot are:

- A) There is a differentiation of the digestive tract into divisions
- B) Digestive glands are formed: liver, pancreas (amphibians still have salivary glands)
- C) Enhancement of the enzymatic and absorbing function, which allows digesting large amounts of food
- D) Participates in the removal of decay products
- E) The development of the jaw apparatus, dental system and chewing musculature
- F) Participates in breathing and secretion, but it protects the body from drying out
- G) There is further lengthening of the intestine
- H) Is covered with mucus secreted by the skin glands

8. Morphophysiological regression means:

- A) Individual development of the body
- B) The evolution of life forms from simple to complex
- C) The process expressed in the reduction of a number of organs
- D) Simplification of organization of organisms
- E) Perfection of organisms in the process of evolution
- F) Evolution of life forms from two-layer to three-layer
- G) The change in the structure of the body and the total energy of the vital activity
- H) Reduction of the chord of shells

9. Features of smooth muscles are:

- A) Muscles of this type are able to contract arbitrarily, at the request of a human
- B) Short spindle-shaped smooth muscle cells form plates
- C) It consists of cardiomyocytes
- D) Together with the skeleton form the locomotor system
- E) Slow and long their reductions occur involuntarily, that is, regardless of a person's desire
- F) Is part of the cells of internal organs, blood vessels and skin, consisting of characteristic muscle cells (myocytes)
- G) The contractions of the heart muscle are not controlled by human consciousness. It is innervated by the autonomic nervous system
- H) With the help of special exercises, the size of muscle cells can be increased until they grow in mass and volume and become embossed

10. The brain and spinal cord are surrounded by three medullary membranes:

- A) mucosa
- B) pericardium
- C) serous
- D) vascular
- E) endothelium
- F) by the endometrium
- G) dura mater
- H) arachnoid

11. Marcello Malpighi:

- A) Described the process of photosynthesis
- B) Discovered red blood cells
- C) Discovered Graafian follicles
- D) Italian physiologist
- E) Discovered the process of phagocytosis
- F) Studied lung of frog
- G) Studied the structure of DNA
- H) Discovered the microscopic vessels, which were called "capillaries"

12. Sexual female hormones are:

- A) Gestagens
- B) Testosterone
- C) Self -otropin
- D) Progesterone
- E) Estrogens
- F) Cortisol
- G) Thyrotropin
- H) Androgens

13. Scientific research for which I.P. Pavlov was awarded the Nobel Prize in Physiology:

- A) studied tobacco plant disease
- B) studies on imaginary feeding
- C) studies of the activity of the digestive glands in dogs with fistulas
- D) research with the help of an operation developed by him, called "Pavlovian ventricle"
- E) creation of the theory of a living world
- F) discoveries of red blood cells
- G) studied development of egg cell
- H) research of heredity

14. Glucose is a monomer of such polysaccharides as:

- A) Glycogen
- B) Starch
- C) Deoxyribose
- D) Fructose
- E) Cellulose
- F) Ribose
- G) Galactose
- H) Pentose

15. The human ear consists of next three parts:

- A) the inner ear
- B) the kidneys
- C) lower ear
- D) full ear
- E) middle ear
- F) the environmental ear
- G) external ear
- H) upper ear

16. Oogenesis is:

- A) formation of spermatocytes
- B) the formation of the primary oocytes (growth stage)
- C) formation of zygote
- D) the formation of oogonia (the stage of multiplication (reproduction))
- E) the stage of fertilization
- F) the stage of cleavage
- G) the formation of the ovum (maturation)
- H) the formation of the ovum (the stage of multiplication (reproduction))

17. Sympatric speciation:

- A) Is carried out through the ecological separation of divergent populations
- B) Is associated with the occurrence of reproductive isolation within the individuals of the initially unified population as a result of fragmentation
- C) Begins with geographical variability, which can be continuous (clinal) or intermittent
- D) Is associated with the geographical division of the divergent population
- E) Is associated with the emergence of new forms as a result of seasonal isolation
- F) Is carried out by hybridization followed by doubling the number of chromosomes
- G) Results in complete reproductive isolation
- H) Is carried out with a rapid change in the karyotype, for example, in autopolyploidy

18. Meiosis is

- A) The number of chromosomes decreases twice
- B) The method of vegetative reproduction
- C) Occurs in somatic cells
- D) Stage of fertilization
- E) The number of chromosomes increases twice
- F) The method of sexual reproduction, inherent in eukaryotes
- G) The process of protein's synthesis
- H) Crossing over, conjugation occurs

19. Directions of the prebiological evolution of protobionts are:

- A) Multicellularity
- B) Ability of self-reproduction (in final step)
- C) Cellular structure
- D) Cyanobacteria
- E) Polymerization
- F) Prokaryotic cells
- G) Membrane presence
- H) Eukaryotic cells

20. The Theory of Biochemical Evolution:

- A) The author of the theory is C. Darwin
- B) Describes life as a divine act
- C) Was proposed by Academician A.I. Oparin in the work "The Origin of Life" (1924)
- D) Implies life originated under specific conditions as a natural result of the chemical evolution of carbon compounds in the universe
- E) States the existence of life not only on planet Earth
- F) The authors of the theory are Watson and Crick (1953)
- G) At the first stage - abiogenic synthesis of organic compounds from inorganic substances in the conditions of the primary atmosphere
- H) Implies entering life from other planets

Тест по дисциплине Биология завершен

Тест по дисциплине Методика иноязычного образования

Задания с выбором одного правильного ответа

На английском языке

1. A way to teach a foreign language through oral introduction and practice of the language structures with the help of objects and pictures to create “situations”:
 - A) natural approach
 - B) humanistic approach
 - C) communicative approach
 - D) silent way
 - E) oral approach

2. One of the following is a graphemic-phonemic exercise:
 - A) divide the text into logical parts
 - B) entitle each part of the text
 - C) what part of speech is the word “bridge” in the sentence: They bridged the river in two places.
 - D) define what letter is missing
 - E) make up a plan to retell the text

3. Humanistic approach is....:
 - A) a way to teach a foreign language through oral introduction and practice of the language structures with the help of objects and pictures to create “situations”
 - B) a way to teach a foreign language through massive exposure to the comprehensible language input in the classroom
 - C) a theory of teaching and learning foreign languages that recognizes the primacy of communication as the goal and the media of instruction
 - D) a way to teach that combines creative thinking with the minimum of language available to the learners
 - E) an education theory that recognizes the necessity to facilitate free and create development of the personality

4. The idea of education as the process and result of developing personality belongs to...
 - A) the economic-strategic view
 - B) socio-educational system
 - C) the anthropological interpretation
 - D) socio-pedagogical interpretation
 - E) the socio-culturological view

5. A communicative skill with the purpose of receiving, comprehending and interpreting an oral message:

- A) speaking
- B) grammar and vocabulary
- C) writing
- D) listening
- E) reading

6. The object of investigation in methodology is

- A) various methods and technologies
- B) the teaching process
- C) intermediary of intercultural communication
- D) pupils
- E) intercultural communicative competence

7. The object of investigation in methodology is

- A) pupils
- B) various methods and technologies
- C) intermediary of intercultural communication
- D) the teaching process
- E) intercultural communicative competence

8. The main method of research in foreign language methodology is:

- A) critical study of literature
- B) experiment
- C) testing
- D) observation
- E) questionnaire

9. The subject of investigation in methodology is

- A) the aims, content, methods and means
- B) the process of teaching
- C) various methods and technologies
- D) intermediary of intercultural communication
- E) intercultural communicative competence

10. This method of investigation belongs to the practical level:

- A) modeling
- B) method of analysis
- C) critical study of literature
- D) method of induction
- E) statistical and mathematical processing

11. This level is called Waystage:

- A) C1
- B) A1
- C) B1
- D) C2
- E) A2

12. This level is called Waystage:

- A) C2
- B) A2
- C) C1
- D) B1
- E) A1

13. The final aim of FLT in specialized language schools is to gain the level:

- A) B2
- B) A2
- C) C2
- D) B1
- E) C1

14. The main aim of teaching a foreign language to young learners is:

- A) writing skills
- B) reading skills
- C) oral speech
- D) elementary communicative skills
- E) grammar knowledge

15. The aim of teaching a foreign language in the kindergarten is:

- A) to teach children songs and rhymes in English
- B) to teach children to read in English
- C) to teach children spoken and written language
- D) to teach children spoken language
- E) A1 level

16. The textbook in foreign language teaching is...

- A) the part of linguistic component of the content of FLT
- B) non-traditional means of FLT
- C) supplementary means of FLT
- D) technical means of FLT
- E) the main means of FLT

17. Teaching pronunciation at school should meet the principle of approximation, which means...:

- A) all phonetic mistakes are corrected at once
- B) not all consonants are taught
- C) pupils are not taught sentence stress
- D) teachers should be tolerant to pupils' phonetic mistakes in speech
- E) not all vowels are taught

18. This component of the content of FLT suggests learners' compensatory skills:

- A) socio-cultural
- B) linguistic
- C) emotive
- D) psychological
- E) methodological

19. The cognitive sub-competence provides:

- A) a language student's 'secondary cognitive consciousness' as a conception and form of the world of a different language society
- B) the formation of language as an inalienable part of the process of knowledge-acquisition and thought
- C) a language student's primary conceptualization of the world on the basis of their own culture
- D) the means for the study of FL and is a reflection of the conceptually-organized 'picture of the world' of a different society
- E) the ability to recognize the lexical, morphological, syntactical and phonological features of a language and manipulate them at the level of words and sentences

20. Which does NOT belong to the methodological principles of foreign language education:

- A) socio-linguistic
- B) linguacultural
- C) cognitive
- D) conceptual
- E) social

21. Interference is..:

- A) didactic phenomenon
- B) positive influence of the native language on the foreign
- C) negative influence of the native language on the foreign
- D) psychological phenomenon
- E) normal influence of the native language on the foreign

22. This activity is NOT suitable for introduction and explanation of the according to communicative approach:

- A) in a story with pictures
- B) showing a video-film
- C) context while reading the text
- D) a list of words with translation
- E) describing pictures

23. The positive influence of the first language on the second (learning) one is called...:

- A) affect
- B) interference
- C) transportation
- D) transfer
- E) influence

24. You are going to introduce the words denoting the parts of the body to pupils in primary school. This activity is the most suitable:

- A) list of words and pictures to them
- B) describing pictures of a boy or a girl
- C) context (while reading the text)
- D) singing songs and gestures
- E) a list of words with translation

25. You are going to introduce the words denoting the parts of the body to pupils in primary school. This activity is the most suitable:

- A) describing pictures of a boy or a girl
- B) list of words and pictures to them
- C) a list of words with translation
- D) context (while reading the text)
- E) singing songs and gestures

26. Reading the text for searching the specific information:

- A) searching
- B) reading aloud
- C) scanning
- D) detailed
- E) skimming

27. It does NOT belong to the Pre-Listening activities:

- A) explanation of new words
- B) preliminary discussion on the topic
- C) guiding questions
- D) project work (group or individual)
- E) brainstorming

28. There are different ways to check up reading comprehension. The choice of them depends on:

- A) the theme of the story
- B) the title of the text
- C) the genre of the text
- D) the tempo
- E) the purpose of reading and the type of reading

29. It is the most appropriate way to develop lingua-cultural awareness of the learners in teaching foreign languages:

- A) co-teaching of culture and language by using different types of authentic materials
- B) native speakers as teachers
- C) the use of video-films
- D) the use of songs and poems
- E) the use of authentic texts for reading and listening

30. It is the most appropriate way to develop lingua-cultural awareness of the learners in teaching foreign languages:

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Тест по дисциплине Методика иноязычного образования завершен

*Тест по дисциплине
Профессионально ориентированный иностранный язык*

Задания с выбором одного правильного ответа

На английском языке

Лексико-грамматический тест

1. Choose the one alternative that best completes the sentence:

On ...Sundays my father stays in...bed till ten o'clock.

- A) -/-
- B) -/the
- C) a/the
- D) the/the
- E) a/a

2. Choose the right variant

March 23, 1998

- A) The twenty three of March, one thousand nine hundred and ninety eight.
- B) The twenty three of March, nineteen ninety eight
- C) March twenty three, one thousand nine hundred and ninety eight.
- D) The twenty third in March of one thousand nine hundred and ninety eight.
- E) The twenty third of March, nineteen ninety eight

3. Choose the correct variant:

You ... study a lot next week, if you want to get through that exam.

- A) had
- B) must
- C) are
- D) will
- E) should

4. Choose the correct adverb to complete the sentence:

He tried ... to find the job, but he had no luck.

- A) hardest
- B) harderly
- C) hard
- D) harder
- E) hardly

5. Choose the appropriate conjunctions in the following sentence:

We can ... go to the cinema, ... we can stay at home.

- A) either, or
- B) and, yet
- C) so, as
- D) too, so
- E) neither, or

6. He asked me: "Is there only one library in your village?"

- A) He asked me if there had been one library in my village.
- B) He asked me if there was only one library in my village.
- C) He asked me if there is only one library in my village.
- D) He asked me if there has been only one library in my village.
- E) He asked me if there will be only one library in my village.

7. Choose the correct word:

The friend ... house I stayed in is coming to stay with us.

- A) who
- B) whose
- C) when
- D) what
- E) where

8. The Bible is really a ... collection of ancient literature, containing history, stories and verse.

- A) summary
- B) influence
- C) censor
- D) creation
- E) remarkable

9. Choose the sentence with the right word order:

- A) Do you always watch TV in the evenings?
- B) Do you always watch in the evenings TV?
- C) Do always you watch TV in the evenings?
- D) Always do you watch TV in the evenings?
- E) Do in the evenings you always watch TV?

10. Choose the right variant

- A) The vase is beautiful. You wouldn't find another one to match it if you tried
- B) The vase was beautiful. You wouldn't find another one to match it if you will try
- C) The vase was beautiful. You wouldn't find another one to match it if you triy
- D) The vase is beautiful. You wouldn't find another to match it if you try
- E) The vase was beautiful. You won't find another to match it if you try

Работа с текстом

MAN AND NATURE

Primitive man had to make do with the power of his muscles. Food was his only fuel. His energy needs were modest. The average well-fed person uses just a little more energy than a steadily glowing 100-watt bulb. As time went by man began to make use of materials around him, and his use of fuel steadily grew. At first wood was gathered to make fires for heat and light. Much later, animals were domesticated so that they could carry people and pull carts and farming equipment - just like a tractor today. Windmills and water-wheels enabled our forefathers to undertake many more tasks, while the development of wind-powered sailing ships gave them the opportunity to make long sea voyages. Civilisation grew and spread.

Then, in the late seventeenth century, an Englishman, Thomas Savery, developed the first steam-driven engine. The industrial age was dawning and a civilised man began to exploit coal in large quantities. In 1870 those living in Western Europe and America were using about thirty-five times as much energy each day as the first primitive men.

By now, however, the first commercial oilwells had been drilled. Within the space of a century humankind entered the complicated age of cars, space travel, supersonic aircraft, worldwide communications, television and plastics. Modern farming methods which include machinery, fertilizers and chemical treatment help to ensure that the world's fast-rising population is fed. All of these developments have been made possible, in some way, by the use of fossil fuels.

We may not have recognised the fact that energy lies at the heart of this progress. One third of all the world's daily use of energy goes into industry, where machines have largely replaced muscles. Almost as much energy is used in homes for heating and lighting. Transport accounts for a further 20%, indicating how accustomed we have become to using cars, buses, trains, ships and aircraft... It is a sad fact that people in the United States of America, with their big cars and over-heated or over-cooled buildings, use 330 times much energy as those living in Ethiopia. To take another example each year a single

person living in the USA uses on average the amount of energy that is contained in about twelve tones of coal. This is six time the average for the world as a whole. He does not handle all this fuel himself, of course. Some of it is used to power machines or instruments at his place of work. Some more might have been used to make the car in which he drives around. Yet in India, where the population is far, far larger than in America, each person has to get by with less than 200 kilograms worth of coal each year.

11. Each of the following sentences summarizes the passage, except

- A) Vastly-increased energy consumption is available to any nations
- B) In the last one hundred years men have exploited oil and gas as well as coal
- C) They then used energy from wood, animals, wind and water
- D) At first men used their own physical energy
- E) Much energy is now used by industry and heat, light and transport

12. What sort of fuel did primitive man use?

- A) meat
- B) horse-power
- C) muscle-power
- D) electricity
- E) food

13. A single person living in the U.S.A. uses, on average,

- A) about twelve tonnes of coal for all his energy needs in a year
- B) twelve tonnes of coal a year to heat his home
- C) twelve tonnes of energy a week to heat his house
- D) twelve times as much energy in a year as the average person in the rest of the world
- E) twenty tonnes of energy a year for industrial use

14. The statement that " primitive man's ... energy needs were modest" means:

- A) he used a lot of energy working hard
- B) he did not like to talk about his strength
- C) he required little food and fuel compared to present day requirements
- D) he used his energy to make himself clothes to wear
- E) his use of fuel steadily grew

15. Which of the statement is true to the text?

- A) In the 20th century industry consumes 35 times more fossil fuel than agriculture.
- B) In the 20th century people had mined 35 times more fuel than in past.
- C) In the 20th century people needs in energy was more or less satisfied thanks to fossil fuel mining.
- D) Modern farming machinery consumes the most part of fossil fuel mined.
- E) By the end of the 19 century people had experienced lack of fuel storage.

16. What we can infer from the sentence:

‘Transport *accounts* for a further 20%, indicating how accustomed we have become to using cars, ...’

- A) People are habituated to use transport in their daily life.
- B) Transport means are treated as the most dangerous nowadays.
- C) People experience fear to use marine, land or air transport.
- D) Land transport has become very popular in Ethiopia.
- E) Transport fair accounts for the most of people expenses.

17. The statement "civilised man began to exploit coal" means:

- A) he made a big profit out of coal-mines
- B) he began to understand where to find coal
- C) he used explosives to get the coal out of the ground
- D) he began to make use of coal
- E) he sold coal to other countries

18. Which of the following statements, according to the extract, is most true of the situation in 1870?

- A) The average commercial oil consumption in America was thirty-five times that in Western Europe
- B) People in Western Europe were using about as much energy each day as primitive men
- C) People in Western Europe were using thirty-five times as much energy a day as those in the U.S.A.
- D) The average person in civilized countries was using about thirty-five times more energy than the average primitive man.
- E) People in America were using about as much energy each day as primitive men.

19. What forces progress:

- A) energy
- B) man
- C) science.
- D) nature
- E) power.

20. The word “humankind” is closest in meaning to

- A) Kindness
- B) People
- C) Brotherhood
- D) Adulthood
- E) Evolution

*Тест по дисциплине
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завершен*