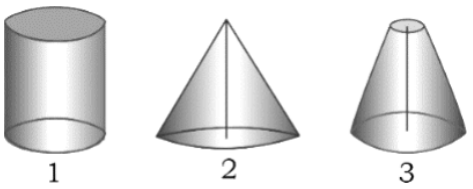
Umumta'lim maktabning 2024-2025 o'quv yili 10-sinf o'quvchilarining fizika fanini o'zlashtirish darajasini aniqlash uchun test, savol, masala va topshiriqlar varianti

I ChSB (fizika)

1. Gorizontal sirtda balandliklari va asos yuzlari bir xil bo'lgan bir jinsli yaxlit silindr, konus va kesik konus turibdi. Bu jismlardan qaysi birining turg'unligi eng kichik? **(bilish – 2 ball)**



A) 1 B) 2 C) 3 D) hammasining turg'unligi bir xil

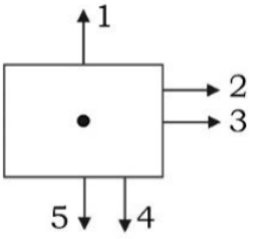
2. Agar to'sinning uzunligi 2,5 m bo'lsa, uni gorizontal vaziyatda tutib turuvchi F = 1000 N kuchning O nuqtaga nisbatan momenti qanday (N·m)? **(qo'llash – 2,8 ball)**

A) 500 B) 2500 C) 250 D) 50

3. Vaznsiz richagning A nuqtasiga 200 g massali yuk osilgan. Agar AO = 8 cm, OB = 1 cm bo'lsa, B nuqtaga osilgan richagni muvozanatlovchi dinamometr necha nyutonni ko'rsatadi? g = 10 N/kg. **(qo'llash – 2,8 ball)**

A) 2 B) 8 C) 16 D) 12

4. Rasmda keltirilgan kuchlarning qaysi biri jismni faqat ilgarilanma harakatga keltirishi mumkin? **(bilish – 2 ball)**



A) 2 B) 3 C) 4 D) aniqlab bo'lmaydi

5. Yer sirtidan otilgan jism …. uchun unga berilgan tezlik 2-kosmik tezlik deyiladi. Nuqtalar o'rnini to'ldiring. **(bilish – 2 ball)**

A) Yerni tark etishi B) Oyga borib tushishi C) Quyosh sistemasini tark etishi

D) Yer atrofida aylanib qolishi

6. Jismning bir nuqtasiga 6 N dan bo‘lgan ikkita kuch bir-biriga 120° burchak ostida ta’sir etmoqda. Shu kuchlarning teng ta’sir etuvchisi qanday (N)? **(qo‘llash – 2,8 ball)**

A) 0 B) 12 C) 3 D) 6

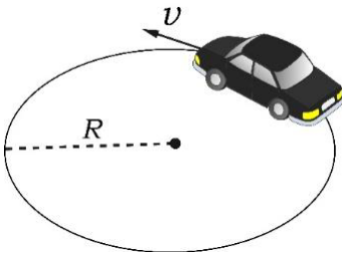
7. 2 m/s o‘zgarmas tezlik bilan harakat qilayotgan liftdagi massasi 60 kg bo‘lgan odamning og‘irligini (vaznini) aniqlang (N). **(qo‘llash – 2,8 ball)**

A) 480 B) 600 C) 720 D) 660

8. Massasi 80 kg bo‘lgan kosmonavt kosmik kemada uchish vaqtida yuklanish 3 ga teng bo‘ldi. Kosmonavtning og‘irligini (kN) toping. **(qo‘llash – 2,8 ball)**

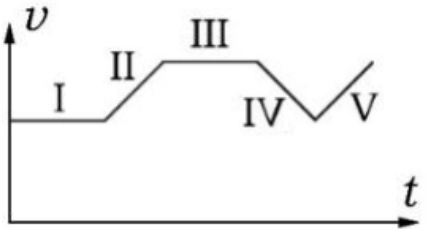
A) 0,8 B) 2,4 C) 4,2 D) 2,8

9. Agar avtomobil egrilik radiusi 20 m bo‘lgan burilishdan 36 km/h tezlik bilan sirpanishsiz o‘tgan bo‘lsa, g‘ildiraklarning yo‘lga sirpanish ishqalanish koeffitsiyenti kamida qanday? g = 10 m/s^2. **(qo‘llash – 2,8 ball)**



A) 0,25 B) 0,50 C) 0,45 D) 0,20

10. Chizmadagi qaysi qismda tortish kuchi ishqalanish kuchidan katta? (v – harakat tezligi, t – vaqt). **(qo‘llash – 2,8 ball)**

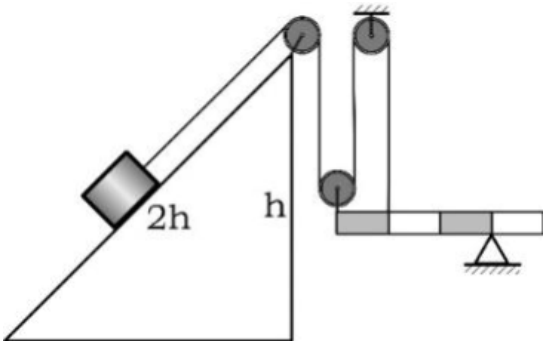


A) I B) III C) IV D) V

11. Jism qiyalik burchagi 30° bo‘lgan qiya tekislikdan ishqalanishsiz qanday (m/s^2) tezlanish bilan tushadi? g = 10 m/s^2. **(qo‘llash – 2,8 ball)**

A) 10 B) 9,8 C) 4,9 D) 5

12. Rasmdagi sistemada qiya tekislik ustidagi yukning og‘irligi $P/2$ ga teng. Agar jismlar muvozanatda turgan bo‘lsa, bir jinsli to‘sinning og‘irligini aniqlang. Qiya tekislikning uzunligi $2h$, balandligi esa h ga teng. Ishqalanish yo‘q. Bloklar vaznsiz. **(mulohaza – 4 ball)**

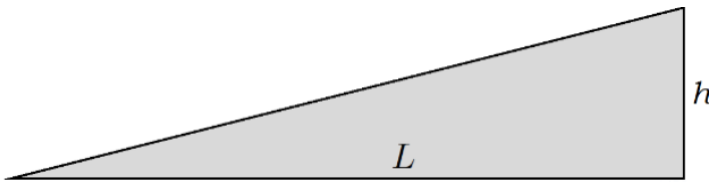


A) P B) $2P$ C) $3P$ D) $4P$

13. Havoning qarshiligi bo‘lmaganda vertikal yuqoriga otilgan jism harakat trayektoriyasining qaysi qismida vaznsizlik holatida bo‘ladi? **(bilish – 2 ball)**

A) faqat ko‘tarilayotgan qismida
B) faqat tushayotgan qismida
C) butun harakati davomida
D) trayektoriyaning eng yuqori nuqtasidan o‘tayotganda

14. Qiya tekislikning og‘ishi $h/L = 3/8$. Yukni qiya tekislik bo‘yicha tepaga sudrab chiqishda foydali ishning butun ishga nisbati 2/7 bo‘lsa, ishqalanish koeffitsiyenti nimaga teng? **(qo‘llash – 2,8 ball)**



A) 15/16 B) 7/20 C) 14/19 D) 5/14

15. Oyda 2/3 m/s^2 tezlanish bilan ko‘tarilayotgan 72 kg massali odamning vazni qanday (N) bo‘ladi? (Oyda erkin tushish tezlanishi Yerdagidan 6 marta kichik). **(qo‘llash – 2,8 ball)**

A) 168 B) 72 C) 96 D) 108