**9-SINFLAR UCHUN FIZIKA FANIDAN YILLIK TAQVIM-MAVZUVIY ISH REJASI**

**(68 soat / haftasiga 2 soatdan)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **Mavzular** | **Soat** | **Taqvim vaqt** | **O‘tilgan vaqt** | **Uyga vazifa** | **Ko‘rgaz-malar** | **Sahifa** | **Izoh** |
| **I CHORAK – 18 SOAT** |
| **Molekular fizika va termodinamika asoslari** |
| 1-dars | Molekular-kinetik nazariya haqida tushuncha | 1 |  |  |  |  |  |  |
| 2-dars | Molekulalarning o‘lchami va massasi  | 1 |  |  |  |  |  |  |
| 3-dars | Modda miqdori. Molar massa | 1 |  |  |  |  |  |  |
| 4-dars | Ideal gaz molekular-kinetik nazariyasining asosiy tenglamasi  | 1 |  |  |  |  |  |  |
| 5-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 6-dars | Temperatura. Temperaturaning molekulyar talqini | 1 |  |  |  |  |  |  |
| 7-dars | Gaz molekulalarining harakat tezligi | 1 |  |  |  |  |  |  |
| 8-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 9-dars | 1-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| 10-dars | Ichki energiya va ish | 1 |  |  |  |  |  |  |
| 11-dars | Issiqlik miqdori. Solishtirma issiqlik sig’imi | 1 |  |  |  |  |  |  |
| 12-dars | Yoqilg‘ining solishtirma yonish issiqligi | 1 |  |  |  |  |  |  |
| 13-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 14-dars | Laboratoriya ishi: Qattiq jismlarning solishtirma issiqlik sig’imini aniqlash | 1 |  |  |  |  |  |  |
| 15-dars | Ideal gaz holatining tenglamasi. Izojarayonlar | 1 |  |  |  |  |  |  |
| 16-dars | Termodinamikaning birinchi qonuni | 1 |  |  |  |  |  |  |
| 17-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 18-dars | 2-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| **II CHORAK – 14 SOAT** |
| 19-dars | Laboratoriya ishi: Turli haroratli suvlarni aralashtir-ganda issiqlik miqdorini taqqoslash  | 1 |  |  |  |  |  |  |
| 20-dars | Suyuqliklarning xossalari. Sirt taranglik | 1 |  |  |  |  |  |  |
| 21-dars | Laboratoriya ishi: Suvning sirt tarangligini aniqlash  | 1 |  |  |  |  |  |  |
| 22-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 23-dars |  Ho‘llash. Kapillyar hodisalar. | 1 |  |  |  |  |  |  |
| 24-dars | Laboratoriya ishi: Suyuqlikning solishtirma issiqlik sig’imini aniqlash | 1 |  |  |  |  |  |  |
| 25-dars | 3-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| 26-dars | Kristall va amorf jismlar | 1 |  |  |  |  |  |  |
| 27-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 28-dars | Qattiq jismlarning mexanik xossalari | 1 |  |  |  |  |  |  |
| 29-dars | Erish va qotish | 1 |  |  |  |  |  |  |
| 30-dars | Bug’lanish va kondensatsiya .Qaynash  | 1 |  |  |  |  |  |  |
| 31-dars | Atmosferadagi hodisalar (Tabiatda shudring, qirov, tuman, bulut va yong’inlarning hosil bo‘lishi)  | 1 |  |  |  |  |  |  |
| 32-dars | 4-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| **III CHORAK – 20 SOAT** |
| 33-dars | Yorug’likning tarqalishi, qaytishi va sinishi | 1 |  |  |  |  |  |  |
| 34-dars | To‘la ichki qaytish | 1 |  |  |  |  |  |  |
| 35-dars | Laboratoriya ishi: Shishaning nur sindirish ko‘rsat-kichini aniqlash | 1 |  |  |  |  |  |  |
| 36-dars | Linzalar | 1 |  |  |  |  |  |  |
| 37-dars | Yupqa linza yordamida tasvir yasash | 1 |  |  |  |  |  |  |
| 38-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 39-dars | Laboratoriya ishi: Linzalarda tasvir hosil qilish | 1 |  |  |  |  |  |  |
| 40-dars | Optik asboblar | 1 |  |  |  |  |  |  |
| 41-dars | Ko‘zning optik xossalari  | 1 |  |  |  |  |  |  |
| 42-dars | 5-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| 43-dars | Yorug‘lik tezligini aniqlash | 1 |  |  |  |  |  |  |
| 44-dars | Yorug‘likning kimyoviy va biologik ta’siri. Fotografiya. Fotosentez va uning ahamiyati. Radiatsiyaviy avariya-larning oqibatlari.  | 1 |  |  |  |  |  |  |
| 45-dars | Geliotexnika. O‘zbekistonda quyosh energiyasidan foy-dalanish va uning istiqbollari | 1 |  |  |  |  |  |  |
| 46-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| **Atom va yadro fizikasi asoslari** |
| 47-dars | Atom tuzilishi haqida tushuncha | 1 |  |  |  |  |  |  |
| 48-dars | Atom yadrosining tuzilishi. Protonlar, neytronlar. Radi-atsiyaviy avariya sodir bo‘lganda aholining harakati.  | 1 |  |  |  |  |  |  |
| 49-dars | Yadro energiyasi haqida tushuncha  | 1 |  |  |  |  |  |  |
| 50-dars | Yadro energiyasidan foydalanish Radiatsiyaviy avariya | 1 |  |  |  |  |  |  |
| 51-dars | O‘zbekistonda yadro fizikasi taraqqiyoti Masalalar yechish | 1 |  |  |  |  |  |  |
| 52-dars | 6-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| **IV CHORAK – 16 SOAT** |
| **Koinot tuzilishi haqida tasavvurlar** |
| 53-dars | Yulduzlar.Quyosh | 1 |  |  |  |  |  |  |
| 54-dars | Oy-Yerning tabiiy yo‘ldoshi | 1 |  |  |  |  |  |  |
| 55-dars | Vaqtni o‘lchash. Taqvimlar | 1 |  |  |  |  |  |  |
| 56-dars | Quyosh sistemasidagi sayyoralar. Kepler qonunlari. | 1 |  |  |  |  |  |  |
| 57-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 58-dars | Kometalar, Meteorlar va Meteoritlar | 1 |  |  |  |  |  |  |
| 59-dars | Galaktika. Koinot tuzilishi va rivojlanishi haqidagi hozirgi zamon dunyoqarashlar | 1 |  |  |  |  |  |  |
| 60-dars | 7-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| 61-dars | Astronomik tadqiqotlar. Ulug‘bekning astronomiya maktabi va uning faoliyati | 1 |  |  |  |  |  |  |
| 62-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| **Olamning fizik manzarasi** |
| 63-dars | Olamning yagona fizik manzarasi  | 1 |  |  |  |  |  |  |
| 64-dars | Fizika va texnika taraqqiyoti. O‘zbekistonda fizika sohasidagi tadqiqotlar | 1 |  |  |  |  |  |  |
| 65-dars | Masalalar yechish | 1 |  |  |  |  |  |  |
| 66-dars | 9-sinf bo‘yicha umumlashtiruvchi takrorlash darsi | 1 |  |  |  |  |  |  |
| 67-dars | 8-NAZORAT ISHI  | 1 |  |  |  |  |  |  |
| 68-dars | Ekskursiya | 1 |  |  |  |  |  |  |